

International Collection
of
Micro-organisms from Plants

CATALOGUE



Landcare Research
1997

International Collection of Micro-organisms from Plants

CATALOGUE

Accessions 1-12989

J.M. Young
M.J. Fletcher

*Landcare Research
Auckland
New Zealand*



1997

Landcare Research New Zealand Ltd 1997

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<i>Pre-print edition (as PDDCC Catalogue)</i>	1978
<i>First edition (PDDCC Catalogue - Bacteria)</i>	1981
<i>First edition supplement; Bacteria</i>	1982
<i>First edition (PDDCC Catalogue - Fungi)</i>	1983
<i>Second edition</i>	1988
<i>Third edition</i>	1997

CATALOGUING IN PUBLICATION

YOUNG, J.M., 1942-
International Collection of Micro-organisms
from Plants : catalogue accession 1-12989 /
J.M. Young, M.J. Fletcher. - 3rd ed. - Auckland,
N.Z. : Landcare Research, 1997.

ISBN 0-478-09311-X

I. Fletcher, M.J. , 1953- . II. Landcare
Research New Zealand. III. Title.

UDC 57.083.13 (931) (083.8)

Preparation and production of this catalogue was supported by the NZ Foundation for Research, Science and Technology
(Contract No. 9401)

Produced at Landcare Research, Mt. Albert Research Centre,
Private Bag 92-170, Mt. Albert, Auckland

Published by Landcare Research, P O Box 40, Lincoln 8152, New Zealand
Printed by Campus Copycentre, UNITEC, Private Bag 92025, Carrington Rd, New Zealand

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INTRODUCTION

History and Functions of the Collection

The International Collection of Micro-organisms from Plants (ICMP) has its origin in 1952 as the personal collection of plant pathogenic bacteria and rhizobia of D.W. Dye. It expanded as the culture collection (PDDCC) of Plant Diseases Division and later Plant Protection Division of the New Zealand Department of Scientific and Industrial Research (DSIR). Initially, cultures were maintained by serial transfer of slope cultures, but in 1962 the process of vacuum-drying was introduced. Fungal cultures, initially maintained under oil, then by a variety of methods, were first included in the Collection in 1961. Following the reorganization of science in New Zealand in 1992, the collection was transferred to Biodiversity and Conservation Division of Landcare Research, a Crown Research Institute. In 1993, preservation using liquid nitrogen was introduced for fungal and bacterial strains which have been difficult to maintain by vacuum-drying.

The collection is the repository for micro-organisms of plant and soil origin of the New Zealand Reference Culture Collection (NZRCC). The Collection also contains cultures of the world's bacterial and fungal plant pathogens and of other micro-organisms closely associated with plants. It is intended that for each taxon, the number of isolates held shall be fully representative of its geographic and host range, and of the variation within the taxon. Recent accessions of micro-organisms related to studies in molecular biology, bioremediation, and insect pathology, as well as the inclusion of fungi and bacteria representing the biodiversity of the New Zealand microflora, reflect the development of the diverse interests of Landcare Research. Cultures are available for use in research and teaching, and for industrial purposes.

The Collection is maintained by the Invertebrate and Microbial Systematics Group of Landcare Research at Mt Albert Research Centre. Staff work to confirm the identity of strains in the Collection. This ongoing study is helped immeasurably by scientists in other institutes with specialized knowledge of particular pathogens, who have studied strains from the Collection in the course of research.

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The Catalogue

The first catalogues issued by the Collection were *PDDCC Catalogue* preprint edition (1978), followed by a first edition (1981) and a supplement (1982), and were of bacteria. One catalogue for fungi has been issued as *PDDCC Catalogue of Fungi* (1983).

A second edition was published in 1988.

The present edition, divided into two parts, includes 5850 accessions of bacteria and 4200 of fungi, as well as an index of plant host - micro-organisms and a numerical index.

Strains are listed alphabetically, first by binomial of the micro-organism, and then by the name of the host or

substrate from which it was isolated. For each host or substrate, strains are listed numerically.

The accuracy of the catalogue depends on information from those who deposit strains in the Collection. ICMP will be grateful to any who can supply additional information on the strains that it holds, or who can correct mistakes that are present.

The Catalogue may also be viewed via the internet at the World Wide Web site of Landcare Research (URL =<http://www.landcare.cri.nz>).

Classification

The classification of the plant pathogenic bacteria held by ICMP is in accord with the Approved Lists of Bacterial Names (Skerman *et al.* 1980), with descriptions and validations of taxa published in subsequent volumes of the *International Journal of Systematic Bacteriology*, and with Dye *et al.* (1980), Young *et al.* (1991) and Young *et al.* (1996). References to other names used may be found in *Index Bergeyana* (1966), in *Bergey's Manual of Determinative Bacteriology* (1974), in *Bergey's Manual of Systematic Bacteriology* (1984), and in Bradbury (1986). Recent revisions to *Erwinia* and *Xanthomonas* have created incomplete nomenclature of these genera. Furthermore, for *Xanthomonas*, we know of no practical way by which strains can reliably be allocated to the newly proposed species. In this catalogue therefore, we have not included listings under *Pantoea*, or in the newly proposed species in *Xanthomonas*.

Arrangement of Catalogue Entries

Information is listed as follows.

1. ICMP number.

2. **Strain authenticity** is indicated by the letter following the accession number:

- a for which there is published information indicating authenticity;
- b which has been examined at ICMP and which is considered to be authentic;
- ? believed to be atypical or improperly classified;
- * for which pathogenicity has been proved to the hosts listed (sources of information other than ICMP are in parentheses).

3. **Origin of the Strain.** The host binomial and common name, and the part of the plant or symptoms associated with isolation, or the substrate from which the isolate was obtained, are given. Several references have been used to standardize host names; in particular, *Hortus Third* (1976). If the host binomial has not been confirmed then it is enclosed by brackets [Thus]. Where known, the country of origin and month and year of isolation are given. For strains isolated in New Zealand, the locality of collection is given.

4. **Strain history.** The first name is that of the contributor to ICMP, who may be the originator of the strain. Successive designations back to the original source strain may follow, and are linked by ← where there is understood to be a linear succession.

Cross-references to other collections (indicated by = ...) show other cultures derived from the same source. Cross references to other ICMP accessions may refer to strains not listed in this catalogue but which are available for study.

5. **Other information.** Information is given about particular characteristics reported for a strain. If ICMP has listed an

accession under a name other than that by which it was received, the fact is always stated.

6. **Status.** Taxonomic status is shown if applicable. For bacteria, type and pathotype strains are indicated. For fungi, isolates made from the herbarium type specimen are described as ex Type specimen .

7. **References.** References to published papers that give information about specific accessions are given but no systematic attempt has been made to include all, or even the most important, of such references. Future editions of this catalogue aim to include all important references to ICMP strains. The curator welcomes references to internationally available journals, as well as any reprints with information about ICMP strains.

Deposition of Cultures

Deposition of micro-organisms of research interest that are only meagrely represented in the Collection is welcomed. Authors of new species, reference strains, and pathovars are asked to deposit representative strains in the ICMP. Offers of strains should be addressed to the Curator and should describe their salient characteristics. Full details of information requested at the time of deposition are shown on p. vii. ICMP will arrange import documentation for strains that are accepted.

Purity and any easily determinable specific characters are verified when cultures are added to the Collection, and again after each fresh batch of ampoules is prepared.

Ordering Cultures

Orders are usually accepted only in writing (letter, fax or e-mail); orders can be accepted by telephone but only on the understanding that a confirmatory written order is being sent to the address on p. ?. It is often preferable to ask for strains by name and state the purpose for which they are needed rather than ask for strains by their numbers; ICMP staff can then choose the most suitable strains. For example, some type strains were in culture for many years before being vacuum-dried and may be avirulent or of low virulence, and may exhibit colony variation. For most purposes other than taxonomic studies, a recent isolate would be preferred.

Charges

Unless exchange arrangements are agreed to with collections or individual workers, a graduated scale of charges is made for the supply of cultures. Such charges are intended to cover the costs of culture maintenance, supply and added value provided by Landcare Research. This charge will not include any fee for the material or organism itself. All plant pathogenic strains are now considered to be in Risk Group II, and additional courier mailing cost may be levied. Overseas payment should be as bank cheques in New Zealand dollars, otherwise a bank charge will be incurred.

Exchange of Cultures

The Curator can waive charges if strains that enhance the inventory of the Collection are available for exchange. Identification of pathogens to pathovar level, where appropriate, is desirable but not expected for uncommon combinations.

Permits for Non-indigenous Micro-organisms

Permission is required to import any isolate into New Zealand which did not originate in this country. Application

for permits should be made to the Ministry of Agriculture and Fisheries (MAF), Lynfield Research Centre, PO Box 41, Auckland.

Workers in other countries are responsible for ensuring that they do not contravene their own quarantine regulations.

Use of ICMP Containment Facility

ICMP is a quarantine containment facility under the Biosecurity Act 1993 and is therefore permitted to accession and hold organisms which have not been released into New Zealand. With the permission of MAF, and by arrangement with the Curator, ICMP, cultures of strains may be processed within the containment facility.

Methods for Reviving Cultures

Accessions are identified by the number on the label inside the ampoule, reading from the round end of the tube. Two digits following a dash - e.g., -89, show the year in which the culture was preserved.

Bacteria and some fungi are vacuum-dried as suspensions. For these ampoules, the culture will be mainly on the label paper and the cotton-wool pellet (if present).

Ampoules should be opened in a transfer cabinet. Prepare sterile capped containers (5 ml bottles). With a glass cutter or file, nick the ampoule in the region of the cotton-wool bung. Holding the ampoule in forceps, dip in alcohol, drain and flame, ensuring that alcohol is not burnt off over the label or pellet.

Open ampoules either by snapping the ampoule with the file mark facing away from the operator, or by touching with a red-hot wire or glass rod on the file mark. Wrapping the ampoule in a sterile towel is an additional precaution to protect the operator. Lower the half ampoule containing the culture, open end upwards, into a prepared sterile bottle.

With a sterile Pasteur pipette, add ~0.5 ml of nutrient broth (for bacteria) or water (for fungi) to each ampoule, taking care that liquid does not run down the outside of the ampoule. Use a fresh sterile pipette for every ampoule. Agitate the label and pellet with a COOLED sterile loop. (Loops must be cooled before they are dipped into ampoules or they will kill the culture.)

After 20-30 minutes, transfer liquid with a cooled loop (bacteria) or Pasteur pipette (fungi) from the ampoules onto prepared agar plates and incubate. Autoclave ampoules and bottles, etc.

If satisfactory growth is not achieved by this method then the ampoule will be replaced by ICMP. Incubating opened ampoules to enhance weak growth is not recommended.

Ampoules of fungal cultures vacuum-dried on agar or stored over silica gel contain discs of dried culture. These should be transferred from the ampoule to a prepared agar plate using a sterile micro-spatula.

Culture Media for Growth and Maintenance

In general, for opening ampoules, media which favour copious growth of bacteria (YNA or King's medium B) or extensive growth of fungi (PDA or MEA), are recommended. However, such media are not necessarily those which sustain them for long periods. For bacteria, media containing carbohydrates characteristically do not support survival.

Bacteria

In our experience the minimal salts media (YPA or YSA -

see next section for recipes) are useful general-purpose sustaining media. The following section describes media which in our experience are best for the nominated genera.

Agrobacterium

Growing medium: King s medium B or YNA.

Storage medium: YSA.

Acidovorax/Burkholderia/Ralstonia

Growing medium: King s medium B.

Strains of this genus are characteristically short-lived without repeated subculture. The best method of preservation is to maintain turbid bacterial suspensions in sterile distilled water at room temperature. Regular checks on viability should be conducted.

Bradyrhizobium/Rhizobium

Strains from these genera grow and can be maintained on YMA or YMA-C.

Clavibacter/Curtobacterium/Rhodococcus

Growing medium: YNA.

Storage Medium: GYCA.

Erwinia/Enterobacter

Most enterobacteria can be maintained on GYCA or YSA. An exception is *Erwinia amylovora* which must be subcultured after 2-3 weeks.

Pseudomonas

Growing medium: King s medium B.

All fluorescent and related pseudomonads can be maintained on nutrient agar or YPA.

P. syzygii is difficult to grow on any medium even including CSA, recommended for this species.

Rhizobacter

Strains grow and can be maintained on GYCA.

Streptomyces

ISP medium is used for growing cultures. We have no recommended storage medium.

Xanthomonas

No medium is well-recommended for the maintenance of this genus. Strains survive best on GYCA. However, even this medium does not support many strains for more than a few weeks. *X. populi* should be cultured on YNGA at below 22°C and subcultured at 2-week intervals.

Xylella

Strains from this genus grow and can be maintained on BYCE.

Xylophilus

The growing medium is YNAA. We have no recommended storage medium. Incubation is below 22°C.

Fungi

Most fungi will grow on Potato Dextrose Agar or Malt Extract Agar. *Phytophthora* spp. and *Pythium* spp. should be cultured on Corn Meal Agar.

Recipes for Media

Quantities below are expressed as gm/L.

BYCE - Buffered Yeast Charcoal (growing and storage media)

Aces buffer 10.0, yeast extract 10.0, activated charcoal (Norit) 2.0, L-cysteine hydrochloride-1-hydrate 0.4, Fe pyrophosphate 0.25, agar 17.0

Dissolve Aces buffer with 500 ml distilled water at 50°C. Mix buffer with approximately 40 ml 1N KOH in 440 ml distilled water. Use this solution to hydrate charcoal, yeast extract

and agar. Autoclave medium and cool to 50°C. Dissolve L-cysteine hydrochloride in 10 ml distilled water and filter sterilise through 0.22 μm pore. Dissolve ferric pyrophosphate in 10 ml distilled water and filter sterilise. Add filter-sterilised items to cooled sterile agar. The pH of solid medium at 25°C is 6.9. Note: The quantity and accuracy of titration of the 1N KOH solution can have a major effect on the pH of this medium.

CSA - Citrate Sucrose Agar

K₂HPO₄ 0.5, MgSO₄.7H₂O, 0.25, ferric ammonium citrate 0.25, sucrose 2.0, casein hydrolysate (Oxoid) 7.5, agar (Difco) 15.0

Sterilise at 15 lb for 15 minutes. (Use only freshly prepared medium.)

GYCA - Glucose Yeast Chalk Agar (storage medium)

CaCO₃ (precipitated) 40.0, glucose 5.0, yeast extract 5.0, agar 15.0.

Mix the above and boil. Dispense 5 ml into test tubes while the suspension is constantly stirred. Autoclave at 15lb for 15 minutes.

Vortex each tube, slope, and set *immediately* over ice. The chalk must be evenly distributed throughout the medium, especially on the surface of the slope. Note: It is essential to use calcium carbonate with very a fine particle size. We have found high-grade carbonate to be generally unsuitable. Lower grade preparations may be superior.

ISP Medium 2 (Difco) (growing and storage medium)

King s Medium B (modified) (growing medium)

K₃(PO₄).3H₂O 1.8, MgSO₄.7H₂O 1.5, glycerol 10.0, Proteose Peptone No.3 (Difco) 20.0, agar 15.0; pH 7.2

YMA - Yeast Mannitol Agar (growing and storage medium)

CaCO₃ 3.0, calcium gluconate 1.5, yeast (dried) 10.0, peptone 2.5, mannitol 10.0, agar 15.0

Note: Do NOT use yeast extract.

YMA-C -Yeast Mannitol Agar minus Calcium (growing and storage medium)

Yeast Mannitol Agar without calcium carbonate or calcium gluconate.

YNA - Yeast Nutrient Agar (growing medium)

Nutrient agar 23.0, yeast extract 3.0.

YNAA - Yeast Nutrient Arabinose Agar (growing medium)

Autoclave nutrient agar 23.0 and yeast extract, 3.0. Add filter-sterilised arabinose, 10.0.

YNGA - Yeast Nutrient Glucose Agar (growing medium)

Nutrient agar 23.0, yeast extract 3.0, glucose 10.0

Note: Bacteria will not survive for long periods on this medium. Subculturing will be required about every weeks to 10 days.

YPA - Yeast Phosphate Agar (storage medium)

NH₄Cl 0.5, KCl 0.2, MgSO₄.7H₂O 0.2, K₂HPO₄ 1.0, yeast extract 3.0, agar 15.0

YSA - Yeast Salts Agar (storage medium)

NH₄H₂PO₄ 0.5, K₂HPO₄ 0.5, MgSO₄.7H₂O 0.2, NaCl 5.0, yeast extract 5.0, agar 15.0

Ownership

Strains are accessioned to ICMP on the understanding that the depositor is the rightful owner. Unless otherwise arranged at the time of deposition, strains are accessioned into ICMP on the understanding that they are then available for any legitimate research or development purpose.

Some strains in the collection are held on behalf of their owners. These may be made available with the owner's formal agreement on condition that the recipient will not seek intellectual property rights over the material, or use them for the development of commercial products without prior consultation with Landcare Research, who will act on behalf of the owner.

Liability

All reasonable precautions are taken to verify and maintain authenticity of strains, but no responsibility can be accepted by the Curator, ICMP, nor Landcare Research for any liability for loss, damage or expense arising if they are found not to be true to type. Furthermore, neither the Curator, ICMP, nor Landcare Research accept responsibility for any liability for loss, damage or expense arising from any proper or improper application, use, or treatment of any supplied strain.

The information in this catalogue is accurate to the best of the knowledge and belief of the Curator. All reasonable skill

and care has been exercised in its preparation, but neither the Curator nor Landcare Research accept any liability for loss, damage or expense arising from the provision of information contained herein.

Although accessions are regularly sampled for viability, breaking out ampoules may occasionally be unsuccessful. In this event, a replacement ampoule will be made available without charge.

Readers who can make contributions to any of the points made in this introduction or who can comment on the authenticity of strains and data reported in the catalogue are invited to contact the authors.

J.M. Young
Curator

M.J. Fletcher
Collection Manager

Auckland
October 1997

Abbreviations Culture Collections, Herbaria

AIRCS	Australian Inoculant Research and Control Service, Gosford, New South Wales, Australia	ICPB	International Collection of Phytopathogenic Bacteria, Department of Microbiology, University of California, Davis, California, USA
ATCC	American Type Culture Collection, Rockville, Maryland, USA	IFO	Institute for Fermentation, Osaka, Japan
BBLB-D	Biologische Bundesanstalt für Land-und-Forstwirtschaft, Berlin-Dahlem, Germany	IMI	CAB International Mycological Institute, Kew, Surrey, England
BCPPB	Benaki Collection of Plant Pathogenic Bacteria, Benaki Phytopathological Institute, Athens, Greece	IMRU	Institute of Microbiology, New Brunswick, New Jersey, USA
CBS	Centraalbureau voor Schimmelcultures, Baarn, Netherlands	IPO	Institute voor Plantenziektenkundig Onderzoek, Wageningen, Netherlands
CC	Division of Plant Industry, Commonwealth Scientific and Industrial Research Organization, Canberra, Australia	ISC	International Salmonella Centre, Paris, France
CCBAU	Culture Collection, Beijing Agricultural University, Beijing, PR China	ISP	International <i>Streptomyces</i> Project, Ohio Wesleyan University, Delaware, Ohio, USA
CCEB	Culture Collection of Entomogenous Bacteria, Prague, Czechoslovakia	ITCC	Indian Type Culture Collection, New Delhi, India
CCM	Czechoslovak Collection of Microorganisms, Brno, Czechoslovakia	JCM	Japanese Collection of Micro-organisms, Saitama, Japan
CCRC	Culture Collection of the Research Centre, Food Industry Research and Development Institute, Hsinchu, Taiwan, China	LASRA	Leather and Shoe Research Institute, Palmerston North, New Zealand
CDAO	Canadian Department of Agriculture, Ottawa, Ontario, Canada	LEV	Ministry of Agriculture and Fisheries, Levin, New Zealand
CDC	Centers for Disease Control, Atlanta, Georgia, USA	LMD	Laboratory of Microbiology, Delft, Netherlands
CER	Bactéries Entomopathogènes, Institut Pasteur, 75724 Paris, France	LMG	Laboratorium voor Microbiologie en Genetica, Rijksuniversiteit, Gent, Belgium
CFBP	Collection Française des Bactéries Phytopathogènes, INRA, Angers, France	LPS	Spegazini Institute of Botany, La Plata, Argentina
CIAT	Centro Internacional de Agricultura Tropical, Cali, Colombia	LY	Universitaire de Lyons, Lyons, France
CNBP	now CFBP	NCDO	National Collection of Dairy Organisms, Reading, England
CSIRO	Commonwealth Scientific and Industrial Research Organization Collection, Canberra, Australia	NCHUPP	National Chunghsing University, Department of Plant Pathology, Taichung, Taiwan, China
CUP	Department of Plant Pathology, Cornell University, Ithaca, New York, USA	NIB	see NCIMB
DAOM	National Mycological Herbarium, Ottawa, Canada	NCIMB	National Collection of Industrial and Marine Bacteria, Aberdeen, Scotland
DAR	Department of Agricultural Research, Rydalmere, New South Wales, Australia	NCPPB	National Collection of Plant Pathogenic Bacteria, Ministry of Agriculture, Fisheries and Food, Sand Hutton, York, England
DFP	CSIRO, Highett, Victoria, Australia	NCTC	National Collection of Type Cultures, London, England
DRI	Dairy Research Institute, Palmerston North, New Zealand	NHI	see NZRM
DSM	Deutsche Sammlung von Mikro-organismen, Göttingen, Germany	NIAS	Microbiology Division, National Institute of Agro-Environmental Sciences, Yatabe, Japan
FDA	Food and Drug Administration, Washington, DC, USA	NRRL	Agricultural Research Service Culture Collection, Peoria, Illinois, USA
FGSC	Fungal Genetic Stock Centre, Humbolt State College Foundation, Arcata, California, USA	NY	New York Botanical Garden, Bronx Park, New York, USA
FTCC	Florida Type Culture Collection, US Department of Agriculture, Gainesville, Florida, USA	NZFRI	Forest Research Institute, Rotorua, New Zealand
GB	University of Gothenburg, Gothenburg, Sweden	NZP	Plant Physiology Division, Department of Scientific and Industrial Research, Palmerston North, New Zealand (refer to ICMP)
HAMBI	Department of Microbiology, University of Helsinki, Helsinki, Finland	NZRCC	New Zealand Reference Culture Collection (Repository 1), Landcare Research Institute, Auckland, New Zealand
IAMT	Institute of Applied Microbiology, Tokyo, Japan	NZRM	National Health Institute Type Culture Collection, National Health Institute, Porirua, New Zealand
IBSBF	Instituto Biológico Seção de Bacteriologia Fitopatologia. Estação Experimental de Campinas, Campinas, SP, Brasil	PD	Plantenziektenkundige Dienst, Wageningen, Netherlands
ICMP	International Collection of Micro-organisms from Plants, Landcare Research, Auckland, New Zealand	PDD	New Zealand Fungal Herbarium, Landcare Research, Auckland, New Zealand
		PDDCC	Plant Diseases Division Culture Collection, Department of Scientific and Industrial Research, Auckland, New Zealand (now ICMP)
		PRE	National Herbarium, Pretoria, South Africa
		QM	Collection transferred to NRRL

RCR	Rothamsted Collection of <i>Rhizobium</i> , Soil Microbiology Department, Rothamsted Experiment Station, Harpenden, England		of Queensland, Australia
TISTR	Thailand Institute of Scientific Research and Technology, Bangkok, Bangkok Khen 10900, Thailand	USDA	United States Department of Agriculture
THLMD	Technische Hogeschool Laboratorium voor Microbiologie, Delft, Netherlands	WC	Waksman Collection, Rutgers University, New Brunswick, New Jersey, USA
UQM	Culture Collection, Department of Microbiology, University		Determinative tests
		LOPAT	The acronym for tests contained in Lelliott <i>et al.</i> (1966)

Localities

For fungal strains from New Zealand, the locality where they were collected is shown using the area codes given below.

North Island

AK	Auckland
BP	Bay of Plenty
CL	Coromandel
GB	Gisborne
HB	Hawkes Bay
ND	Northland
RI	Rangitikei
TK	Taranaki
TO	Taupo
WA	Wairarapa
WI	Wanganui
WN	Wellington
WO	Waikato

South Island

BR	Buller
CO	Central Otago
DN	Dunedin
FD	Fiordland
KA	Kaikoura
MB	Marlborough
MC	Mid-Canterbury
MK	Mackenzie
NC	North Canterbury
NN	Nelson
OL	Otago Lakes
SC	South Canterbury
SD	Marlborough Sounds
SI	Stewart Island
SL	Southland
WD	Westland

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INTERNATIONAL COLLECTION OF MICRO-ORGANISMS FROM PLANTS
Application To Deposit a Culture

Strain Number (For ICMP Use)

Name of Isolate

Authority

Reference to authority

Contributor s Name Isolate No.

Address

Via Isolate No.

Isolator
or Originator. Isolate No.

Locality collected Country.

Date of Isolation (month, year)

Isolated from
(Host binomial & authority)

or Substrate

Host common name
(incl. cv. of host)

Part of host affected
(Symptoms)

Characterized as
(biovar, serotype, LOPAT etc.)

Proved pathogenic to

Other information
.

Held in other Collections as

Status of isolate (Type, pathotype)

Published references

Check viability onmedium. Incubate at °C for days.

Supply additional information overleaf.

Synonyms and Anamorphs of Fungi

Synonym 1 (and authority)

Synonym 2 (and authority)

Anamorph (and authority)

Anamorph synonym 1
(and authority)

Anamorph synonym 2
(and authority)

REFERENCE STRAINS

Type Strains

<i>Acetobacter hansenii</i>	8598	<i>Pseudomonas aeruginosa</i>	8647
<i>Acetobacter liquefaciens</i>	8600	<i>Pseudomonas agarici</i>	2656
<i>Acidovorax avenae</i> subsp. <i>avenae</i>	3183	<i>Pseudomonas amygdali</i>	3918
<i>Acidovorax avenae</i> subsp. <i>cattleyae</i>	2826	<i>Pseudomonas asplenii</i>	3944
<i>Acidovorax avenae</i> subsp. <i>citrulli</i>	7500	<i>Pseudomonas aurantiaca</i>	6003
<i>Acidovorax delafieldii</i>	12549	<i>Pseudomonas avellanae</i>	9746
<i>Acidovorax facilis</i>	12550	<i>Pseudomonas betle</i>	2820
<i>Acidovorax konjaci</i>	7733	<i>Pseudomonas blatchfordae</i>	8933
<i>Agrobacterium rhizogenes</i>	5794	<i>Pseudomonas caricapapayae</i>	2855
<i>Agrobacterium rubi</i>	6428	<i>Pseudomonas cichorii</i>	5707
<i>Agrobacterium tumefaciens</i>	5856	<i>Pseudomonas corrugata</i>	5819
<i>Agrobacterium vitis</i>	10752	<i>Pseudomonas ficuserectae</i>	7848
<i>Arthrobacter ilicis</i>	2607	<i>Pseudomonas flectens</i>	745
<i>Azomonas macrocytogenes</i>	8674	<i>Pseudomonas fluorescens</i>	3512
<i>Azorhizophilus paspali</i>	7469	<i>Pseudomonas fuscovaginae</i>	5940
<i>Azospirillum brasiliense</i>	8671	<i>Pseudomonas hibiscicola</i>	3945
<i>Azotobacter beijerinckii</i>	8673	<i>Pseudomonas marginalis</i>	3553
<i>Bacillus cereus</i>	12436	<i>Pseudomonas meliae</i>	6289
<i>Bacillus circulans</i>	12484	<i>Pseudomonas putida</i>	2758
<i>Bacillus megaterium</i>	12485	<i>Pseudomonas stutzeri</i>	12561
<i>Bacillus mycoides</i>	12477	<i>Pseudomonas symploci</i>	10910
<i>Bacillus subtilis</i>	12486	<i>Pseudomonas syringae</i>	3023
<i>Bacillus thuringiensis</i>	12371	<i>Pseudomonas tolaasii</i>	2290
<i>Bradyrhizobium japonicum</i>	2864	<i>Pseudomonas vesicularis</i>	2530
<i>Burkholderia (Pseudomonas) andropogonis</i>	2807	<i>Pseudomonas viridiflava</i>	2848
<i>Burkholderia (Pseudomonas) caryophylli</i>	512	<i>Rhizobacter daucus</i>	9400
<i>Burkholderia (Pseudomonas) cepacia</i>	5796	<i>Rhizobium huakuii</i>	11069
<i>Burkholderia (Pseudomonas) gladioli</i>	3950	<i>Rhizobium loti</i>	4682
<i>Burkholderia (Pseudomonas) glumae</i>	3655	<i>Rhizobium melliloti</i>	12623
<i>Burkholderia (Pseudomonas) plantarii</i>	9424	<i>Rhizomonas suberifaciens</i>	12535
<i>Burkholderia (Pseudomonas) [Ralstonia] solanacearum</i>	5712	<i>Rhodococcus fascians</i>	5833
<i>Chromobacterium violaceum</i>	8644	<i>Serratia entomophila</i>	8756
<i>Citrobacter freundii</i>	7610	<i>Serratia marcescens</i>	7617
<i>Clavibacter [Rathayibacter] iranicus</i>	3496	<i>Serratia proteamaculans</i>	1724
<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>	2621	<i>Sinorhizobium fredii</i>	11139
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	2550	<i>Sinorhizobium xinjiangensis</i>	11141
<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i>	3298	<i>Staphylococcus epidermidis</i>	12988
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i>	2535	<i>Streptomyces achromogenes</i>	489
<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i>	7221	<i>Streptomyces acidiscabies</i>	12536
<i>Clavibacter [Rathayibacter] rathayi</i>	2574	<i>Streptomyces albogriseolus</i>	485
<i>Clavibacter [Rathayibacter] tritici</i>	2626	<i>Streptomyces alboniger</i>	322
<i>Clavibacter toxicus</i>	9525	<i>Streptomyces albosporus</i>	320
<i>Clavibacter xyli</i> subsp. <i>cynodontis</i>	8790	<i>Streptomyces arenae</i>	950
<i>Clostridium puniceum</i>	12529	<i>Streptomyces argenteolus</i>	953
<i>Comamonas acidovorans</i>	12553	<i>Streptomyces aureofaciens</i>	499
<i>Curtobacterium flaccumfaciens</i>	2584	<i>Streptomyces bellus</i>	954
<i>Edwardsiella tarda</i>	7611	<i>Streptomyces bikiniensis</i>	472
<i>Enterobacter aerogenes</i>	10150	<i>Streptomyces calvus</i>	5336
<i>Enterobacter cloacae</i>	7613	<i>Streptomyces candidus</i>	12538
<i>Enterobacter pyrinus</i>	12530	<i>Streptomyces chartreusis</i>	154
<i>Erwinia alni</i>	12481	<i>Streptomyces chrysomallus</i>	164
<i>Erwinia amylovora</i>	1540	<i>Streptomyces collinus</i>	12539
<i>Erwinia ananas</i>	1850	<i>Streptomyces echinatus</i>	159
<i>Erwinia cacticida</i>	11136	<i>Streptomyces exfoliatus</i>	1008
<i>Erwinia cancerogena</i>	5706	<i>Streptomyces flaveolus</i>	392
<i>Erwinia carotovora</i> subsp. <i>atroseptica</i>	1526	<i>Streptomyces fradiae</i>	650
<i>Erwinia carotovora</i> subsp. <i>betavascularum</i>	4226	<i>Streptomyces fulvissimus</i>	155
<i>Erwinia carotovora</i> subsp. <i>carotovora</i>	5702	<i>Streptomyces galilaeus</i>	142
<i>Erwinia carotovora</i> subsp. <i>odorifera</i>	11533	<i>Streptomyces intermedius</i>	12540
<i>Erwinia carotovora</i> subsp. <i>wasabiae</i>	9121	<i>Streptomyces ipomoeae</i>	12541
<i>Erwinia chrysanthemi</i>	5703	<i>Streptomyces lipmanii</i>	488
<i>Erwinia cyripedii</i>	1591	<i>Streptomyces michiganensis</i>	131
<i>Erwinia dissolvens</i>	1570	<i>Streptomyces nitrosporeus</i>	491
<i>Erwinia herbicola</i>	272	<i>Streptomyces parvulus</i>	12845
<i>Erwinia mallotivora</i>	5705	<i>Streptomyces pilosus</i>	145
<i>Erwinia nigrifluens</i>	1578	<i>Streptomyces prasinopilosus</i>	134
<i>Erwinia nimipressuralis</i>	1577	<i>Streptomyces prasinus</i>	144
<i>Erwinia persicinus</i>	12532	<i>Streptomyces ramulosus</i>	143
<i>Erwinia psidii</i>	8426	<i>Streptomyces rimosus</i>	919
<i>Erwinia quercina</i>	1845	<i>Streptomyces rochei</i>	490
<i>Erwinia rhapontici</i>	1582	<i>Streptomyces scabies</i>	12542
<i>Erwinia rubrifaciens</i>	1915	<i>Streptomyces setonii</i>	12543
<i>Erwinia salicis</i>	1587	<i>Streptomyces tendae</i>	132
<i>Erwinia stewartii</i>	257	<i>Streptomyces violaceoniger</i>	734
<i>Erwinia tracheiphila</i>	5845	<i>Streptomyces wedmorensis</i>	12544
<i>Gluconobacter oxydans</i>	12533	<i>Xanthomonas albilineans</i>	196
<i>Hafnia alvei</i>	7621	<i>Xanthomonas axonopodis</i>	50
<i>Herbaspirillum (Pseudomonas) rubrisubalbicans</i>	5777	<i>Xanthomonas bromi</i>	12545
<i>Hydrogenophaga pseudoflava</i>	12556	<i>Xanthomonas campestris</i>	13
<i>Listeria innocua</i>	12989	<i>Xanthomonas fragariae</i>	5715
<i>Nitrobacter winogradskyi</i>	13140	<i>Xanthomonas populi</i>	5816
<i>Nitrosomonas europaea</i>	13139	<i>Xylella fastidiosa</i>	11140
<i>Nocardia vaccinii</i>	5814	<i>Xylophilus ampelinus</i>	8920

Pathotype Strains

<i>Bacillus megaterium</i> pv. <i>cerealis</i>	8877	<i>Xanthomonas campestris</i> pv. <i>argemones</i>	1617
<i>Burkholderia gladioli</i> pv. <i>agraricola</i>	11096	<i>Xanthomonas campestris</i> pv. <i>armoraciae</i>	7
<i>Burkholderia gladioli</i> pv. <i>allii</i>	2804	<i>Xanthomonas campestris</i> pv. <i>arracaciae</i>	3158
<i>Burkholderia gladioli</i> pv. <i>gladioli</i>	3950	<i>Xanthomonas campestris</i> pv. <i>arrhenatheri</i>	7727
<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i>	2594	<i>Xanthomonas campestris</i> pv. <i>azadirachtae</i>	3102
<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i>	2584	<i>Xanthomonas campestris</i> pv. <i>badrii</i>	571
<i>Curtobacterium flaccumfaciens</i> pv. <i>oortii</i>	2632	<i>Xanthomonas campestris</i> pv. <i>barbareae</i>	438
<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i>	2566	<i>Xanthomonas campestris</i> pv. <i>bauhiniae</i>	5720
<i>Erwinia ananas</i> pv. <i>ananas</i>	1850	<i>Xanthomonas campestris</i> pv. <i>begoniae</i>	194
<i>Erwinia ananas</i> pv. <i>uredovora</i>	351	<i>Xanthomonas campestris</i> pv. <i>betae</i>	8917
<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i>	5703	<i>Xanthomonas campestris</i> pv. <i>beticola</i>	312
<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i>	6427	<i>Xanthomonas campestris</i> pv. <i>bilvae</i>	8918
<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i>	1568	<i>Xanthomonas campestris</i> pv. <i>biophyti</i>	2780
<i>Erwinia chrysanthemi</i> pv. <i>paradisicola</i>	2349	<i>Xanthomonas campestris</i> pv. <i>blepharidis</i>	5722
<i>Erwinia chrysanthemi</i> pv. <i>parthenii</i>	1547	<i>Xanthomonas campestris</i> pv. <i>boerhaaviae</i>	9423
<i>Erwinia chrysanthemi</i> pv. <i>zeae</i>	5704	<i>Xanthomonas campestris</i> pv. <i>brunneivaginae</i>	9991
<i>Erwinia herbicola</i> pv. <i>gypsophilae</i>	12531	<i>Xanthomonas campestris</i> pv. <i>cajani</i>	444
<i>Erwinia herbicola</i> pv. <i>millietiae</i>	6772	<i>Xanthomonas campestris</i> pv. <i>campestris</i>	13
<i>Pseudomonas marginalis</i> pv. <i>alfalfae</i>	5708	<i>Xanthomonas campestris</i> pv. <i>cannabis</i>	6570
<i>Pseudomonas marginalis</i> pv. <i>marginalis</i>	3553	<i>Xanthomonas campestris</i> pv. <i>cannae</i>	8306
<i>Pseudomonas marginalis</i> pv. <i>pastinacae</i>	5709	<i>Xanthomonas campestris</i> pv. <i>carissae</i>	3034
<i>Pseudomonas syringae</i> pv. <i>aceris</i>	2802	<i>Xanthomonas campestris</i> pv. <i>carotae</i>	5723*
<i>Pseudomonas syringae</i> pv. <i>actinidiae</i>	9617	<i>Xanthomonas campestris</i> pv. <i>cassavae</i>	204
<i>Pseudomonas syringae</i> pv. <i>aesculi</i>	8947	<i>Xanthomonas campestris</i> pv. <i>casiae</i>	358
<i>Pseudomonas syringae</i> pv. <i>antirrhini</i>	4303	<i>Xanthomonas campestris</i> pv. <i>celebensis</i>	1488
<i>Pseudomonas syringae</i> pv. <i>apii</i>	2814	<i>Xanthomonas campestris</i> pv. <i>centellae</i>	6746
<i>Pseudomonas syringae</i> pv. <i>aptata</i>	459	<i>Xanthomonas campestris</i> pv. <i>cerealis</i>	1409
<i>Pseudomonas syringae</i> pv. <i>atrofaciens</i>	4394	<i>Xanthomonas campestris</i> pv. <i>citri</i>	24
<i>Pseudomonas syringae</i> pv. <i>atropurpurea</i>	4457	<i>Xanthomonas campestris</i> pv. <i>clerodendri</i>	445
<i>Pseudomonas syringae</i> pv. <i>berberidis</i>	4116	<i>Xanthomonas campestris</i> pv. <i>clitoriae</i>	6574
<i>Pseudomonas syringae</i> pv. <i>cannabina</i>	2823	<i>Xanthomonas campestris</i> pv. <i>convolvuli</i>	5380
<i>Pseudomonas syringae</i> pv. <i>castaneae</i>	9419	<i>Xanthomonas campestris</i> pv. <i>coracanae</i>	5724
<i>Pseudomonas syringae</i> pv. <i>ciccaronei</i>	5710	<i>Xanthomonas campestris</i> pv. <i>coriandri</i>	5725
<i>Pseudomonas syringae</i> pv. <i>coriandricola</i>	12471	<i>Xanthomonas campestris</i> pv. <i>corylina</i>	5726
<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i>	3113	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i>	2299
<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i>	11894	<i>Xanthomonas campestris</i> pv. <i>cyamopsidis</i>	616
<i>Pseudomonas syringae</i> pv. <i>daphniphylli</i>	9757	<i>Xanthomonas campestris</i> pv. <i>daturae</i>	12546
<i>Pseudomonas syringae</i> pv. <i>delphinii</i>	529	<i>Xanthomonas campestris</i> pv. <i>desmodii</i>	315
<i>Pseudomonas syringae</i> pv. <i>dendropanacis</i>	9150	<i>Xanthomonas campestris</i> pv. <i>desmodiigangetici</i>	577
<i>Pseudomonas syringae</i> pv. <i>dysoxyl</i>	545	<i>Xanthomonas campestris</i> pv. <i>desmodiilaxiflori</i>	6502
<i>Pseudomonas syringae</i> pv. <i>eribotryae</i>	4455	<i>Xanthomonas campestris</i> pv. <i>desmodirotundifolii</i>	168
<i>Pseudomonas syringae</i> pv. <i>garcae</i>	4323	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i>	5727
<i>Pseudomonas syringae</i> pv. <i>glycynea</i>	2189	<i>Xanthomonas campestris</i> pv. <i>durantae</i>	5728
<i>Pseudomonas syringae</i> pv. <i>helianthi</i>	4531	<i>Xanthomonas campestris</i> pv. <i>erythrinae</i>	446
<i>Pseudomonas syringae</i> pv. <i>hibisc</i>	9623	<i>Xanthomonas campestris</i> pv. <i>esculenti</i>	5729
<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	3988*	<i>Xanthomonas campestris</i> pv. <i>eucalypti</i>	5382
<i>Pseudomonas syringae</i> pv. <i>lapsa</i>	3947	<i>Xanthomonas campestris</i> pv. <i>euphorbiae</i>	5730
<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	3935	<i>Xanthomonas campestris</i> pv. <i>fascicularis</i>	5731
<i>Pseudomonas syringae</i> pv. <i>mellea</i>	5711	<i>Xanthomonas campestris</i> pv. <i>fici</i>	3036
<i>Pseudomonas syringae</i> pv. <i>mori</i>	4331	<i>Xanthomonas campestris</i> pv. <i>glycines</i>	5732
<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i>	5795*	<i>Xanthomonas campestris</i> pv. <i>graminis</i>	5733
<i>Pseudomonas syringae</i> pv. <i>myricae</i>	7118	<i>Xanthomonas campestris</i> pv. <i>guizotiae</i>	5734
<i>Pseudomonas syringae</i> pv. <i>oryzae</i>	9088	<i>Xanthomonas campestris</i> pv. <i>gummisudans</i>	5780
<i>Pseudomonas syringae</i> pv. <i>papulans</i>	4048	<i>Xanthomonas campestris</i> pv. <i>hederae</i>	453
<i>Pseudomonas syringae</i> pv. <i>passiflorae</i>	129	<i>Xanthomonas campestris</i> pv. <i>heliotropii</i>	5778
<i>Pseudomonas syringae</i> pv. <i>persicae</i>	5846	<i>Xanthomonas campestris</i> pv. <i>holcicola</i>	3103
<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>	2740	<i>Xanthomonas campestris</i> pv. <i>hordei</i>	5735
<i>Pseudomonas syringae</i> pv. <i>philadelphia</i>	8903	<i>Xanthomonas campestris</i> pv. <i>hyacinthi</i>	189
<i>Pseudomonas syringae</i> pv. <i>photinae</i>	7840	<i>Xanthomonas campestris</i> pv. <i>incanae</i>	574
<i>Pseudomonas syringae</i> pv. <i>pisi</i>	2452	<i>Xanthomonas campestris</i> pv. <i>ionidii</i>	5736
<i>Pseudomonas syringae</i> pv. <i>primulae</i>	3956	<i>Xanthomonas campestris</i> pv. <i>juglandis</i>	35
<i>Pseudomonas syringae</i> pv. <i>rhaphtolepidis</i>	9756	<i>Xanthomonas campestris</i> pv. <i>khayae</i>	671
<i>Pseudomonas syringae</i> pv. <i>ribicola</i>	3882	<i>Xanthomonas campestris</i> pv. <i>lantanae</i>	5737
<i>Pseudomonas syringae</i> pv. <i>savastanoi</i>	4352	<i>Xanthomonas campestris</i> pv. <i>laureliae</i>	84
<i>Pseudomonas syringae</i> pv. <i>sesami</i>	763	<i>Xanthomonas campestris</i> pv. <i>lawsoniae</i>	319
<i>Pseudomonas syringae</i> pv. <i>striafaciens</i>	3961*	<i>Xanthomonas campestris</i> pv. <i>leena</i>	5738
<i>Pseudomonas syringae</i> pv. <i>syringae</i>	3023	<i>Xanthomonas campestris</i> pv. <i>leersiae</i>	8788
<i>Pseudomonas syringae</i> pv. <i>tabaci</i>	2835	<i>Xanthomonas campestris</i> pv. <i>lespedezae</i>	439
<i>Pseudomonas syringae</i> pv. <i>tagetis</i>	4091	<i>Xanthomonas campestris</i> pv. <i>maculifoliogardeniae</i>	318
<i>Pseudomonas syringae</i> pv. <i>theae</i>	3923	<i>Xanthomonas campestris</i> pv. <i>mallotii</i>	11536
<i>Pseudomonas syringae</i> pv. <i>tomato</i>	2844	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i>	5739
<i>Pseudomonas syringae</i> pv. <i>tremae</i>	9151	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i>	5740
<i>Pseudomonas syringae</i> pv. <i>ulmi</i>	3962	<i>Xanthomonas campestris</i> pv. <i>manihotis</i>	5741
<i>Pseudomonas syringae</i> pv. <i>viburni</i>	3963	<i>Xanthomonas campestris</i> pv. <i>martynicola</i>	82
<i>Pseudomonas syringae</i> pv. <i>zizaniae</i>	8921	<i>Xanthomonas campestris</i> pv. <i>melhusii</i>	619
<i>Xanthomonas campestris</i> pv. <i>aberrans</i>	4805	<i>Xanthomonas campestris</i> pv. <i>melonis</i>	8682
<i>Xanthomonas campestris</i> pv. <i>alangi</i>	5717	<i>Xanthomonas campestris</i> pv. <i>merremiae</i>	6747
<i>Xanthomonas campestris</i> pv. <i>alfalfae</i>	5718	<i>Xanthomonas campestris</i> pv. <i>mirabilis</i>	8949
<i>Xanthomonas campestris</i> pv. <i>amaranthicola</i>	441	<i>Xanthomonas campestris</i> pv. <i>musacearum</i>	2870
<i>Xanthomonas campestris</i> pv. <i>amorphophalli</i>	3033	<i>Xanthomonas campestris</i> pv. <i>nakataecorchori</i>	5742
<i>Xanthomonas campestris</i> pv. <i>aracearum</i>	5381	<i>Xanthomonas campestris</i> pv. <i>nigromaculans</i>	80
<i>Xanthomonas campestris</i> pv. <i>arecae</i>	5719	<i>Xanthomonas campestris</i> pv. <i>obscurae</i>	12547

Reference Strains

<i>Xanthomonas campestris</i> pv. <i>olitorii</i>	359	<i>Xanthomonas campestris</i> pv. <i>sesami</i>	621
<i>Xanthomonas campestris</i> pv. <i>oryzae</i>	312	<i>Xanthomonas campestris</i> pv. <i>sesbaniae</i>	367
<i>Xanthomonas campestris</i> pv. <i>oryzicola</i>	5743	<i>Xanthomonas campestris</i> pv. <i>spermacoces</i>	5751
<i>Xanthomonas campestris</i> pv. <i>papavericola</i>	220	<i>Xanthomonas campestris</i> pv. <i>syngonii</i>	9154
<i>Xanthomonas campestris</i> pv. <i>parthenii</i>	12476	<i>Xanthomonas campestris</i> pv. <i>tamarindi</i>	572
<i>Xanthomonas campestris</i> pv. <i>passiflorae</i>	3151	<i>Xanthomonas campestris</i> pv. <i>taraxaci</i>	579
<i>Xanthomonas campestris</i> pv. <i>patelii</i>	167	<i>Xanthomonas campestris</i> pv. <i>tardicrescens</i>	4295
<i>Xanthomonas campestris</i> pv. <i>paullinae</i>	8919	<i>Xanthomonas campestris</i> pv. <i>theicola</i>	6774
<i>Xanthomonas campestris</i> pv. <i>pedalii</i>	3030	<i>Xanthomonas campestris</i> pv. <i>thespesiae</i>	7466
<i>Xanthomonas campestris</i> pv. <i>pelargonii</i>	4321	<i>Xanthomonas campestris</i> pv. <i>thirumalacharii</i>	5852
<i>Xanthomonas campestris</i> pv. <i>pennamericanum</i>	9627	<i>Xanthomonas campestris</i> pv. <i>translucens</i>	5752
<i>Xanthomonas campestris</i> pv. <i>phaseoli</i>	5834	<i>Xanthomonas campestris</i> pv. <i>tribuli</i>	5753
<i>Xanthomonas campestris</i> pv. <i>phlei</i>	7725	<i>Xanthomonas campestris</i> pv. <i>trichodesmae</i>	5754
<i>Xanthomonas campestris</i> pv. <i>phleipratensis</i>	5744	<i>Xanthomonas campestris</i> pv. <i>undulosa</i>	5755
<i>Xanthomonas campestris</i> pv. <i>phormiicola</i>	4294	<i>Xanthomonas campestris</i> pv. <i>uppalii</i>	5756
<i>Xanthomonas campestris</i> pv. <i>phyllanthi</i>	5745	<i>Xanthomonas campestris</i> pv. <i>vasculorum</i>	5757
<i>Xanthomonas campestris</i> pv. <i>physalidicola</i>	586	<i>Xanthomonas campestris</i> pv. <i>viegasii</i>	9261
<i>Xanthomonas campestris</i> pv. <i>physalidis</i>	5746	<i>Xanthomonas campestris</i> pv. <i>vernoniae</i>	5758
<i>Xanthomonas campestris</i> pv. <i>pisi</i>	570	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	63
<i>Xanthomonas campestris</i> pv. <i>plantaginis</i>	1028	<i>Xanthomonas campestris</i> pv. <i>vignaeradiatae</i>	5759
<i>Xanthomonas campestris</i> pv. <i>poae</i>	7726	<i>Xanthomonas campestris</i> pv. <i>vignicola</i>	333
<i>Xanthomonas campestris</i> pv. <i>poinsettiicola</i>	5779	<i>Xanthomonas campestris</i> pv. <i>vitians</i>	336
<i>Xanthomonas campestris</i> pv. <i>populi</i>	8923	<i>Xanthomonas campestris</i> pv. <i>viticola</i>	3867
<i>Xanthomonas campestris</i> pv. <i>pruni</i>	51	<i>Xanthomonas campestris</i> pv. <i>vitiscamosae</i>	90
<i>Xanthomonas campestris</i> pv. <i>punicae</i>	360	<i>Xanthomonas campestris</i> pv. <i>vitistrifoliae</i>	5761
<i>Xanthomonas campestris</i> pv. <i>raphani</i>	1404	<i>Xanthomonas campestris</i> pv. <i>vitiswoodrowii</i>	3965
<i>Xanthomonas campestris</i> pv. <i>rhyngosiae</i>	5748	<i>Xanthomonas campestris</i> pv. <i>zantedeschiae</i>	2372
<i>Xanthomonas campestris</i> pv. <i>ricini</i>	5747	<i>Xanthomonas campestris</i> pv. <i>zingibericola</i>	8787
<i>Xanthomonas campestris</i> pv. <i>secalis</i>	5749	<i>Xanthomonas campestris</i> pv. <i>zinniae</i>	5762

* strain is not representative of the pathovar or is an avirulent strain.

BACTERIA

- Acetobacter aceti** (Pasteur 1864) Beijerinck 1898
 1669 From M.H. Dye ← D. Ohye 1505.
 8562 a Cellulose. From J. De Ley ← NCIB 8941 ← J.G. Carr 44 = ATCC 23748 - Int. J. Syst. Bact. 30: 7-27, 1980.
 8807 b Vinegar. From LMG 1261t1 ← M. Arends ← J. Frateur = NCIB 8621: ATCC 15973.
- Acetobacter aceti** subsp. **ascendens** (Henneberg 1898) De Ley & Frateur 1974
 1668 From M.H. Dye ← D. Ohye 1502 - suitable for cider vinegar production.
- Acetobacter hansenii** Gossele *et al.* 1983
 8596 *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - fruit. From J. De Ley ← IFO 3261 ← K. Kondo 42.
 8597 Vinegar. From J. De Ley ← IFO 3296t1 ← K. Kondo 9.
 8598 a Vinegar. Israel 1936. From J. De Ley ← NCIB 8746 - **Type strain**.
 8599 From J. De Ley ← NCIB 8752.
- Acetobacter liquefaciens** (Asai 1935) Gossele *et al.* 1983
 8600 a Diospyros *kaki* L.f. - Japanese persimmon. Japan 1935. From J. De Ley ← IFO 12388 = IAM 1834: ATCC 14835 - Int. J. Syst. Bact. 33: 65-81, 1983 - **Type strain**.
 8601 a From J. De Ley ← NCIB 9417 ← T.K. Walker - Int. J. Syst. Bact. 33: 65-81, 1983 - malt vinegar acetifier.
- Acetobacter pasteurianus** (Hansen 1879) Beijerinck 1916
 3878 a* *Malus X domestica* Borkh. - apple. UK 1955. From D.W. Dye MF1 ← NCPPB 463 ← M. Cole 1A = ATCC 19877: ICPB PP180: LMG 1805 - rec. as type strain of *Pseudomonas pomi* - *apple.
 4167 a* *Malus X domestica* Borkh. - apple. UK 1955. From B.N. Dhanvantari ← NCPPB 461 ← M. Cole 2A - rec. as *Pseudomonas melophthora* - *apple.
 4168 a* *Malus X domestica* Borkh. - apple. UK 1955. From B.N. Dhanvantari ← NCPPB 462 ← M. Cole 4A - rec. as *Pseudomonas melophthora* - *apple.
 8602 a From J. De Ley ← IFO 3248 ← K. Kondo 68 - Int. J. Syst. Bact. 30: 7-27, 1980.
 8603 Vinegar. From J. De Ley ← IFO 3284 ← K. Kondo 47.
 8604 Spoiled beer. From J. De Ley ← IFO 3299 ← K. Kondo 63.
 8605 a Vinegar. From J. De Ley ← NCIB 613 ← A. Jorgensen = ATCC 23766: NCTC 613 - Int. J. Syst. Bact. 30: 7-27, 1980.
 8606 a Vinegar. From J. De Ley ← NCIB 2224 ← Institut für Gerungsgewerbe, Berlin = ATCC 6438: DSM 2324: NRRL B468 - Int. J. Syst. Bact. 30: 7-27, 1980 - used in vinegar manufacture.
 8607 a Vinegar. From J. De Ley ← NCIB 7029 ← R.M. Natrass = ATCC 23768: DSM 2004: NCTC 7029 - Int. J. Syst. Bact. 30: 7-27, 1980 - isolated from vinegar brew prepared using NCTC 6716.
 8608 a From J. De Ley ← NCIB 8088 ← A.J. Kluyver = ATCC 838: DSM 2006 - Int. J. Syst. Bact. 30: 7-27, 1980.
 8609 From J. De Ley ← NCIB 8618 ← W. Verhoeven = ATCC 12874: DSM 2347: LMD 29.4.
 8610 a Sewage on soil. Belgium 1929. From J. De Ley ← NCIB 8620 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8611 a From J. De Ley ← NCIB 8757 ← T.K. Walker = ATCC 23752 - Int. J. Syst. Bact. 30: 7-27, 1980 - English malt vinegar acetifier.
 8612 a Cider. UK. From J. De Ley ← NCIB 8935 ← J.G. Carr - Int. J. Syst. Bact. 33: 65-81, 1983 - produces cellulosic pellicle.
 8808 From LMG 1262t1 ← LMD 22.1.
 8809 Beer. Belgium 1927. From LMG 1282 ← NCIB 8622 ← W. Verhoeven = ATCC 12876: LMD 37.3: LMD 31.3.
- Acidovorax avenae** subsp. **avenae** (Manns 1909) Willems *et al.* 1992
 syn. *Pseudomonas avenae* Manns 1909
 syn. *Pseudomonas rubrilineans* (Lee *et al.* 1925) Stapp 1928
 7460 *Canna indica* L. Brazil 1978. From IBSBF 178 ← C.F. Robbs ENA2670 - rec. as *Pseudomonas rubrilineans*.
 9913 *Canna paniculata* Ruiz. & Pav. Brazil 1978. From NCPPB 3111 ← C.F. Robbs ENA2609 - rec. as *Pseudomonas rubrilineans*.
 7083 a *Eleusine coracana* (L.) Gaertn. - ragi - brown stripe on sheath, leaf blade. Japan 1975. From K. Nishiyama 75D-1 - rec. as *P. alboprecipitans*.
 7084 a* *Eleusine coracana* (L.) Gaertn. - ragi - brown stripe on sheath, leaf blade. Japan 1975. From K. Nishiyama 75D-4 - rec. as *P. alboprecipitans* - *sweetcorn.
 3960 *Oryza sativa* L. - rice. Japan 1955. From D.W. Dye MS1 ← NCPPB 1392 ← K. Ohata = ATCC 19882: ICPB PS177 - rec. as *P. setariae*.
 9906 *Oryza sativa* L. - rice - seed. India 1985. From NCPPB 3354 ← F. Vinther 1Kr 6-37 ← D.D. Shakya.
 9907 *Oryza sativa* L. - rice - seed. Brazil 1985. From NCPPB 3355 ← F. Vinther Br14-21 ← D.D. Shakya.
 9908 *Oryza sativa* L. - rice - seed. Nepal 1985. From NCPPB 3356 ← F. Vinther Nkn 39-78 ← D.D. Shakya.
 9909 *Oryza sativa* L. - rice - seed. Sierra Leone 1985. From NCPPB 3357 ← F. Vinther Sie57-23 ← D.D. Shakya.
 9910 *Oryza sativa* L. - rice - seed. Turkey 1985. From NCPPB 3358 ← F. Vinther Tur58-26 ← D.D. Shakya.
 11902 * *Oryza sativa* L. - rice cv. Ghashang - leaf stripe. Iran 1992. From H. Rahimian BG11 - *rice (Rahimian).
 10126 *Panicum miliaceum* L. - proso millet. Australia. From W.C. Wong 2162.
 10127 *Panicum miliaceum* L. - proso millet. Australia. From W.C. Wong 2180.
 10128 *Panicum miliaceum* L. - proso millet - seed. Australia. From W.C. Wong 2183a.
 10129 *Panicum miliaceum* L. - proso millet. Australia. From W.C. Wong 2184b.
 11900 * *Panicum miliaceum* L. - proso millet - brown leaf stripes. Japan Jul 1993. From M. Goto AK1 = Shizuoka Univ., Fac. of Agric. Culture Collection AK1 - **P. miliaceum*, *Setaria italica* (Goto).
 11901 * *Panicum miliaceum* L. - proso millet - brown leaf stripes. Japan. From M. Goto AK4 - **P. miliaceum*, *Setaria italica* (Goto).
 11989 *Panicum miliaceum* L. - proso millet cv. CSIRO 109000 - leaf blight. Australia Mar 1988. From DAR 61449 ← L. Diatloff 2174A.
 11990 *Panicum miliaceum* L. - proso millet cv. CSIRO 109138 - leaf blight. Australia Mar 1988. From DAR 61451 ← L. Diatloff 2180.
 11991 *Panicum miliaceum* L. - proso millet - leaf blight. Australia Mar 1988. From DAR 61457 ← P.C. Fahy.
 11992 *Panicum miliaceum* L. - proso millet - leaf blight. Australia Feb 1988. From DAR 61459 ← L. Diatloff DPI2162.
 251 b *Saccharum officinarum* L. - sugarcane. Mauritius 1955. From D.W. Dye ZN1 ← NCPPB 359 ← G. Orian. = ATCC 12529 - rec. as *Pseudomonas rubrilineans*.
 252 b* *Saccharum officinarum* L. - sugarcane. Mauritius 1955. From D.W. Dye ZN2 ← NCPPB 360 ← G. Orian = ATCC 12530 - rec. as *Pseudomonas rubrilineans* - *sweetcorn.
 254 a* *Saccharum officinarum* L. - sugarcane cv. R445. Reunion Oct 1960. From D.W. Dye ZN4 ← A.C. Hayward B385 = ATCC 19307: NCPPB 920 - rec. as type strain *Pseudomonas rubrilineans* - *sweetcorn.
 255 a* *Saccharum officinarum* L. - sugarcane cv. Q67. Australia 1961. From D.W. Dye ZN5 ← A.C. Hayward B476 = NCPPB 931 - rec. as *Pseudomonas rubrilineans* - *maize, oat, sorghum, sweetcorn.
 3139 b* *Saccharum officinarum* L. - sugarcane cv. CO312 - red leaf stripe. India 1963. From D.W. Dye ZN8 ← Y.P. Rao - rec. as *Pseudomonas rubrilineans* - *maize, sorghum.
 11993 *Setaria italica* (L.) Beauv. - Italian millet - leaf blight. Australia Mar 1988. From DAR 61463 ← L. Diatloff DPI2191.
 3106 a* *Zea mays* L. - maize. India 1970. From C.N. Hale ← S.R.S. Dange M9 - rec. as *Pseudomonas* sp. - *sorghum, sweetcorn.
 3107 a* *Zea mays* L. - maize. India 1969. From C.N. Hale ← S.R.S. Dange M4 - rec. as *Pseudomonas* sp. - *sorghum.
 3166 * *Zea mays* L. - maize cv. CM300. India. From D.W. Dye ZN9 ← S.R.S. Dange M5 - rec. as *Pseudomonas* sp. - *sweetcorn.
 3167 *Zea mays* L. - maize cv. Kisan. India. From D.W. Dye ZN10 ← S.R.S. Dange M6 - rec. as *Pseudomonas* sp.
 3178 b* *Zea mays* L. - maize - leaf. Japan Jun 1970. From C.N. Hale 1267 ← M. Goto Corn-1 - rec. as *P. alboprecipitans* - LOPAT - + - (+/-) ; *maize, sorghum, sweetcorn.
 3179 b* *Zea mays* L. - maize - leaf. Japan Jun 1970. From C.N. Hale 1268 ← M. Goto Corn-4 - rec. as *P. alboprecipitans* - LOPAT - + - (+/-) ; *maize, oat, sorghum, sweetcorn.
 3180 b* *Zea mays* L. - maize - leaf. Japan Jun 1970. From C.N. Hale 1269 ← M. Goto Corn-5 - rec. as *P. alboprecipitans* - LOPAT - + - (+/-) ; *maize, sorghum, sweetcorn.

- 3183 a* *Zea mays* L. - maize - leaf. USA 1958. From C.N. Hale PS8 ← ICPB PA117 ← A.J. Ullstrup = ATCC 19860: CFBP 2425: LMG 2117: NCPPB 1011 - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-); *maize, sorghum, sweetcorn - **Type strain**.
- 3184 b* *Zea mays* L. - maize - leaf. Japan 1968. From C.N. Hale PS9 ← ICPB PA134 ← M. Goto Corn-A - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *maize, sorghum, sweetcorn.
- 3185 b* *Zea mays* L. - maize - leaf. Japan 1968. From C.N. Hale PS10 ← ICPB PA135 ← M. Goto Corn-B - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *maize, oat, sorghum, sweetcorn.
- 5811 *Zea mays* L. - maize. Brazil Dec 1976. From IBSBF 77 ← J.R. Neto - rec. as *Pseudomonas rubrilineans*.
- 10130 *Zea mays* L. - maize. Australia. From W.C. Wong 2194.
- 1656 a* *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA 1963. From D.W. Dye PS1 ← C. Wehlburg 63-1 - rec. as *P. alboprecipitans* - *maize, sorghum, oat, sweetcorn.
- 11903 * *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn cv. SC46A - tip necrosis of seedling. Iran 1992. From H. Rahimian Zb1 - *sweet corn (Rahimian).
- 11904 * *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn cv. DC370 - leaf stripe. Iran 1991. From H. Rahimian ZR53 - *sweet corn (Rahimian).
- 3168 * *Zea mexicana* (Schrad.) Reeves & Mangelsd. - teosinte. India. From D.W. Dye ZN11 ← S.R.S. Dange T15 - rec. as *Pseudomonas* sp. - *sweetcorn.
- 3181 b* *Zea mexicana* (Schrad.) Reeves & Mangelsd. - teosinte - leaf. Japan Jun 1970. From C.N. Hale 1270 ← M. Goto Teosinte-1 - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *maize, sorghum, sweetcorn.
- 3182 b* *Zea mexicana* (Schrad.) Reeves & Mangelsd. - teosinte - leaf. Japan Jun 1970. From C.N. Hale 1271 ← M. Goto Teosinte-2 - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *sorghum, sweetcorn (weak reaction).
- 3186 b* *Zea mexicana* (Schrad.) Reeves & Mangelsd. - teosinte - leaf. Japan 1968. From C.N. Hale PS11 ← ICPB PA136 ← M. Goto Teosinte-A - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *maize, sorghum, sweetcorn.
- 3254 b* *Zea mexicana* (Schrad.) Reeves & Mangelsd. - teosinte - leaf. Japan 1968. From C.N. Hale PS12 ← ICPB PA137 ← M. Goto Teosinte-B - rec. as *P. alboprecipitans* - LOPAT - + - - (+/-) - *maize, sorghum, sweetcorn.
- Acidovorax avenae** subsp. *cattleyae* (Pavarino 1911) Willems *et al.* 1992
syn. *Pseudomonas cattleyae* Pavarino 1911
- 8654 *Cattleya* sp. - cattleya orchid. From LMG 5142 ← NRRL b732 = ATCC 10200.
- 12228 *Phalaenopsis* sp. - orchid - black watersoaked leafspot. Nelson, NN, NZ Jan 1995. From K. Knight 59G.
- 12229 *Phalaenopsis* sp. - orchid - black watersoaked leafspot. Nelson, NN, NZ Jan 1995. From K. Knight 59H.
- 2826 a From D.W. Dye NL1 ← NCPPB 961 ← P.A. Ark = ATCC 33619: CFBP 2423: ICPB PC21: LMG 2364: NRRL B835 - LOPAT - - - - + - **Type strain**.
- Acidovorax avenae** subsp. *citrulli* (Schaad *et al.* 1978) Willems *et al.* 1992
syn. *Pseudomonas pseudoaocaligenes* subsp. *citrulli* (Schaad *et al.* 1978)
- 6521 b* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - watersoaked lesion on seedling. USA 1978. From N.W. Schaad C178 ← G. Sowell = NCPPB 3244 - *watermelon (Schaad), cucumber.
- 6522 b* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - watersoaked lesion on seedling. USA 1977. From N.W. Schaad C98 ← G. Sowell = NCPPB 3243 - *cucumber, watermelon.
- 7500 a* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - watersoaked lesion on cotyledon. USA. From ATCC 29625 ← N.W. Schaad C42 = LMG 5376: NCPPB 3679 - *cucumber, watermelon - **Type strain**.
- 7715 a* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - cotyledon. USA Feb 1981. From G. Sowell 43 - *cucumber, watermelon.
- 7716 a* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - cotyledon. USA Feb 1981. From G. Sowell 45 - *cucumber, watermelon.
- 8663 * *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon. From LMG 5483 ← NCPPB 3055 - *cucumber.
- 12196 *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon. Brazil 1993. From IBSBF 993 ← J.R. Neto.
- 12198 *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon. Brazil 1993. From IBSBF 998 ← J.R. Neto.
- 12190 *Cucumis melo* L. - melon. Brazil 1992. From IBSBF 962 ← C.F. Robbs CTAA21-1.
- 7713 a* *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon - cotyledon. USA Feb 1981. From G. Sowell 38 - *cucumber, watermelon.
- 7714 a* *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon - cotyledon. USA Feb 1981. From G. Sowell 41 - *cucumber, watermelon.
- Acidovorax delatfieldii** (Davis 1970) Willems *et al.* 1990
- 12548 Pond water of the coal carbonisation plant. Rotowaro, WO, NZ 1991. From J. Aislabie Q+ ← J. Laniploough - degrades quinoline as sole source of carbon & nitrogen.
- 12549 Soil. From J. Aislabie ← ATCC 17505 ← R.Y. Stanier 133 - **Type strain**.
- Acidovorax facilis** (Schatz & Bovell 1952) Willams *et al.* 1990
- 12550 Lawn soil. USA. From J. Aislabie ← ATCC 11228 ← A. Schatz - **Type strain**.
- Acidovorax konjaci** (Goto 1983) Willems *et al.* 1992
syn. *Pseudomonas pseudoaocaligenes* subsp. *konjaci* Goto 1983
- 7733 a* *Amorphophallus rivieri* Durieu - konjac - rectangular leafspot, then leaf blight. Japan Aug 1977. From M. Goto K2 = ATCC 33996: LMG 5691: NCPPB 3698 - *konjac (Goto) - **Type strain**.
- 7734 a* *Amorphophallus rivieri* Durieu - konjac - rectangular leafspot, then leaf blight. Japan Aug 1977. From M. Goto K3 - *konjac (Goto).
- 7851 a* *Amorphophallus rivieri* Durieu - konjac - rectangular leafspot, then leaf blight. Japan Aug 1977. From M. Goto K4 - *konjac (Goto).
- Actinomyces** sp.
- 688 Wool. NZ Aug 1961. From M.H. Dye A6.
- 690 Wool. NZ Sep 1961. From M.H. Dye A9.
- Aeromonas** sp.
- 165 *Zingiber officinale* Rosc. - ginger - collar rot. Netherlands 1934. From D.W. Dye X11 ← NCPPB 739 ← J. de Zeeuw = ATCC 23383: ICPB XZ102: THLMD E111-9-30-1.
- Agrobacterium radiobacter* (Beijerinck & van Delden 1902) Conn 1942
see *Agrobacterium* sp.; *A. rhizogenes*; *A. tumefaciens*.
- Agrobacterium rhizogenes** (Riker *et al.* 1930) Conn 1942
- 11274 *Prunus persica* (L.) Batsch - peach. China. From X.Z. Ren Pb6 - rec. as *A. tumefaciens* - Biovar 2.
- 8367 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 126 - sensitive to ICMP 3379 in plate assay - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- Agrobacterium rhizogenes** (Riker *et al.* 1930) Conn 1942 (**rhizogenic strains**)
- 5794 a* *Malus X domestica* Borkh. - apple. From ATCC 11325 ← A.J. Riker = CFBP 2408: LMG 150: NCPPB 2991 - Biovar 2 - *lupin, zinnia - **Type strain**.
- 8639 *Malus X domestica* Borkh. - apple. USA. From LMG 63 ← ICPB TR7 ← E.M. Hildebrand = ATCC 25818: NCPPB 2626.
- 8642 *Rosa* sp. USA 1959. From LMG 155 ← ICPB TR107 ← D. Munnecke R136a = NCPPB 2628.
- 8640 From LMG 152 ← ATCC 15834 ← P.A. Ark = ATCC 15834: NCPPB 2629.
- 8641 From LMG 154 ← ICPB TR101 = NCPPB 2408: Kerr 46.
- 8874 From LMG 149 ← NCIB 8196 = CCM 1905: NRRL B193.
- Agrobacterium rhizogenes** (Riker *et al.* 1930) Conn 1942 (**saprophytic strains**)
- 11971 *Populus X tremula* L. X *P. alba* L. - poplar cv. 709-27-175 - tumour. France. From CFBP 2790 ← M. Ridé 88-334 - rec. as *A. radiobacter* - Biovar 2.
- 5972 b *Prunus persica* (L.) Batsch - peach - crown gall. NZ Mar 1978. From D.R.W. Watson A2400 - rec. as *A. tumefaciens* - Biovar 2 - *avirulent to *Tagetes* sp.

- 3379 a Soil. Australia Oct 1969. From D.W. Dye AB1 ← P.B. New 84 ← A. Kerr = NCPPB 2407 - inhibits crown gall infection of peach, rose, tomato - rec. as *A. radiobacter* - Biovar 2.
- 6021 a Soil. Palmerston North, WI, NZ Jul 1977. From A.G. Spiers NKRS9 - rec. as *A. radiobacter* - Biovar 2.
- 8290 b Soil under *Rubus* sp. Taupaki, AK, NZ 1982. From R.N. Crowhurst 124 - rec. as *A. radiobacter* - Biovar 2 - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8366 b Soil. Taupaki, AK, NZ 1982. From R.N. Crowhurst 120 - rec. as *A. radiobacter* - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8372 b Soil. Huapai, AK, NZ 1982. From R.N. Crowhurst 158 - rec. as *A. radiobacter* - Biovar 2 - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.

Agrobacterium rhizogenes (Riker *et al.* 1930) Conn 1942 (**tumourigenic strains**)

- 11967 *Cydonia oblonga* Mill. - quince - gall. 1987. From CFBP 2720 ← M. Ridé 88-267 - rec. as *A. tumefaciens* - Biovar 2.
- 726 b* *Prunus persica* (L.) Batsch - peach - gall. Auckland, AK, NZ 1953. From D.W. Dye A2 - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, peach, sunflower, tomato, zinnia.
- 5857 a* *Prunus persica* (L.) Batsch - peach. Australia 1967. From NCPPB 2405 ← A. Kerr 27 - Biovar 2 - *capsicum, coleus, lupin, marigold, radish, sunflower, tomato.
- 5977 b* *Prunus persica* (L.) Batsch - peach - crown gall. NZ Mar 1978. From D.R.W. Watson J2400 - rec. as *A. tumefaciens* - Biovar 2 - *capsicum.
- 6731 b* *Prunus persica* (L.) Batsch - peach cv. Golden Queen - crown gall. Auckland, AK, NZ Jul 1979. From D.R.W. Watson B2588 - rec. as *A. tumefaciens* - Biovar 2 - *capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 11275 *Prunus persica* (L.) Batsch - peach. China. From X.Z. Ren Pb7 - rec. as *A. tumefaciens* - Biovar 2.
- 12856 a* *Prunus persica* (L.) Batsch - peach. Japan. From H. Sawada PchAg2 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12857 a* *Prunus persica* (L.) Batsch - peach. Japan. From H. Sawada PchAg3 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12858 a* *Prunus persica* (L.) Batsch - peach. Japan. From H. Sawada PchAg4 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12958 a* *Prunus persica* (L.) Batsch - peach. Japan. From H. Sawada PchAg5 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12959 a* *Prunus persica* (L.) Batsch - peach. Japan. From H. Sawada PchAg6 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 11276 *Prunus tomentosa* Thunb. - Nanking cherry. China. From X.Z. Ren Po12 - rec. as *A. tumefaciens* - Biovar 2.
- 12850 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg1 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12851 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg2 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12852 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg3 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - Biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12853 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg4 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12854 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg5 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 12855 a* *Pyrus communis* L. - pear. Japan. From H. Sawada PAg6 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - biovar II - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 3667 b* *Rosa multiflora* Thunb. ex Murr. - rose rootstock - root gall. Henderson, AK, NZ Oct 1973. From D.R.W. Watson F1632 - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, peach, radish, sunflower, tomato, zinnia.
- 11919 *Rosa* sp. - tumour on aerial root. Tahiti 1979. From CFBP 1935 ← M. Ridé 79-115 - rec. as *A. tumefaciens* - Biovar 2.
- 4617 a* *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - pale spherical gall breaking out at base of cane. Nelson, NN, NZ Oct 1975. From D.R.W. Watson K2007 - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 6020 a* Soil. Palmerston North, WI, NZ Jul 1977. From A.G. Spiers NKRS7 - rec. as *A. tumefaciens* - Biovar 2 - *capsicum.
- 8289 a* Soil under *Rubus* sp. Taupaki, AK, NZ 1982. From R.N. Crowhurst 115 - not sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, sunflower, tomato, zinnia.
- 8295 b* Soil under *Rubus* sp. Brighams Creek, AK, NZ 1982. From R.N. Crowhurst 181 - not sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8302 b* Soil. Taupaki, AK, NZ 1982. From R.N. Crowhurst 97 - not sensitive to ICMP 3379 in plate assay rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8303 b* Soil. Brighams Creek, AK, NZ 1982. From R.N. Crowhurst 187 - not sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8304 b* Soil. Brighams Creek, AK, NZ 1982. From R.N. Crowhurst 191 - not sensitive to ICMP 3379 in plate assay - Biovar 2 - *capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8308 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 138 - sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, sunflower, tomato.
- 8310 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 141 - sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8320 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 131 - sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, sunflower, tomato, zinnia.
- 8368 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 143 - sensitive to ICMP 3379 in plate assay - rec. as *A. tumefaciens* - Biovar 2 - *capsicum, coleus, lupin, marigold, sunflower, tomato.

Agrobacterium rubi (Hildebrand 1940) Starr & Weiss 1943

- 8643 *Rubus* sp. USA 1942. From LMG 159 ← ICPB TR2 ← E.M. Hildebrand = ATCC 13334: NCPPB 1856.
- 8875 *Rubus* sp. - stem gall. Germany 1967. From LMG 157(t1) ← DSM 60250 ← H. Stolp.
- 8876 *Rubus* sp. - stem gall. Germany 1967. From LMG 157(t2) ← DSM 60250 ← H. Stolp.
- 11833 *Rubus* sp. - tumour on root. France. From CFBP 1317 ← J.P. Prunier 794-1 - biovar II.
- 6428 a* *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry. USA 1942. From NCPPB 1854 ← ICPB TR3 ← E.M. Hildebrand = ATCC 13335: CFBP 1317: LMG 156 - Biovar 2 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia - **Type strain.**

***Agrobacterium* sp.**

- 9009 *Malus X domestica* Borkh. - apple - gall. Hungary 1977. From J. Nemeth AB ← A. Kovacs - rec. as *A. tumefaciens*.
- 8886 *Populus alba* L. var. *tomentosa* Westm. - Chinese white poplar. China. From Z. Fang Pt3 - rec. as *A. tumefaciens* - Biovar 3.
- 8970 South Africa. From M. Hendson D286 = JCM 9671 - rec. as *A. tumefaciens*.
- 9606 Soil. From C.N. Chilcott ← ATCC 21680 = IFO 13140.

***Agrobacterium* sp. (saprophytic strains)**

- 5592 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - root gall. Te Puke, BP, NZ Jul 1977. From D.R.W. Watson F2296 - rec. as *A. tumefaciens* - avirulent to kiwifruit.
- 5985 b *Rubus ursinus* Cham. & Schlecht. - blackberry cv. Ashton Cross - basal gall tissue of freshly struck cane. NZ Apr 1978. From D.R.W. Watson E2409 - on plants in quarantine, from UK - produces dark pigment in culture - rec. as *A. radiobacter*.

- 8638 a *Vitis vinifera* L. - grape. Greece 1970. From NCPPB 2562 ← C.G. Panagopoulos Ag63 - rec. as *A. radiobacter*.
 6022 a Soil. Palmerston North, WI, NZ Jul 1977. From A.G. Spiers NK1 - rec. as *A. radiobacter* - Biovar intermediate between 1 & 2.
 6023 a Soil. Palmerston North, WI, NZ Jul 1977. From A.G. Spiers NK2 - rec. as *A. radiobacter* - Biovar intermediate between 1 & 2.
 6024 a Soil. Palmerston North, WI, NZ Jul 1977. From A.G. Spiers NK7 - rec. as *A. radiobacter* - Biovar intermediate between 1 & 2.
 7996 Human skin infection. NZ. From NHI SB820199 - rec. as *A. radiobacter*.
 7997 Human blood. NZ. From NHI SB820623 - rec. as *A. radiobacter*.
 7998 Human blood. From NHI SB810684 - rec. as *A. radiobacter*.
 8323 b Soil. Brighams Creek, AK, NZ 1982. From R.N. Crowhurst 186 - rec. as *A. radiobacter* - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
 8324 b Soil. Brighams Creek, AK, NZ 1982. From R.N. Crowhurst 193 - rec. as *A. radiobacter* - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
 8364 b Soil. Riverlea, AK, NZ 1982. From R.N. Crowhurst 77 - rec. as *A. radiobacter* - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.

Agrobacterium sp. (tumourigenic strains)

- 12849 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Japan. From H. Sawada KAg3 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - *tomato, sunflower, grapevine, kalanchoe (Sawada).
 7253 a* *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum cv. Orange Bowl - stem gall. Alfriston, AK, NZ Nov 1980. From D.R.W. Watson C2807 - rec. as *A. tumefaciens* - *bean, chrysanthemum, coleus, kiwifruit, lupin, marigold, sunflower, tomato.
 8926 b *Inga fagifolia* Willd. ex Benth. Brazil. From IBSBF 500 ← C.F. Robbs ENA3435L - smooth colony form - rec. as *A. tumefaciens*.
 8927 b *Inga fagifolia* Willd. ex Benth. Brazil. From IBSBF 501 ← C.F. Robbs ENA3435R - rough colony form - rec. as *A. tumefaciens*.
 371 b* *Populus* sp. - poplar - root. UK (Scotland). From M.H. Dye M22 ← A.M. Paton - rec. as *A. tumefaciens* - *bean, capsicum, coleus, lupin, marigold, sunflower, tomato, zinnia.
 12846 a* *Prunus avium* (L.) L. - cherry. Japan. From H. Sawada ChAg4 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - *tomato, grapevine, sunflower, kalanchoe (Sawada).
 727 a* *Prunus persica* (L.) Batsch - peach - gall. Auckland, AK, NZ 1953. From D.W. Dye A3 ← W.J. Kemp - *tomato.
 4770 a* *Prunus persica* (L.) Batsch - peach - crown gall. USA. From C.I. Kado 1D135 = ATCC 27912 - rec. as *A. tumefaciens* - *capsicum, carrot, coleus, kalanchoe, lupin, marigold, peach, radish, sunflower, tobacco, tomato, turnip, zinnia.
 6403 b* *Prunus persica* (L.) Batsch - peach cv. Golden Queen - basal gall. NZ Oct 1978. From D.R.W. Watson A2443 - rec. as *A. tumefaciens* - *marigold.
 7197 b* *Prunus persica* (L.) Batsch - peach cv. Golden Queen - basal stem gall. Mt Albert, AK, NZ Jul 1980. From D.R.W. Watson E2782 - rec. as *A. tumefaciens* - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
 4364 b* *Rubus idaeus* L. - raspberry - root gall. Massey, AK, NZ Sep 1975. From D.R.W. Watson B2003 - rec. as *A. tumefaciens* - *bean, coleus, lupin, peach, sunflower, *Tagetes* sp., tomato, zinnia.
 4978 b* *Rubus idaeus* L. - raspberry cv. Pocahontas - root gall. Mt Albert, AK, NZ Jun 1975. From D.R.W. Watson C1980 - on plants held in quarantine, from USA - rec. as *A. tumefaciens* - *peach, *Tagetes* sp., tomato.
 9010 *Rubus idaeus* L. - raspberry - gall. Hungary 1979. From J. Nemeth ABM ← A. Kovacs - rec. as *A. tumefaciens*.
 7243 b* *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - basal stem gall. Hamilton, WO, NZ Sep 1980. From D.R.W. Watson CRSF2803 - rec. as *A. tumefaciens* - *tomato.
 8197 b* *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - root gall. NZ Apr 1982. From R.G. Clark K3076 - rec. as *A. tumefaciens* - *boysenberry, marigold, tomato.
 10156 * *Vitis vinifera* L. - grape cv. Sauvignon Blanc - fresh gall tissue on lower stem. Hastings, HB, NZ. From D.R.W. Watson R3826 - rec. as *A. tumefaciens* - *tomato.
 10157 * *Vitis vinifera* L. - grape cv. Sauvignon Blanc - fresh gall tissue on lower stem. Hastings, HB, NZ. From D.R.W. Watson V3826 - rec. as *A. tumefaciens* - *tomato.
 12025 b* *Vitis vinifera* L. - grape - crown gall of stem. HB, NZ 1994. From R.G. Clark 56D - rec. as *A. tumefaciens* - *sunflower, tomato, marigold.
 12026 b* *Vitis vinifera* L. - grape - crown gall of stem. MB, NZ 1994. From R.G. Clark 59H - rec. as *A. tumefaciens* - *sunflower, tomato, marigold.
 8376 b* Soil. Riverlea, AK, NZ 1982. From R.N. Crowhurst 220 - rec. as *A. tumefaciens* - *capsicum.
 8928 South Africa. From M. Henderson 65 - rec. as *A. tumefaciens*.
 8929 South Africa. From M. Henderson D208 - rec. as *A. tumefaciens*.
 8930 South Africa. From M. Henderson D209 - rec. as *A. tumefaciens*.
 8931 South Africa. From M. Henderson D259 - rec. as *A. tumefaciens*.
 10441 USSR 1955. From V.A. Muras 8628 ← V.P. Izraelsky N - rec. as *A. tumefaciens*.

Agrobacterium tumefaciens (Smith & Townsend 1907) Conn 1942

- 6406 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - basal gall. Te Puke, BP, NZ Oct 1978. From D.R.W. Watson C2448 - rec. as *Agrobacterium* sp. - Biovar 1.
 11968 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - gall. 1988. From CFBP 2742 ← M. Ridé 88-139.
 11913 *Dahlia* sp. France 1977. From CFBP 1873 ← B. Digat D3 - Biovar 1.
 8885 *Humulus lupulus* L. - hop. China. From Z. Fang 25-5 - Biovar 1.
 11272 *Humulus lupulus* L. - hop. China. From X.Z. Ren H16 - Biovar 1.
 11273 *Humulus lupulus* L. - hop. China. From X.Z. Ren H35 - Biovar 1.
 11826 *Lycopersicon esculentum* Mill. - tomato. France 1962. From CFBP 296 ← A. Betencourt 111 - Biovar 1.
 11972 *Populus X P. tremula* L. X *P. alba* L. - poplar cv. 712-1-856 - galls. France 1988. From CFBP 2795 ← M. Ridé 88-341 - Biovar 1.
 8887 *Vitis* sp. - grape. China. From Z. Fang Va4 - Biovar 1.
 1431 b *Vitis vinifera* L. - grape - root. Avondale, AK, NZ 1963. From D.W. Dye A7 - Biovar 1.
 6402 b *Vitis vinifera* L. - grape - aerial gall. Henderson, AK, NZ Sep 1978. From D.R.W. Watson G2441 - rec. as *Agrobacterium* sp. - Biovar 1.
 6475 b *Vitis vinifera* L. - grape cv. Cabernet Sauvignon - aerial gall at pruning wounds. Taupaki, AK, NZ Feb 1979. From D.R.W. Watson 1M2525 - rec. as *Agrobacterium* sp. - Biovar 1.
 12181 *Vitis vinifera* L. - grape - crown gall of roots at collar. Blenheim, MB, NZ 1994. From K. Knight 94-1679 - *A. tumefaciens* (BIOLOG).

Agrobacterium tumefaciens (Smith & Townsend 1907) Conn 1942 (saprophytic strains)

- 8307 b *Excoecaria bicolor* Hassk. - root gall. Auckland University, AK, NZ 1982. From R.N. Crowhurst 17 - rec. as *A. radiobacter* - Biovar 1 - avirulent to bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
 5785 a Netherlands. From A. Kerr ← NCIB 9042 ← M.W. Beijerinck = LMD Ex3-24-2: ATCC 19358: NCPPB 3001 - Biovar 1 - **Type strain** of *A. radiobacter*.

Agrobacterium tumefaciens (Smith & Townsend 1907) Conn 1942 (tumourigenic strains)

- 6676 b* *Chrysanthemum* sp. - root gall. South Africa 1978. From H.J. du Plessis K12 - Biovar 1 - *bean, chrysanthemum, lupin, marigold, radish, sunflower, tomato, zinnia.
 7474 a* *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum cv. Festival - root gall. Alfriston, AK, NZ Jul 1981. From R.G. Clark A2954 - Biovar 1 - *bean, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
 728 a* *Malus X domestica* Borkh. - apple - root. UK (Scotland) Apr 1954. From D.W. Dye A4 ← W. Blyth M25 - Biovar 1 - *lupin, marigold, sunflower, tomato, zinnia.
 10852 * *Prunus persica* (L.) Batsch X *P. dulcis* (Mill.) D.A. Webb - peach X almond cv. GF677 - crown gall. Spain 1984. From M.M. Lopez 436-3 - Pl. Path. 37: 565-572, 1988 - resistant to agrocin 84 - utilises mannopinic acid - Biovar 1 - *tomato, peach (Lopez).
 10855 * *Prunus persica* (L.) Batsch X *P. dulcis* (Mill.) D.A. Webb - peach X almond cv. GF677 - crown gall. Spain 1985. From M.M. Lopez 678-2 - resistant to agrocin 84 - Biovar 1 - *tomato, peach (Lopez).
 6025 a* *Salix purpurea* L. - purple ozier, basket willow cv. Booth - crown gall. Palmerston North, WI, NZ May 1977. From A.G. Spiers CG4 - Biovar 1

- *bean, broad bean, capsicum, coleus, lupin, marigold, sunflower, tomato, zinnia.
- 10853 * *Salix viminalis* L. - common osier - crown gall. Spain 1985. From M.M. Lopez 576-2 - Pl. path. 37: 565 - 572, 1988 - sensitive to agrocin 84 - utilises nopaline - Biovar 1 - *tomato, osier (Lopez).
- 10854 * *Salix viminalis* L. - common osier - crown gall. Spain 1985. From M.M. Lopez 576-5 - sensitive to agrocin 84 - utilises nopaline - Biovar 1 - *tomato, osier (Lopez).
- 369 a* USA. From M.H. Dye B2 ← R.M. Klein B6 - Biovar 1 - *bean, marigold, sunflower, tomato, zinnia.
- 5793 a* From ATCC 4720 ← I.L. Baldwin A1 = NCPPB 2992 - Biovar 1 - *coleus, lupin, marigold, sunflower, tomato, zinnia.
- 5856 a* From NCPPB 2437 ← ICPB TT3 ← A.C. Braun B6 = ATCC 23308: CFBP 2413: LMG 187 - Biovar 1 - *bean, capsicum, coleus, lupin, marigold, sunflower, tomato, zinnia - **Type strain**.
- 6675 b* Soil. South Africa 1979. From H.J. du Plessis 56 - Biovar 1 - *bean, lupin, marigold, radish, sunflower, tomato.
- 8288 b* Soil. Huapai, AK, NZ 1982. From R.N. Crowhurst 61 - sensitive to ICMP 3379 in plate assay - Biovar 1 - *bean, marigold, radish, sunflower, tomato, zinnia.
- 8297 b* Soil around crown gall on *Rubus* sp. Taupaki, AK, NZ 1982. From R.N. Crowhurst 20 - not sensitive to ICMP 3379 in plate assay - Biovar 1 - *capsicum, coleus, lupin, marigold, radish, tomato, zinnia.
- 8300 b* Soil. Hobsonville, AK, NZ 1982. From R.N. Crowhurst 44 - sensitive to ICMP 3379 in plate assay - Biovar 1 - *bean, capsicum, coleus, lupin, marigold, tomato, zinnia.
- 8301 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 67 - sensitive to ICMP 3379 in plate assay - Biovar 1 - *bean, capsicum, coleus, lupin, sunflower, tomato, zinnia.
- 8315 b* Soil. Riverlea, AK, NZ 1982. From R.N. Crowhurst 199 - not sensitive to ICMP 3379 in plate assay - Biovar 1 - *marigold, tomato, zinnia.
- 8317 b* Soil. Kumeu, AK, NZ 1982. From R.N. Crowhurst 28 - sensitive to ICMP 3379 in plate assay - Biovar 1 - *bean, capsicum, coleus, lupin, marigold, radish, sunflower, tomato, zinnia.
- 8325 b* Soil. Riverlea, AK, NZ 1982. From R.N. Crowhurst 79 - not sensitive to ICMP 3379 in plate assay - Biovar 1 - *sunflower.
- 8327 b* Soil. Hobsonville, AK, NZ 1982. From R.N. Crowhurst 58 - not sensitive to ICMP 3379 in plate assay - Biovar 1 - *bean, capsicum, lupin, marigold, radish, sunflower, tomato, zinnia.

Agrobacterium vitis Ophel & Kerr 1990

- 12848 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Japan. From H. Sawada KAg1 - Ann. Phytopath. Soc. Japan 58: 37-45, 1992 - Biovar 3 - *tomato, sunflower, grapevine, kalanchoe (Sawada).
- 10753 * *Vitis champinii* Planch. - grape cv. Ramsey - crown gall. Australia 1979. From K. Ophel ← A. Kerr K377 - Int. J. Syst. Bact. 40: 236-241, 1990 - contains nopaline - catabolising Ti plasmid - Biovar 3 - *grapevine, tomato, sunflower (Ophel).
- 10754 * *Vitis champinii* Planch. - grape cv. Ramsey - crown gall. Australia 1987. From K. Ophel K1052 - Australasian Pl. Path. 17: 61-66 - contains octopine - catabolising Ti plasmid - Biovar 3 - *grapevine, tomato, sunflower (Ophel).
- 5858 b *Vitis vinifera* L. - grape. Greece 1970. From NCPPB 2561 ← C.G. Panagopoulos Ag59 - rec. as *A. tumefaciens* - Biovar 3.
- 5960 b *Vitis vinifera* L. - grape. Greece 1970. From D.R.W. Watson 5858A ← NCPPB 2561 ← C.G. Panagopoulos Ag59 - colony variant from 5858 (large) - rec. as *A. tumefaciens* - Biovar 3 - avirulent to *Tagetes* sp., tomato.
- 9896 *Vitis vinifera* L. - grape - vine. Afghanistan 1982. From NCPPB 3268 ← G.L. Ercolani AA13 - Biovar 3.
- 9897 *Vitis vinifera* L. - grape - vine. Afghanistan 1982. From NCPPB 3269 ← G.L. Ercolani AA19 - Biovar 3.
- 9898 *Vitis vinifera* L. - grape - vine. Afghanistan 1982. From NCPPB 3270 ← G.L. Ercolani AA23 - Biovar 3.
- 9899 *Vitis vinifera* L. - grape - vine. Afghanistan 1982. From NCPPB 3271 ← G.L. Ercolani AA34 - rec. as *A. tumefaciens* - Biovar 3.
- 10751 * *Vitis vinifera* L. - grape - crown gall. Greece. From K. Ophel K252 ← C.G. Panagopoulos Ag57 - Int. J. Syst. Bact. 40: 236-41, 1990 - octopine catabolising Ti plasmid - limited host range - Biovar 3 - *grapevine (Ophel).
- 10752 a* *Vitis vinifera* L. - grape - crown gall. Australia 1977. From K. Ophel ← A. Kerr K309 = ATCC 49767: LMG 10752: NCPPB 3554 - Int. J. Syst. Bact. 40: 236-241, 1990 - contains octopine catabolising Ti plasmid - Biovar 3 - *grapevine, tomato, sunflower (Ophel) - **Type strain**.
- 10756 * *Vitis vinifera* L. - grape cv. Pinot Noir - crown gall. USA 1988. From K. Ophel K1270 ← T.J. Burr TJB681 - Biovar 3 - *sunflower, grapevine (Ophel).
- 11277 *Vitis vinifera* L. - grape. China. From X.Z. Ren Vb8 - rec. as *A. tumefaciens* - Biovar 3.
- 11278 *Vitis vinifera* L. - grape. China. From X.Z. Ren Vc3 - rec. as *A. tumefaciens* - Biovar 3.
- 11960 *Vitis vinifera* L. - grape cv. Cabernet Franc - tumour. France 1985. From CFBP 2608 ← M. Ridé 85-222 - rec. as *A. tumefaciens* - Biovar 3.
- 11966 *Vitis vinifera* L. - grape cv. Cabernet Sauvignon - gall. France 1987. From CFBP 2686 ← M. Ridé 87-285 - rec. as *A. tumefaciens* - Biovar 3.
- 12467 * *Vitis vinifera* L. - grape cv. Merlot - trunk. Hungary Jul 1977. From S. Sule 3/5R2 - resistant to rifampicin (50mg/l) - Biovar 3, nopaline strain - *grape, sunflower, tomato (Sule).
- 12847 a* *Vitis vinifera* L. - grape cv. Kyoho - gall. Japan Jun 1987. From H. Sawada GAg27 - Ann. Phytopath. Soc. Japan 56: 199-206, 1990, and 58: 37-45, 1992 - Biovar 3 - *tomato, grapevine, sunflower, *Kalanchoe daigremontiana* (Sawada).

Agrobacterium vitis Ophel & Kerr 1990 (saprophytic strain)

- 10755 a *Vitis vinifera* L. - grape cv. Merlot - root lesions. USA. From K. Ophel K1069 ← T.J. Burr CG484 - Int. J. Syst. Bact. 40: 236-41, 1990 - non-pathogenic - contains no Ti-plasmid - Biovar 3.

Alcaligenes denitrificans Rüger & Tan 1983

- 12551 Anthranilic acid. Heathcote River, MC, NZ 1993. From J. Aislabie MDA2 - Utilises anthranilic acid as sole source of carbon & nitrogen.
- 12552 Phenol waste pond. Rotowaro, WO, NZ 1993. From J. Aislabie ppA1 - Utilises anthranilic acid as sole source of carbon & nitrogen.

Alcaligenes eutrophus Davis 1969

- 12595 USA. From G. Lloyd-Jones H850 (G16) - J. bact 171: 1733-1735, 1989 - utilises biphenyl as sole carbon source.

Arthrobacter ilicis (Mandel *et al.* 1961) Collins *et al.* 1982

syn. *Corynebacterium ilicis* Mandel *et al.* 1961

- 2607 a *Ilex opaca* Ait. - American holly - die-back. USA Aug 1960. From D.W. Dye CJ1 ← NCPPB 1228 ← M. Mandel CR2 = ATCC 14264: CFBP 1380: ICPB C1144: LMG 3659 - **Type strain**.
- 2608 a?* *Ilex opaca* Ait. - American holly - die-back. USA Aug 1960. From D.W. Dye CJ2 ← ICPB C1144 ← M. Mandel CR2 = ATCC 14264: NCPPB 1228 - *Clavibacter* sp. *American holly (ICPB).
- 2609 a? *Ilex opaca* Ait. - American holly. USA 1960. From D.W. Dye CJ3 ← ICPB C1145 ← M. Mandel Y1 - *Clavibacter* sp.

Arthrobacter sp.

- 11828 *Pseudotsuga menziesii* (Mirb.) Franco - douglas fir - stem gall. From CFBP 1000 ← M.P. Starr TP102 = ATCC 13331: NCPPB 180.

Azomonas agilis (Beijerinck 1901) Winogradsky 1938

- 4033 Soil. From C.N. Hale 1845 ← L.I. Sly.
- 4078 From C.N. Hale ← RCR 7101.
- 6508 Netherlands. From B.E. Terzaghi PPD20 ← E.G. Mulder A30.
- 6509 Netherlands. From B.E. Terzaghi PPD21 ← E.G. Mulder A31.

Azomonas macrocytogenes (Jensen 1955) New & Tchan 1982

- 4030 Soil. From C.N. Hale 1848 ← L.I. Sly.
- 4308 Soil. From C.N. Hale ← RCR 7150.
- 8674 From LMG 1266 ← NCIB 8700 = ATCC 12335 - **Type strain**.

Azomonotrichon macrocytogenes (Jensen 1955) Thompson & Skerman 1981

see *Azomonas macrocytogenes*.

Azorhizophilus paspali (Dobereiner 1966) Thompson & Skerman 1981

- 4080 Rhizosphere of *Paspalum notatum* Fluegge. 1966. From C.N. Hale ← RCR 7170.
 4309 Soil. From C.N. Hale ← RCR 7160.
 7469 Rhizosphere of *Paspalum notatum* Fluegge. Brazil Jun 1966. From B.E. Terzaghi PPD98 ← J.P. Thompson WR129 ← J. Dobereiner AX8 = ATCC 23833 - **Type strain**.
 7470 Rhizosphere of *Paspalum notatum* Fluegge. Brazil 1966. From B.E. Terzaghi PPD100 ← J.P. Thompson WR131 ← J. Dobereiner AX18 = ATCC 23368.
 7471 Rhizosphere of *Paspalum notatum* Fluegge. Brazil Jul 1967. From B.E. Terzaghi PPD102 ← J.P. Thompson WR133 ← J. Dobereiner AX22.
 7472 Rhizosphere of *Paspalum notatum* Fluegge. Brazil Jul 1967. From B.E. Terzaghi PPD103 ← J.P. Thompson WR134 ← J. Dobereiner AX23.
 7473 Rhizosphere of *Paspalum notatum* Fluegge. Brazil Jul 1967. From B.E. Terzaghi PPD101 ← J.P. Thompson WR132 ← J. Dobereiner AX20 = ATCC 23369.
 8868 Rhizosphere of *Paspalum dilatatum* Poir. From B.E. Terzaghi 1.
 8869 Rhizosphere of *Paspalum dilatatum* Poir. From B.E. Terzaghi 2.
 8870 Rhizosphere of *Paspalum dilatatum* Poir. From B.E. Terzaghi 3.

Azospirillum brasilense Tarrand *et al.* 1979

- 8671 a *Digitaria decumbens* Stent - Pangola grass - roots. From LMG 1263 ← ATCC 29145 ← J. Dobereiner Sp7 - **Type strain**.

Azospirillum lipoferum (Beijerinck 1925) Tarrand *et al.* 1979

- 5364 Soil under *Digitaria* sp. Brazil 1975. From C.N. Hale ← J.M. Day.
 8672 From LMG 1264 ← N. Krieg SpBr17 = ATCC 29709.

Azotobacter beijerinckii Lipman 1904

- 4032 Soil. From C.N. Hale 1846 ← L.I. Sly.
 8673 a From LMG 1265 ← DSM 378 = ATCC 19360 - **Type strain**.

Azotobacter chroococcum Beijerinck 1901

- 4031 Soil. From C.N. Hale 1847 ← L.I. Sly.
 4037 Soil. NZ. From C.N. Hale 1856 ← M. Loutit.
 4079 Soil. UK (England) Mar 1960. From C.N. Hale ← RCR 7111 ← M.E. Brown = RCR A6.
 4084 Soil. UK (England) Apr 1960. From C.N. Hale ← RCR 7115 ← M.E. Brown = RCR A20.
 4085 From C.N. Hale ← RCR 7120.

Azotobacter macrocytogenes Jensen 1955

see *Azomonas macrocytogenes*.

Azotobacter paspali Dobereiner 1966

see *Azorhizophilus paspali*.

Azotobacter vinelandii Lipman 1903

- 4029 Soil. From C.N. Hale 1849 ← L.I. Sly.
 4036 Soil. Australia. From C.N. Hale 1855 ← M. Loutit ← Y.T. Tchan.
 4081 From C.N. Hale ← RCR 7160 = RCR NCC8004.
 6504 Laboratory derived selection. USA. From B.E. Terzaghi PPD17 ← W.J. Brill UW-S9 ← W.J. Brill UW 2.
 6505 Laboratory derived selection. USA. From B.E. Terzaghi PPD16 ← W.J. Brill UW2 ← W.J. Brill UW - Nif minus mutant.
 6506 Laboratory derived selection. USA. From B.E. Terzaghi PPD15 ← W.J. Brill UW.

Bacillus cereus Frankland & Frankland 1887

- 5924 From ATCC 11778 ← FDA PCI213 = ATCC 9634.
 12370 a From CRCC 10603 ← ATCC 14579 ← W. Ford 13 = CCM 2010; DSM 31; NCIMB 9373; NCTC 2599 - **Type strain**.
 12436 From M.M. Lecadet CER001 ← ATCC 14579 ← W. Ford 13 = NCIB 9373; NCTC 2599 - produces restriction endonuclease - **Type strain**.
 12438 From NCIMB 6349 ← NCTC 6349 ← M.H. Soule = ATCC 6630.
 12439 From NCIMB 8122 ← ATCC 10702 ← Lederle Laboratories 5 = CCM 1992; DSM 487; IFO 3466; NCTC 8035 - determination of aureomycin in body fluids - assay of chlorotetracycline & oxytetracycline.
 12440 From NCIMB 11796 ← J.F. Lowe ← H.O. Halvorson T = DSM 626.
 12441 From NCIMB 11843 ← ATCC 2 ← W.W. Ford - used for testing antibacterial activity of enzyme preparations.
 12442 From NCIMB 11925 ← ATCC 9139 - used for testing sporicidal effects of disinfectants.

Bacillus circulans Jordan 1890

- 12484 From NZRM 3005 ← UMRL 1074 ← W.W. Ford 26 = ATCC 4513; NCIB 9374; NCTC 2610 - **Type strain**.

Bacillus licheniformis (Weigmann 1898) Chester 1901

- 12187 *Cucumis melo* L. - melon. Brazil 1992. From IBSBF 955 ← C.F. Robbs CTAA20-1 - associated with soft rot by *Erwinia* sp.

Bacillus megaterium de Bary 1884

- 732 From M.H. Dye B25 ← Otago Medical School.
 12485 From NZRM 1077 ← NCTC 10342 ← W. Ford 19 = ATCC 14581 - **Type strain**.

Bacillus megaterium pv. *cerealis* Hosford 1982

- 8877 a* *Triticum aestivum* L. - wheat - leaf. USA 1977. From ATCC 35075 ← R.M. Hosford WB28 - Phytopath. 72: 1453-1459, 1982 - *wheat (Hosford) - **Pathotype strain**.
 8878 a* *Triticum aestivum* L. - wheat - leaf. USA 1977. From ATCC 35076 ← R.M. Hosford WBr57 - cotype strain - *wheat (Hosford).

Bacillus mycoides Flugge 1886

- 12477 From M.M. Lecadet MYC001 = ATCC 6462; DSM 2048 - **Type strain**.

Bacillus subtilis (Ehrenberg 1835) Cohn 1872

- 368 UK (England). From M.H. Dye 2B1 ← Glaxo Laboratories Ltd - used for streptomycin assays - highly susceptible to Penicillin G and other antibiotics.
 898 From P.L. Bergquist ← Massachusetts General Hospital H32.
 3282 a USA. From D.W. Dye ← NHI 766 = ATCC 6633 - standard for streptomycin bioassay.
 4006 Soil. Australia 1969. From C.N. Hale BS1R ← P.R. Merriman A13 ← P. Broadbent - rough colony form.
 4007 Soil. Australia 1969. From C.N. Hale BS1S ← P.R. Merriman A13 ← P. Broadbent - smooth colony form.
 12486 From NZRM 143 ← NCTC 3610 ← H.J. Conn = ATCC 6051; NCIB 3610 - Marburg strain - phage host - blood screening for phenylketonuria - **Type strain**.

Bacillus thuringiensis Berliner 1915

- 12371 a *Ephesia kuhniella* Zeller [Invertebrate] - mediterranean flour moth. From CRCC 14683 ← DSM 2046 ← O. Mattes = ATCC 10792; NCIMB 9134 - **Type strain**.
 3664 Thuricide HP product. USA Feb 1974. From A. Hastings.
 9607 Soil. NZ 1987. From C.N. Chilcott CC43.
 9608 Soil. NZ 1987. From C.N. Chilcott CC60.
 9609 Soil. NZ 1987. From C.N. Chilcott CC396.
 9610 NZ 1987. From C.N. Chilcott CC732.

- 12223 Mixed grains/animal feed. UK Jul 1994. From S.P. Lincoln JBBt1 ← J. Butt.
 12224 Mixed grains/animal feed. UK Jul 1994. From S.P. Lincoln JBBt2 ← J. Butt.
 12225 Mixed grains/animal feed. UK Jul 1994. From S.P. Lincoln JBBt3 ← J. Butt.
 12226 Mixed grains/animal feed. UK Jul 1994. From S.P. Lincoln JBBt4 ← J. Butt.
 12227 Mixed grains/animal feed. UK Jul 1994. From S.P. Lincoln JBBt5 ← J. Butt.

Bacillus thuringiensis Berliner 1915 serotype alesti

- 12411 From TISTR 481 - rec. as *B. thuringiensis* subsp. *alesti*.

Bacillus thuringiensis Berliner 1915 serotype aizawai

- 12420 From TISTR 490 - rec. as *B. thuringiensis* subsp. *aizawai*.

Bacillus thuringiensis Berliner 1915 serotype canadensis

- 12417 From TISTR 487 - rec. as *B. thuringiensis* subsp. *canadensis*.

Bacillus thuringiensis Berliner 1915 serotype caucasicus

- 12424 From TISTR 494 - rec. as *B. thuringiensis* subsp. *caucasicus*.

Bacillus thuringiensis Berliner 1915 serotype dakota

- 12431 From TISTR 501 - rec. as *B. thuringiensis* subsp. *dakota*.

Bacillus thuringiensis Berliner 1915 serotype darmstadiensis

- 12425 From TISTR 495 - rec. as *B. thuringiensis* subsp. *darmstadiensis*.

Bacillus thuringiensis Berliner 1915 serotype dendroliums

- 12414 From TISTR 484 - rec. as *B. thuringiensis* subsp. *dendroliums*.

Bacillus thuringiensis Berliner 1915 serotype entomocidus

- 12418 From TISTR 488 - rec. as *B. thuringiensis* subsp. *entomocidus*.

Bacillus thuringiensis Berliner 1915 serotype galleriae

- 12416 From TISTR 486 - rec. as *B. thuringiensis* subsp. *galleriae*.

Bacillus thuringiensis Berliner 1915 serotype indiana

- 12432 From TISTR 502 - rec. as *B. thuringiensis* subsp. *indiana*.

Bacillus thuringiensis Berliner 1915 serotype finitimus

- 12410 From TISTR 480 - rec. as *B. thuringiensis* subsp. *finitimus*.

Bacillus thuringiensis Berliner 1915 serotype israeliensis

- 12430 From TISTR 500 - rec. as *B. thuringiensis* subsp. *israeliensis*.
 12987 NZ. From J.M. Young ← A. Broadwell Bd84.

Bacillus thuringiensis Berliner 1915 serotype kenyae

- 12415 From TISTR 485 - rec. as *B. thuringiensis* subsp. *kenyae*.

Bacillus thuringiensis Berliner 1915 serotype kumamotoensis

- 12434 From TISTR 504 - rec. as *B. thuringiensis* subsp. *kumamotoensis*.

Bacillus thuringiensis Berliner 1915 serotype kurstaki

- 12412 From TISTR 482 - rec. as *B. thuringiensis* subsp. *kurstaki*.

Bacillus thuringiensis Berliner 1915 serotype kyushuensis

- 12427 From TISTR 497 - rec. as *B. thuringiensis* subsp. *kyushuensis*.

Bacillus thuringiensis Berliner 1915 serotype morrisoni

- 12421 From TISTR 491 - rec. as *B. thuringiensis* subsp. *morrisoni*.

Bacillus thuringiensis Berliner 1915 serotype ostrinae

- 12422 From TISTR 492 - rec. as *B. thuringiensis* subsp. *ostrinae*.

Bacillus thuringiensis Berliner 1915 serotype pakistani

- 12429 From TISTR 499 - rec. as *B. thuringiensis* subsp. *pakistani*.

Bacillus thuringiensis Berliner 1915 serotype sotto

- 12413 From TISTR 483 - rec. as *B. thuringiensis* subsp. *sotto*.

Bacillus thuringiensis Berliner 1915 serotype subtoxicus

- 12419 From TISTR 489 - rec. as *B. thuringiensis* subsp. *subtoxicus*.

Bacillus thuringiensis Berliner 1915 serotype thompsoni

- 12428 From TISTR 498 - rec. as *B. thuringiensis* subsp. *thompsoni*.

Bacillus thuringiensis Berliner 1915 serotype thuringiensis

- 12409 From TISTR 479 - rec. as *B. thuringiensis* subsp. *thuringiensis*.

Bacillus thuringiensis Berliner 1915 serotype tochiensis

- 12435 From TISTR 505 - rec. as *B. thuringiensis* subsp. *tochiensis*.

Bacillus thuringiensis Berliner 1915 serotype tohokuensis

- 12433 From TISTR 503 - rec. as *B. thuringiensis* subsp. *tohokuensis*.

Bacillus thuringiensis Berliner 1915 serotype tolworthi

- 12423 From TISTR 493 - rec. as *B. thuringiensis* subsp. *tolworthi*.

Bacillus thuringiensis Berliner 1915 serotype toumanoffi

- 12426 From TISTR 496 - rec. as *B. thuringiensis* subsp. *toumanoffi*.

Bradyrhizobium japonicum (Kirchner 1896) Jordan 1982

syn. *Rhizobium japonicum* (Kirchner 1896) Buchanan 1926

- 1312 *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings ← L.W. Erdman 311B46.
 1318 *Glycine max* (L.) Merr. - soybean - nodule. Thailand. From A. Hastings ← T. Corby CB1003.
 1362 b *Glycine max* (L.) Merr. - soybean - nodule. Zimbabwe. From A. Hastings 1362 ← T. Corby 275A.
 1363 b *Glycine max* (L.) Merr. - soybean - nodule. Zimbabwe. From A. Hastings ← T. Corby 361A.
 1364 b *Glycine max* (L.) Merr. - soybean - nodule. Zimbabwe. From A. Hastings ← T. Corby 403C.
 1365 *Glycine max* (L.) Merr. - soybean - nodule. Zimbabwe. From A. Hastings ← T. Corby 493A.
 1366 *Glycine max* (L.) Merr. - soybean - nodule. Zimbabwe. From A. Hastings ← T. Corby 835A1A = D.O. Norris CB1003.
 1367 b *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings AH18 ← L.W. Erdman 311B110.
 1368 *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings AH21 ← L.W. Erdman 311B46.
 1369 b *Glycine max* (L.) Merr. - soybean - nodule. Canada. From A. Hastings ← T. Corby 272A.

- 1733 b *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings 5A40 ← C. Priest = ATCC 35169.
- 1734 *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings 5A42 ← C. Priest.
- 2094 b *Glycine max* (L.) Merr. - soybean - nodule. USA 1961. From A. Hastings ← A. Diatloff CB1809 = USDA 136 - Nod +ve; fix +.
- 2860 b *Glycine max* (L.) Merr. - soybean - nodule. USA 1961. From A. Hastings ← B.E. Caldwell 311B138 - Serogroup C1.
- 2862 b *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings 2862 ← B.E. Caldwell 311B110 - Serogroup 110.
- 2863 b *Glycine max* (L.) Merr. - soybean - nodule. USA 1946. From A. Hastings ← B.E. Caldwell 311B62 - Serogroup 62.
- 2864 a *Glycine max* (L.) Merr. - soybean - nodule. Japan 1929. From A. Hastings ← B.E. Caldwell 311B6 ← L.W. Erdman 311B6 = ATCC 10324 - Nod +ve; fix +ve Serogroup C1 - **Type strain**.
- 2883 b *Glycine max* (L.) Merr. - soybean - nodule. South Africa. From A. Hastings WB64 ← B.W. Strijdom WB64 - Nod +ve; fix +ve.
- 2884 b *Glycine max* (L.) Merr. - soybean - nodule. South Africa. From A. Hastings ← B.W. Strijdom WB68 - Nod +ve; fix +ve.
- 2945 *Glycine max* (L.) Merr. - soybean cv. Amsoy - nodule. Mt Albert, AK, NZ 1971. From A. Hastings.
- 3163 b *Glycine max* (L.) Merr. - soybean - nodule. Gisborne, GB, NZ Feb 1972. From A. Hastings - Nod +ve; fix +ve.
- Bradyrhizobium** sp.
- 2095 b From A. Hastings ← A. Diatloff CB756 - rec. as *Rhizobium* sp. - Nod +ve; fix +ve (many tropical legumes).
- Bradyrhizobium** sp. (*Arachis*)
- 1330 b *Arachis hypogaea* L. - groundnut, peanut - nodule. USA. From A. Hastings ← L.W. Erdman 3G4B10 - rec. as *Rhizobium* sp. - Nod +ve; fix +ve (cowpea group).
- Bradyrhizobium** sp. (*Carmichaelia*)
- 6426 *Carmichaelia* sp. - New Zealand broom - nodule. Tasman River, NZ Nov 1969. From R.M. Greenwood NZP5227 - rec. as *Rhizobium* sp. - Nod +ve; fix +ve (*Carmichaelia* spp., *Climatis puniceus*).
- Bradyrhizobium** sp. (*Centrosema*)
- 1291 *Centrosema pubescens* Benth. - nodule. Australia. From A. Hastings ← J.M. Vincent QA549 ← D.O. Norris - rec. as *Rhizobium* sp.
- Bradyrhizobium** sp. (*Chamaecytisus*)
- 6496 *Chamaecytisus palmensis* (Christ) Bisby & Nicholls - tree lucerne, tagasaste - nodule. Palmerston North, WI, NZ 1967. From R.M. Greenwood NZP5035 - rec. as *Rhizobium lupini*.
- Bradyrhizobium** sp. (*Crotalaria*)
- 1310 *Crotalaria sagittalis* L. - rattlebox - nodule. USA. From A. Hastings ← L.W. Erdman 3C1A1 = ATCC 10316 - rec. as *Rhizobium* sp.
- Bradyrhizobium** sp. (*Desmodium*)
- 1329 b *Desmodium intortum* (Mill.) Fawc. & Rendle - nodule. Australia 1959. From A. Hastings ← D.O. Norris CB185 - rec. as *Rhizobium* sp. - Nod +ve; fix +ve (cowpea group).
- 3159 *Desmodium intortum* (Mill.) Fawc. & Rendle - nodule. AK, NZ Feb 1972. From A. Hastings - rec. as *Rhizobium* sp.
- 1302 *Desmodium* sp. - nodule. Australia. From A. Hastings ← J.M. Vincent CB627 - rec. as *Rhizobium* sp.
- Bradyrhizobium** sp. (*Dolichos*)
- 3161 *Dolichos biflorus* L. auct. non L. - nodule. AK, NZ Feb 1972. From A. Hastings - rec. as *Rhizobium* sp.
- Bradyrhizobium** sp. (*Erythrina*)
- 1317 *Erythrina variegata* L. - coral tree - nodule. USA. From A. Hastings ← L.W. Erdman 3I2B1 = ATCC 10317 - rec. as *Rhizobium* sp.
- Bradyrhizobium** sp. (*Lotononis*)
- 1294 *Lotononis bainesii* Baker - nodule. Australia. From A. Hastings ← J.M. Vincent CB376 ← D.O. Norris - rec. as *Rhizobium* sp.
- 11711 *Lotononis bainesii* Baker. South Africa. From NZP 5050 ← CB 376 - rec. as *Rhizobium* sp. - slow growth - pink pigment.
- 10907 Commercial inoculum - peat base. From G. Grandison - Nod +ve; fix +ve (*Lotononis*).
- Bradyrhizobium** sp. (*Lotus*)
- 4141 b *Lotus angustissimus* L. - slender birdsfoot trefoil - nodule. Taupo, TO, NZ. From J.R. Caradus NZA48 ← R.M. Greenwood NZP2243 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 10816 *Lotus angustissimus* L. - slender birdsfoot trefoil. Ninety Mile Beach, ND, NZ. From NZP 2221 - rec. as *Rhizobium* sp. - slow growth.
- 10882 *Lotus angustissimus* L. - slender birdsfoot trefoil. Australia. From NZP 2228 ← CC 803 - rec. as *Rhizobium* sp. - slow growth.
- 10778 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2128 - rec. as *Rhizobium* sp. - slow - growth.
- 10804 *Lotus corniculatus* L. - birdsfoot trefoil. Kaikohe, ND, NZ. From NZP 2192 - rec. as *Rhizobium* sp. - slow growth.
- 10886 *Lotus hispidus* Desf. Taupo, TO, NZ. From NZP 2246 - rec. as *Rhizobium* sp.
- 10890 *Lotus* sp. (as *L. hispidus* Desf.). Greymouth, BR, NZ. From NZP 2272 - rec. as *Rhizobium* sp. - slow growth.
- 7442 b *Lotus pedunculatus* Cav. - lotus - root nodulated with commercial inoculant. USA 1955. From C.N. Hale ← J. Brockwell = CC829 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve (*L. pedunculatus*).
- 7719 b *Lotus pedunculatus* Cav. - lotus cv. Maku - pink root nodules. Taieri Plains, DN, NZ Dec 1980. From W. Lowther 162 ← P.J. Rickard - rec. as *Rhizobium* sp. - Nod +ve; fix +ve.
- 7720 b *Lotus pedunculatus* Cav. - lotus cv. Maku - pink root nodules. Taieri Plains, DN, NZ Dec 1980. From W. Lowther 305 ← P.J. Rickard - rec. as *Rhizobium* sp. - Nod +ve; fix +ve.
- 10768 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2071 - rec. as *Rhizobium* sp. - slow growth.
- 10769 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2073 - rec. as *Rhizobium* sp. - slow growth.
- 10775 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2088 - rec. as *Rhizobium* sp. - slow growth.
- 10776 *Lotus pedunculatus* Cav. - lotus major. Tauhara, TO, NZ. From NZP 2089 - rec. as *Rhizobium* sp. - slow growth.
- 10779 *Lotus pedunculatus* Cav. - lotus major. Dannevirke, WA, NZ. From NZP 2141 - rec. as *Rhizobium* sp. - slow growth - Nod +ve; fix +ve (*Lupinus polyphyllus*).
- 10781 *Lotus pedunculatus* Cav. - lotus major. Mapua, NN, NZ. From NZP 2154 - rec. as *Rhizobium* sp. - slow growth.
- 10782 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2157 - rec. as *Rhizobium* sp. - slow growth.
- 10801 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2178 - rec. as *Rhizobium* sp. - slow growth.
- 10802 *Lotus pedunculatus* Cav. - lotus major. Collingwood, NN, NZ. From NZP 2181 - rec. as *Rhizobium* sp. - slow growth.
- 10803 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2183 - rec. as *Rhizobium* sp. - slow growth.
- 10805 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2193 - rec. as *Rhizobium* sp. - slow growth.
- 10809 *Lotus pedunculatus* Cav. - lotus major. Palmerston North, WI, NZ. From NZP 2200 - rec. as *Rhizobium* sp. - slow growth.
- 10810 *Lotus pedunculatus* Cav. - lotus major. Ninety Mile Beach, ND, NZ. From NZP 2201 - rec. as *Rhizobium* sp. - slow growth.
- 10811 *Lotus pedunculatus* Cav. - lotus major. Ninety Mile Beach, ND, NZ. From NZP 2202 - rec. as *Rhizobium* sp. - slow growth.
- 10815 *Lotus pedunculatus* Cav. - lotus major. Ninety Mile Beach, ND, NZ. From NZP 2219 - rec. as *Rhizobium* sp. - slow growth.
- 10883 *Lotus pedunculatus* Cav. - lotus major. USA. From NZP 2229 ← CC 807 - rec. as *Rhizobium* sp. - slow growth.
- 10887 *Lotus pedunculatus* Cav. - lotus major. Gore, SL, NZ. From NZP 2248 - rec. as *Rhizobium* sp. - slow growth.
- 10888 *Lotus pedunculatus* Cav. - lotus major. Taupo, TO, NZ. From NZP 2254 - rec. as *Rhizobium* sp. - slow growth.
- 10900 *Lotus pedunculatus* Cav. - lotus major. Taupo, TO, NZ. From NZP 2250 - rec. as *Rhizobium* sp. - slow growth.
- 10901 *Lotus pedunculatus* Cav. - lotus major. From NZP 2253 - rec. as *Rhizobium* sp. - slow growth.
- 10903 *Lotus pedunculatus* Cav. - lotus major. Milford Sound, FD, NZ. From NZP 2295 - rec. as *Rhizobium* sp. - slow growth.
- 11729 *Lotus pedunculatus* Cav. Australia. From NZP 2233 ← CC 810 - rec. as *Rhizobium* sp. - slow growth.
- 4681 *Lotus* sp. - nodule. 1976. From R.M. Greenwood CC814S - rec. as *Rhizobium lupini* - re-isolate after plant inoculation.
- 4683 b *Lotus* sp. - nodule. NZ. From A. Hastings ← R.M. Greenwood NZP2257 - rec. as *Rhizobium lupini*.
- 3154 b *Lotus suaveolens* Pers. - nodule. Kaikohe, ND, NZ. From A. Hastings ← R.M. Greenwood NZP2076 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve (*Ornithopus* sp. *Lupinus* sp.).

- 4597 b *Lotus suaveolens* Pers. - nodule. Australia 1963. From R.M. Greenwood ← J. Brockwell = CC814S - rec. as *Rhizobium lupini* - Nod +ve; fix +ve (*L. suaveolens*, *L. pedunculatus*).
- 8442 b *Lotus suaveolens* Pers. - nodule. NZ. From NZP 2976 ← R.M. Greenwood - rec. as *Rhizobium lupini* - Nod +ve; fix +ve (*Ornithopus* spp., *Lupinus* spp.).
- 5798 b Australia. From R.M. Greenwood = CC 814S - rec. as *Rhizobium* sp. - Nod +ve; fix +ve (*Lotus pedunculatus*).
- Bradyrhizobium** sp. (*Lupinus*)
- 1346 b *Lupinus angustifolius* L. - blue lupin - nodule. Mt Albert, AK, NZ Jul 1964. From A. Hastings AH26 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 4137 b *Lupinus arboreus* Sims - tree lupin - nodule. Taupo, TO, NZ. From J.R. Caradus NZA1 ← R.M. Greenwood NZP5271 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 4138 b *Lupinus arboreus* Sims - tree lupin - nodule. Woodhill, AK, NZ Jun 1973. From J.R. Caradus NZA3 - rec. as *Rhizobium lupini* - Nod +ve; fix -ve.
- 4139 b *Lupinus arboreus* Sims - tree lupin - nodule. Taupo, TO, NZ Jul 1973. From J.R. Caradus NZA30 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 4142 b *Lupinus arboreus* Sims - tree lupin - nodule. Woodhill, AK, NZ Jul 1974. From J.R. Caradus NZ52 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 1293 b *Lupinus* sp. - lupin - nodule. Australia. From A. Hastings ← W.P. Cass-Smith W72 - rec. as *Rhizobium lupini*.
- 3905 b *Lupinus* sp. - lupin - nodule. Australia. From A. Hastings ← R.M. Greenwood 5024 = AIRCS WU425 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve (*Ornithopus* sp., *Lupinus* sp.).
- Bradyrhizobium** sp. (*Macroptilium*)
- 3160 *Macroptilium atropurpureum* (DC.) Urb. - siratro - nodule. AK, NZ Feb 1972. From A. Hastings - rec. as *Rhizobium* sp.
- 10908 Commercial inoculum - peat base. From G. Grandison - Nod +ve; fix +ve (*Macroptilium*).
- Bradyrhizobium** sp. (*Macrotyloma*)
- 11731 *Macrotyloma africanum* (R. Wilczek) Verdc. Zimbabwe. From NZP 5049 ← CB 756 - rec. as *Rhizobium* sp. - slow growth - Nod +ve; fix +ve (cowpea).
- Bradyrhizobium** sp. (*Ornithopus*)
- 8377 b *Ornithopus compressus* L. - root nodule. Australia 1960. From C.N. Hale ← J.M. Lloyd WU425 = AIRCS WU 425-NA: SU739: NA449 - rec. as *Rhizobium lupini* - recommended as inoculant - Nod +ve; fix +ve (*O. compressus*, *O. sativa*, *Lupinus* spp.).
- 10760 *Ornithopus compressus* L. Australia. From NZP 5024 ← WU 425 - rec. as *Rhizobium* sp. - slow growth.
- 10905 *Ornithopus isthmocarpus* Cross. Palmerston North, WI, NZ. From NZP 5026 - rec. as *Rhizobium* sp. - slow growth.
- 11737 *Ornithopus pinnatus* (Miller) Druce - slender serradella. Ninety Mile Beach, ND, NZ. From NZP 5090 - rec. as *Rhizobium* sp. - slow growth.
- 11738 *Ornithopus pinnatus* (Miller) Druce - slender serradella. Ninety Mile Beach, ND, NZ. From NZP 5091 - rec. as *Rhizobium* sp. - slow growth.
- 1314 ? *Ornithopus sativus* Brot. - serradella - nodule. Kaitaia, ND, NZ Jun 1964. From A. Hastings AH17 - rec. as *Rhizobium lupini* - possibly *R. loti* - Nod +ve; fix +ve.
- 11713 *Ornithopus sativus* Brot. - serradella - nodule. Kaitaia, ND, NZ Jun 1964. From NZP 5088 ← ICMP 1314 ← A. Hastings AH17.
- Bradyrhizobium** sp. (*Phaseolus*)
- 3305 b *Phaseolus* sp. - bean - nodule. Australia. From A. Hastings ← A. Diatloff CC511 - rec. as *Rhizobium phaseoli* - Nod +ve; fix +ve (*Phaseolus* spp.).
- Bradyrhizobium** sp. (*Sophora*)
- 11736 *Sophora microphylla* Ait. - kowhai. Lake Ohau, MK, NZ. From NZP 5167 - rec. as *Rhizobium* sp. - slow growth.
- Bradyrhizobium** sp. (*Trigonella*)
- 10874 *Trigonella suavissima* Lindl. - cooper clover. Australia. From NZP 4017 ← CC 2017 - rec. as *Rhizobium* sp. - slow growth.
- Bradyrhizobium** sp. (*Ulex*)
- 3152 b *Ulex europaeus* L. - gorse - nodule. TO, NZ Feb 1972. From A. Hastings ← R.M. Greenwood NZP 5042 - rec. as *Rhizobium lupini* - Nod +ve; fix +ve.
- 6303 *Ulex europaeus* L. - gorse - nodule. 1972. From A. Hastings ← D. Wijayawardena 3152 = NZP 5042 - rec. as *Rhizobium lupini* - laboratory-derived kanamycin resistant selection of ICMP 3152.
- 11732 *Ulex europaeus* L. - gorse. Nelson, NN, NZ. From NZP 5052 - rec. as *Rhizobium* sp. - slow growth.
- Bradyrhizobium** sp. (*Vigna*)
- 3061 *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - nodule. Otara, AK, NZ Feb 1972. From A. Hastings - rec. as *Rhizobium* sp.
- 3722 *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - nodule. Otara, AK, NZ Dec 1973. From A. Hastings - rec. as *Rhizobium* sp.
- 1311 *Vigna marina* (Burm.f.) Merr. - nodule. Australia. From A. Hastings ← D.O. Norris CB786 - rec. as *Rhizobium* sp.
- 3162 *Vigna schimperii* Baker - nodule. AK, NZ Feb 1972. From A. Hastings - rec. as *Rhizobium* sp.
- Burkholderia andropogonis** (Smith 1911) Gillis *et al.* 1995
syn. *Pseudomonas andropogonis* (Smith 1911) Stapp 1928
- 3996 a *Bougainvillea* sp. Zimbabwe 1961. From D.W. Dye NT5 ← ICPB PS187 ← A.C. Hayward B806 = NCPPB 1130 - rec. as *P. stizolobii*.
- 11994 * *Bougainvillea spectabilis* Willd - bouganvillea - leaf. Australia Mar 1981. From DAR 35657a ← P.C. Fahy ← P. Cain - *sorghum (Fahy).
- 7076 a *Cicer arietinum* L. - chickpea - leaf, stem. Australia May 1978. From A.C. Hayward ACH700A ← S.J. Navaratnam.
- 6779 a *Coffea arabica* L. - coffee cv. Catuai Amarelo - leafspot. Brazil Feb 1979. From IBSBF 166 ← J.R. Neto.
- 6780 a *Coffea arabica* L. - coffee cv. Catuai Amarelo - leafspot. Brazil Mar 1979. From IBSBF 169 ← J.R. Neto.
- 6781 a *Coffea arabica* L. - coffee cv. Catuai Amarelo - leafspot. Brazil Feb 1979. From IBSBF 165 ← J.R. Neto.
- 3968 b *Dianthus barbatus* L. - sweet william. 1944. From D.W. Dye MY2 ← NCPPB 2157 = ICPB PW3: ATCC 9655 - rec. as *P. woodsii*.
- 3967 a* *Dianthus caryophyllus* L. - carnation cv. Apollo - leafspot, purple watersoaked area turning necrotic. USA Oct 1957. From D.W. Dye MY1 ← NCPPB 968 ← C.J. Olsen O153a2 = ICPB PW102: ATCC 19311 - rec. as type strain of *P. woodsii* - *carnation.
- 4003 *Dianthus caryophyllus* L. - carnation cv. Cardinal Sim - leafspot. 1957. From D.W. Dye MY6 ← ICPB PW103 ← C.J. Olsen O153-1-2 - re-isolate after plant inoculation with ICPB PW102 - rec. as *P. woodsii*.
- 6647 *Dianthus caryophyllus* L. - carnation. Australia Apr 1978. From P.C. Fahy DAR30530 - rec. as *P. woodsii*.
- 6649 b* *Dianthus caryophyllus* L. - carnation - leaf stem. Australia Mar 1977. From P.C. Fahy DAR26738 ← P. Cain - rec. as *P. woodsii* - *carnation.
- 7855 b* *Dianthus caryophyllus* L. - carnation - leafspot, stem necrosis. Auckland, AK, NZ May 1982. From J.C. Shanks D2 - *carnation.
- 7856 b* *Dianthus caryophyllus* L. - carnation - leafspot, stem necrosis. Auckland, AK, NZ May 1982. From J.C. Shanks D4 - *carnation.
- 11984 *Dianthus caryophyllus* L. - carnation - leaf stem. Australia Mar 1977. From DAR 26738 ← P.C. Fahy ← P. Cain.
- 4001 *Dianthus* sp. USA. From D.W. Dye MY4 ← ICPB PW101 ← W.C. Haynes = NRRL B785 - rec. as *P. woodsii*.
- 11985 *Gypsophila* sp. - leafspot. Australia Jan 1984. From DAR 41376a ← E. Maddock.
- 11987 *Limonium sinuatum* (L.) Mill. - static - leafspot. Australia Feb 1984. From DAR 49281 ← P.C. Fahy.
- 3994 b *Mucuna deeringiana* (Bort) Merr. - velvet bean. 1954. From D.W. Dye NT2 ← ICPB PS25 ← W.H. Burkholder PS25 = ATCC 12637 - re-isolate after plant inoculation - rec. as *P. stizolobii*.
- 3995 a *Mucuna deeringiana* (Bort) Merr. - velvet bean. Zimbabwe 1961. From D.W. Dye NT4 ← ICPB PS186 ← C. Polhill = NCPPB 1024: ATCC 19309: A.C. Hayward B520 - rec. as *P. stizolobii*.
- 8665 b *Setcreasea pallida* Rose - setcreasea cv. Purple Heart. USA 1969. From LMG 1279 ← NCPPB 2441 ← J.W. Miller 069-686.
- 2807 a* *Sorghum bicolor* (L.) Moench - sorghum. USA 1959. From D.W. Dye NG2 ← NCPPB 934 ← A.J. Ullstrup = ATCC 23061: CFBP 2421: LMG 2129 - *sorghum - **Type strain**.
- 2809 a* *Sorghum bicolor* (L.) Moench - sorghum. USA 1958. From D.W. Dye NG4 ← NCPPB 1013 ← A.J. Ullstrup = ICPB PA116: ATCC 23063 - *sorghum.
- 5980 *Sorghum bicolor* (L.) Moench - sorghum. USA. From L.I. Sly UQM881 ← A.C. Hayward ← M.P. Starr = ICPB PA146.

- 8039 b *Sorghum bicolor* (L.) Moench - sorghum. Brazil 1982. From IBSBF 396 ← J.R. Neto.
 8042 b *Sorghum bicolor* (L.) Moench - sorghum. Brazil 1982. From IBSBF 406 ← J.R. Neto.
 9214 *Sorghum* sp. USA 1983. From L.E. Claflin 317.
 11988 *Sorghum* sp. - leaf stripe. Australia Mar 1984. From DAR 49283 ← P.C. Fahy.
 3377 b *Trifolium repens* L. - white clover - leafspot. Australia Jun 1970. From D.W. Dye NT1 ← M.L. Moffett 085 - rec. as *P. stizolobii*.
 3997 a *Trifolium repens* L. - white clover - leafspot. USA 1954. From D.W. Dye NT6 ← ICPB PS23 ← W.H. Burkholder PS23 = ATCC 12636: NCPPB 450 - rec. as *P. stizolobii*.
 3998 a* *Trifolium* sp. - clover. USA 1971. From D.W. Dye NT3 ← ICPB PS280 ← A.C. Hayward 071-1155 = NCPPB 2868 - rec. as *P. stizolobii* - *clover (NCPPB).
 9905 *Triplaris filipensis* Wedd. Brazil 1978. From NCPPB 3132 ← J.R. Neto 155 - LOPAT Ib.
 11986 *Vaccinium* sp. - blueberry cv. Berkeley - leafspot. Australia Jan 1984. From DAR 41377b ← P.C. Fahy ← J. Bradley.
 2806 a* *Zea mays* L. - maize. USA 1959. From D.W. Dye NG1 ← NCPPB 933 ← A.J. Ullstrup = ATCC 23060 - *sorghum.
 2808 a* *Zea mays* L. - maize. USA 1958. From D.W. Dye NG3 ← NCPPB 1012 ← A.J. Ullstrup = ICPB PA115: ATCC 23062 - *sorghum.

Burkholderia caryophylli (Burkholder 1942) Yabuuchi *et al.* 1993syn. *Pseudomonas caryophylli* (Burkholder 1942) Starr & Burkholder 1942

- 512 a *Dianthus caryophyllus* L. - carnation. USA 1951. From N.L. Baigent PX1 ← ICPB PC113 ← N.A. Maclean = NCPPB 2151: ATCC 25418: CFBP 2429: LMG 2155 - LOPAT + . - - + ; **Type strain**.
 2824 b *Dianthus caryophyllus* L. - carnation. Denmark. From D.W. Dye PX2 ← NCPPB 349 ← E. Hellmers = ICPB PC115 - LOPAT + . - - .
 5848 a *Dianthus caryophyllus* L. - carnation. UK 1958. From NCPPB 609 ← R.A. Lelliott = ICPB PC131.
 11825 *Dianthus caryophyllus* L. - carnation. France 1972. From CFBP 1370 ← P. Bonnet 184b.
 2825 b *Dianthus* sp. USA. From D.W. Dye PX3 ← NCPPB 353 - LOPAT + - - - (+).
 8691 *Limonium sinuatum* (L.) Mill. - statice. USA. From J.B. Jones 5615-1 - Pl. Dis. 68: 338-340, 1984.
 8692 a *Limonium sinuatum* (L.) Mill. - statice. USA. From J.B. Jones 5615-2.

Burkholderia cepacia (ex Burkholder 1950) Yabuuchi *et al.* 1993syn. *Pseudomonas cepacia* (ex Burkholder 1950) Palleroni & Holmes 1981

- 3177 b *Allium cepa* L. - onion - bulb. USA. From C.N. Hale 1252 ← S. Kawamoto - bright yellow strain.
 5796 a *Allium cepa* L. - onion. From ATCC 25416 ← R.W. Ballard 717 ← W.H. Burkholder = CFBP 2227: ICPB PC25: LMG 1222: NCTC 10743: NCPPB 2993 - **Type strain**.
 5952 b* *Allium cepa* L. - onion - bulb. USA Oct 1974. From A.K. Vidaver 74-34 ← J.W. Lorbeer ← S.O. Kawamoto - *onion.
 9162 *Allium cepa* L. - onion cv. C10 Creamgold (Pukekohe Longkeeper) - internal swollen leaf base. Australia Feb 1984. From DAR 49284 ← E.J. Cother ← V. Dowling - LOPAT - - - - .
 9163 *Allium cepa* L. - onion cv. Early Golden Globe - internal rot of bulb. Australia Feb 1984. From DAR 49836 ← E.J. Cother YATES7 ← V. Dowling - LOPAT - - - - .
 9164 *Allium cepa* L. - onion cv. Brayside A601 - internal rot of bulb. Australia Feb 1984. From DAR 49837 ← E.J. Cother YATES21 ← V. Dowling - LOPAT - - - - .
 9293 *Allium cepa* L. - onion - bulb. Papua New Guinea Jan 1983. From D.L. Tomlinson PNG11729 = IMI B10444.
 5982 *Lycopersicon esculentum* Mill. - tomato - wilted stem. Australia Oct 1965. From UQM 506 ← A.C. Hayward.
 12483 *Lycopersicon esculentum* Mill. - tomato - rhizosphere (asymptomatic). Italy. From G. Surico PVF5a - produces biocide - identified by fatty acid and 16 sDNA analysis (Surico).
 2831 b USA. From D.W. Dye NM1 ← NCPPB 946 ← W.H. Burkholder = ICPB PC24.
 5837 USA. From R.S. Dickey 71-22 ← J. Hancock.
 5841 USA. From R.S. Dickey 72-60c ← S. Kawamoto.
 5981 Soil. Australia May 1968. From UQM 828 ← A.C. Hayward 0346B ← J.A. Fuerst.
 8655 From LMG 1275 ← R.Y. Stanier 382 = ATCC 17759: NCIB 9085.
 12468 Hydrocarbon-contaminated soil. From J. Aislabie CB1.
 12597 From G. Lloyd-Jones G4 (G20) ← W.A. Deutz G4 - Appl. Environ. Microbiol. 60: 2858-2863, 1994 - utilises toluene as sole carbon source - imported strain.

Burkholderia gladioli (Severini 1913) Yabuuchi *et al.* 1993syn. *Pseudomonas gladioli* Severini 1913

- 12488 Compromised human patient with cystic fibrosis. NZ. From S. Paul 1 - identified by biochemical and fatty acid analysis and ribotyping.
 12489 Compromised human patient with cystic fibrosis. NZ. From S. Paul 2 - identified by biochemical and fatty acid analysis and ribotyping.
 12490 Compromised human patient with cystic fibrosis. NZ. From S. Paul 3 - identified by biochemical and fatty acid analysis and ribotyping.
 12491 Compromised human patient with cystic fibrosis. NZ. From S. Paul 4 - identified by biochemical and fatty acid analysis and ribotyping.
 12492 Compromised human patient with cystic fibrosis. NZ. From S. Paul 5 - identified by biochemical and fatty acid analysis and ribotyping.

Burkholderia gladioli* pv. *agaricicola (Lincoln *et al.* 1991) Young *et al.* 1996syn. *Pseudomonas gladioli* pv. *agaricicola* Lincoln *et al.* 1991

- 11096 a *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom. UK 1987. From NCPPB 3580 ← S.P. Lincoln RR3 - **Type strain**.
 11097 a *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom. UK. From NCPPB 3632 ← S.P. Lincoln RR5.
 11098 a *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom. UK. From NCPPB 3633 ← S.P. Lincoln RR6.
 11099 a *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom. UK. From NCPPB 3634 ← S.P. Lincoln RR7.
 11100 a *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom. UK. From NCPPB 3635 ← S.P. Lincoln RR8.
 12220 * *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom hybrid (W2F/W20) - rapid rot at 25-30 C. UK Dec 1991. From S.P. Lincoln RR9 - **A. bitorquis* (Lincoln).
 12221 * *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom hybrid (W2F/W20) - rapid rot at 25-30 C. UK Dec 1991. From S.P. Lincoln RR10 - **A. bitorquis* (Lincoln).
 12222 * *Agaricus bitorquis* (Quelet) Saccardo - tropical white mushroom - rapid rot disease on mushrooms at 25-30 C. UK Dec 1991. From S.P. Lincoln RR11 - **A. bitorquis* (Lincoln).

Burkholderia gladioli* pv. *alliiicola (Burkholder 1942) Young *et al.* 1996syn. *Pseudomonas gladioli* pv. *alliiicola* (Burkholder 1942) Young *et al.* 1978

- 2804 a* *Allium cepa* L. - onion - bulb rot. USA 1939. From D.W. Dye NF1 ← NCPPB 947 ← W.H. Burkholder = ICPB PA7: ATCC 19302: CFBP 2422: LMG 2121 - fuscous strain - LOPAT - - - - (+/-) - *onion - **Pathotype strain**.
 2805 b* *Allium cepa* L. - onion - bulb rot. USA 1939. From D.W. Dye NF2 ← NCPPB 948 ← W.H. Burkholder = ICPB PA10 - non-fuscous strain - LOPAT - - - - (+/-) - *onion.
 3410 b *Allium cepa* L. - onion - bulb. Australia Mar 1973. From C.N. Hale 1542 - LOPAT - - - - +.
 3411 b *Allium cepa* L. - onion - bulb. Australia Mar 1973. From C.N. Hale 1544 - LOPAT - - - - +.
 3412 b *Allium cepa* L. - onion - bulb. Australia Apr 1973. From C.N. Hale 1557 - LOPAT - - - - +.
 7845 *Allium cepa* L. - onion cv. Creamgold (Pukekohe Longkeeper) - bulb. Australia 1982. From C.N. Hale ← E.J. Cother C2.
 9021 *Allium cepa* L. - onion - bulb. Hungary 1983. From J. Nemeth H16 - LOPAT - - - - .
 9022 *Allium cepa* L. - onion - bulb. Hungary 1983. From J. Nemeth H24 - LOPAT - - - - .
 9023 *Allium cepa* L. - onion - bulb. Hungary 1983. From J. Nemeth H41 - LOPAT - - - - .
 9209 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Jul 1986. From R.G. Clark E3528 - fuscous strain - homologous with DNA of ICMP 2804 - *onion scale.
 9210 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Apr 1986. From R.G. Clark 2A - fuscous strain - homologous with DNA of ICMP 2804 - *onion scale.

- 9211 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Apr 1986. From R.G. Clark 4A - fuscous strain - homologous with DNA of ICMP 2804 - *onion scale.
- 9212 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Apr 1986. From R.G. Clark 6A - fuscous strain - homologous with DNA of ICMP 2804 - *onion scale.
- 11307 * *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb soft rot. Pukekohe, AK, NZ Feb 1992. From P.J. Wright 92-9 - *onion (Wright).
- 5838 USA. From J.M. Young ← R.S. Dickey ← S. Kawamoto 72-90.
- 5839 USA. From J.M. Young ← R.S. Dickey ← S. Kawamoto 61-3.
- 5840 USA 1954. From J.M. Young ← R.S. Dickey ← W.H. Burkholder = ICPB PA18.
- Burkholderia gladioli** pv. *gladioli* (Severini 1913) Yabuuchi *et al.* 1993
syn. *Pseudomonas gladioli* pv. *gladioli* Severini 1913
- 3950 a *Gladiolus* sp. USA. From D.W. Dye MO1 ← NCPPB 1891 ← L. McCulloch CO13 = ATCC 10248: CFBP 2427: ICPB PM107: LMG 2216: NRRL B793 - rec. as *P. marginata* - LOPAT - - - - - **Type strain**.
- 3951 b *Gladiolus* sp. Zimbabwe 1959. From D.W. Dye MO2 ← NCPPB 644 ← A.C. Hayward 76539 - rec. as *P. marginata* - LOPAT - - - - - (+).
- 3952 b *Gladiolus* sp. USA 1945. From D.W. Dye MO3 ← NCPPB 1887 = ICPB PM11: NRRL B851 - rec. as *P. marginata* - LOPAT - - - - -.
- Burkholderia glumae** (Kurita & Tabei 1967) Urakami *et al.* 1994
syn. *Pseudomonas glumae* Kurita & Tabei 1967
- 3655 a *Oryza sativa* L. - rice - grain. Japan 1967. From D.W. Dye MD1 ← T. Tominaga P1-22-1 = NCPPB 2981: ATCC 33617: CFBP 2430: LMG 2196 - **Type strain**.
- 3727 *Oryza sativa* L. - rice - grain. Japan 1967. From D.W. Dye MD2 ← T. Tominaga P1-22-2.
- 3728 *Oryza sativa* L. - rice - grain. Japan 1967. From D.W. Dye MD3 ← T. Tominaga P1-22-3.
- 3729 *Oryza sativa* L. - rice - grain. Japan 1968. From D.W. Dye MD4 ← T. Tominaga P1-22-4.
- 8657 *Oryza sativa* L. - rice. Japan 1967. From LMG 1277 ← NCPPB 2391 ← T. Tominaga G741.
- Burkholderia plantarii** (Azegami *et al.* 1987) Urakami *et al.* 1994
syn. *Pseudomonas plantarii* Azegami *et al.* 1987
- 9424 a *Oryza sativa* L. - rice cv. Koshihikari - blight and chlorosis of seedling. Japan May 1982. From K. Azegami NIAES 1723 ← K. Azegami AZ 8201 = ATCC 43733: JCM 5492: LMG 9035: NCPPB 3590 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer - **Type strain**.
- 9426 a *Oryza sativa* L. - rice - blight and chlorosis of seedling. Japan Apr 1983. From K. Azegami AZ 8371 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer.
- 9427 a *Oryza sativa* L. - rice - blight and chlorosis of seedling. Japan Apr 1983. From K. Azegami AZ 8373 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer.
- 9428 a *Oryza sativa* L. - rice - blight & chlorosis of seedling. Japan Apr 1983. From K. Azegami AZ 8375 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer.
- 9429 a *Oryza sativa* L. - rice - blight & chlorosis of seedling. Japan May 1984. From K. Azegami AZ 84236 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer.
- 9425 a Bed soil of nursery box. Japan Jun 1982. From K. Azegami AZ 8202 - Int. J. Syst. Bact. 37: 144-152, 1987 - tropolone producer.
- Burkholderia solanacearum** (Smith 1896) Yabuuchi *et al.* 1993
syn. *Pseudomonas solanacearum* (Smith 1896) Smith 1914
syn. *Ralstonia solanacearum* (Smith 1896) Yabuuchi *et al.* 1996
- 11977 * *Acacia mountforeiae* Specht - lower stem. Australia May 1978. From DAR 34818 ← R.N. Pitkethley 3158 - Biovar IV - *tomato (Pitkethley).
- 9597 *Ageratum conyzoides* L. Brazil 1978. From IBSBF 119 ← J.R. Neto - Biovar I.
- 770 a *Arachis hypogaea* L. - groundnut, peanut. USA. From N.L. Baigent PU22 ← A.C. Hayward B543 ← A. Kelman 31 - Biovar I.
- 11106 *Arachis hypogaea* L. - groundnut, peanut. China. From X.Z. Ren AH11.
- 11107 *Arachis hypogaea* L. - groundnut, peanut. China. From X.Z. Ren AH12.
- 783 b *Brassica oleracea* L. var. *capitata* L. - cabbage. Mauritius 1956. From N.L. Baigent PU34 ← A.C. Hayward B436 ← G. Orian = NCPPB 501 - Biovar III.
- 6606 b* *Capsicum annuum* L. - sweet pepper - discoloured vasculature of wilted plant. Cook Is. Jun 1979. From D.R.W. Watson A2577 - *capsicum, tomato.
- 7957 b *Capsicum annuum* L. - sweet pepper. Kenya 1973. From E. French 39 ← D. Harris 322.
- 7959 b *Capsicum annuum* L. - sweet pepper. Kenya 1974. From E. French 43 ← D. Harris 341 - Biovar II.
- 7960 b *Capsicum annuum* L. - sweet pepper. Kenya 1974. From E. French 44 ← D. Harris 343 - Biovar IV.
- 7971 b *Capsicum annuum* L. - sweet pepper. China (Taiwan) 1975. From E. French 55 ← T. Mew T75 - Biovar III.
- 8089 b *Capsicum annuum* L. - sweet pepper. Philippines. From E. French 123 - Biovar III.
- 8125 b *Capsicum annuum* L. - sweet pepper. Philippines 1978. From E. French 159 - Biovar III.
- 8277 b *Capsicum annuum* L. - sweet pepper. Philippines 1978. From E. French 158 - Biovar IV.
- 11111 *Capsicum annuum* L. - sweet pepper. China. From X.Z. Ren Cf33.
- 11112 *Capsicum annuum* L. - sweet pepper. China. From X.Z. Ren Cf43.
- 11978 * *Capsicum annuum* L. - sweet pepper - lower stem. Australia Jun 1979. From DAR 34821 ← R.N. Pitkethley 3162 - Biotype III - *tomato (Pitkethley).
- 7981 b *Capsicum frutescens* L. - tabasco. Costa Rica 1972. From E. French 65 ← L. Gonzalez G1-(600m) - Biovar III.
- 771 a *Casuarina equisetifolia* J.R. & G. Forst. - horse-tail tree. Mauritius 1956. From N.L. Baigent PU23 ← A.C. Hayward B437 ← G. Orian = NCPPB 502 - Biovar III.
- 11110 *Casuarina equisetifolia* J.R. & G. Forst. - horse-tail tree. China. From X.Z. Ren Ce216.
- 11270 *Casuarina equisetifolia* J.R. & G. Forst. - horse-tail tree. China. From X.Z. Ren Ce209.
- 11976 * *Cucurbita pepo* L. - zucchini - lower stem. Australia Oct 1977. From DAR 34813 ← R.N. Pitkethley 3040 - biotype IV - *tomato (Pitkethley).
- 9914 *Curcuma domestica* Val. - turmeric. Sri Lanka 1980. From NCPPB 3217 ← J.F. Bradbury B8700 ← S.N. de S. Seneviratne P182B - Biovar II.
- 8070 b *Cyphomandra* sp. Colombia 1976. From E. French 103 ← G. Granada G22 - Biovar II.
- 774 a *Dahlia* sp. Mauritius 1956. From N.L. Baigent PU25 ← A.C. Hayward B438 ← G. Orian = NCPPB 503 - Biovar III.
- 780 b *Eclipta erecta* L. Costa Rica. From N.L. Baigent PU31 ← A.C. Hayward B50 ← I.W. Buddenhagen 280 = NCPPB 791 - Biovar III.
- 11820 *Ensete ventricosum* (Welw.) E.E. Cheesm. - Abyssinian banana. Martinique 1987. From CFBP 2976 ← H. Steva MB1.
- 11085 a *Eucalyptus grandis* W. Hill ex Maiden - rose gum. Brazil. From M. Gillings ← M. Dristig 539 - Austr. Pl. Path. 19: 71-76 - Biovar I.
- 9603 *Eucalyptus grandis* W. Hill ex Maiden X *E. urophylla* S.T. Blake. Brazil 1987. From IBSBF 625 ← T.L. Krugner E2.
- 11086 *Eucalyptus pellita* F. Muell. Brazil. From M. Gillings ← M. Dristig 540 - Austr. Pl. Path. 19: 71-76 - Biovar I.
- 9601 *Eucalyptus* sp. Brazil 1987. From IBSBF 623 ← J.R. Neto.
- 11087 *Eucalyptus* sp. Brazil. From M. Gillings ← M. Dristig 573 - Austr. Pl. Path. 19: 71-6 - Biovar I.
- 11088 a *Eucalyptus* sp. Brazil. From M. Gillings ← M. Dristig 574 - Austr. Pl. Path. 19: 71-6 - Biovar I.
- 11090 a *Eucalyptus* sp. Brazil. From M. Gillings ← M. Dristig 576 - Austr. Pl. Path. 19: 71-6 - Biovar I.
- 11091 a *Eucalyptus* sp. Brazil. From M. Gillings ← M. Dristig 577 - Austr. Pl. Path. 19: 71-76 - Biovar I.
- 11093 a *Eucalyptus* sp. Brazil. From M. Gillings ← M. Dristig 603 - Austr. Pl. Path. 19: 71-6 - Biovar I.
- 9602 *Eucalyptus urophylla* S.T. Blake. Brazil 1987. From IBSBF 624 ← T.L. Krugner E1.
- 9605 *Eucalyptus urophylla* S.T. Blake. Brazil 1987. From IBSBF 638 ← J.R. Neto.
- 11089 a *Eucalyptus urophylla* S.T. Blake. Brazil. From M. Gillings ← M. Dristig 575 - Austr. Pl. Path. 19: 71-6 - Biovar I.
- 7862 b *Heliconia* sp. Costa Rica 1959. From E. French 6-S118 - Biovar III.
- 11981 *Heliconia* sp. - rhizome wilt. Oct 1989. From DAR 64836 ← L. Diatloff DPI2489 ← S. Akiew - plants imported from Hawaii & isolated in Australia and destroyed.

- 750 a *Lycopersicon esculentum* Mill. - tomato. Portugal 1960. From N.L. Baigent PU7 ← A.C. Hayward B574 ← M. de L. d'Oliveira = NCPPB 1019 - Biovar II.
- 751 a *Lycopersicon esculentum* Mill. - tomato. Papua New Guinea Oct 1961. From N.L. Baigent PU8 ← A.C. Hayward B786 ← D.E. Shaw - Biovar IV.
- 758 a *Lycopersicon esculentum* Mill. - tomato. Papua New Guinea 1961. From N.L. Baigent PU15 ← A.C. Hayward B788 = NCPPB 1140 - Biovar III.
- 766 b *Lycopersicon esculentum* Mill. - tomato. Trinidad Jul 1957. From N.L. Baigent PU18 ← A.C. Hayward B40 - Biovar I.
- 777 b *Lycopersicon esculentum* Mill. - tomato. Kenya Jul 1961. From N.L. Baigent PU28 ← A.C. Hayward B631 - Biovar II.
- 1726 b *Lycopersicon esculentum* Mill. - tomato. Costa Rica. From D.W. Dye PU1 ← A. Kelman S212.
- 1727 b *Lycopersicon esculentum* Mill. - tomato. USA. From D.W. Dye PU2 ← A. Kelman K60.
- 1728 b *Lycopersicon esculentum* Mill. - tomato. USA. From D.W. Dye PU3 ← A. Kelman K74.
- 4014 b* *Lycopersicon esculentum* Mill. - tomato - pale brown vascular discoloration at base of wilted stem. Cook Is. Aug 1974. From D.R.W. Watson C1835 - *tomato.
- 4020 b* *Lycopersicon esculentum* Mill. - tomato - discoloured vascular tissue of wilted stem. Cook Is. Jul 1974. From D.R.W. Watson G1822 - *tomato.
- 4407 b* *Lycopersicon esculentum* Mill. - tomato - pale brown vascular discoloration in stem of wilted plant. Cook Is. Oct 1975. From D.R.W. Watson E2013 - *eggplant.
- 4575 b* *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant stem. Western Samoa Dec 1975. From D.R.W. Watson A2066 - *eggplant, tomato.
- 4596 b* *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant stem. Pukekawa, WO, NZ Dec 1975. From D.R.W. Watson D2083 - *eggplant, potato, tomato.
- 5712 a *Lycopersicon esculentum* Mill. - tomato. USA. From NCPPB 325 ← A. Kelman 60-1 = ATCC 11696: CFBP 2047: ICPB PS256: LMG 2299 - Biovar I - **Type strain**.
- 6189 b* *Lycopersicon esculentum* Mill. - tomato - vascular stain. Whangarei, ND, NZ Jul 1978. From C.F. Hill AS780A - fuscous strain - *potato, tomato.
- 6200 b* *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted stem. Whangarei, ND, NZ Jul 1978. From D.R.W. Watson M2439 - *tomato.
- 6514 b* *Lycopersicon esculentum* Mill. - tomato cv. Grosse Lisse - discoloured vasculature of unwilted plant. Pukekawa, WO, NZ Apr 1979. From D.R.W. Watson A2547 - *tomato.
- 7158 b *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant. Fiji Aug 1980. From D.R.W. Watson A2789.
- 7159 b *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant. Fiji Aug 1980. From D.R.W. Watson A2781.
- 7164 b *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant. Fiji Aug 1980. From D.R.W. Watson A2787.
- 7956 b *Lycopersicon esculentum* Mill. - tomato. Kenya 1973. From E. French 38 ← D. Harris 318 - Biovar II.
- 7968 b *Lycopersicon esculentum* Mill. - tomato. China (Taiwan) 1975. From E. French 52 ← T. Mew T1 - Biovar III.
- 7976 b *Lycopersicon esculentum* Mill. - tomato. USA. From E. French 60 - Biovar I.
- 7985 b *Lycopersicon esculentum* Mill. - tomato. Brazil 1976. From E. French 69 ← J.R. Neto 30-0-32 - Biovar I.
- 7988 b *Lycopersicon esculentum* Mill. - tomato. Peru 1966. From E. French 72 - Biovar III.
- 8059 b *Lycopersicon esculentum* Mill. - tomato. Costa Rica 1976. From E. French 92-(1400m) - Biovar I.
- 8060 b *Lycopersicon esculentum* Mill. - tomato. Costa Rica 1976. From E. French 93-(800m) - Biovar III.
- 8061 b *Lycopersicon esculentum* Mill. - tomato. Costa Rica 1976. From E. French 94 (850m) - Biovar III.
- 8065 b *Lycopersicon esculentum* Mill. - tomato. Brazil 1976. From E. French 98 ← A. Takatsu ← J.R. Neto 66 - Biovar III.
- 8093 b *Lycopersicon esculentum* Mill. - tomato. Colombia 1977. From E. French 127 ← G. Granada 1800m - Biovar I.
- 8097 b *Lycopersicon esculentum* Mill. - tomato. Sri Lanka 1977. From E. French 131 ← S. Seneviratne PO80 - Biovar III.
- 8100 b *Lycopersicon esculentum* Mill. - tomato. Sri Lanka 1977. From E. French 134 ← S. Seneviratne PO83 - Biovar III.
- 8109 b *Lycopersicon esculentum* Mill. - tomato. Sri Lanka 1976. From E. French 143 ← S. Seneviratne P118B - Biovar IV.
- 8116 b *Lycopersicon esculentum* Mill. - tomato. Philippines 1978. From E. French 150 - Biovar III.
- 8118 b *Lycopersicon esculentum* Mill. - tomato. Philippines 1978. From E. French 152 - Biovar IV.
- 8119 b *Lycopersicon esculentum* Mill. - tomato. Philippines 1978. From E. French 153 - Biovar III.
- 8126 b *Lycopersicon esculentum* Mill. - tomato. Philippines. From E. French 160 ← R. Valdez - Biovar III.
- 8169 b *Lycopersicon esculentum* Mill. - tomato. Puerto Rico 1958. From E. French 164 ← NCPPB 1225 ← J. Perez - Biovar I.
- 8173 b *Lycopersicon esculentum* Mill. - tomato. USA (Hawaii) 1959. From E. French 168 ← NCPPB 1580 ← M. Aragaki - Biovar IV.
- 8183 b *Lycopersicon esculentum* Mill. - tomato. Papua New Guinea 1980. From E. French 179 ← G.R. Kula - Biovar III.
- 8218 b *Lycopersicon esculentum* Mill. - tomato. Brazil 1978. From E. French 212 ← J.R. Neto 111 - Biovar III.
- 8274 b *Lycopersicon esculentum* Mill. - tomato. Philippines 1978. From E. French 151 - Biovar III.
- 8275 b *Lycopersicon esculentum* Mill. - tomato. Philippines 1978. From E. French 154 - Biovar III.
- 8966 b* *Lycopersicon esculentum* Mill. - tomato - stem. Vanuatu Jul 1985. From R.G. Clark AE3438 - *tomato.
- 9738 *Lycopersicon esculentum* Mill. - tomato. India. From S. Basu avirulent.
- 9739 * *Lycopersicon esculentum* Mill. - tomato - stem. India. From N. Samajpati FB-1 ← F. Bhattacharyya FB-1 - *potato, tomato (Samajpati).
- 9758 * *Lycopersicon esculentum* Mill. - tomato. India. From S. Basu - *tomato (Basu).
- 11113 *Lycopersicon esculentum* Mill. - tomato. China. From X.Z. Ren LE24.
- 11114 *Lycopersicon esculentum* Mill. - tomato. China. From X.Z. Ren LE48.
- 11983 *Lycopersicon esculentum* Mill. - tomato - stem wilt. Australia Jan 1991. From DAR 65853 ← M. Gillings ← C. Brewster - Biovar III.
- 12012 *Lycopersicon esculentum* Mill. - tomato - internal stem. Australia Jan 1981. From DAR 35671 ← P. Cain.
- 8090 b *Melampodium perfoliatum*. Costa Rica 1977. From E. French 124 ← L. Gonzalez G17 - Biovar I.
- 7858 b *Musa acuminata* Colla - banana. Costa Rica. From E. French 2 - Biovar I.
- 7863 b *Musa acuminata* Colla - banana cv. Valery. Honduras 1964. From E. French 7 ← L. Sequeira W135-S228 - Biovar I.
- 7942 b *Musa acuminata* Colla - banana. Honduras 1960. From E. French 21 - Biovar I.
- 7986 b *Musa acuminata* Colla - banana. Colombia 1965. From E. French 70 - Biovar I.
- 8048 b *Musa acuminata* Colla - banana. Costa Rica 1976. From E. French 81 ← L. Gonzalez S2 - Biovar I.
- 8091 b *Musa acuminata* Colla - banana. Costa Rica 1958. From E. French 125 ← L. Sequeira W167 - Biovar III.
- 767 b *Musa* sp. - banana. Trinidad Jul 1957. From N.L. Baigent PU19 ← A.C. Hayward B41 - Biovar I.
- 768 a *Musa* sp. - banana. Honduras. From N.L. Baigent PU20 ← A.C. Hayward B48 ← I.W. Buddenhagen 258 = NCPPB 789 - Biovar I.
- 6782 b *Musa* sp. - banana. Brazil Dec 1979. From IBSBF 187 ← J.R. Neto - Race 2.
- 9600 *Musa* sp. - banana. Brazil 1978. From IBSBF 615 ← J.R. Neto - race 2.
- 7860 b *Musa X paradisiaca* L. - plantain cv. French. Peru 1966. From E. French 4-W127 - Biovar I.
- 7861 b *Musa X paradisiaca* L. - plantain cv. French. Peru 1966. From E. French 5-W132 - Biovar I.
- 7864 b *Musa X paradisiaca* L. - plantain cv. Chato. Costa Rica 1967. From E. French 8 ← L. Sequeira W139-S232 - Biovar I.
- 7865 b *Musa X paradisiaca* L. - plantain cv. Chato. Costa Rica 1967. From E. French 9 ← L. Sequeira W140-S233 - Biovar I.
- 7940 b *Musa X paradisiaca* L. - plantain cv. Chato. Costa Rica 1966. From E. French 19 - Biovar I.
- 7941 b *Musa X paradisiaca* L. - plantain cv. French. Peru 1966. From E. French 20-W156 - Biovar I.
- 7943 b *Musa X paradisiaca* L. - plantain cv. French. Peru 1966. From E. French 22-W157 - Biovar I.
- 7944 b *Musa X paradisiaca* L. - plantain cv. French. Peru 1966. From E. French 23-W159 - Biovar I.
- 7946 b *Musa X paradisiaca* L. - plantain. Costa Rica 1958. From E. French 27 - Biovar I.
- 7947 b *Musa X paradisiaca* L. - plantain cv. Chato. Colombia 1961. From E. French 28 - Biovar I.
- 7948 b *Musa X paradisiaca* L. - plantain cv. Chato. Colombia 1961. From E. French 29 - Biovar I.
- 7949 b *Musa X paradisiaca* L. - plantain cv. Chato. Colombia 1961. From E. French 30 - Biovar I.
- 7950 b *Musa X paradisiaca* L. - plantain cv. Chato. Colombia 1961. From E. French 31 - Biovar I.
- 7951 b *Musa X paradisiaca* L. - plantain cv. Chato. Venezuela 1961. From E. French 32 - Biovar I.
- 8092 b *Musa X paradisiaca* L. - plantain. Colombia 1977. From E. French 126 ← G. Granada G28 - Biovar I.

- 6523 a *Nicotiana tabacum* L. - tobacco. USA 1954. From NCPPB 337 ← A. Kelman = ICPB PS124 - Biovar I.
- 6524 a *Nicotiana tabacum* L. - tobacco. Zimbabwe 1954. From NCPPB 342 ← G.R. Bates MR12288 - Biovar I.
- 6525 a *Nicotiana tabacum* L. - tobacco. USA 1954. From NCPPB 338 ← A. Kelman = ICPB PS125 - Biovar I.
- 7969 b *Nicotiana tabacum* L. - tobacco. China (Taiwan) 1975. From E. French 53 ← T. Mew T51 - Biovar III.
- 8066 b *Nicotiana tabacum* L. - tobacco. Colombia 1972. From E. French 99 ← G. Granada G7 - Biovar I.
- 8067 b *Nicotiana tabacum* L. - tobacco. Colombia 1972. From E. French 100 ← G. Granada G11 - Biovar I.
- 8072 b *Nicotiana tabacum* L. - tobacco. Costa Rica 1977. From E. French 105 ← L. Gonzalez - Biovar I.
- 8085 b *Nicotiana tabacum* L. - tobacco. Zimbabwe. From E. French 119 - Biovar I.
- 8228 b *Nicotiana tabacum* L. - tobacco. Brazil 1982. From E. French 228 ← J.R. Neto 382 - Biovar I.
- 769 a *Pelargonium capitatum* (L.) L'Her. ex Ait. Reunion 1961. From N.L. Baigent PU21 ← A.C. Hayward B509 = NCPPB 1029 - Biovar I.
- 779 a *Physalis angulata* L. Costa Rica. From N.L. Baigent PU30 ← A.C. Hayward B49 ← I.W. Buddenhagen 217 = NCPPB 790 - Biovar III.
- 7954 b *Portulaca* sp. Kenya 1972. From E. French 36 ← D. Harris 278 - Biovar II.
- 8220 b *Solanum americanum* Mill. - small-flowered nightshade. Brazil 1978. From E. French 214 ← J.R. Neto 114 - Biovar II.
- 759 a *Solanum melongena* L. var. *esculentum* Nees - eggplant. Kenya 1961. From N.L. Baigent PU16 ← A.C. Hayward B592 ← I.D. Firman = NCPPB 1045 - Biovar III.
- 4440 b* *Solanum melongena* L. var. *esculentum* Nees - eggplant - discoloured vasculature of wilted plant stem. Cook Is. Oct 1975. From D.R.W. Watson C2036 - *eggplant.
- 4443 b* *Solanum melongena* L. var. *esculentum* Nees - eggplant - discoloured vasculature of wilted plant stem. Cook Is. Oct 1975. From D.R.W. Watson D2038 - *eggplant.
- 4840 b* *Solanum melongena* L. var. *esculentum* Nees - eggplant cv. New York - discoloured vasculature of wilted plant. Cook Is. Jul 1976. From D.R.W. Watson A2191 - *eggplant.
- 5581 b* *Solanum melongena* L. var. *esculentum* Nees - eggplant - vasculature of wilted plant. Cook Is. Jul 1977. From D.R.W. Watson C2294 - *eggplant.
- 7955 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. Kenya 1973. From E. French 37 ← D. Harris 314 - Biovar III.
- 7970 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. China (Taiwan) 1975. From E. French 54 ← T. Mew T65.
- 8111 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. Sri Lanka 1977. From E. French 145 ← S. Seneviratne P121B - Biovar III.
- 8121 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. Philippines 1978. From E. French 155 - Biovar IV.
- 8122 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. Philippines 1978. From E. French 156 - Biovar III.
- 8276 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. Philippines 1978. From E. French 157 - Biovar III.
- 11116 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. China. From X.Z. Ren SM30.
- 11117 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. China. From X.Z. Ren Sm35.
- 11271 b *Solanum melongena* L. var. *esculentum* Nees - eggplant. China. From X.Z. Ren Sm37.
- 4629 b* *Solanum nigrum* L. - black nightshade - slightly discoloured vasculature of wilted plant. Pukekawa, WO, NZ Jan 1976. From D.R.W. Watson F2103 - *eggplant, tomato.
- 8219 b *Solanum sisymbriifolium* Lam. - sticky nightshade. Brazil 1978. From E. French 213 ← J.R. Neto 113 - Biovar II.
- 9596 b *Solanum sisymbriifolium* Lam. - sticky nightshade. Brazil 1978. From IBSBF 113 ← J.R. Neto - Biovar II.
- 748 a *Solanum tuberosum* L. - potato - tuber. Zimbabwe 1954. From N.L. Baigent PU5 ← A.C. Hayward B428 ← G.R. Bates SRN15 = NCPPB 332 - Biovar I.
- 749 a *Solanum tuberosum* L. - potato - tuber. Israel. From N.L. Baigent PU6 ← A.C. Hayward B431 ← Z. Volcani 80 = NCPPB 339 - Biovar II.
- 752 b *Solanum tuberosum* L. - potato. Zimbabwe Jan 1962. From N.L. Baigent PU9 ← A.C. Hayward B844 ← A. Rothwell MR17280 - Biovar II.
- 753 a *Solanum tuberosum* L. - potato. Sri Lanka 1962. From N.L. Baigent PU10 ← A.C. Hayward B1114 = NCPPB 1323 - Biovar II.
- 757 b *Solanum tuberosum* L. - potato cv. Rosyln. Zimbabwe. From N.L. Baigent PU14 ← A.C. Hayward B1031 ← G.W. Herd MR17805 - Biovar II.
- 775 b *Solanum tuberosum* L. - potato. Portugal. From N.L. Baigent PU26 ← A.C. Hayward B576 ← M. de L. d'Oliveira - Biovar II.
- 776 b *Solanum tuberosum* L. - potato. Kenya Jun 1961. From N.L. Baigent PU27 ← A.C. Hayward B586 - Biovar II.
- 782 b *Solanum tuberosum* L. - potato - tuber. Mauritius Oct 1960. From N.L. Baigent PU33 ← A.C. Hayward B395 - Biovar III.
- 784 b *Solanum tuberosum* L. - potato. Egypt May 1962. From N.L. Baigent PU35 ← A.C. Hayward B1066 - Biovar II.
- 3274 b *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ May 1972. From D.W. Dye PU36.
- 3275 b *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ May 1972. From D.W. Dye PU37.
- 3283 b *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ May 1972. From D.W. Dye PU38.
- 4157 b* *Solanum tuberosum* L. - potato cv. Rua - vascular ooze from tuber of slightly wilted plant. Pukekawa, WO, NZ Feb 1975. From D.R.W. Watson A1927 - *potato, tomato.
- 4163 b* *Solanum tuberosum* L. - potato cv. Rua - tuber vascular ooze. Pukekawa, WO, NZ Feb 1975. From D.R.W. Watson A1924 - *tomato.
- 4178 b *Solanum tuberosum* L. - potato cv. Rua - vascular ooze from tuber of wilted plant. Te Kohanga, WO, NZ Apr 1975. From D.R.W. Watson A1962.
- 4193 b* *Solanum tuberosum* L. - potato - tuber vascular ooze. Opatiki, BP, NZ May 1975. From C.F. Hill AS5690 - fuscous strain - *tomato.
- 4274 b* *Solanum tuberosum* L. - potato - vascular ooze from rotting tuber. Opatiki, BP, NZ Jul 1975. From D.R.W. Watson H1981 - *eggplant, potato, tomato.
- 7857 b *Solanum tuberosum* L. - potato. Colombia 1965. From E. French 1 - Biovar II.
- 7859 b *Solanum tuberosum* L. - potato. Peru 1974. From E. French 3 ← I. Herrera 2000m - Biovar I.
- 7866 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 10 - Biovar II.
- 7867 b *Solanum tuberosum* L. - potato. Peru 1973. From E. French 12 ← I. Herrera 2450m - Biovar II.
- 7868 b* *Solanum tuberosum* L. - potato. Peru 1974. From E. French 13 ← I. Herrera 2450m - Biovar II - *potato (French).
- 7935 b *Solanum tuberosum* L. - potato. Peru 1974. From E. French 14 ← I. Herrera 2500m - Biovar II.
- 7936 b* *Solanum tuberosum* L. - potato. Peru 1973. From E. French 15 ← I. Herrera 1600m - Biovar I - *potato (French).
- 7937 b *Solanum tuberosum* L. - potato. Peru 1974. From E. French 16 ← I. Herrera 2700m - Biovar II.
- 7938 b* *Solanum tuberosum* L. - potato. Peru 1974. From E. French 17 ← L. Gutarra G1-(2700m) - Biovar II - *potato (French).
- 7939 b *Solanum tuberosum* L. - potato. Peru 1975. From E. French 18 ← L. Turkensteen 170m - Biovar I.
- 7945 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 24 ← H. Pinedo - Biovar I.
- 7952 b *Solanum tuberosum* L. - potato. Uruguay 1978. From E. French 33 ← C. Martin - Biovar II.
- 7953 b *Solanum tuberosum* L. - potato. Uruguay 1978. From E. French 34 ← C. Martin - Biovar II.
- 7958 b* *Solanum tuberosum* L. - potato cv. Tomasa C. Peru 1979. From E. French 42 ← H. Torres 3,350m - Biovar I - *potato (French).
- 7961 b *Solanum tuberosum* L. - potato. Brazil 1975. From E. French 45 ← O.A. Drummond PB1 - Biovar I.
- 7962 b *Solanum tuberosum* L. - potato. Brazil 1975. From E. French 46 ← O.A. Drummond PB2 - Biovar I.
- 7963 b *Solanum tuberosum* L. - potato. Kenya. From E. French 47 ← A. Kelman 197 - Biovar I.
- 7964 b *Solanum tuberosum* L. - potato. Costa Rica. From E. French 48 ← L. Sequeira 213 - Biovar II.
- 7965 b *Solanum tuberosum* L. - potato. Australia. From E. French 49 - Biovar III.
- 7966 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 50 ← M. Sosa 2400m - Biovar II.
- 7967 b *Solanum tuberosum* L. - potato. USA. From E. French 51 ← A. Kelman 51 - Biovar I.
- 7972 b *Solanum tuberosum* L. - potato. Israel. From E. French 56 ← A. Kelman 56 - Biovar II.
- 7973 b *Solanum tuberosum* L. - potato. Uruguay 1975. From E. French 57 - Biovar II.
- 7974 b *Solanum tuberosum* L. - potato. Argentina 1979. From E. French 58 ← U. Nydegger - Biovar II.
- 7975 b *Solanum tuberosum* L. - potato. Uruguay 1975. From E. French 59 - Biovar II.
- 7977 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 61 ← L. Turkensteen 170m - Biovar II.
- 7978 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 62 - Biovar I.
- 7979 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 63 ← L. Turkensteen - Biovar II.
- 7980 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 64 ← L. Turkensteen - Biovar II.
- 7982 b *Solanum tuberosum* L. - potato. Costa Rica 1962. From E. French 66 ← L. Gonzalez G7-(1900m) - Biovar I.

- 7983 b *Solanum tuberosum* L. - potato. Panama 1976. From E. French 67 ← C. Martin 1900m - Biovar II.
7984 b *Solanum tuberosum* L. - potato. Mexico 1976. From E. French 68 ← L. Fucikowsky 2400m - Biovar II.
7987 b *Solanum tuberosum* L. - potato. Mexico 1976. From E. French 71 ← L. Fucikowsky - Biovar II.
7989 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 73 ← J. Arango - Biovar II.
7990 b *Solanum tuberosum* L. - potato. Brazil 1976. From E. French 74 ← J.R. Neto P38 - Biovar II.
7991 b *Solanum tuberosum* L. - potato. Brazil 1976. From E. French 75 ← J.R. Neto P40 - Biovar II.
7992 b *Solanum tuberosum* L. - potato. Peru. From E. French 76-(2800m) - Biovar II.
7993 b* *Solanum tuberosum* L. - potato. Peru 1976. From E. French 77 ← C. Martin 170m - Biovar I - *potato (French).
7994 b *Solanum tuberosum* L. - potato. Mexico 1975. From E. French 78 ← L. Fucikowsky - Biovar II.
7995 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 79 ← U. Nydegger - Biovar II.
8049 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 82 - Biovar II.
8050 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 83-(1600m) - Biovar II.
8051 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 84-(1700m) - Biovar II.
8052 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 85-(1600m) - Biovar II.
8053 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 86-(1500m) - Biovar II.
8054 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 87 (1450m) - Biovar II.
8055 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 88 - Biovar II.
8056 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 89-(1400m) - Biovar II.
8057 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 90-(1400m) - Biovar I.
8058 b *Solanum tuberosum* L. - potato. Costa Rica 1976. From E. French 91-(1400m) - Biovar II.
8062 b *Solanum tuberosum* L. - potato. Costa Rica 1973. From E. French 95 ← L. Gonzalez G13 - Biovar II.
8063 b *Solanum tuberosum* L. - potato. Peru 1976. From E. French 96 ← C. Martin - Biovar II.
8064 b *Solanum tuberosum* L. - potato. Brazil 1976. From E. French 97 ← J.R. Neto - Biovar II.
8068 b *Solanum tuberosum* L. - potato. Colombia 1975. From E. French 101 ← G. Granada G18 - Biovar II.
8069 b* *Solanum tuberosum* L. - potato. Peru 1979. From E. French 102 ← U. Nydegger 3600m - Biovar II - *potato (French).
8071 b *Solanum tuberosum* L. - potato. Colombia 1976. From E. French 104 ← G. Granada G24 - Biovar II.
8073 b *Solanum tuberosum* L. - potato. Costa Rica 1977. From E. French 106 ← L. Gonzalez - Biovar I.
8074 b* *Solanum tuberosum* L. - potato. Peru 1977. From E. French 107 ← C. Martin - Biovar II - *potato.
8075 b *Solanum tuberosum* L. - potato. Peru 1978. From E. French 108 ← C. Martin - Biovar II.
8076 b *Solanum tuberosum* L. - potato. USA 1978. From E. French 109 ← R.E. Stall 76-1 - Biovar I.
8077 b *Solanum tuberosum* L. - potato. Nepal 1979. From E. French 110 - Biovar II.
8078 b *Solanum tuberosum* L. - potato. Nepal 1979. From E. French 111 - Biovar II.
8079 b *Solanum tuberosum* L. - potato. Nepal 1979. From E. French 112 - Biovar II.
8080 b *Solanum tuberosum* L. - potato. USA. From E. French 113 ← R.E. Stall 76-5 - Biovar I.
8081 b *Solanum tuberosum* L. - potato. Egypt 1961. From E. French 114 ← NCPPB 909 ← R.A. Lelliott - Biovar II.
8082 b *Solanum tuberosum* L. - potato. India. From E. French 115 ← NCPPB 1331 ← A.C. Hayward - Biovar II.
8083 b *Solanum tuberosum* L. - potato. Nigeria 1968. From E. French 117 ← NCPPB 2088 ← D.C. Graham - Biovar II.
8084 b *Solanum tuberosum* L. - potato. Peru 1980. From E. French 118 ← W. Linde - Biovar I.
8086 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 120 ← H. Pinedo - Biovar I.
8087 b *Solanum tuberosum* L. - potato. Sri Lanka. From E. French 121 - Biovar IV.
8088 b *Solanum tuberosum* L. - potato. Rwanda 1979. From E. French 122 ← D. Goffinet - Biovar II.
8094 b *Solanum tuberosum* L. - potato. Peru 1977. From E. French 128 ← L. Gutarra - Biovar I.
8095 b *Solanum tuberosum* L. - potato. Peru 1977. From E. French 129 ← L. Gutarra - Biovar I.
8096 b *Solanum tuberosum* L. - potato. Peru 1977. From E. French 130 ← C. Martin - Biovar I.
8098 b *Solanum tuberosum* L. - potato. Sri Lanka 1977. From E. French 132 ← S. Seneviratne PO81 - Biovar III.
8099 b *Solanum tuberosum* L. - potato. Sri Lanka 1977. From E. French 133 ← S. Seneviratne PO82 - Biovar III.
8101 b *Solanum tuberosum* L. - potato. Brazil 1977. From E. French 135 ← J.R. Neto 67 - Biovar II.
8102 b *Solanum tuberosum* L. - potato. Peru 1980. From E. French 136 ← C. Martin ← W. Linde - Biovar I.
8103 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 137 ← L. de Lindo - Biovar I.
8104 b *Solanum tuberosum* L. - potato. Brazil 1977. From E. French 138 ← J.R. Neto 94 - Biovar I.
8105 b *Solanum tuberosum* L. - potato. Brazil 1977. From E. French 139 ← J.R. Neto 95 - Biovar I.
8107 b* *Solanum tuberosum* L. - potato. Peru 1978. From E. French 141 ← C. Martin - Biovar I - *potato (French).
8108 b *Solanum tuberosum* L. - potato. Peru 1978. From E. French 142 ← C. Martin - Biovar II - *potato (French).
8110 b *Solanum tuberosum* L. - potato. Sri Lanka 1977. From E. French 144 ← S. Seneviratne P120B - Biovar III.
8112 b *Solanum tuberosum* L. - potato. Venezuela 1978. From E. French 146 ← C. Martin - Biovar II.
8113 b *Solanum tuberosum* L. - potato. Peru 1978. From E. French 147 ← C. Martin - Biovar I.
8114 b *Solanum tuberosum* L. - potato. Philippines 1978. From E. French 148 - Biovar III.
8115 b *Solanum tuberosum* L. - potato. Philippines 1978. From E. French 149 - Biovar IV.
8168 b *Solanum tuberosum* L. - potato. Colombia 1980. From E. French 163 ← C. Martin - Biovar II.
8170 b *Solanum tuberosum* L. - potato. Sri Lanka 1962. From E. French 165 ← NCPPB 2323 ← A.C. Hayward - Biovar II.
8171 b *Solanum tuberosum* L. - potato. Australia 1963. From E. French 166 ← NCPPB 1483 ← A.C. Hayward - Biovar II.
8172 b *Solanum tuberosum* L. - potato. Peru 1980. From E. French 167 ← W. Galindez - Biovar II.
8174 b *Solanum tuberosum* L. - potato. Greece 1965. From E. French 170 ← NCPPB 1789 ← C.G. Panagopoulos - Biovar II.
8175 b *Solanum tuberosum* L. - potato. Sweden 1972. From E. French 171 ← NCPPB 2505 ← K. Olssen - Biovar II.
8176 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 172 ← C. Martin - Biovar II.
8177 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 173 ← W. Linde - Biovar I.
8178 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 174 ← W. Linde - Biovar I.
8179 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 175 ← W. Linde - Biovar II.
8180 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 176 ← W. Linde - Biovar I.
8181 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 177 ← W. Linde - Biovar II.
8182 b *Solanum tuberosum* L. - potato. Peru 1979. From E. French 178 ← W. Linde.
8184 b *Solanum tuberosum* L. - potato. Indonesia (Java) 1981. From E. French 180 - Biovar II.
8185 b *Solanum tuberosum* L. - potato. Indonesia (Java) 1981. From E. French 181 - Biovar II.
8186 b *Solanum tuberosum* L. - potato. Argentina 1980. From E. French 182 ← C. Martin - Biovar II.
8187 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 183 ← U. Nydegger - Biovar I.
8188 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 184 ← U. Nydegger - Biovar II.
8189 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 185 ← U. Nydegger - Biovar II.
8190 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 186 ← B.O. Neall de Care - Biovar II.
8191 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 187 ← L. Gutarra - Biovar I.
8192 b *Solanum tuberosum* L. - potato. Argentina 1981. From E. French 188 ← C. Martin - Biovar II.
8194 b *Solanum tuberosum* L. - potato. Peru 1981. From E. French 190 ← U. Nydegger - Biovar II.
8199 b *Solanum tuberosum* L. - potato. Kenya 1981. From E. French 192 ← C. Martin ← A. Ramos - Biovar II.
8200 b *Solanum tuberosum* L. - potato. Kenya 1981. From E. French 193 ← C. Martin ← A. Ramos - Biovar II.
8201 b *Solanum tuberosum* L. - potato. Rwanda 1982. From E. French 194 ← A. Devaux - Biovar II.
8202 b *Solanum tuberosum* L. - potato. Sri Lanka 1981. From E. French 195 ← M. Velupillai - Biovar IV.
8203 b *Solanum tuberosum* L. - potato. Sri Lanka 1982. From E. French 196 ← M. Velupillai - Biovar II.
8204 b* *Solanum tuberosum* L. - potato cv. Molinera. Peru 1982. From E. French 197 - Biovar II - *potato (French).

- 8205 b *Solanum tuberosum* L. - potato cv. Molinera. Peru 1982. From E. French 198 - Biovar II.
- 8206 b* *Solanum tuberosum* L. - potato cv. Mariva. Peru 1982. From E. French 199 - Biovar II - *potato (French).
- 8207 b *Solanum tuberosum* L. - potato cv. Mariva. Peru 1982. From E. French 200 - Biovar II.
- 8208 b* *Solanum tuberosum* L. - potato cv. Ranrahirca. Peru 1982. From E. French 201 - Biovar II - *potato (French).
- 8209 b *Solanum tuberosum* L. - potato cv. Amapola. Peru 1982. From E. French 202 - Biovar II.
- 8210 b *Solanum tuberosum* L. - potato cv. Amapola. Peru 1982. From E. French 203 - Biovar I.
- 8211 b* *Solanum tuberosum* L. - potato cv. Molinera. Peru 1982. From E. French 204 - Biovar II - *potato (French).
- 8212 b *Solanum tuberosum* L. - potato. Seychelles 1982. From E. French 205 ← J. Bryan.
- 8213 b* *Solanum tuberosum* L. - potato. 1982. From E. French 206 - Biovar II - *potato - weakly virulent (French).
- 8214 b *Solanum tuberosum* L. - potato. Peru 1982. From E. French 207 ← U. Nydegger - Biovar II.
- 8215 b *Solanum tuberosum* L. - potato. Peru 1982. From E. French 208 ← U. Nydegger - Biovar II.
- 8216 b *Solanum tuberosum* L. - potato. Brazil 1976. From E. French 210 ← J.R. Neto 62 - Biovar I.
- 8217 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 211 ← J.R. Neto 107 - Biovar II.
- 8221 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 216 ← J.R. Neto 125 - Biovar II.
- 8222 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 218 ← J.R. Neto 129 - Biovar I.
- 8223 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 219 ← J.R. Neto 131 - Biovar II.
- 8224 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 223 ← J.R. Neto 139 - Biovar II.
- 8225 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 224 ← J.R. Neto 142 - Biovar II.
- 8226 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 225 ← J.R. Neto 147 - Biovar II.
- 8227 b *Solanum tuberosum* L. - potato. Brazil 1981. From E. French 227 ← J.R. Neto 350 - Biovar I.
- 8273 b *Solanum tuberosum* L. - potato. Peru 1980. From E. French 116 ← C. Martin - Biovar I.
- 8279 b *Solanum tuberosum* L. - potato. Malaysia 1964. From E. French 169 ← NCPPB 1614 ← A.C. Hayward - Biovar II.
- 8280 b *Solanum tuberosum* L. - potato. Peru 1982. From E. French 209 ← U. Nydegger - Biovar II.
- 8282 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 217 ← J.R. Neto 126 - Biovar II.
- 8283 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 220 ← J.R. Neto 133 - Biovar II.
- 8284 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 221 ← J.R. Neto 137 - Biovar II.
- 8285 b *Solanum tuberosum* L. - potato. Brazil 1978. From E. French 222 ← J.R. Neto 138 - Biovar II.
- 8286 b *Solanum tuberosum* L. - potato. Brazil 1979. From E. French 226 ← J.R. Neto 172 - Biovar II.
- 8287 b *Solanum tuberosum* L. - potato. Brazil 1977. From E. French 140 ← J.R. Neto 97 - Biovar II.
- 9598 *Solanum tuberosum* L. - potato. Brazil 1978. From IBSBF 125 ← J.R. Neto - Biovar II.
- 9599 *Solanum tuberosum* L. - potato. Brazil 1978. From IBSBF 138 ← J.R. Neto - Biovar II.
- 9604 *Solanum tuberosum* L. - potato. Brazil 1987. From IBSBF 626 ← V.A. Malavolta Jr.
- 9740 *Solanum tuberosum* L. - potato - tuber. India. From N. Samajpati FB-2 ← F. Bhattacharyya FB-2.
- 11979 *Solanum tuberosum* L. - potato - leaf & stem wilt with stem & tuber browning. Australia Apr 1984. From DAR 49316 ← P.C. Fahy - Biovar II, race 3.
- 12359 * *Solanum tuberosum* L. - potato cv. Aola - brown rot and wilt of tuber. Iran 1992. From H. Rahimian ← M. Bagheri AR161 - subgroup I-C-2 of Iranian strains - Biovar II - *potato, tomato (Rahimian).
- 11980 *Strelitzia reginae* Ait. - bird-of-paradise - stem wilt. Australia Apr 1987. From DAR 58719a ← L. Tesoriero - Biovar III.
- 756 a *Symphytum* sp. - comfrey. Zimbabwe 1956. From N.L. Baigent PU13 ← A.C. Hayward B439 ← G.R. Bates MR13696 = NCPPB 505 - Biovar I.
- 9915 *Syzygium aromaticum* (L.) Merr. & L.M. Perry - clove. Indonesia 1980. From NCPPB 3219 ← J.F. Bradbury B8719a ← C.P. Bennett UBB - Biovar I.
- 781 a *Tectona grandis* L.f. - teak. Malaysia Dec 1959. From N.L. Baigent PU32 ← A.C. Hayward B218 ← S.J. Navaratnam 212 = NCPPB 792 - Biovar III.
- 11119 *Zingiber mioga* Rosc. China. From X.Z. Ren ZO114.
- 11120 *Zingiber mioga* Rosc. China. From X.Z. Ren ZO122.
- 11121 *Zingiber mioga* Rosc. China. From X.Z. Ren ZO127.
- 755 a *Zingiber officinale* Rosc. - ginger. Malaysia 1961. From N.L. Baigent PU12 ← A.C. Hayward B669 = NCPPB 1052 - Biovar IV.
- 773 b *Zingiber officinale* Rosc. - ginger. Mauritius 1954. From N.L. Baigent PU24 ← A.C. Hayward B53 ← G. Orian - Biovar III.
- 8229 b *Zingiber officinale* Rosc. - ginger. Costa Rica 1976. From E. French 80 ← L. Gonzalez Q2 - Biovar IV.
- 11982 *Zingiber officinale* Rosc. - ginger. Australia Mar 1966. From DAR 64897 ← A.C. Hayward O92.
- 8166 b Soil. Peru 1980. From E. French 161 ← C. Martin - Biovar II.
- 8278 b Soil. Peru 1980. From E. French 162 ← C. Martin - Biovar II.
- Chromobacterium iodinum** Davis 1939
1630 From C.H. Chee CH4 ← NCDO - latent pigment producer.
- Chromobacterium lividum* (Eisenberg 1891) Bergey *et al.* 1923
see *Janthinobacterium lividum*.
- Chromobacterium violaceum** Bergonzini 1881
8644 a Fresh water. Malaysia. From LMG 1267 ← NCTC 9757 ← P.H.A. Sneath = ATCC 12472: NCIB 9131 - Int. J. Syst. Bact. 8: 152, 1958 - **Type strain.**
- Citrobacter freundii** (Braak 1928) Werkman & Gillen 1932
7610 a From NHI 982 ← NCTC 9750 ← C.H. Werkman = ATCC 8090 - Ref: Int. J. Syst. Bact. 11: 36, 1963, Int. J. Syst. Bact. 1 4: 57, 1964 - **Type strain.**
- Clavibacter michiganensis** subsp. *insidiosus* (McCulloch 1925) Davis *et al.* 1984
syn. *Corynebacterium insidiosum* (McCulloch 1925) Jensen 1934
syn. *Corynebacterium michiganense* subsp. *insidiosum* (McCulloch 1925) Carlson & Vidaver 1982
syn. *Corynebacterium michiganense* pv. *insidiosum* (McCulloch 1925) Dye & Kemp 1987
- 2611 a *Medicago sativa* L. - lucerne, alfalfa. UK 1964. From D.W. Dye CK2 ← NCPPB 1660 ← G.E. Jones C220A.
- 2612 a *Medicago sativa* L. - lucerne, alfalfa. UK 1964. From D.W. Dye CK3 ← NCPPB 1643 ← R.A. Lelliott CI-H1 = ICPB CI146.
- 2613 a *Medicago sativa* L. - lucerne, alfalfa. UK 1964. From D.W. Dye CK4 ← NCPPB 1634 ← R.A. Lelliott CI-A.
- 2614 a *Medicago sativa* L. - lucerne, alfalfa. USA 1943. From D.W. Dye CK5 ← NCPPB 1110 ← W.H. Burkholder = NCIB 9027: ICPB CI13A.
- 2615 a *Medicago sativa* L. - lucerne, alfalfa. Canada. From D.W. Dye CK6 ← NCPPB 1020 ← M.W. Cormack Co21.
- 2617 a *Medicago sativa* L. - lucerne, alfalfa. USA 1934. From D.W. Dye CK8 ← ICPB CI1A ← W.H. Burkholder S23.
- 2618 a *Medicago sativa* L. - lucerne, alfalfa. USA Oct 1939. From D.W. Dye CK9 ← ICPB CI4 ← W.H. Burkholder S34.
- 2620 a *Medicago sativa* L. - lucerne, alfalfa. USA. From D.W. Dye CK11 ← ICPB CI134 ← A.R. Wilson = NCPPB 83.
- 2621 a* *Medicago sativa* L. - lucerne, alfalfa. USA 1955. From D.W. Dye CK12 ← ICPB CI142 ← W.H. Burkholder PB = NCIB 9026: NCPPB 1109: JCM 9664: CFBP 2404: LMG 3663 - *lucerne - **Type strain.**
- 2948 a *Medicago sativa* L. - lucerne, alfalfa - stem. NZ Dec 1970. From C.N. Hale C1049 ← D.W. Dye CK13.
- 2949 b *Medicago sativa* L. - lucerne, alfalfa - stem. Winslow, MC, NZ Feb 1971. From C.N. Hale A1S.
- 2950 a *Medicago sativa* L. - lucerne, alfalfa - stem. Winslow, MC, NZ Dec 1970. From C.N. Hale B1049 ← D.W. Dye CK14.
- 2951 a *Medicago sativa* L. - lucerne, alfalfa - root. Winslow, MC, NZ Dec 1970. From C.N. Hale M1067 ← D.W. Dye CK15 = NCPPB 2414: ICPB CI149.
- 2952 a *Medicago sativa* L. - lucerne, alfalfa - root. Winslow, MC, NZ Dec 1970. From C.N. Hale C1067 ← D.W. Dye CK17.
- 2953 a *Medicago sativa* L. - lucerne, alfalfa - vascular tissue. Winslow, MC, NZ Dec 1970. From C.N. Hale A1049 ← D.W. Dye CK16.

- 2954 a *Medicago sativa* L. - lucerne, alfalfa - root. NZ Dec 1970. From C.N. Hale L1 ← D.W. Dye CK19 ← R.C. Close f5 = NCPPB 2415: ICPB CI150.
- 3558 *Medicago sativa* L. - lucerne, alfalfa - root. Winslow, MC, NZ 1971. From C.N. Hale L8 ← R.C. Close.
- 3559 *Medicago sativa* L. - lucerne, alfalfa - root. Ashburton Forks, MC, NZ 1971. From C.N. Hale L12 ← R.C. Close 96.
- 3560 *Medicago sativa* L. - lucerne, alfalfa - root. Canterbury, NZ 1971. From C.N. Hale L16 ← R.C. Close 132.
- 3561 *Medicago sativa* L. - lucerne, alfalfa - root. Culverden, NC, NZ 1971. From C.N. Hale L19 ← R.C. Close 106A.
- 3562 *Medicago sativa* L. - lucerne, alfalfa - root. Lake Waihola, SD, NZ 1971. From C.N. Hale L22 ← R.C. Close 146.
- 3563 *Medicago sativa* L. - lucerne, alfalfa - root. Waitati, DN, NZ 1971. From C.N. Hale L23.
- 3566 *Medicago sativa* L. - lucerne, alfalfa - root. Winchmore, MC, NZ Mar 1971. From C.N. Hale L48.
- 3567 *Medicago sativa* L. - lucerne, alfalfa - root. Australia 1967. From C.N. Hale L49 ← E. Coster JH3RR.
- 3568 *Medicago sativa* L. - lucerne, alfalfa - root. Australia. From C.N. Hale L50 ← E. Coster UPC2.
- 3569 *Medicago sativa* L. - lucerne, alfalfa - root. Canterbury, NZ 1971. From C.N. Hale L52.
- 3570 *Medicago sativa* L. - lucerne, alfalfa - root. Central Otago, CO, NZ 1972. From C.N. Hale L55.
- 3572 *Medicago sativa* L. - lucerne, alfalfa - root. Cheviot, CO, NZ 1973. From C.N. Hale 1586.
- 3618 *Medicago sativa* L. - lucerne, alfalfa - stem. Australia 1973. From C.N. Hale 1610 ← P.C. Fahy PF1 = DAR 26781.
- 3619 *Medicago sativa* L. - lucerne, alfalfa - stem. Australia 1973. From C.N. Hale 1611 ← P.C. Fahy PF2 = DAR 26782.
- 3983 b *Medicago sativa* L. - lucerne, alfalfa - seed. USA Jun 1974. From C.N. Hale 1799 - agglutinates with antiserum from ICMP 3570.
- 4152 b* *Medicago sativa* L. - lucerne, alfalfa. Patoka, HB, NZ Mar 1975. From C.F. Hill AS5416 - *lucerne.
- 4153 b* *Medicago sativa* L. - lucerne, alfalfa. Onga Onga, HB, NZ Mar 1975. From C.F. Hill AS5427 - *lucerne.
- 4154 b* *Medicago sativa* L. - lucerne, alfalfa. Galatea, BP, NZ Mar 1975. From C.F. Hill AS5488 - *lucerne.
- 4190 b *Medicago sativa* L. - lucerne, alfalfa - stained vasculature of plant showing stem proliferation stunting and yellowing. Okaia, TO, NZ Apr 1975. From C.F. Hill AS5622.
- 4192 b *Medicago sativa* L. - lucerne, alfalfa - stained vasculature of plant showing stem proliferation, stunting, yellowing. Broadlands, TO, NZ May 1975. From C.F. Hill AS5717.
- 4231 *Medicago sativa* L. - lucerne cv. Wairau. NZ. From A. Yee.
- 4540 b *Medicago sativa* L. - lucerne, alfalfa - stained vasculature of plant showing stem proliferation, stunting, yellowing. Havelock North, HB, NZ May 1975. From C.F. Hill AS5763 - non-pigmented strain - agglutinates with antiserum from ICMP 3570.
- 4541 b *Medicago sativa* L. - lucerne, alfalfa. Havelock North, HB, NZ Jun 1975. From C.F. Hill AS5867 - non-pigmented strain - agglutinates with antiserum from ICMP 3570.
- 4544 b* *Medicago sativa* L. - lucerne, alfalfa - stained vasculature of plant showing stem proliferation stunting & yellowing. Havelock North, HB, NZ Apr 1975. From C.F. Hill AS5624A - non-pigmented strain - agglutinates with antiserum from ICMP 3570 - *lucerne.
- 4599 b *Medicago sativa* L. - lucerne, alfalfa - proliferation of stems, stained vascular cylinder, stunted yellow foliage. Manawatu, WI, NZ Dec 1975. From C.F. Hill AS6501 - agglutinates with antiserum from ICMP 3570.
- 4687 b *Medicago sativa* L. - lucerne, alfalfa - vascular discoloration of root. Blenheim, MB, NZ Apr 1976. From C.N. Hale 2137 - produces blue pigment on GYCA - agglutinates with antiserum from ICMP 3570.
- 4691 *Medicago sativa* L. - lucerne, alfalfa - root. Blenheim, MB, NZ Apr 1976. From C.N. Hale 2142.
- 4692 *Medicago sativa* L. - lucerne, alfalfa - stunted plant. Blenheim, MB, NZ Apr 1976. From C.N. Hale 2145.
- 4730 *Medicago sativa* L. - lucerne, alfalfa - wilt symptoms, stunting, curled leaves, yellow vascular tissue in root. MB, NZ Apr 1976. From C.N. Hale 2156.
- 6198 *Medicago sativa* L. - lucerne, alfalfa - discoloured vasculature of wilted plant. Winslow, MC, NZ Nov 1970. From C.N. Hale L2 ← J.D. Taylor 1047 ← R.C. Close 81.
- 6565 *Medicago sativa* L. - lucerne, alfalfa cv. Florida 66 - root. Wairakei, TO, NZ Aug 1979. From J. Rees-George 1.
- 6566 *Medicago sativa* L. - lucerne, alfalfa cv. Saranac - root. Wairakei, TO, NZ Aug 1979. From J. Rees-George 2.
- 11530 * *Medicago sativa* L. - lucerne, alfalfa - stem base. Czechoslovakia Sep 1990. From V. Kudela 7 - *lucerne (Kudela).
- 2616 a USA. From D.W. Dye CK7 ← NCPPB 852 ← E.D. Hansing = ICPB CI16: ATCC 10253.
- 2619 a USA Jul 1943. From D.W. Dye CK10 ← ICPB CI102A ← P.A. Ark B4320-1.

Clavibacter iranicus (ex Scharif 1961) Davis *et al.* 1984syn. *Corynebacterium michiganense* pv. *iranicum* (Scharif 1961) Dye & Kemp 1977syn. *Rathayibacter iranicus* (ex Scharif 1961) Zgurskaya *et al.* 1993

- 3496 a *Triticum aestivum* L. - wheat. Iran 1966. From C.N. Hale CL2 ← NCPPB 2253 ← M. Ridé 66-807 = CFBP 807: ICPB CI148: JCM 9308: LMG 3677 - **Type strain**.
- 12831 *Triticum aestivum* L. - wheat - gumming spike. Iran 1994. From H. Rahimian EL16 ← Babae-Zad.

Clavibacter michiganensis subsp. *michiganensis* (Smith 1910) Davis *et al.* 1984syn. *Corynebacterium michiganense* (Smith 1910) Jensen 1934syn. *Corynebacterium michiganense* subsp. *michiganense* (Smith 1910) Jensen 1934syn. *Corynebacterium michiganense* pv. *michiganense* (Smith 1910) Jensen 1934

- 5026 *Capsicum annuum* L. - sweet pepper cv. California Wonder 300 - scabby fruit spot. USA 1974. From C.M. Lai 2053.
- 5331 *Capsicum annuum* L. - sweet pepper cv. California Wonder 300 - scabby fruit spot. USA 1974. From C.M. Lai 2052.
- 1808 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - canker, leafspots. Kerikeri, ND, NZ Mar 1967. From D.W. Dye CC13 ← D.A. Shackleton.
- 1809 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - canker, leafspots. Kerikeri, ND, NZ Mar 1967. From D.W. Dye CC14 ← D.A. Shackleton.
- 1810 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - typical cankerous leafspots. Kerikeri, ND, NZ Mar 1967. From D.W. Dye CC15 ← D.A. Shackleton.
- 1811 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - typical cankerous leafspots. Kerikeri, ND, NZ Mar 1967. From D.W. Dye CC16 ← D.A. Shackleton.
- 1812 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - typical cankerous leafspots. NZ Mar 1967. From D.W. Dye CC17 ← D.A. Shackleton.
- 1813 a *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - typical cankerous leafspots. NZ Mar 1967. From D.W. Dye CC18 ← D.A. Shackleton.
- 542 a *Lycopersicon esculentum* Mill. - tomato - fruit spot. Papatoetoe, AK, NZ Nov 1961. From N.L. Baigent C8 ← D.W. Dye CC8 ← W.J. Kemp.
- 543 a *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1961. From N.L. Baigent C9 ← D.W. Dye CC9.
- 544 a *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1961. From N.L. Baigent C11 ← D.W. Dye CC11.
- 548 a *Lycopersicon esculentum* Mill. - tomato - fruit spot. Auckland, AK, NZ Dec 1961. From N.L. Baigent C10 ← D.W. Dye CC10.
- 549 a *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1961. From N.L. Baigent C12 ← D.W. Dye CC12.
- 762 a* *Lycopersicon esculentum* Mill. - tomato - fruit lesion. Wairarapa, WA, NZ 1963. From D.W. Dye CC7 ← D.A. Shackleton - *tomato.
- 1436 a *Lycopersicon esculentum* Mill. - tomato - leafspot. Mt Albert, AK, NZ 1953. From D.W. Dye CC3.
- 1437 a *Lycopersicon esculentum* Mill. - tomato. Avondale, AK, NZ 1962. From D.W. Dye CC5 ← W.J. Kemp.
- 1438 a *Lycopersicon esculentum* Mill. - tomato. Pukekohe, AK, NZ 1962. From D.W. Dye CC6 ← W.J. Kemp.
- 2164 *Lycopersicon esculentum* Mill. - tomato - vascular discoloration of petiole. Levin, WN, NZ Mar 1968. From D.R.W. Watson C119.
- 2307 *Lycopersicon esculentum* Mill. - tomato - fruit. Tonga Jul 1968. From D.R.W. Watson A224.
- 2354 b* *Lycopersicon esculentum* Mill. - tomato - wilt and rot of stem. Mangere, AK, NZ Jun 1968. From D.R.W. Watson H213 - *tomato.
- 2355 b* *Lycopersicon esculentum* Mill. - tomato - wilt of leaves and vascular discoloration. Auckland, AK, NZ Jun 1968. From D.R.W. Watson A218 - *tomato.
- 2539 a *Lycopersicon esculentum* Mill. - tomato. South Africa 1967. From D.W. Dye CC19 ← NCPPB 2034 ← J.J. Joubert R2.
- 2541 a *Lycopersicon esculentum* Mill. - tomato. UK 1962. From D.W. Dye CC21 ← NCPPB 1468 ← R.A. Lelliott CM2.
- 2542 a *Lycopersicon esculentum* Mill. - tomato. Zambia 1962. From D.W. Dye CC22 ← NCPPB 1397 ← A.C. Hayward B1391.

- 2543 a *Lycopersicon esculentum* Mill. - tomato. Italy 1961. From D.W. Dye CC23 ← NCPPB 1064 ← G.L. Ercolani PR14-2 = ATCC 14456.
- 2544 a *Lycopersicon esculentum* Mill. - tomato. Zimbabwe 1960. From D.W. Dye CC24 ← NCPPB 886 ← A.C. Hayward B306.
- 2545 a *Lycopersicon esculentum* Mill. - tomato. Sicily 1956. From D.W. Dye CC25 ← NCPPB 515 ← A. Ciccarone = ICPB CM186: W.J. Dowson 397.
- 2546 a *Lycopersicon esculentum* Mill. - tomato. USA 1936. From D.W. Dye CC26 ← ICPB CM1 ← W.H. Burkholder S29.
- 2547 a *Lycopersicon esculentum* Mill. - tomato - fruit. USA 1931. From D.W. Dye CC27 ← ICPB CM4 ← W.H. Burkholder S11.
- 2548 a *Lycopersicon esculentum* Mill. - tomato. USA 1946. From D.W. Dye CC29 ← ICPB CM9.
- 2549 a *Lycopersicon esculentum* Mill. - tomato. USA 1945. From D.W. Dye CC30 ← ICPB CM103 ← W.H. Burkholder S19.
- 2550 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye CC31 ← ICPB CM177 ← Z. Klement SO5 = NCPPB 2979: JCM 9665: CFBP 2352: LMG 7333 - **Type strain**.
- 2551 a* *Lycopersicon esculentum* Mill. - tomato - leafspot. Brazil Sep 1964. From D.W. Dye CC32 ← ICPB CM184 ← C.F. Robbs ENA261 - orange pigmented strain - *eggplant, tomato (Robbs).
- 2552 a *Lycopersicon esculentum* Mill. - tomato - stem. Nelson, NN, NZ Feb 1969. From D.W. Dye CC33 ← W.J. Kemp.
- 2553 a *Lycopersicon esculentum* Mill. - tomato - stem. Nelson, NN, NZ Feb 1969. From D.W. Dye CC34 ← W.J. Kemp.
- 2554 a *Lycopersicon esculentum* Mill. - tomato - stem. Nelson, NN, NZ Feb 1969. From D.W. Dye CC35 ← W.J. Kemp.
- 2556 a *Lycopersicon esculentum* Mill. - tomato - stem. Nelson, NN, NZ Feb 1969. From D.W. Dye CC37 ← W.J. Kemp.
- 2558 a *Lycopersicon esculentum* Mill. - tomato - fruit. Te Puke, BP, NZ Apr 1969. From D.W. Dye CC39 ← D.R.W. Watson B481.
- 2559 a *Lycopersicon esculentum* Mill. - tomato - fruit. Te Puke, BP, NZ Apr 1969. From D.W. Dye CC40 ← D.R.W. Watson C481.
- 2560 a *Lycopersicon esculentum* Mill. - tomato - fruit. Te Puke, BP, NZ Apr 1969. From D.W. Dye CC41 ← J.M. Young 60.
- 4938 b* *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant. Mangere, AK, NZ Aug 1976. From C.F. Hill AS7589 - *tomato (Hill).
- 5022 *Lycopersicon esculentum* Mill. - tomato. USA. From C.M. Lai 2048.
- 5023 *Lycopersicon esculentum* Mill. - tomato. USA. From C.M. Lai 2050.
- 5330 *Lycopersicon esculentum* Mill. - tomato. USA. From C.M. Lai 2051.
- 5894 *Lycopersicon esculentum* Mill. - tomato - vasculature of wilted plant. Auckland, AK, NZ Jan 1978. From D.R.W. Watson A2362 - Gram +ve coryneform.
- 5966 b* *Lycopersicon esculentum* Mill. - tomato - vasculature of wilted petiole. Massey, AK, NZ Mar 1978. From D.R.W. Watson E2405 - *tomato.
- 6416 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - peduncle scab. Henderson, AK, NZ Nov 1978. From D.R.W. Watson A2463.
- 6421 *Lycopersicon esculentum* Mill. - tomato - fruit scab. Welcome Bay, BP, NZ Nov 1978. From D.R.W. Watson 2M2464.
- 6422 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - peduncle scab. Henderson, AK, NZ Nov 1978. From D.R.W. Watson A2465.
- 6424 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - leaf scab. Henderson, AK, NZ Nov 1978. From D.R.W. Watson B2467.
- 6726 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - yellow discoloured vasculature of stunted, wilted plant. Otahuhu, AK, NZ May 1979. From D.R.W. Watson A2562.
- 6728 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - yellow slime inside cracked peduncle. Mangere, AK, NZ May 1979. From D.R.W. Watson A2581.
- 6861 *Lycopersicon esculentum* Mill. - tomato cv. Grenadier - yellow stained vasculature of stem. Mangere, AK, NZ Nov 1979. From D.R.W. Watson A2650.
- 6862 *Lycopersicon esculentum* Mill. - tomato cv. Virosa - stem of wilted plant - discoloured vasculature. Mangere, AK, NZ Nov 1979. From D.R.W. Watson C2652.
- 7186 b* *Lycopersicon esculentum* Mill. - tomato cv. Eurovite - fruit scab. NZ Jun 1980. From D.R.W. Watson A2765 - *tomato.
- 7200 b* *Lycopersicon esculentum* Mill. - tomato cv. Ganet - petiole streak. Mangere, AK, NZ Aug 1980. From D.R.W. Watson A2791 - *tomato.
- 8034 *Lycopersicon esculentum* Mill. - tomato. Brazil 1978. From IBSBF 149 ← J.R. Neto.
- 8044 *Lycopersicon esculentum* Mill. - tomato. Brazil 1982. From IBSBF 437 ← J.R. Neto.
- 9011 *Lycopersicon esculentum* Mill. - tomato cv. Slager - gall in stem. Hungary 1982. From J. Nemeth HE11.
- 9012 *Lycopersicon esculentum* Mill. - tomato - gall in stem. Hungary 1982. From J. Nemeth HE13.
- 9013 *Lycopersicon esculentum* Mill. - tomato cv. Slager - gall in stem. Hungary 1982. From J. Nemeth HE23.
- 9207 b* *Lycopersicon esculentum* Mill. - tomato cv. Virosa - pale brown vascular discoloration of stem - plant wilted. Paeroa, CL, NZ Jul 1986. From D.R.W. Watson A3530 - *tomato.
- 11911 *Lycopersicon esculentum* Mill. - tomato. France 1975. From CFBP 1715 ← A. Trigale TO46.
- 12316 * *Lycopersicon esculentum* Mill. - tomato - effects vascular tissue of stem, then wilt. China 1990. From Y. Zhao 00453 - *tomato (Zhao).
- 12317 * *Lycopersicon esculentum* Mill. - tomato cv. No.5 American - discoloured vascular tissue of stem. China Mar 1990. From Y. Zhao 00455 - *tomato (Zhao).
- 12318 * *Lycopersicon esculentum* Mill. - tomato cv. No.1 American - fruit. China Mar 1990. From Y. Zhao 00454 - *tomato (Zhao).
- 12319 * *Lycopersicon esculentum* Mill. - tomato - discoloured vascular tissue of stem. China 1990. From Y. Zhao 00460 - *tomato (Zhao).
- 12320 * *Lycopersicon esculentum* Mill. - tomato - discoloured vascular tissue of stem. China 1990. From Y. Zhao 00462 - *tomato (Zhao).
- 9120 * *Solanum muricatum* Ait. - pepino - fruit. Auckland, AK, NZ. From H.J. Boesewinkel - *tomato (Boesewinkel).
- 11952 *Solanum nigrum* L. - black nightshade. Algeria 1984. From CFBP 2499 ← S. Yahiaoui 41.
- 2540 a From D.W. Dye CC20 ← NCPPB 1496 ← C.M. Moskovets 555.

Clavibacter michiganensis subsp. **nebraskensis** (Vidaver & Mandel 1974) Davis *et al.* 1984

syn. *Corynebacterium michiganense* Vidaver & Mandel 1974

syn. *Corynebacterium michiganense* subsp. *nebraskense* (Vidaver & Mandel 1974) Calson & Vidaver 1982

syn. *Corynebacterium michiganense* pv. *nebraskensis* (Vidaver & Mandel 1974) Dye & Kemp 1977

- 3294 a* *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO1A - artificial inoculation by D.R. Smith Urbana, USA - *maize.
- 3295 a* *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO1B - artificial inoculation by D.R. Smith Urbana, USA - *maize.
- 3296 a* *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO1C - artificial inoculation by D.R. Smith Urbana, USA - *maize.
- 3298 a* *Zea mays* L. - maize - leaf freckle. USA 1971. From D.W. Dye CO2 ← M.L. Schuster 296 = NCPPB 2581: ATCC 27794: JCM 9666: CFBP 2405: LMG 3700 - *maize - **Type strain**.
- 3299 a *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO3 ← M.L. Schuster 313.
- 3300 a *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO4 ← M.L. Schuster 408.
- 3301 a *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO5 ← M.L. Schuster 510 - avirulent to maize.
- 3302 a *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO6 ← M.L. Schuster 550 - avirulent to maize.
- 3303 a *Zea mays* L. - maize - leaf. USA Jul 1972. From D.W. Dye CO7 ← M.L. Schuster 565 - avirulent to maize.
- 5366 a *Zea mays* L. - maize. USA 1971. From A.K. Vidaver FUR1 = ATCC 27822: NCPPB 2578.
- 5367 b *Zea mays* L. - maize. USA. From A.K. Vidaver FUR13.
- 5368 b *Zea mays* L. - maize. USA. From A.K. Vidaver 'Chase'.
- 5369 b *Zea mays* L. - maize. USA. From A.K. Vidaver 'Ben-M'.
- 9112 USA 1976. From L.E. Claffin 106.

Clavibacter michiganensis subsp. **sepedonicus** (Spieckermann & Kotthoff 1914) Davis *et al.* 1984

syn. *Corynebacterium michiganense* subsp. *sepedonicum* (Spieckermann & Kotthoff) Carlson & Vidaver 1982

syn. *Corynebacterium sepedonicum* Spieckermann & Kotthoff 1914

syn. *Corynebacterium michiganense* pv. *sepedonicum* (Spieckermann & Kotthoff) Dye & Kemp 1977

- 9728 a* *Beta vulgaris* L. - sugarbeet - symptomless root. USA Oct 1984. From N.C. Gudmestad NDCsSB-5 ← G. Nielsen NDCsSB-5 - Phytopath. 77: 765-770, 1987 - *potato, eggplant (Gudmestad).
- 9729 a* *Beta vulgaris* L. - sugarbeet - symptomless root. USA Oct 1984. From N.C. Gudmestad NDCsSB-57 ← G. Nielsen NDCsSB-57 - Phytopath. 77: 765-770, 1987 - *potato, eggplant (Gudmestad).
- 9730 a* *Beta vulgaris* L. - sugarbeet - symptomless root. USA Oct 1984. From N.C. Gudmestad NDCsSB-65 ← G. Nielsen NDCsSB-65 - Phytopath.

- 77: 765-770, 1987 - *potato, eggplant (Gudmestad).
- 9731 a* *Beta vulgaris* L. - sugarbeet - symptomless root. USA Oct 1984. From N.C. Gudmestad NDCsSB-100 ← G. Nielsen NDCsSB-100 - Phytopath. 77: 765-770, 1987 - *potato, eggplant (Gudmestad).
- 9732 a* *Beta vulgaris* L. - sugarbeet cv. Monorica - symptomless seed. USA 1985. From N.C. Gudmestad NDCsSB-Mono-1 ← G. Nielsen NDCsSB-Mono-1 - Phytopath. 78: 205-208, 1988 - *potato, eggplant (Gudmestad).
- 2531 a *Solanum tuberosum* L. - potato. Sweden 1956. From D.W. Dye CB1 ← NCPPB 379 ← L. Nilsson.
- 2532 a *Solanum tuberosum* L. - potato. Canada. From D.W. Dye CB2 ← NCPPB 299 ← J.S. MacLachlan.
- 2534 a *Solanum tuberosum* L. - potato. USA Jan 1945. From D.W. Dye CB4 ← ICPB CS5 ← L.C. Knorr 5299 = ATCC 9850: ICPB CS116: NCPPB 2136, 2144.
- 2535 a *Solanum tuberosum* L. - potato - ringrot of tuber. Canada. From D.W. Dye CB5 ← ICPB CS101 ← H.N. Racicot C1 = NCPPB 2137: ATCC 33113: JCM 9667: CFBP 2049: LMG 2889 - **Type strain**.
- 2536 a *Solanum tuberosum* L. - potato. USA 1943. From D.W. Dye CB6 ← ICPB CS104 ← L.C. Knorr 4707 = NCPPB 2139.
- 2537 a* *Solanum tuberosum* L. - potato cv. Green Mountain - tuber. USA Dec 1942. From D.W. Dye CB7 ← ICPB CS105 ← L.T. Richardson = NCPPB 2140 - *potato (ICPB).
- 2538 a *Solanum tuberosum* L. - potato. USA 1945. From D.W. Dye CB8 ← ICPB CS116 ← L.C. Knorr 5299 = ATCC 9850: NCPPB 2136, 2144.
- 7116 a* *Solanum tuberosum* L. - potato - ringrot of tuber. USA. From S.A. Slack 27 ← ATCC 9850 ← W.H. Burkholder CS5 - *eggplant, tomato (Slack).
- 7117 a *Solanum tuberosum* L. - potato - ringrot of tuber. USA. From S.A. Slack 43.
- 9727 * *Solanum tuberosum* L. - potato cv. Russet Burbank - vascular ring separation and discoloration of tuber. USA Sep 1984. From N.C. Gudmestad NDCS-N-1 - *potato, eggplant (Gudmestad).
- 9733 * *Solanum tuberosum* L. - potato cv. Monona - vascular ring with discoloration and separation inside tuber. USA Sep 1984. From N.C. Gudmestad NDH-1-B - *potato, eggplant (Gudmestad).
- 9734 * *Solanum tuberosum* L. - potato. USA. From N.C. Gudmestad CsCA-1 ← A.K. Vidaver CsCA - *potato, eggplant (Gudmestad).
- 9735 * *Solanum tuberosum* L. - potato. USA. From N.C. Gudmestad CsMT ← D. Gross/ A.K. Vidaver CsMT - *potato, eggplant (Gudmestad).
- 9736 a* *Solanum tuberosum* L. - potato cv. Russet Burbank - basal stem. USA Sep 1982. From N.C. Gudmestad INM ← S.A. Slack/ A. Bishop SSNF-50 - Am. Potato J.: 65: 237-246 - non-fluidal isolate, causes dwarf rosette symptom in Russet Burbank - *potato, eggplant (Gudmestad).
- 9737 * *Solanum tuberosum* L. - potato cv. Nooksack - tuber. Canada Sep 1979. From N.C. Gudmestad SDB-R1 ← S.H. De Boer R1 - *potato, eggplant (Gudmestad).
- 11940 *Solanum tuberosum* L. - potato. Sweden. From CFBP 1598 ← K. Olsson 3R.
- 9254 USA 1974. From L.E. Claffin 109.
- Clavibacter michiganensis** subsp. **tessellarius** (Carlson & Vidaver 1982) Davis *et al.* 1984
- 7219 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78222 - produces bacteriocin type 1.
- 7220 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78152 - produces bacteriocin type 2.
- 7221 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78181 = ATCC 33566: JCM 9668: LMG 7294: NCPPB 3664 - produces bacteriocin type 3 - **Type strain**.
- 7222 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78151 - produces bacteriocin type 4.
- 7223 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78221 - produces bacteriocin types 1 & 3.
- 7224 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78141 - produces bacteriocin types 2 & 3.
- 7225 a *Triticum aestivum* L. - wheat. Jun 1978. From A.K. Vidaver 78271 - produces bacteriocin type 0.
- 7226 a *Triticum aestivum* L. - wheat. Jun 1977. From A.K. Vidaver 7771.
- 7227 a *Triticum aestivum* L. - wheat. Jun 1977. From A.K. Vidaver 77212.
- 7228 a *Triticum aestivum* L. - wheat. Jun 1977. From A.K. Vidaver 77251.
- 7229 a *Triticum aestivum* L. - wheat. Jun 1977. From A.K. Vidaver 77143.
- Clavibacter rathayi** (Smith 1913) Davis *et al.* 1984
syn. *Corynebacterium michiganense* pv. *rathayi* (Smith 1913) Dye & Kemp 1977
syn. *Rathayibacter rathayi* (Smith 1913) Zgurskaya *et al.* 1993
- 2571 a *Dactylis glomerata* L. - cocksfoot. UK 1934. From D.W. Dye CE1 ← NCPPB 80 = ICPB CR1: ATCC 13659.
- 2572 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ 1968. From D.W. Dye CE2 ← W.J. Kemp.
- 2573 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ Dec 1968. From D.W. Dye CE3.
- 2574 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ Dec 1968. From D.W. Dye CE4 = CFBP 2406: NCPPB 2980: JCM 9307: LMG 7288: NCPPB 2980 - **Type strain**.
- 2575 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ Dec 1968. From D.W. Dye CE5.
- 2576 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ Dec 1968. From D.W. Dye CE6 ← W.J. Kemp.
- 2577 a *Dactylis glomerata* L. - cocksfoot. Ashburton, MC, NZ Dec 1968. From D.W. Dye CE7 ← W.J. Kemp.
- 2579 a *Dactylis glomerata* L. - cocksfoot. UK (Scotland). From D.W. Dye CE9 ← ICPB CR101 ← M.J.M. Noble = A.C. Hayward 81302: NCPPB 797.
- Clavibacter tritici** (ex Hutchinsonson 1917) Davis *et al.* 1984
syn. *Corynebacterium michiganense* pv. *tritici* (ex Hutchinsonson 1917) Dye & Kemp 1977
syn. *Rathayibacter tritici* (ex Hutchinsonson 1917) Zgurskaya *et al.* 1993
- 2623 a *Triticum aestivum* L. - wheat. India. From D.W. Dye CM1 ← NCPPB 471 ← M.K. Hingorani = ITCC B28: ICPB CT103.
- 2624 a *Triticum aestivum* L. - wheat. Egypt 1941. From D.W. Dye CM2 ← NCPPB 255 ← W.J. Dowson = NCTC 6255: ICPB CT106.
- 2625 a *Triticum aestivum* L. - wheat. India. From D.W. Dye CM3 ← ICPB CT101 ← R.S. Vasudeva A = ATCC 11402.
- 2626 a *Triticum aestivum* L. - wheat. Egypt. From D.W. Dye CM4 ← ICPB CT102 ← R.S. Vasudeva B = ATCC 11403: CFBP 1385: LMG 3728: NCPPB 1857: JCM 9309 - **Type strain**.
- 2628 a *Triticum aestivum* L. - wheat. Iran 1966. From D.W. Dye CM6 ← ICPB CT104.
- Clavibacter** sp.
- 9375 a *Agropyron riparium* Scribn. & Smith - steambank wheatgrass - inflorescence. USA Jun 1985. From T.D. Murray CA-3 = ATCC 43178 - Pl. Dis. 70: 378-380, 1986 - rec. as *C. agropyri*.
- 9373 a *Agropyron smithii* Rydb. - western wheat grass - inflorescence. USA Feb 1982. From T.D. Murray CA-1 = ATCC 43178 - Pl. Dis. 70: 378-380, 1986 - rec. as *C. agropyri*.
- 9374 a *Agropyron trachycaulum* (Link) Malte - slender wheat grass - inflorescence. USA Jul 1982. From T.D. Murray CA-2 = ATCC 43179 - Pl. Dis. 70: 378-380, 1986 - rec. as *C. agropyri*.
- Clavibacter toxicus** Riley & Ophel 1992
- 6307 ? *Lolium rigidum* Gaudin - Wimmera ryegrass. Australia Nov 1978. From D.L. Chatel WSM188.
- 9525 a *Lolium rigidum* Gaudin - Wimmera ryegrass - seed gall. Australia 1983. From I.T. Riley CS14 = ATCC 49908: JCM 9669: NCPPB 3552 - Int. J. Syst. Bact. 35: 153-159, 1987 - causes annual ryegrass toxicity - **Type strain**.
- 9526 a *Lolium rigidum* Gaudin - Wimmera ryegrass - seed gall. Australia 1984. From I.T. Riley CS33 - Int. J. Syst. Bact. 35: 153-159, 1987 - causes annual ryegrass toxicity.
- 9527 a *Lolium rigidum* Gaudin - Wimmera ryegrass - seed gall. Australia 1984. From I.T. Riley CS34 - Int. J. Syst. Bact. 35: 153-159, 1987 - causes annual ryegrass toxicity.
- Clavibacter xyli** subsp. **cynodontis** Davis *et al.* 1984
- 8790 a *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. China (Taiwan) Aug 1980. From M.J. Davis TBIA = ATCC 33973: JCM 9733: LMG 7552 - Int. J. Syst. Bact. 34: 107-117, 1984 - **Type strain**.
- 8792 a *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. China (Taiwan) Aug 1980. From M.J. Davis TB1B - Int. J. Syst. Bact. 34: 107-117, 1984.
- 8793 a *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA Aug 1980. From M.J. Davis TB2B

- Int. J. Syst. Bact. 34: 107-117, 1984.
 8794 a *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA Dec 1981. From M.J. Davis FB2
 - Int. J. Syst. Bact. 34: 107-117, 1984.
 8795 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA May 1982. From M.J. Davis FB4.
 8796 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA Apr 1982. From M.J. Davis FB5.
 8797 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA May 1982. From M.J. Davis FB6.
 8798 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA May 1982. From M.J. Davis FB7.
 8799 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - causes stunting disease - affects xylem. USA May 1982. From M.J. Davis FB8.

Clavibacter xyli subsp. *xyli* Davis *et al.* 1984

- 7125 a* *Saccharum officinarum* L. - sugarcane - xylem vessels. South Africa Aug 1979. From M.J. Davis SIA - Int. J. Syst. Bact. 34: 107-117, 1984 -
 cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 7126 a* *Saccharum officinarum* L. - sugarcane cv. Interspecific - xylem vessels. Brazil Aug 1979. From M.J. Davis BIA - Int. J. Syst. Bact. 34: 107-117,
 1984 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 7127 a* *Saccharum officinarum* L. - sugarcane cv. Interspecific - xylem vessels. USA Aug 1979. From M.J. Davis LIA = ATCC 33974: LMG 7352:
 NCPPB 3152 - Int. J. Syst. Bact. 34: 107-117, 1984 - causes ratoon stunting disease - *sugarcane (Davis) - **Type strain**.
 8800 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. USA Aug 1982. From M.J. Davis F1 - Int. J. Syst. Bact. 34: 107-117, 1984
 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 8801 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. USA Oct 1982. From M.J. Davis F4 - Int. J. Syst. Bact. 34: 107-117, 1984
 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 8802 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. USA Oct 1982. From M.J. Davis F5 - Int. J. Syst. Bact. 34: 107-117, 1984
 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 8803 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. Japan 1979. From M.J. Davis J2 ← R.W. Harris J2 - Int. J. Syst. Bact. 34:
 107-117, 1984 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 8804 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. Japan May 1979. From M.J. Davis L4 - Int. J. Syst. Bact. 34: 107-117, 1984
 - cotype strain - causes ratoon stunting disease - *sugarcane (Davis).
 8805 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. USA May 1979. From M.J. Davis L5 - cotype strain - causes ratoon stunting
 disease - *sugarcane (Davis).
 8806 a* *Saccharum officinarum* L. - sugarcane - vascular system - xylem. USA May 1979. From M.J. Davis L9 - causes ratoon stunting disease -
 *sugarcane (Davis).

Comamonas acidovorans (den Dooren de Jong 1926) Tamaoka *et al.* 1987

- 12553 Soil. From J. Aislabie ← ATCC 15668 ← Technische Hogeschool, Delft - **Type strain**.

Corynebacterium betae Keyworth *et al.* 1956

- see *Curtobacterium flaccumfaciens* pv. *betae*.

Corynebacterium fascians (Tilford 1936) Dowson 1942

- see *Rhodococcus fascians*.

Corynebacterium flaccumfaciens (Hedges 1922) Dowson 1942

- see *Curtobacterium flaccumfaciens* pv. *flaccumfaciens*.

Corynebacterium flaccumfaciens subsp. *betae* (Keyworth *et al.* 1956) Carlson & Vidaver 1982

- see *Curtobacterium flaccumfaciens* pv. *betae*.

Corynebacterium flaccumfaciens subsp. *flaccumfaciens* (Hedges 1922) Dowson 1942

- see *Curtobacterium flaccumfaciens* pv. *flaccumfaciens*.

Corynebacterium flaccumfaciens subsp. *oortii* (Saaltink & Maas Geesteranus 1969) Carlson & Vidaver 1982

- see *Curtobacterium flaccumfaciens* pv. *oortii*.

Corynebacterium flaccumfaciens subsp. *poinsettiae* (Starr & Pirone 1942) Carlson & Vidaver 1982

- see *Curtobacterium flaccumfaciens* pv. *poinsettiae*.

Corynebacterium ilicis Mandel *et al.* 1961

- see *Arthrobacter ilicis*.

Corynebacterium insidiosum (McCulloch 1925) Jensen 1934

- see *Clavibacter michiganensis* subsp. *insidiosus*.

Corynebacterium iranicum Sharif 1961

- see *Clavibacter iranicus*.

Corynebacterium michiganense (Smith 1910) Jensen 1934

- see *Clavibacter michiganensis* subsp. *michiganensis*.

Corynebacterium michiganense subsp. *insidiosum* (McCulloch 1925) Carlson & Vidaver 1982

- see *Clavibacter michiganensis* subsp. *insidiosus*.

Corynebacterium michiganense subsp. *michiganense* (Smith 1910) Jensen 1934

- see *Clavibacter michiganensis* subsp. *michiganensis*.

Corynebacterium michiganense subsp. *nebraskense* (Schuster *et al.* 1973) Carlson & Vidaver 1982

- see *Clavibacter michiganensis* subsp. *nebraskensis*.

Corynebacterium michiganense subsp. *sepedonicum* (Spieckermann & Kotthoff 1914) Carlson & Vidaver 1982

- see *Clavibacter michiganensis* subsp. *sepedonicus*.

Corynebacterium michiganense subsp. *tessellarius* Carlson & Vidaver 1982

- see *Clavibacter michiganensis* subsp. *tessellarius*.

Corynebacterium nebraskense Schuster *et al.* 1973

- see *Clavibacter michiganensis* subsp. *nebraskensis*.

Corynebacterium oortii Saaltink & Maas Geesteranus 1969

- see *Curtobacterium flaccumfaciens* pv. *oortii*.

Corynebacterium poinsettiae Starr & Pirone 1942

- see *Curtobacterium flaccumfaciens* pv. *poinsettiae*.

Corynebacterium rathayi Smith 1913

- see *Clavibacter rathayi*.

Corynebacterium sepedonicum Spieckermann & Kotthoff 1914

- see *Clavibacter michiganensis* subsp. *sepedonicus*.

Corynebacterium sp.

- 6311 *Avena fatua* L. - wild oat. Australia Nov 1978. From D.L. Chatel WSM190 - possibly *Clavibacter* sp.
 6306 *Lolium rigidum* Gaudin - Wimmera ryegrass. Australia Oct 1977. From D.L. Chatel WSM163 - possibly *Clavibacter* sp.
 6308 *Phalaris minor* Retz. - littleseed canarygrass. Australia Nov 1978. From D.L. Chatel WSM189 - possibly *Clavibacter* sp.
 6309 *Phalaris minor* Retz. - littleseed canarygrass. Australia Nov 1978. From D.L. Chatel WSM195 - possibly *Clavibacter* sp.
 6310 *Phalaris paradoxa* L. - gnawed canarygrass, hood canarygrass. Australia Nov 1978. From D.L. Chatel WSM194 - possibly *Clavibacter* sp.

Corynebacterium tritici (Hutchinson 1917) Burkholder 1948
 see *Clavibacter tritici*.

Curvobacterium flaccumfaciens pv. **betae** (Keyworth *et al.* 1956) Collins & Jones 1983

syn. *Corynebacterium betae* Keyworth *et al.* 1956
 syn. *Corynebacterium flaccumfaciens* subsp. *betae* (Keyworth *et al.* 1956) Carlson & Vidaver 1982
 syn. *Corynebacterium flaccumfaciens* pv. *betae* (Keyworth *et al.* 1956) Dye & Kemp 1977

- 2591 a *Beta vulgaris* L. - red beet. UK 1954. From D.W. Dye CH1 ← NCPPB 364 ← W.G. Keyworth.
 2592 a *Beta vulgaris* L. - red beet. UK 1955. From D.W. Dye CH2 ← NCPPB 372 ← W.G. Keyworth = ICPB CB102.
 2593 a *Beta vulgaris* L. - red beet. UK 1955. From D.W. Dye CH3 ← NCPPB 373 ← W.G. Keyworth = ICPB CB103.
 2594 a *Beta vulgaris* L. - red beet. UK 1955. From D.W. Dye CH4 ← NCPPB 374 ← W.G. Keyworth = CFBP 2402: ICPB CB104: LMG 3596 - **Pathotype strain**.
 2595 a *Beta vulgaris* L. - red beet. UK 1955. From D.W. Dye CH5 ← NCPPB 375 ← W.G. Keyworth.
 4735 b* *Beta vulgaris* L. - red beet. UK. From J.D. Taylor 59 ← W.G. Keyworth - *red beet.
 4736 b *Beta vulgaris* L. - red beet. UK 1972. From J.D. Taylor 674A.
 4737 b *Beta vulgaris* L. - red beet. UK 1972. From J.D. Taylor 674B.
 7458 b *Beta vulgaris* L. - red beet. Brazil 1980. From IBSBF 315 ← O. Kimura ENA2706.

Curvobacterium flaccumfaciens pv. **flaccumfaciens** (Hedges 1922) Collins & Jones 1983

syn. *Corynebacterium flaccumfaciens* (Hedges 1922) Dowson 1942
 syn. *Corynebacterium flaccumfaciens* subsp. *flaccumfaciens* (Hedges 1922) Dowson 1942
 syn. *Corynebacterium flaccumfaciens* pv. *flaccumfaciens* (Hedges 1922) Dye & Kemp 1977

- 2580 a *Phaseolus* sp. - bean. USA. From D.W. Dye CF9 ← NCPPB 1844 ← F. Hedges S4 = NCPPB 1844: ICPB CF6.
 2581 a *Phaseolus* sp. - bean. USA 1923. From D.W. Dye CF10 ← NCPPB 1843 ← W.H. Burkholder = ICPB CF4B.
 2587 a* *Phaseolus* sp. - bean. USA. From D.W. Dye CF16 ← ICPB CF6 ← F. Hedges S4 = NCPPB 1844 - *bean.
 2337 a *Phaseolus vulgaris* L. - bean - blight. From D.W. Dye CF1 ← M.L. Schuster ← W.J. Dowson = ATCC 6887: NCTC 4758.
 2338 a *Phaseolus vulgaris* L. - bean. From D.W. Dye CF2 ← M.L. Schuster 21.
 2339 a *Phaseolus vulgaris* L. - bean. USA 1956. From D.W. Dye CF3 ← M.L. Schuster 2A = ATCC 12813: NCPPB 2343 - rec. as *C. flaccumfaciens* var. *aurantiacum*.
 2340 a *Phaseolus vulgaris* L. - bean. USA. From D.W. Dye CF4 ← M.L. Schuster CV1 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2341 a *Phaseolus vulgaris* L. - bean. USA. From D.W. Dye CF5 ← M.L. Schuster CV6 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2342 a *Phaseolus vulgaris* L. - bean. USA. From D.W. Dye CF6 ← M.L. Schuster CV7 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2343 a *Phaseolus vulgaris* L. - bean. USA. From D.W. Dye CF7 ← M.L. Schuster CV8 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2344 a *Phaseolus vulgaris* L. - bean. USA. From D.W. Dye CF8 ← M.L. Schuster CV9 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2582 a *Phaseolus vulgaris* L. - bean - seed. Romania 1965. From D.W. Dye CF11 ← NCPPB 1751 ← D.B.C. Graham.
 2583 a *Phaseolus vulgaris* L. - dwarf bean. 1954. From D.W. Dye CF12 ← NCPPB 1597 ← W.A.F. Hagborg 3291 = NCIB 8604: ICPB CF116: CDAO DB706.
 2584 a *Phaseolus vulgaris* L. - bean. Hungary 1957. From D.W. Dye CF13 ← NCPPB 1446 ← Z. Klement E1429 = JCM 9670: LMG 3645 - **Type strain**.
 2585 a *Phaseolus vulgaris* L. - bean - seed. Germany 1958. From D.W. Dye CF14 ← NCPPB 567 ← R.A. Lellitt.
 2586 a *Phaseolus vulgaris* L. - bean. USA 1923. From D.W. Dye CF15 ← ICPB CF4 ← W.H. Burkholder S2.
 2589 a *Phaseolus vulgaris* L. - bean cv. White Imperial - seed. USA 1922. From D.W. Dye CF18 ← ICPB CF18 ← W.H. Burkholder S6.
 3495 a *Phaseolus vulgaris* L. - bean - seed. Netherlands 1929. From C.N. Hale CF20 ← NCPPB 558 ← K.T. Wieringa = ICPB CF10 - rec. as *Corynebacterium flaccumfaciens* var. *aurantiacum*.
 5370 *Phaseolus vulgaris* L. - bean. USA. From A.K. Vidaver CV2 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 5371 *Phaseolus vulgaris* L. - bean. USA. From A.K. Vidaver CV5 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 5372 a *Phaseolus vulgaris* L. - bean. USA. From A.K. Vidaver CV4 - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 5373 a *Phaseolus vulgaris* L. - bean. USA. From A.K. Vidaver CV9SBR - rec. as *Corynebacterium flaccumfaciens* var. *violaceum*.
 2588 a? *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - leaf. USA 1919. From D.W. Dye CF17 ← ICPB CF7 ← W.H. Burkholder S5.
 2590 a *Vigna radiata* (L.) R. Wilcz. - mung bean. USA 1934. From D.W. Dye CF19 ← ICPB CF11 ← W.H. Burkholder S20.

Curvobacterium flaccumfaciens pv. **oortii** (Saaltink & Maas Geesteranus 1969) Collins & Jones 1983

syn. *Corynebacterium oortii* Saaltink & Maas Geesteranus 1969
 syn. *Corynebacterium flaccumfaciens* subsp. *oortii* (Saaltink & Maas Geesteranus 1969) Carlson & Vidaver 1982
 syn. *Corynebacterium flaccumfaciens* pv. *oortii* (Saaltink & Maas Geesteranus 1969) Dye & Kemp 1977

- 2632 a *Tulipa gesnerana* L. - tulip. Netherlands 1967. From D.W. Dye CN1 ← ICPB CO101 ← H.P. Maas Geesteranus B36 = ATCC 25283: CFBP 1384: LMG 3702: NCPPB 2113 - **Pathotype strain**.
 3497 a *Tulipa gesnerana* L. - tulip. Netherlands 1965. From C.N. Hale CN2 ← D.W. Dye ← H.P. Maas Geesteranus B32 = NCPPB 2114.
 3498 a *Tulipa gesnerana* L. - tulip - bulb. UK 1969. From C.N. Hale CN3 ← NCPPB 2240 ← J. Oxtoby A130B.
 3499 a *Tulipa gesnerana* L. - tulip - bulb. UK 1969. From C.N. Hale CN4 ← NCPPB 2241 ← J. Oxtoby A153.
 9901 *Tulipa gesnerana* L. - tulip. Japan 1972. From NCPPB 2944 ← T. Kobayashi Y1.
 9902 *Tulipa gesnerana* L. - tulip. Japan 1972. From NCPPB 2945 ← T. Kobayashi Y3.

Curvobacterium flaccumfaciens pv. **poinsettiae** (Starr & Pirone 1942) Collins & Jones 1983

syn. *Corynebacterium poinsettiae* (Starr & Pirone 1942) Burkholder 1948
 syn. *Corynebacterium flaccumfaciens* subsp. *poinsettiae* (Starr & Pirone 1942) Carlson & Vidaver 1982
 syn. *Corynebacterium flaccumfaciens* pv. *poinsettiae* (Starr & Pirone 1942) Dye & Kemp 1977

- 2561 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD7 ← NCPPB 855 ← W.H. Burkholder CP21 = ATCC 9069.
 2562 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD8 ← NCPPB 854 ← M.P. Starr CP2 = ICPB CP2: ATCC 9682.
 2563 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA 1958. From D.W. Dye CD9 ← NCPPB 849 ← L.A. McFadden B107.
 2564 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA 1958. From D.W. Dye CD10 ← NCPPB 846 ← L.A. McFadden B106.
 2565 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA 1958. From D.W. Dye CD11 ← NCPPB 845 ← L.A. McFadden B86 = ICPB CP106.
 2566 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD13 ← ICPB CP2 ← M.P. Starr CP2 = NCPPB 854: ATCC 9682: CFBP 2403: LMG 3715 - **Pathotype strain**.
 2567 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD14 ← ICPB CP22.
 2568 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD15 ← ICPB CP29.
 2569 a* *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA. From D.W. Dye CD16 ← ICPB CP105 ← D.B. Craeger - *poinsettia.
 2570 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. USA Dec 1958. From D.W. Dye CD17 ← ICPB CP106 ← L.A. McFadden B86 = NCPPB 845.
 3500 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia - leaf. USA 1958. From C.N. Hale CD24 ← NCPPB 844 ← L.A. McFadden B87.
 7611 a Human faeces. USA. From NHI 867 ← NCTC 10396 ← W.H. Ewing CDC = ATCC 15947: CDC 1483-59 - **Type strain**.

Enterobacter aerogenes Hormaeche & Edwards 1960

- 10150 Sputum. 1958. From G.C. Fletcher ← NHITCC 798 ← P.R. Edwards = NCTC 10006 - **Type strain**.

Enterobacter agglomerans (Beijerinck 1888) Ewing & Fife 1972see also *Erwinia herbicola*.

- 7612 *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub. From NHI 1092.
 12202 *Cucumis melo* L. - melon. Brazil 1993. From IBSBF 1042 ← C.F. Robbs CTAA24.
 12203 *Cucumis melo* L. - melon. Brazil 1993. From IBSBF 1043 ← C.F. Robbs CTAA25.
 12204 *Cucumis melo* L. - melon. Brazil 1993. From IBSBF 1044 ← C.F. Robbs CTAA22.
 12205 *Cucumis melo* L. - melon cv. Valenciano. Brazil 1993. From IBSBF 1045 ← C.F. Robbs CTAA23.
 12534 a Knee laceration. Zimbabwe 1956. From ATCC 27155 ← W.H. Ewing CDC 1461-67 ← M. Pereira = ATCC 27155: LMG 1286: ICPB 3435: NCTC 9381: - **Type strain** of *Pantoea agglomerans*.

Enterobacter cloacae (Jordan 1898) Hormaeche & Edwards 1960

- 10437 *Bactrocera meganotus* (Coquillett) [Invertebrate] - fruit fly - crop and midgut. Cook Is. Sep 1989. From R.A. Fullerton 1 ← G. Hill.
 7613 a Human cerebrospinal fluid. USA. From NHI 2375 ← NCTC 10005 ← P.R. Edwards = ATCC 13047 - **Type strain**.

Enterobacter proteamaculans (Paine & Stansfield 1919) Dye 1969see *Serratia proteamaculans*.**Enterobacter pyrinus** Chung *et al.* 1993

- 12530 a *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear cv. Mansamgil - brown leafspot disease. Korea. From ATCC 49851 ← D.J. Brenner CDC G6570 ← Y.R. Chung - **Type strain**.

Enterobacter sp.

- 9307 *Populus* sp. - poplar cv. Zeeland - Phytobia tunnels in poplar. Netherlands Apr 1982. From M. de Kam Dsk194.
 9309 *Populus X interamericana* Brockh. - poplar cv. Donk - Phytobia tunnels in poplar. Netherlands Jan 1983. From M. de Kam Dsk201.

Erwinia alni Surico *et al.* 1996

- 12481 a* *Alnus cordata* (Loisel.) Duby - Italian alder - trunk or branch cankers. Italy. From G. Surico PVFi20 - *Italian alder, black alder (Surico) - **Type strain**.
 12466 a* *Alnus glutinosa* (L.) Gaertn. - black alder - trunk or branch canker. Italy. From G. Surico PVFi25 - *black alder, Italian alder (Surico).
 12482 a* *Alnus glutinosa* (L.) Gaertn. - black alder - trunk or branch cankers. Italy. From G. Surico PVFi27 - *Italian alder, black alder (Surico).

Erwinia amylovora (Burrill 1882) Winslow *et al.* 1920

- 12366 *Chaenomeles* sp. - flowering quince. NZ Dec 1994. From R. Taylor 2692 ← M. Braithewaite.
 9105 a *Cotoneaster buxifolius* Wallich ex Lindl. Belgium 1980. From LMG 1933 ← R. Vantomme VT71 - Phytopath. Z. 103: 349-360, 1982.
 1532 a *Cotoneaster melanocarpus* Lodd. UK 1959. From D.W. Dye EF99 ← NCPPB 771 ← E. Billing E115.
 1530 a *Cotoneaster salicifolius* Franch. - cotoneaster. UK 1959. From D.W. Dye EF97 ← NCPPB 756 ← E. Billing E109.
 9104 a *Cotoneaster salicifolius* Franch. var. *floccosus* Rehd. & E.H. Wils. Belgium 1980. From LMG 1932 ← R. Vantomme VT70 - Phytopath. Z. 103: 349-360, 1982.
 9107 a *Cotoneaster salicifolius* Franch. var. *floccosus* Rehd. & E.H. Wils. Belgium 1980. From LMG 1937 ← R. Vantomme VT75 - Phytopath. Z. 103: 349-360, 1982.
 9108 a *Cotoneaster* sp. Belgium 1980. From LMG 1943 ← R. Vantomme VT82 - Phytopath. Z. 103: 349-360, 1982.
 1533 a *Cotoneaster X crispus* Exell. UK 1958. From D.W. Dye EF100 ← NCPPB 772 ← E. Billing E116.
 1504 a* *Crataegus monogyna* Jacq. - hawthorn. Mangatawhiri, AK, NZ Dec 1963. From D.W. Dye EF87 = NCPPB 2086 - *pear.
 1505 a* *Crataegus monogyna* Jacq. - hawthorn - new canker. Mangatawhiri, AK, NZ Dec 1963. From D.W. Dye EF88 ← W.J. Kemp - *pear.
 1506 a* *Crataegus monogyna* Jacq. - hawthorn - new canker. Mangatawhiri, AK, NZ Dec 1963. From D.W. Dye EF89 ← W.J. Kemp - *pear.
 1507 a* *Crataegus monogyna* Jacq. - hawthorn - flower spur. Mangatawhiri, AK, NZ Dec 1963. From D.W. Dye EF90 ← W.J. Kemp = NCPPB 2087 - *pear.
 1534 a *Crataegus monogyna* Jacq. - hawthorn. UK 1959. From D.W. Dye EF101 ← NCPPB 830 ← E. Billing E87.
 9103 a *Crataegus monogyna* Jacq. - hawthorn. Belgium 1980. From LMG 1917 ← R. Vantomme VT51 - Phytopath. Z. 103: 349-360, 1982.
 9106 a *Crataegus monogyna* Jacq. - hawthorn. Belgium 1980. From LMG 1936 ← R. Vantomme VT74 - Phytopath. Z. 103: 349-360, 1982.
 9109 a *Crataegus monogyna* Jacq. - hawthorn. Belgium 1980. From LMG 1947 ← R. Vantomme VT87 - Phytopath. Z. 103: 349-360, 1982.
 11812 *Cydonia oblonga* Mill. - quince. Denmark. From CFBP 1396 ← J. Bech-Andersen 185.
 12133 *Cydonia* sp. France 1991. From CFBP 2305 ← J.F. Chauveau D644.
 550 a* *Malus X domestica* Borkh. - apple. Auckland, AK, NZ Jan 1963. From D.W. Dye EF7 - *apple, pear.
 1392 a *Malus X domestica* Borkh. - apple - twig. USA 1949. From D.W. Dye EF105 ← ICPB EA137 ← P.A. Ark 5002 = ATCC 15357 - host for *Bdellovibrio bacteriovorus* ATCC 15356.
 1440 a *Malus X domestica* Borkh. - apple. Hastings, HB, NZ 1954. From D.W. Dye EF1 = NCPPB 2079.
 1493 a* *Malus X domestica* Borkh. - apple cv. Sturmer - shoot. Albany, AK, NZ Nov 1963. From D.W. Dye EF20 - *pear.
 1498 a* *Malus X domestica* Borkh. - apple cv. London Pippin - blossom. NZ Nov 1963. From D.W. Dye EF35 - *pear.
 1499 a *Malus X domestica* Borkh. - apple cv. Golden Delicious - shoot. Albany, AK, NZ Nov 1963. From D.W. Dye EF43 = NCPPB 2083.
 1501 a* *Malus X domestica* Borkh. - apple cv. Ballarat - blossom. Albany, AK, NZ Nov 1963. From D.W. Dye EF52 = NCPPB 2084 - *apple.
 1508 a* *Malus X domestica* Borkh. - apple cv. Sturmer - spur. Mariri, MC, NZ Dec 1963. From D.W. Dye EF93 ← W.J. Kemp - *pear.
 1535 a *Malus X domestica* Borkh. - apple. UK 1960. From D.W. Dye EF102 ← NCPPB 831 ← R.A. Lelliott T76.
 1537 a *Malus X domestica* Borkh. - apple. UK 1962. From D.W. Dye EF104 ← NCPPB 1272 ← L.A.E. Baker 425.
 8862 b* *Malus X domestica* Borkh. - apple cv. Gala - epiphyte of flower. Hastings, HB, NZ Oct 1984. From S.V. Thomson 7 - agglutinates with antiserum from ICMP 1540 - *pear.
 8865 b* *Malus X domestica* Borkh. - apple cv. Gala - epiphyte of flower. Appleby, NN, NZ Nov 1984. From S.V. Thomson 16 - agglutinates with antiserum from ICMP 1540 - *pear.
 8880 b *Malus X domestica* Borkh. - apple cv. Gala - epiphyte on calyx - no symptoms. Hastings, HB, NZ Mar 1985. From E.M. McRae (nee Bache) O11 - agglutinates with antiserum from ICMP 1540.
 8881 b *Malus X domestica* Borkh. - apple cv. Gala - epiphyte on calyx - no symptoms. Auckland, AK, NZ Mar 1985. From E.M. McRae (nee Bache) O16 - agglutinates with antiserum from ICMP 1540.
 8906 b* *Malus X domestica* Borkh. - apple cv. Gala. NZ Jan 1985. From P.M. Turner P-7B - atypical colony - agglutinates with antiserum from ICMP 4246 - *apple.
 9750 b* *Malus X domestica* Borkh. - apple - shoot. Geraldine, SC, NZ Jan 1988. From R.G. Clark C1 ← S. Ganey 88-371 - homologous with DNA of ICMP 1540 - *pear.
 9751 b* *Malus X domestica* Borkh. - apple - shoot. Ashburton, MC, NZ Jan 1988. From R.G. Clark C2 ← S. Ganey 88-363 - homologous with DNA of ICMP 1540 - *pear.
 9752 b* *Malus X domestica* Borkh. - apple - shoot. Christchurch, MC, NZ Jan 1988. From R.G. Clark C3 ← S. Ganey 88-741 - homologous with DNA of ICMP 1540 - *pear.
 9753 b* *Malus X domestica* Borkh. - apple - shoot. Loburn, CO, NZ Jan 1988. From R.G. Clark C4 ← S. Ganey Plate 12 - homologous with DNA of ICMP 1540 - *pear.
 9754 b* *Malus X domestica* Borkh. - apple - shoot. Timaru, SC, NZ Jan 1988. From R.G. Clark C5 ← S. Ganey 88-358 - homologous with DNA of ICMP 1540 - *pear.
 9755 b* *Malus X domestica* Borkh. - apple - shoot. Christchurch, MC, NZ Jan 1988. From R.G. Clark C6 ← S. Ganey 88-1159 - homologous with DNA of ICMP 1540 - *pear.
 11176 *Malus X domestica* Borkh. - apple cv. Gala - shoot. Hawkes Bay, HB, NZ Dec 1991. From R.G. Clark EaC37 - homologous with DNA of ICMP 1540 - streptomycin resistant.
 11246 b *Malus X domestica* Borkh. - apple cv. Royal gala - shoot. Hawkes Bay, HB, NZ Dec 1991. From R.G. Clark EaC126 - homologous with DNA

- of ICMP 1540 - streptomycin resistant.
- 9110 a *Mespilus germanica* L. - medlar. France 1980. From LMG 1968 ← J.P. Paulin 1586-1 = CFBP 1986 - Phytopath. Z. 103: 349-360, 1982.
- 9255 a *Onobrychis viciifolia* Scop. - sainfoin. USA 1978. From M. Paschke ← D.E. Mathre 5 - Phytopath. 70: 161-167, 1980.
- 1393 a* *Pyracantha* sp. - firethorn. USA Oct 1959. From D.W. Dye EF106 ← ICPB EA162 ← R.N. Goodman E21 - **Pyracantha* sp.
- 9111 a *Pyracantha* sp. - firethorn. France 1980. From LMG 1985 ← J.P. Paulin 1667-1 - Phytopath. Z. 103: 349-360, 1982.
- 1441 a *Pyrus communis* L. - pear. Auckland, AK, NZ 1954. From D.W. Dye EF3.
- 1492 a* *Pyrus communis* L. - pear - shoot. Auckland, AK, NZ 1955. From D.W. Dye EF4 = NCPPB 2080 - *pear.
- 1494 a* *Pyrus communis* L. - pear - blossom. Albany, AK, NZ Nov 1963. From D.W. Dye EF24 - *pear.
- 1495 a* *Pyrus communis* L. - pear - fruit. Albany, AK, NZ Nov 1963. From D.W. Dye EF27 = NCPPB 2082 - *pear.
- 1496 a* *Pyrus communis* L. - pear - shoot. Albany, AK, NZ Nov 1963. From D.W. Dye EF29 - *pear.
- 1497 a* *Pyrus communis* L. - pear - fruit. Auckland, AK, NZ Dec 1964. From D.W. Dye EF31 - *pear.
- 1500 a *Pyrus communis* L. - pear - blossom. Albany, AK, NZ Nov 1963. From D.W. Dye EF48.
- 1502 a* *Pyrus communis* L. - pear - fruit. Howick, AK, NZ Nov 1963. From D.W. Dye EF60 = NCPPB 2085 - *pear.
- 1503 a* *Pyrus communis* L. - pear. NZ Nov 1963. From D.W. Dye EF77 ← W.J. Kemp - *pear.
- 1536 a *Pyrus communis* L. - pear. UK 1961. From D.W. Dye EF103 ← NCPPB 1114 ← R.A. Lelliott U17.
- 1540 a? *Pyrus communis* L. - pear. UK 1959. From D.W. Dye EF109 ← NCPPB 683 ← R.A. Lelliott S59-5 = ATCC 15580: CCM 1114: CFBP 1232: LMG 2024: NCPPB 683 - avirulent to pear - **Type strain**.
- 3859 a *Pyrus communis* L. - pear - stem. USA Apr 1972. From D.W. Dye EF112 ← M.N. Schroth FB58 - resistant to 200ppm streptomycin.
- 3860 a *Pyrus communis* L. - pear. USA Oct 1971. From D.W. Dye EF113 ← M.N. Schroth FB125 - resistant to 1000ppm streptomycin.
- 4222 a *Pyrus communis* L. - pear - blossom. USA Sep 1975. From D.W. Dye ← M.N. Schroth N11 = NCPPB 2791 - resistant to 100ppm streptomycin.
- 4245 a* *Pyrus communis* L. - pear - blossom washings. USA May 1975. From D.W. Dye ← M.N. Schroth YA8 - resistant to 100ppm streptomycin - small rough orange colony - *pear.
- 4246 a* *Pyrus communis* L. - pear - blossom washings. USA Aug 1975. From D.W. Dye ← M.N. Schroth G16 - resistant to 100ppm streptomycin - small rough orange colony - *pear.
- 4247 a* *Pyrus communis* L. - pear - blossom washings. USA Aug 1975. From D.W. Dye ← M.N. Schroth MTH7 - resistant to 100ppm streptomycin - fading orange colony, one of 3 colony types, not same as 4248, 4249 - *pear.
- 4450 *Pyrus communis* L. - pear cv. Gloumorceau - twig die-back. Tasman, NN, NZ Nov 1975. From J.M. Young 2056B.
- 8438 b* *Pyrus communis* L. - pear - shrivelled dead immature fruit. Hastings, HB, NZ Nov 1983. From E.M. Bache 101 - *pear.
- 8439 b* *Pyrus communis* L. - pear - twig lesion. Hastings, HB, NZ Nov 1983. From E.M. Bache 104 - *pear.
- 8441 b* *Pyrus communis* L. - pear - washing from symptomless fruit from infected tree. Henderson, AK, NZ Nov 1983. From E.M. Bache 153 - *pear.
- 8861 b* *Pyrus communis* L. - pear cv. Packham - epiphyte of flower. Henderson, AK, NZ Oct 1984. From S.V. Thomson 4 - agglutinates with antiserum from ICMP 1540 - *pear.
- 8863 b* *Pyrus communis* L. - pear cv. Packham - typical lesion on flower. Hastings, HB, NZ Nov 1984. From S.V. Thomson 12 - agglutinates with antiserum from ICMP 1540 - *pear.
- 8864 b* *Pyrus communis* L. - pear cv. Packham - epiphyte on leaf. Appleby, NN, NZ Nov 1984. From S.V. Thomson 13 - agglutinates with antiserum from ICMP 1540 - *pear.
- 10058 *Pyrus communis* L. - pear - twig. HB, NZ. From R.G. Clark 3806 - homologous with DNA of ICMP 1540.
- 11249 *Pyrus communis* L. - pear cv. Packham. Hastings, HB, NZ Nov 1991. From S.C. Gouk EaS1 - homologous with DNA of ICMP 1540 - streptomycin resistant.
- 11254 *Pyrus communis* L. - pear. Hawkes Bay, HB, NZ Nov 1991. From S.C. Gouk EaS10 - homologous with DNA of ICMP 1540 - streptomycin resistant.
- 8827 b* *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi cv. Nijisseiki - leaf. NZ Dec 1984. From P.M. Turner - agglutinates with antiserum from ICMP 1540 - *pear.
- 9144 b* *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi - canker on stem. Appleby, NN, NZ Nov 1985. From R.G. Clark 3465 - agglutinates with antiserum AF2 (Van der Zwet) - homologous with DNA of ICMP 1540 - *apple.
- 9145 b* *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi - stem, shoot. Kumeu, AK, NZ Mar 1986. From R.G. Clark H3518 - agglutinates with antiserum AF2 (Van der Zwet) - homologous with DNA of ICMP 1540 - *apple.
- 1531 a *Sorbus aria* (L.) Crantz - white beam. UK 1959. From D.W. Dye EF98 ← NCPPB 770 ← E. Billing E102.
- 12365 *Stranvaesia* sp. NZ Dec 1994. From R. Taylor 101A ← M. Braithewaite 101A.
- 9256 From M. Paschke ← D.E. Mathre 15-3.

***Erwinia ananas* pv. *ananas* Serrano 1928**syn. *Pantoea ananas* pv. *ananas* (Serrano 1928) Mergaert *et al.* 1993

- 1415 a? *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii) 1957. From D.W. Dye EB3 ← D.C. Graham BG1 ← C.H. Spiegelberg = NCPPB 441.
- 1416 a *Ananas comosus* (L.) Merr. - pineapple - grey rot. USA (Hawaii) 1958. From D.W. Dye EB4 ← D.C. Graham BG2 ← C.H. Spiegelberg = NCPPB 548.
- 1417 a *Ananas comosus* (L.) Merr. - pineapple - brown rot. USA (Hawaii) 1958. From D.W. Dye EB7 ← D.C. Graham Y1 ← C.H. Spiegelberg.
- 1418 a *Ananas comosus* (L.) Merr. - pineapple - marbling. USA (Hawaii) 1958. From D.W. Dye EB8 ← D.C. Graham MF28 ← C.H. Spiegelberg.
- 1514 a? *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii) 1957. From D.W. Dye EB1 ← NCPPB 441 ← C.H. Spiegelberg = D.C. Graham BG1.
- 1515 a *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii) 1958. From D.W. Dye EB2 ← NCPPB 544 ← C.H. Spiegelberg = D.C. Graham G-MF27.
- 1516 a *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii) 1948. From D.W. Dye EB5 ← ICPB EA101 ← M.B. Linford BG3 = NCPPB 1845.
- 1517 a *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii). From D.W. Dye EB6-1 ← ICPB EA103 ← M.B. Linford - one of 2 colony types - not same as 1518.
- 1518 a *Ananas comosus* (L.) Merr. - pineapple. USA (Hawaii). From D.W. Dye EB6-2 ← ICPB EA103 ← M.B. Linford - one of 2 colony types - not same as 1517.
- 1850 a *Ananas comosus* (L.) Merr. - pineapple. Brazil 1965. From D.W. Dye EB9 ← NCPPB 1846 ← C.F. Robbs ENA318 = ATCC 33244: ICPB EA175: LMG 2665 - **Type strain**.
- 12183 *Cassia* sp. (as *C. pectinata*). Brazil 1991. From IBSBF 945 ← O. Kimura ENA4257.
- 10132 *Saccharum* sp. - leafspot. Brazil. From IBSBF 731 ← I.M.G. Almeida - associated with *Xanthomonas* sp.

***Erwinia ananas* pv. *uredovora* (Pon *et al.* 1954) Dye 1978**syn. *Pantoea ananas* pv. *uredovora* (Pon *et al.* 1954) Mergaert *et al.* 1993

- 350 a *Puccinia graminis* Pers. f. sp. *tritici* Erikss. & Henn. - wheat - stem rust. Hungary. From D.W. Dye YJ1 ← NCPPB 391 ← Z. Klement O-029 - rec. as *X. uredovora*.
- 351 a *Puccinia graminis* Pers. f. sp. *tritici* Erikss. & Henn. - wheat - stem rust. USA 1954. From D.W. Dye YJ2 ← ICPB XU102 ← D.S. Pon = ATCC 19321: LMG 2676: NCPPB 800: A.C. Hayward 81782 - **Type strain**.
- 352 a *Puccinia graminis* Pers. f. sp. *tritici* Erikss. & Henn. - wheat - stem rust. Hungary 1956. From D.W. Dye YJ3 ← ICPB XU103 ← Z. Klement O-078 = NCPPB 1416.
- 353 a *Puccinia graminis* Pers. f. sp. *tritici* Erikss. & Henn. - wheat - stem rust. Hungary 1957. From D.W. Dye YJ4 ← ICPB XU104 ← Z. Klement O-049 = NCPPB 802: A.C. Hayward 81784.

***Erwinia cacticida* Alcorn *et al.* 1991**see note at *Erwinia carnegieana* Lightle *et al.* 1942

- 7451 a *Acanthocereus pentagonus* (L.) Britt. & Rose. USA 1971. From S.M. Alcorn 71-4A = ICPB EC283: NCPPB 3846 - rec. as *E. carnegieana*.
- 1551 a?* *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1958. From D.W. Dye EH3 ← ICPB EC186 ← S.M. Alcorn 1 - S. Alcorn reports this strain (ICMP 1551) as differing slightly from Alcorn 1 - *cactus (Alcorn).
- 7448 a *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1966. From S.M. Alcorn 66-42 = ICPB EC282: NCPPB 3845 - rec. as *E. carnegieana*.
- 7449 a *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1971. From S.M. Alcorn 71-8-3 = ICPB EC297 - rec. as

- E. carnegieana*.
- 7450 a *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1966. From S.M. Alcorn 66-190 = ICPB EC299 - rec. as *E. carnegieana*.
- 11136 a *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus. USA 1958. From ATCC 49481 ← S. Alcorn 1-12 = NCPPB 3849 - **Type strain**.
- 7454 a *Ferocactus wislizenii* (Engelm.) Britt. & Rose - fishhook cactus. USA 1962. From S.M. Alcorn 62-69-1 = ICPB EC286 - rec. as *E. carnegieana*.
- 7457 a *Lemaireocereus gummosus* (Engelm.) Britt. & Rose - dagger cactus. Mexico 1978. From S.M. Alcorn 78-28 = ATCC 49482: ICPB 283 - rec. as *E. carnegieana*.
- 7453 a *Lemaireocereus thurberi* (Engelm.) Britt. & Rose - organ pipe cactus. USA 1966. From S.M. Alcorn 66-78 = ICPB EC292: NCPPB 3848 - rec. as *E. carnegieana*.
- 7452 a *Opuntia fulgida* Engelm. - jumping cactus. USA 1958. From S.M. Alcorn 72-1 = ICPB EC188: NCPPB 3847 - rec. as *E. carnegieana*.
- 1381 a* *Opuntia phaeacantha* Engelm. - cactus. USA. From D.W. Dye EH1 ← ICPB EC187 ← S.M. Alcorn 67 - rec. as *E. carnegieana* - *cactus (Alcorn).
- 7455 a *Opuntia phaeacantha* Engelm. var. *discata* (Griffiths) L. Bens. & Walk. USA 1971. From S.M. Alcorn TEXAS-28 = ICPB EC296 - rec. as *E. carnegieana*.

***Erwinia cancerogena* Urosevic 1966**

- 5706 a *Populus X euramericana* (Dode) Guinier - poplar cv. Regenerata. Czechoslovakia 1964. From NCPPB 2176 ← B. Urosevic A1 = ATCC 33241: LMG 2693 - **Type strain**.

***Erwinia carnegieana* Lightle et al. 1942**

There are anomalies between the description of the species and the description of the type strain, which belongs in *Klebsiella pneumoniae*. Strains of *Erwinia carnegiana* are referred to *Erwinia caticida*.

***Erwinia carotovora* subsp. *atroseptica* (van Hall 1902) Dye 1969**

syn. *Erwinia carotovora* pv. *atroseptica* (van Hall 1902) Dye 1978

- 10134 *Carica papaya* L. - pawpaw, papaya. Brazil. From IBSBF 651 ← J.R. Neto.
- 9863 * *Helianthus annuus* L. - sunflower cv. Iregi Szurkecsikos - soft rot of stem. Hungary Aug 1986. From J. Nemeth IRF11 - Helia 15: 1992, 79-84. - *sunflower (Nemeth).
- 1390 a* *Solanum tuberosum* L. - potato. Germany. From D.W. Dye EU2 ← ICPB EP102 ← O. Appel - pectolytic - rec. as *E. phytophthora* - *potato.
- 1419 a *Solanum tuberosum* L. - potato - tuber rot. UK (Scotland) 1964. From D.W. Dye ED7 ← D.C. Graham G110.
- 1420 a *Solanum tuberosum* L. - potato - stem rot. UK (Scotland) 1964. From D.W. Dye ED8 ← D.C. Graham G120.
- 1454 a *Solanum tuberosum* L. - potato. UK (Scotland) 1957. From D.W. Dye EG6 ← D.C. Graham EC273 - causes soft rot of potato slices.
- 1459 a* *Solanum tuberosum* L. - potato. UK (Scotland) 1939. From D.W. Dye EG13 ← A.M. Paton B10 - rec. as *E. carotovora* pv. *carotovora* - *onion, potato, swede.
- 1526 a *Solanum tuberosum* L. - potato - stem rot. UK 1957. From D.W. Dye ED3 ← NCPPB 549 ← D.C. Graham G39 = ATCC 33260: CFBP 1526: ICPB EA172: LMG 2386 - **Type strain**.
- 1527 a *Solanum tuberosum* L. - potato. UK 1961. From D.W. Dye ED4 ← NCPPB 1042 ← R.A. Lelliott U9 = LMG 2387.
- 1528 a *Solanum tuberosum* L. - potato. UK 1961. From D.W. Dye ED5 ← NCPPB 1277 ← C. Logan 761-14 = ICPB EA173: LMG 2387.
- 1607 a *Solanum tuberosum* L. - potato. Zimbabwe 1955. From D.W. Dye ED2 ← NCPPB 435 ← D.C. Graham SR2-3-2 = LMG 2383.
- 3467 a *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ Nov 1972. From J.M. Young 1396A1.
- 3470 a *Solanum tuberosum* L. - potato - stem. Pukekohe, AK, NZ Nov 1972. From J.M. Young 1398C1.
- 4196 a *Solanum tuberosum* L. - potato cv. Ilam Hardy - tuber. Pukekohe, AK, NZ Oct 1974. From J.M. Young 1854B1.
- 4398 *Solanum tuberosum* L. - potato cv. Ilam Hardy - black streak, soft rot, running up stem from soil level. Pukekohe, AK, NZ Oct 1975. From D.R.W. Watson C2009 - causes soft rot of carrot, potato slices.
- 8975 b *Solanum tuberosum* L. - potato - blackleg stem infection. Pukekohe, AK, NZ Oct 1984. From R.N. Crowhurst 84-522.
- 9014 *Solanum tuberosum* L. - potato - tuber rot. Hungary 1983. From J. Nemeth BB1.
- 9015 *Solanum tuberosum* L. - potato - tuber rot. Hungary 1983. From J. Nemeth BN3.
- 9167 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 31 ← A. Kelman SR8 = ICPB EA227: NCPPB 3390 - serogroup I.
- 9184 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 6 ← Copeman E17 = ICPB EA228: NCPPB 3386 - serogroup XVIII.
- 9186 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 196 = NCPPB 3404 - serogroup XX.
- 9188 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 198 ← Copeman E555 = NCPPB 3406 - serogroup XXII.
- 9311 *Solanum tuberosum* L. - potato - tuber. Ruatahuna, BP, NZ Mar 1987. From P.J. Wright 87-1.
- 10556 *Solanum tuberosum* L. - potato - black leg symptoms. Yugoslavia 1989. From M. Arsenijevic Kr21.
- 10557 *Solanum tuberosum* L. - potato - black leg symptoms. Yugoslavia 1989. From M. Arsenijevic Kr30.
- 10856 a* *Solanum tuberosum* L. - potato - rotting tuber. Spain 1984. From M.M. Lopez 537-2 - J. Appl. Bact. 69: 17-24, 1990 - serogroup I - *potato (Lopez).
- 10857 a* *Solanum tuberosum* L. - potato - rotting tuber. Spain 1985. From M.M. Lopez 607-6 - J. Appl. Bact. 69: 17-24, 1990 - serogroup I - *potato (Lopez).
- 10858 a* *Solanum tuberosum* L. - potato - rotting tuber. Spain 1986. From M.M. Lopez 718-7 - J. Appl. Bact. 69: 17-24, 1990 - serogroup I - *potato (Lopez).
- 11299 * *Solanum tuberosum* L. - potato cv. Rua - tuber soft rot. Pukekohe, AK, NZ Apr 1992. From P.J. Wright 92-1 - *potato (Wright).
- 11525 * *Solanum tuberosum* L. - potato - blackleg of stem. Pukekohe, AK, NZ Nov 1992. From P.J. Wright - *potato (Wright).
- 11922 *Solanum tuberosum* L. - potato cv. Bintje. France 1964. From CFBP 511 ← J.P. Prunier 149-2.
- 12368 * *Solanum tuberosum* L. - potato cv. Aola - soft rot of tuber and blackleg of stem. Iran 1992. From H. Rahimian FR65 ← A. Freidooni - Proc. pl. prot. cong. Iran 1995 - *potato (Freidooni).
- 12369 * *Solanum tuberosum* L. - potato cv. Pashandi - soft rot of tuber. Iran 1992. From H. Rahimian TH84 ← A. Freidooni - *potato (Freidooni).
- 1529 a Soil. UK 1962. From D.W. Dye ED6 ← NCPPB 1278 ← C. Logan 462-7.

***Erwinia carotovora* subsp. *betavascularum* Thomson, Hildebrand & Schroth 1984.**

- 4220 a* *Beta vulgaris* L. - sugarbeet. USA Sep 1974. From D.W. Dye ← M.N. Schroth SH1 = NCPPB 2792: LMG 2461 - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - cotype strain - *sugarbeet (Schroth).
- 4221 a* *Beta vulgaris* L. - sugarbeet. USA Jul 1974. From D.W. Dye ← M.N. Schroth B74-2 - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - cotype strain - *sugarbeet (Schroth).
- 4223 a* *Beta vulgaris* L. - sugarbeet. USA Oct 1974. From D.W. Dye ← M.N. Schroth W-SB = NCPPB 2793: LMG 2462 - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - cotype strain - *sugarbeet (Schroth).
- 4224 a* *Beta vulgaris* L. - sugarbeet. USA 1974. From D.W. Dye ← M.N. Schroth U-SB = NCPPB 2794: LMG 2463 - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - cotype strain - *sugarbeet (Schroth).
- 4225 a *Beta vulgaris* L. - sugarbeet. USA 1974. From D.W. Dye ← M.N. Schroth MAD-SB - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - cotype strain.
- 4226 a *Beta vulgaris* L. - sugarbeet - vascular strand. USA May 1972. From D.W. Dye FD1 ← M.N. Schroth UR7 = ATCC 43762: CFBP 1539: NCPPB 2795: UCPPB 193: LMG 2466 - Phytopath. 71: 1037-1042, 1981 - rec. as *Erwinia* sp. - **Type strain**.

***Erwinia carotovora* subsp. *carotovora* (Jones 1901) Bergey et al. 1923**

syn. *Erwinia carotovora* pv. *carotovora* (Jones 1901) Bergey et al. 1923

- 3645 *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Nov 1973. From C.N. Hale 1646.
- 3646 *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Nov 1973. From C.N. Hale 1651.
- 3915 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Feb 1974. From C.N. Hale 1741 - *onion.
- 11308 * *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb soft rot. Pukekohe, AK, NZ Mar 1992. From P.J. Wright 92-10 - *onion (Wright).
- 1472 a?* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - stalk. Pukekohe, AK, NZ 1964. From D.W. Dye EG30 ← W.J. Kemp - atypical strain -

- *onion.
- 1473 a? *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - stalk. Pukekohe, AK, NZ 1964. From D.W. Dye EG31 ← W.J. Kemp - atypical strain - causes soft rot of onion, potato slices.
- 1474 a? *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - stalk rot. Pukekohe, AK, NZ 1964. From D.W. Dye EG32 ← W.J. Kemp - atypical strain - produces pink pigment in culture - causes soft rot of onion, potato slices.
- 1605 a *Borago officinalis* L. - borage. Uganda 1964. From D.W. Dye EC8 ← NCPPB 1639 ← A.C. Hayward B2287 = LMG 2425 - rec. as *E. aroideae*.
- 1451 a *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede. Auckland, AK, NZ 1953. From D.W. Dye EG2 - causes soft rot of carrot, onion, potato, swede slices.
- 1477 a? *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede - root neck soft rot. NZ 1964. From D.W. Dye EG35 ← W.J. Kemp - atypical strain - causes soft rot of onion slices - avirulent to carrot, potato, swede.
- 11838 *Brassica oleracea* L. France 1970. From CFBP 1490 ← A. Coleno E320.
- 12462 *Brassica oleracea* L. var. *capitata* L. - cabbage - wilt and soft rot. Yugoslavia 1993. From M. Arsenijevic Ku60.
- 12463 *Brassica oleracea* L. var. *capitata* L. - cabbage - wilt and soft rot. Yugoslavia 1993. From M. Arsenijevic Ku61.
- 12464 *Brassica oleracea* L. var. *capitata* L. - cabbage - wilt and soft rot. Yugoslavia 1993. From M. Arsenijevic Ku72.
- 12465 *Brassica oleracea* L. var. *capitata* L. - cabbage - wilt and soft rot. Yugoslavia 1993. From M. Arsenijevic Ku74.
- 1833 a *Brassica rapa* L. - Chinese cabbage. Japan 1960. From D.W. Dye EG41 ← NCPPB 1745 ← M. Goto j3.
- 1525 a *Brassica* sp. Uganda 1962. From D.W. Dye EC7 ← NCPPB 1380 ← A.C. Hayward B1316 = LMG 2423 - rec. as *E. aroideae*.
- 1831 a *Capsicum annuum* L. - sweet pepper - fruit. Brazil 1964. From D.W. Dye EG39 ← NCPPB 1741 ← C.F. Robbs ENA100.
- 7256 a *Capsicum annuum* L. - Mexican pepper, chilli. From ICPB EC154 ← A.J. Kraght MP-OLD.
- 9864 * *Capsicum annuum* L. - sweet pepper - soft rot of fruit. Hungary Aug 1981. From J. Nemeth PAPR6 - rec. as *E. carotovora* subsp. *atroseptica* - *capsicum (Nemeth).
- 11925 *Capsicum annuum* L. - sweet pepper. Yugoslavia. From CFBP 1402 ← M. Arsenijevic P3.
- 1388 a *Capsicum* sp. - Mexican pepper, chilli - soft rot. USA Nov 1950. From D.W. Dye EG22 ← ICPB EC153 ← A.J. Kraght KMP = NCPPB 1847:ATCC 15359: LMG 2434.
- 11823 *Carica papaya* L. - pawpaw, papaya. Reunion. From CFBP 2634 ← O. Pruvost A352.
- 1838 a *Cattleya* sp. - cattleya orchid. Brazil 1965. From D.W. Dye EG46 ← NCPPB 1848 ← C.F. Robbs ENA439 = ICPB EC219.
- 11834 *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. France 1971. From CFBP 1356 ← M. Lemattre 2b.
- 11822 *Cichorium intybus* L. - chicory, witloof. France 1978. From CFBP 2629 ← L. Gardan L28-2.
- 11101 *Clivia miniata* Regel - kaffir lily. China. From X.Z. Ren Cm18.
- 11102 *Clivia miniata* Regel - kaffir lily. China. From X.Z. Ren Cm19.
- 1839 *Consolida* sp. - rocket larkspur. USA 1935. From D.W. Dye EG47 ← NCPPB 1860 ← E.L. Waldee C8 = ICPB EC108.
- 10131 *Cucumis melo* L. - melon. Brazil. From IBSBF 732 ← J.R. Neto.
- 12182 *Cucumis melo* L. - melon. Brazil 1991. From IBSBF 944 ← O. Kimura ENA4256.
- 12191 *Cucumis melo* L. - melon. Brazil 1992. From IBSBF 963 ← C.F. Robbs CTAA20-1.
- 1452 a? *Cucumis sativus* L. - cucumber - soft rot. Auckland, AK, NZ 1953. From D.W. Dye EG3 - atypical strain - causes soft rot of carrot, onion, potato, swede slices.
- 1541 a *Cucumis sativus* L. - cucumber. UK 1957. From D.W. Dye EG15 ← NCPPB 392 ← J.E.E. Jenkins = LMG 2410.
- 11923 *Cucurbita pepo* L. - marrow. Italy. From CFBP 1350 ← U. Mazzuchi 340.
- 11924 *Cyclamen persicum* Mill. - florist's cyclamen. France 1972. From CFBP 1363 ← M. Lemattre 1b.
- 11832 *Cyclamen* sp. Greece. From CFBP 1285 ← C.G. Panagopoulos 15.
- 1523 a *Dahlia* sp. Zimbabwe 1962. From D.W. Dye EC5 ← NCPPB 1230 ← A. Rothwell MR17335 = A.C. Hayward B834A - rec. as *E. aroideae*.
- 1380 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - soft rot. USA. From D.W. Dye EG23 ← ICPB EC208 ← L.R. Jones = ATCC 495: NCPPB 2042.
- 1832 a *Daucus carota* L. var. *sativus* Hoffm. - carrot. Japan 1960. From D.W. Dye EG40 ← NCPPB 1744 ← M. Goto j2.
- 5057 *Daucus carota* L. var. *sativus* Hoffm. - carrot - soft rot of root core. USA 1975. From D.B. Towner 5771A - does not cause soft rot of carrot slices.
- 5327 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - soft rot of root core. USA 1975. From D.R.W. Watson A2250 ← L. Beraha 5771A ← D.B. Towner - Pl. Dis. Rep. 60: 357, 1976 - causes soft rot of potato slices.
- 9865 * *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - dieffenbachia - soft rot of stem. Hungary Feb 1987. From J. Nemeth DIF11 - *dieffenbachia (Nemeth).
- 9866 * *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - dieffenbachia - soft rot of stem. Hungary Feb 1987. From J. Nemeth DIF21 - *dieffenbachia (Nemeth).
- 1550 a? *Dracaena deremensis* Engl. - dracaena cv. Warneckii. Puerto Rico 1956. From D.W. Dye EG36 ← NCPPB 1491 ← A.C. Monllor - atypical strain.
- 1384 a *Gossypium* sp. - cotton - boll rot. USA Sep 1964. From D.W. Dye EC12 ← ICPB EA168 ← E.C. Noller - rec. as *E. aroideae*.
- 9867 * *Helianthus annuus* L. - sunflower cv. H-NK-81 - soft rot of stem. Hungary Aug 1986. From J. Nemeth IHF31 - *sunflower (Nemeth).
- 9873 * *Helianthus annuus* L. - sunflower cv. NS-H-27 - soft rot of stem. Hungary Jul 1986. From J. Nemeth NAP11 - *sunflower (Nemeth).
- 9874 * *Helianthus annuus* L. - sunflower cv. NS-H-27 - soft rot of stem. Hungary Jul 1986. From J. Nemeth NAP42 - *sunflower (Nemeth).
- 9875 * *Helianthus annuus* L. - sunflower cv. NS-H-26 - soft rot of stem. Hungary Jul 1986. From J. Nemeth NAP51 - *sunflower (Nemeth).
- 9876 * *Helianthus annuus* L. - sunflower cv. H-NK-81 - soft rot of head. Hungary Oct 1986. From J. Nemeth NAP111 - *sunflower (Nemeth).
- 9877 * *Helianthus annuus* L. - sunflower cv. H-NK-81 - soft rot of head. Hungary Oct 1986. From J. Nemeth NAP112 - *sunflower (Nemeth).
- 9878 * *Helianthus annuus* L. - sunflower cv. H-NK-81 - soft rot of head. Hungary Oct 1986. From J. Nemeth NAP120 - *sunflower (Nemeth).
- 10554 a *Helianthus annuus* L. - sunflower - stem rot. Yugoslavia 1987. From M. Arsenijevic Su4 - 7th Int. Conf. Pl. Path. Bact. 11-16 June 1989, Budapest.
- 10555 a *Helianthus annuus* L. - sunflower - stem rot. Yugoslavia 1987. From M. Arsenijevic Su7 - 7th Int. Conf. Pl. Path. Bact. 11-16 June, 1989.
- 11839 *Helianthus annuus* L. - sunflower. Mexico. From CFBP 1520 ← L. Fuckowsky 17 - rec. as *E. carotovora* subsp. *atroseptica*.
- 1542 a *Hyacinthus orientalis* L. - garden hyacinth. UK 1957. From D.W. Dye EG16 ← NCPPB 468 ← R.A. Lelliott = LMG 2412.
- 9868 * *Hyacinthus orientalis* L. - garden hyacinth cv. Annamariae - soft rot of bulb. Hungary Dec 1986. From J. Nemeth JA032 - produces pink pigment - *hyacinth (Nemeth).
- 9869 * *Hyacinthus orientalis* L. - garden hyacinth cv. Bismarck - soft rot of bulb. Hungary Dec 1986. From J. Nemeth JA063 - produces pink pigment - *hyacinth (Nemeth).
- 9870 * *Hyacinthus orientalis* L. - garden hyacinth cv. Pink Pearl - soft rot of bulb. Hungary Dec 1986. From J. Nemeth JA922 - *hyacinth (Nemeth).
- 9871 * *Hyacinthus orientalis* L. - garden hyacinth cv. Pink Pearl - soft rot of bulb. Hungary Dec 1986. From J. Nemeth JA924 - *hyacinth (Nemeth).
- 9872 * *Hyacinthus orientalis* L. - garden hyacinth cv. Carnegie - soft rot of bulb. Hungary Dec 1986. From J. Nemeth JA941 - produces pink pigment - *hyacinth (Nemeth).
- 10442 *Hyacinthus* sp. - stem. Ukraine 1968. From V.A. Muras 8947 ← L.V. Kabashnaya 300E.
- 11837 *Iris* sp. France 1973. From CFBP 1488 ← M. Ride.
- 12360 * *Iris spuria* L. - butterfly iris - leaf blight and occasionally rhizome. Iran Mar 1993. From H. Rahimian Z73 - **Iris* sp., sanseveria (Rahimian).
- 1475 ? *Lactuca sativa* L. - lettuce - leaf soft rot. Auckland, AK, NZ 1964. From D.W. Dye EG33 ← W.J. Kemp - atypical strain - causes soft rot of potato slices.
- 1476 a? *Lactuca sativa* L. - lettuce - leaf soft rot. Auckland, AK, NZ 1964. From D.W. Dye EG34 ← W.J. Kemp - atypical strain - causes soft rot of potato slices.
- 9861 * *Lycopersicon esculentum* Mill. - tomato cv. CR-6 - stem. Canada Jun 1983. From B.N. Dhanvantari TSR01 - Phytopath. 77: 1457- 1463 - *tomato (Dhanvantari).
- 9862 * *Lycopersicon esculentum* Mill. - tomato cv. CR-6 - stem. Canada Jun 1983. From B.N. Dhanvantari TSR05 - Phytopath. 77: 1457-1463 - *tomato (Dhanvantari).
- 11926 *Lycopersicon esculentum* Mill. - tomato. France 1973. From CFBP 1453 ← M.R. Barzic TO30 - rec. as *E. carotovora* subsp. *atroseptica*.
- 1378 a *Nicotiana tabacum* L. - tobacco - soft rot. USA. From D.W. Dye EC10 ← ICPB EA13 ← Q.L. Holdeman - rec. as *E. aroideae* - pectolytic.
- 11827 *Nicotiana tabacum* L. - tobacco. USA. From CFBP 797 ← W.H. Burkholder EA13 = ATCC 12286: NCPPB 550.
- 1834 a *Papaver somniferum* L. - poppy. Netherlands 1960. From D.W. Dye EG42 ← NCPPB 1748 ← H.P. Maas Geesteranus 117 = LMG 2432.

- 1520 a *Persea americana* Mill. - avocado. Israel. From D.W. Dye EC2 ← NCPPB 547 ← Z. Volcani = D.C. Graham G-A81V: LMG 2414 - rec. as *E. aroideae*.
- 12199 *Phalaenopsis* sp. - orchid (hybrid). Brazil 1993. From IBSBF 1000 ← I.M.G. Almeida.
- 11927 *Philodendron floridus* Beadle. USA 1967. From CFBP 1457 ← R. Nelson 204A.
- 1469 b? *Polianthes tuberosa* L. - tuberose - bulb rot. Auckland, AK, NZ 1964. From D.W. Dye EG27 ← W.J. Kemp - atypical - causes soft rot of carrot, onion slices but not of potato, swede slices.
- 1470 b? *Polianthes tuberosa* L. - tuberose - bulb rot. Auckland, AK, NZ 1964. From D.W. Dye EG28 ← W.J. Kemp - atypical - causes soft rot of carrot, onion slices but not of potato, swede slices - 2 colony types.
- 1471 a? *Polianthes tuberosa* L. - tuberose. Auckland, AK, NZ 1964. From D.W. Dye EG29 ← W.J. Kemp - atypical - fuscous strain - causes soft rot onion slices but not of carrot, potato, swede slices.
- 9520 *Polianthes tuberosa* L. - tuberose. Auckland, AK, NZ. From M.J. Fletcher A ← ICMP 1470 ← W.J. Kemp EG28 - single colony of ICMP 1470.
- 11821 *Primula* sp. France 1983. From CFBP 2577 ← L. Gardan 549-1.
- 12134 *Primula* sp. France 1981. From CFBP 2561 ← L. Gardan P13-2.
- 12361 * *Primula vulgaris* Huds. - English primrose cv. Elatior - crown and stem end rot. Iran Jun 1994. From H. Rahimian PZ76 - atypical strain (Rahimian) - *lilac, *Iris spuria*, sansevieria (Rahimian).
- 1543 a *Saccharum officinarum* L. - sugarcane. Australia 1958. From D.W. Dye EG17 ← NCPPB 569 ← W.J. Dowson 1-35.
- 1606 a *Saccharum officinarum* L. - sugarcane. Jamaica 1963. From D.W. Dye EC9 ← NCPPB 1640 ← A.C. Hayward B2034 = LMG 2426 - rec. as *E. aroideae*.
- 1386 a* *Solanum tuberosum* L. - potato. Canada 1918. From D.W. Dye EW2 ← ICPB ES1 ← E.H. Garrard 4 = NCPPB 1625: LMG 2424 - rec. as *E. solanisapra* - *potato.
- 1397 a *Solanum tuberosum* L. - potato. USA 1924. From D.W. Dye EW1 ← ICPB ES101 ← E.F. Smith - rec. as *E. solanisapra* - pectinolytic - causes slight soft rot of potato slices.
- 1455 a *Solanum tuberosum* L. - potato. UK (Scotland). From D.W. Dye EG8 ← D.C. Graham EC276 - causes soft rot of carrot, onion, potato, swede slices.
- 1460 a *Solanum tuberosum* L. - potato - soft rot. Zimbabwe Nov 1955. From D.W. Dye EG14 ← A.M. Paton M40 ← D.C. Graham SR4-1 - causes soft rot of carrot, onion, potato, swede slices.
- 1524 a *Solanum tuberosum* L. - potato. UK 1962. From D.W. Dye EC6 ← NCPPB 1276 ← C. Logan 462-13 = LMG 2456 - rec. as *E. aroideae*.
- 1545 a *Solanum tuberosum* L. - potato. UK 1962. From D.W. Dye EG20 ← NCPPB 1280 ← C. Logan 362-14A = LMG 2965.
- 1745 a *Solanum tuberosum* L. - potato. 1924. From D.W. Dye EU1 ← ICPB EP103 ← E.F. Smith = NCPPB 957 - rec. as *E. phytophthora*.
- 1830 a *Solanum tuberosum* L. - potato. Brazil 1964. From D.W. Dye EG38 ← NCPPB 1740 ← C.F. Robbs ENA10 = LMG 2427.
- 1835 a? *Solanum tuberosum* L. - potato. Netherlands 1959. From D.W. Dye EG43 ← NCPPB 1749 ← H.P. Maas Geesteranus 146 - atypical strain.
- 4627 a *Solanum tuberosum* L. - potato cv. Rua - foul smelling black soft rot at base of haulms. Pukekawa, WO, NZ Jan 1976. From D.R.W. Watson C2102 - rec. as *E. carotovora* pv. *atroseptica* - causes soft rot of carrot, potato slices.
- 5702 a *Solanum tuberosum* L. - potato. Denmark. From J.M. Young ← NCPPB 312 ← E. Hellmers 904 = ATCC 15713: CFBP 2046: LMG 2404 - **Type strain**.
- 8635 b *Solanum tuberosum* L. - potato - blackleg stem infection. Australia. From R.N. Crowhurst 84-270 ← E.M. Carter 27.
- 8971 b *Solanum tuberosum* L. - potato - blackleg stem infection. Puni, AK, NZ Jan 1984. From R.N. Crowhurst 84-60 - agglutinates with antiserum from ICMP 8974.
- 8972 b *Solanum tuberosum* L. - potato - blackleg stem infection. Pukekohe, AK, NZ Nov 1984. From R.N. Crowhurst 84-1198.
- 8974 b *Solanum tuberosum* L. - potato cv. Ilam Hardy - blackleg stem infection. Pukekohe, AK, NZ Sep 1984. From R.N. Crowhurst 84-371.
- 9016 *Solanum tuberosum* L. - potato - tuber rot. Hungary 1983. From J. Nemeth C3.
- 9017 *Solanum tuberosum* L. - potato - tuber rot. Hungary 1983. From J. Nemeth C4.
- 9018 *Solanum tuberosum* L. - potato - tuber rot. Hungary 1983. From J. Nemeth D3.
- 9019 *Solanum tuberosum* L. - potato cv. Gracia - tuber rot. Hungary 1984. From J. Nemeth 19111.
- 9168 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 21 ← H.P. Maas Geesteranus F139 = ICPB EC302: NCPPB 3387 - serogroup II.
- 9169 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 71 ← H.P. Maas Geesteranus 226 = ICPB EC303: NCPPB 3398 - serogroup III.
- 9170 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 190 ← A. Kelman SR204 = ICPB EC304: NCPPB 3402 - serogroup IV.
- 9171 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 26 ← H.P. Maas Geesteranus 200 = ICPB EC305: NCPPB 3389 - serogroup V.
- 9172 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 189 ← A. Kelman SR123a = ICPB EC306: NCPPB 3401 - serogroup VI.
- 9173 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 68 ← A. Kelman SR165 = ICPB EC307: NCPPB 3397 - serogroup VII.
- 9174 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 62 ← H.P. Maas Geesteranus 195 = ICPB EC308: NCPPB 3393 - serogroup VIII.
- 9175 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 63 ← H.P. Maas Geesteranus 202 = ICPB EC309: NCPPB 3394 - serogroup X.
- 9176 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 61 ← H.P. Maas Geesteranus 222 = ICPB EC310: NCPPB 3392 - serogroup X.
- 9177 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 193 ← Copeman E193 = ICPB EC311: NCPPB 3399 - serogroup XI.
- 9178 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 67 ← A. Kelman SR162 = ICPB EC312: NCPPB 3396 - serogroup XII.
- 9179 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 59 ← H.P. Maas Geesteranus 257 = ICPB EC313: NCPPB 3391 - serogroup XIII.
- 9180 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 65 ← H.P. Maas Geesteranus 196 = ICPB EC314: NCPPB 3395 - serogroup XIV.
- 9181 a *Solanum tuberosum* L. - potato. Netherlands. From S.H. De Boer 23 ← H.P. Maas Geesteranus 162 = ICPB EC315: NCPPB 3388 - serogroup XV.
- 9182 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 94 ← Copeman E315 = ICPB EC316: NCPPB 3400 - serogroup XVI.
- 9183 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 92 ← Copeman E6 = ICPB EC317: NCPPB 3427 - serogroup XVII.
- 9185 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 194 ← Copeman E103 = NCPPB 3403 - serogroup XIX.
- 9187 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 197 ← Copeman E295 = NCPPB 3405 - serogroup XXI.
- 9189 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 207 ← Copeman E125 = NCPPB 3407 - serogroup XXIII.
- 9190 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 208 ← Copeman E254 = NCPPB 3408 - serogroup XXIV.
- 9191 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 210 ← M.L. Powelson 109-1 = NCPPB 3410 - serogroup XXV.
- 9192 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 211 ← A. Kelman SR206 = NCPPB 3411 - serogroup XXVI.
- 9193 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 360 ← M.L. Powelson 86-5-8 = NCPPB 3412 - serogroup XXVII.
- 9194 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 365 ← M.L. Powelson 78-24-7 = NCPPB 3428 - serogroup XXVIII.
- 9195 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 380 ← M.L. Powelson 79-42-8 = NCPPB 3413 - serogroup XXIX.
- 9196 a *Solanum tuberosum* L. - potato. Canada. From S.H. De Boer 209 = NCPPB 3409 - serogroup XXX.
- 9197 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 477 ← M.L. Powelson cc305 = NCPPB 3417 - serogroup XXXI.
- 9198 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 476 ← M.L. Powelson cc506 = NCPPB 3416 - serogroup XXXII.
- 9199 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 474 ← M.L. Powelson cc306 = NCPPB 3414 - serogroup XXXIII.
- 9200 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 475 ← M.L. Powelson cc504 = NCPPB 3415 - serogroup XXXIV.
- 9201 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 499 ← M.L. Powelson cc301 = NCPPB 3420 - serogroup XXXV.
- 9202 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 497 ← M.L. Powelson cc108 = NCPPB 3418 - serogroup XXXVI.
- 9203 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 498 ← M.L. Powelson cc303 = NCPPB 3419 - serogroup XXXVII.

- 9204 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 500 ← M.L. Powelson cc110 = NCPPB 3421 - serogroup XXXVIII.
- 9205 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 518 ← M.L. Powelson cc105 = NCPPB 3423 - serogroup XXXIX.
- 9206 a *Solanum tuberosum* L. - potato. USA. From S.H. De Boer 517 ← M.L. Powelson cc103 = NCPPB 3422 - serogroup XL.
- 9253 a *Solanum tuberosum* L. - potato. USA. From NCPPB 3428 ← M.L. Powelson 78-24-7 - serogroup XXVIII.
- 9312 *Solanum tuberosum* L. - potato - tuber. Ruatahuna, BP, NZ Mar 1987. From P.J. Wright 87-2.
- 10558 *Solanum tuberosum* L. - potato - black leg symptoms. Yugoslavia 1989. From M. Arsenijevic Kr27.
- 10559 *Solanum tuberosum* L. - potato - black leg symptoms. Yugoslavia 1989. From M. Arsenijevic Kr78.
- 11304 * *Solanum tuberosum* L. - potato cv. Desiree - tuber hard rot. Awakune, ND, NZ Aug 1992. From P.J. Wright 92-6 - *potato (Wright).
- 12367 * *Solanum tuberosum* L. - potato cv. Aola - soft rot of tuber. Iran 1992. From H. Rahimian HA70 ← A. Freidooni - resistant to streptomycin - group II - *potato (Rahimian).
- 1522 a *Zantedeschia aethiops* (L.) Spreng. - arum lily. South Africa 1959. From D.W. Dye EC4 ← NCPPB 929 ← B.H. Boelema = A.C. Hayward B493: LMG 2417 - rec. as *E. aroideae*.
- 11523 * *Zantedeschia elliotiana* (W. Wats.) Engl. - calla lily - soft rot of bulb. Manukau, AK, NZ Oct 1992. From P.J. Wright - *potato, carrot (Wright).
- 11524 * *Zantedeschia elliotiana* (W. Wats.) Engl. - calla lily - soft rot of bulb. Manukau, AK, NZ Oct 1992. From P.J. Wright - *potato, carrot (Wright).
- 11928 *Zantedeschia* sp. France 1972. From CFBP 1491 ← P. Bonnet 151.
- 1521 a *Zea mays* L. - maize. Israel. From D.W. Dye EC3 ← NCPPB 552 ← Z. Volcani = D.C. Graham 74V: LMG 2416 - rec. as *E. aroideae*.
- 1383 a From D.W. Dye EC11 ← ICPB EA144 ← W.J. Dowson 66 - rec. as *E. aroideae* - pectinolytic.
- 1453 a UK (Scotland) 1957. From D.W. Dye EG5 ← D.C. Graham EC271 - causes soft rot of carrot, onion, potato, swede slices.
- 1456 a? From D.W. Dye EG9 ← A.M. Paton B1 ← W.H. Burkholder E1 - causes soft rot of carrot, onion, potato, swede slices.
- 1457 a UK (Scotland). From D.W. Dye EG11 ← A.M. Paton B4 ← M.J.M. Noble 17A1 - causes soft rot of carrot, onion, potato, swede slices.
- 1458 a UK. From D.W. Dye EG12 ← A.M. Paton B8 ← W.J. Dowson 138.
- 1519 a Soil. UK (Scotland) 1957. From D.W. Dye EC1 ← NCPPB 546 ← D.C. Graham G72 = LMG 2413 - rec. as *E. aroideae*.
- 1546 a? Soil. UK 1962. From D.W. Dye EG21 ← NCPPB 1281 ← C. Logan 462-3 = LMG 2422 - atypical strain.
- Erwinia carotovora* subsp. *odorifera*** Gallois *et al.* 1992
- 11531 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - watersoaked leaf. France 1976. From CFBP 1893 ← R. Samson 492-1.
- 11532 *Cichorium intybus* L. - chicory, witloof - watersoaked leaf. France 1980. From CFBP 1959 ← R. Samson 1367.
- 11533 *Cichorium intybus* L. - chicory, witloof - watersoaked leaf. France 1979. From CFBP 1878 ← R. Samson 1177-11 = NCPPB 3839 - **Type strain**.
- 11534 *Cichorium intybus* L. - chicory, witloof. France 1978. From CFBP 1892 ← L. Gardan L28-2.
- 11535 *Cichorium intybus* L. - chicory, witloof. France 1979. From CFBP 1879 ← R. Samson 1202-5.
- 11725 *Cichorium intybus* L. - chicory, witloof. France 1979. From CFBP 1880 ← R. Samson 1197-8.
- Erwinia carotovora* subsp. *wasabiae*** Goto & Matsumoto 1987
- 9121 a *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - rhizome, fibrous roots. Japan 1985. From M. Goto S91 = ATCC 43316: LMG 8444: NCPPB 3701 - Int. Syst. J. Bact. 37: 130-135, 1987 - **Type strain**.
- 9122 a *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - rhizome, fibrous roots. Japan 1985. From M. Goto SR36 - cotype strain.
- 9123 a *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - rhizome, fibrous roots. Japan 1985. From M. Goto SR92 - cotype strain.
- 9124 a *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - rhizome, fibrous roots. Japan 1985. From M. Goto SR93 - cotype strain.
- 9125 a *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - rhizome, fibrous roots. Japan 1985. From M. Goto SR94 - cotype strain.
- Erwinia chrysanthemi*** Burkholder *et al.* 1953
- 11969 *Aglaonema* sp. USA 1971. From CFBP 1450 ← J.F. Knauss K7.
- 9422 a *Allium cepa* L. - onion cv. South Australia White - bulb. Australia Mar 1982. From DAR 41367 ← E.J. Cother ON7 ← V. Dowling - Pl. Path. 35: 329-336, 1986.
- 1554 a *Ananas comosus* (L.) Merr. - pineapple. Malaysia 1961. From D.W. Dye EG19 ← NCPPB 1125 ← S.K. Dutta = A.C. Hayward B765b: ICPB EC216: LMG 2532 - rec. as *E. carotovora*.
- 1829 a *Ananas comosus* (L.) Merr. - pineapple. Malaysia 1961. From D.W. Dye EG37 ← NCPPB 1121 ← S.K. Dutta = A.C. Hayward B766: ICPB EC216: LMG 2531 - rec. as *E. carotovora*.
- 7255 a *Ananas comosus* (L.) Merr. - pineapple. Malaya 1958. From ICPB EC194 ← NCPPB 551 ← D.C. Graham G1712 = LMG 2494 - rec. as *E. carotovora*.
- 6926 b* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - petiole soft rot. Pukekohe, AK, NZ Mar 1980. From D.R.W. Watson A2731 - *celery.
- 6928 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery cv. Utah 15 - petiole soft rot. Pukekohe, AK, NZ Apr 1980. From D.R.W. Watson A2734 - produces blue pigment on GYCA.
- 11815 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. France 1976. From CFBP 1893 ← R. Samson 492-1.
- 11814 *Brachiaria ruziziensis* Germain. French Guiana 1979. From CFBP 1884 ← M. Bereau.
- 11813 *Cichorium intybus* L. - chicory, witloof. France. From CFBP 1878 ← R. Samson 1177-11.
- 11819 *Cichorium intybus* L. - chicory, witloof. France 1983. From CFBP 2285 ← R. Samson SC77-1.
- 11916 *Cichorium intybus* L. - chicory, witloof. France 1979. From CFBP 1879 ← R. Samson 1202-5.
- 11917 *Cichorium intybus* L. - chicory, witloof. France 1979. From CFBP 1880 ← R. Samson 1197-18.
- 11918 *Cichorium intybus* L. - chicory, witloof. France 1978. From CFBP 1892 ← L. Gardan L28-2.
- 7628 *Colocasia esculenta* (L.) Schott - taro - corm rot. Solomon Is. 1982. From D.R.W. Watson M3028 ← J.S. Cole - produces blue pigment on GYCA.
- 1836 a *Cyclamen* sp. Greece 1965. From D.W. Dye EG44 ← NCPPB 1790 ← C.G. Panagopoulos 3 - rec. as *E. carotovora*.
- 1837 a *Cyclamen* sp. Greece 1965. From D.W. Dye EG45 ← NCPPB 1791 ← C.G. Panagopoulos 5 - rec. as *E. carotovora*.
- 1387 a *Dahlia* sp. Romania 1962. From D.W. Dye EL2 ← ICPB EC207 ← I. Lazar = NCPPB 1385 - rec. as *E. cytolytica* - pectinolytic.
- 1579 a *Dahlia* sp. Romania 1962. From D.W. Dye EL1 ← NCPPB 1385 ← I. Lazar = ICPB EC207 - rec. as *E. cytolytica*.
- 1843 a *Dahlia* sp. Netherlands 1966. From D.W. Dye EI17 ← NCPPB 1955 ← G.J. Saaltink = LMG 2521.
- 1844 a *Dahlia* sp. Netherlands 1966. From D.W. Dye EI18 ← NCPPB 1956 ← G.J. Saaltink.
- 3349 *Dahlia* sp. - dahlia cv. Duet - tubers. Henderson, AK, NZ Nov 1972. From J.P. Wilkie (nee Bodley) C1374 ← D.W. Dye EI22.
- 4381 b *Dahlia* sp. - dark lesions and soft rot on young sprouts also rot of crown of tuber. Ranui, AK, NZ Oct 1975. From D.R.W. Watson A2008 - produces blue pigment on GYCA.
- 4548 b *Dahlia* sp. - dahlia cv. Solo - black shrunken stem lesion. Auckland, AK, NZ Nov 1975. From D.R.W. Watson C2049 - produces blue pigment on GYCA.
- 4625 b *Dahlia* sp. - black shrunken soft lesion of flower peduncle. Mt Albert, AK, NZ Jan 1976. From D.R.W. Watson B2099 - produces blue pigment on GYCA.
- 5876 b* *Dahlia* sp. - dahlia cv. Rustig - discoloured vasculature of tuber with wilting shoots. Wellington, WN, NZ Nov 1977. From D.R.W. Watson A2321 - produces pale blue pigment on GYCA - causes soft rot of pota to and carrot slices - *dahlia.
- 6283 *Dahlia* sp. - dahlia cv. Duet - tuber rot. Ranui, AK, NZ Nov 1972. From J.P. Wilkie (nee Bodley) D1374.
- 4649 b *Daucus carota* L. var. *sativus* Hoffm. - carrot - soft root-rot. Auckland, AK, NZ Feb 1976. From D.R.W. Watson F2126 - produces blue pigment on GYCA - causes soft rot of carrot, potato slices.
- 5056 b *Daucus carota* L. var. *sativus* Hoffm. - carrot - soft rot of root core. USA 1975. From D.B. Towner 5771B - causes soft rot of carrot slices - does not produce blue pigment on GYCA.
- 9289 *Elettaria cardamomum* (L.) Maton - cardamom - rhizome, roots. Papua New Guinea Feb 1986. From D.L. Tomlinson PNG12688.
- 12030 *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. France 1979. From CFBP 2020 ← R. Samson 1287-2.
- 9290 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - tuber. Papua New Guinea Mar 1986. From D.L. Tomlinson PNG12708 ← C. Morris.
- 12135 *Kalanchoe blossfeldiana* Poelln. France 1988. From CFBP 2982 ← R. Samson SH170-1 - Biovar IX.
- 5583 b *Lycopersicon esculentum* Mill. - tomato - discoloured stem of wilted plant. Cook Is. Jul 1977. From D.R.W. Watson C2293 - produces blue pigment on GYCA - causes soft rot of carrot, potato slices.
- 9287 a* *Musa* sp. - banana cv. Babi Yadefani - pseudostem, roots. Papua New Guinea. From D.L. Tomlinson PNG11907 = IMI B10450 - Trop. Pest

- Management 33: 196-199, 1987 - *banana clones (Tomlinson).
 11931 *Nicotiana tabacum* L. - tobacco. USA. From CFBP 1891 ← E. Echandi Ech9.
 7077 a *Oryza sativa* L. - rice - foot rot. Japan 1978. From M. Goto ER3.
 7078 a *Oryza sativa* L. - rice - foot rot. Japan 1978. From M. Goto ER7.
 7079 a *Oryza sativa* L. - rice - foot rot. Japan 1978. From M. Goto ER8.
 1544 a *Pelargonium capitatum* (L.) L'Her. ex Ait. Comoro Is. 1960. From D.W. Dye EG18 ← NCPPB 898 ← A.C. Hayward B374 - rec. as *E. carotovora*.
 10850 *Phalaenopsis* sp. - orchid - round elliptical (0.5-3cm) watersoaked leaf lesion. Tauranga, BP, NZ Jan 1991. From J.M. Young 3866A - rec. as *Erwinia* sp.
 10851 *Phalaenopsis* sp. - orchid - round elliptical (0.5-3cm) watersoaked leaf lesion. Tauranga, BP, NZ Jan 1991. From J.M. Young 3866B - rec. as *Erwinia* sp.
 1566 a *Philodendron scandens* C. Koch & H. Sello. subsp. *oxycardium* (Schott) Bunt. - leaf-heart philodendron - leaf rot. USA Jan 1959. From D.W. Dye EI15 ← ICPB EC204 ← L.A. McFadden B110.
 1565 a *Philodendron* sp. USA. From D.W. Dye EI14 ← NCPPB 454 ← H.N. Miller PH1 = LMG 2493.
 9156 *Philodendron* sp. Greece 1985. From P.G. Psallidas Ph1 - plants imported.
 9157 *Philodendron* sp. Greece 1985. From P.G. Psallidas Ph2 - plants imported.
 6192 a *Saintpaulia* sp. - African violet - leaf soft rot. France 1970. From D.W. Dye ← M. Lemattre 3920.
 9288 *Solanum tuberosum* L. - potato - tuber. Papua New Guinea Nov 1985. From D.L. Tomlinson PNG12581.
 2346 a Grass. Australia. From D.W. Dye EG50 ← D.C. Graham 420 ← W.J. Dowson = LMG 2540 - rec. as *E. carotovora* f. sp. *graminarum*.
 2347 a Grass. Australia. From D.W. Dye EG51 ← D.C. Graham 430 ← W.J. Dowson - rec. as *E. carotovora* f. sp. *graminarum*.

***Erwinia chrysanthemi* pv. *chrysanthemi* Burkholder et al. 1953**

- 1552 a *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. USA. From D.W. Dye EI1 ← NCPPB 427 ← H.H. Runnells.
 5703 a *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. USA. From NCPPB 402 ← W.H. Burkholder EC17 = ATCC 11663: CFBP 2048: LMG 2804 - **Type strain**.
 1553 a 1956. From D.W. Dye EI2 ← NCPPB 517 ← E. Hellmers = W.J. Dowson 399: LMG 2518.
 1555 a* USA 1956. From D.W. Dye EI3 ← ICPB EC18 ← W.H. Burkholder - *chrysanthemum (ICPB).

***Erwinia chrysanthemi* pv. *dianthicola* (Hellmers 1958) Dickey 1979**

- 1556 a *Dianthus caryophyllus* L. - carnation. UK 1956. From D.W. Dye EI5 ← NCPPB 429 ← H.J. Wilcox.
 1557 a? *Dianthus caryophyllus* L. - carnation. UK 1957. From D.W. Dye EI6 ← NCPPB 455 ← R.A. Lelliott.
 1558 a *Dianthus caryophyllus* L. - carnation. Denmark. From D.W. Dye EI7 ← NCPPB 518 ← E. Hellmers = LMG 2519.
 1559 a *Dianthus caryophyllus* L. - carnation. UK 1961. From D.W. Dye EI8 ← NCPPB 1111 ← J.E.E. Jenkins = LMG 2520.
 1560 a *Dianthus caryophyllus* L. - carnation cv. Lucky Strike. Denmark 1956. From D.W. Dye EI9 ← ICPB EC174 ← E. Hellmers 98.
 3310 a* *Dianthus caryophyllus* L. - carnation - stem. Waiuku, AK, NZ 1971. From D.W. Dye EI20 ← H.J. Boesewinkel - *carnation.
 3311 a* *Dianthus caryophyllus* L. - carnation - stem. Waiuku, AK, NZ 1971. From D.W. Dye EI21 ← H.J. Boesewinkel - *carnation.
 3724 *Dianthus caryophyllus* L. - carnation - stem. Papakura, AK, NZ Mar 1974. From J.P. Wilkie (nee Bodley) 1743 ← C.F. Hill AS4010.
 4010 a *Dianthus caryophyllus* L. - carnation. Huapai, AK, NZ Aug 1974. From D.W. Dye EI25 ← C.F. Hill AK724 - produces blue pigment on GYCA.
 4056 b *Dianthus caryophyllus* L. - carnation - stem. Kamo, ND, NZ Oct 1974. From C.F. Hill AS4644 - produces blue pigment on GYCA.
 4057 *Dianthus caryophyllus* L. - carnation - stem. Hastings, HB, NZ Oct 1974. From C.F. Hill AS4657 - produces blue pigment on GYCA.
 6279 a* *Dianthus caryophyllus* L. - carnation. Waiuku, AK, NZ 1971. From D.W. Dye EI19 ← H.J. Boesewinkel - rec. as *E. chrysanthemi* - *carnation.
 6427 a *Dianthus caryophyllus* L. - carnation. UK 1956. From NCPPB 453 ← R.A. Lelliott CN26 = CFBP 1200: LMG 2485 - **Pathotype strain**.
 6960 *Dianthus caryophyllus* L. - carnation cv. Harvest Moon - stem. Hamilton, WO, NZ Jul 1980. From H.J. Boesewinkel A - rec. as *E. chrysanthemi*.
 6961 *Dianthus caryophyllus* L. - carnation - stem. Huapai, AK, NZ Jul 1980. From H.J. Boesewinkel B - rec. as *E. chrysanthemi*.
 7445 a* *Dianthus caryophyllus* L. - carnation cv. White Sim - root. Greece Sep 1976. From A.S. Alivizatos Di1 = NCPPB 3138 - rec. as *E. chrysanthemi* pv. *dianthi* - *carnation.
 7446 a* *Dianthus caryophyllus* L. - carnation cv. White Sim - root. Greece Sep 1976. From A.S. Alivizatos Di6 - rec. as *E. chrysanthemi* pv. *dianthi* - *carnation.
 7447 a* *Dianthus caryophyllus* L. - carnation cv. White Sim - root. Greece Sep 1976. From A.S. Alivizatos Di10 = NCPPB 3139 - rec. as *E. chrysanthemi* pv. *dianthi* - *carnation.
 11521 *Dianthus caryophyllus* L. - carnation - stained vasculature of stem. Pukekohe, AK, NZ Feb 1993. From J.M. Young 3903A.
 11522 *Dianthus caryophyllus* L. - carnation - stained vasculature of stem. Pukekohe, AK, NZ Feb 1993. From J.M. Young 3903B.
 11816 *Dianthus caryophyllus* L. - carnation. France 1972. From CFBP 1983 ← P. Bonnet 110.
 9158 *Dianthus* sp. Greece 1976. From P.G. Psallidas Di2.
 9159 *Dianthus* sp. Greece 1976. From P.G. Psallidas Di9.

***Erwinia chrysanthemi* pv. *dieffenbachiae* (McFadden 1961) Dye 1978**

- 1561 a *Dieffenbachia maculata* (C. & G. Lodd.) G. Don. USA 1959. From D.W. Dye EI10 ← NCPPB 1157 ← D.E. Munnecke 28E = ICPB EC180: LMG 2475.
 1562 a *Dieffenbachia maculata* (C. & G. Lodd.) G. Don. Puerto Rico 1958. From D.W. Dye EI11 ← NCPPB 1490 ← A.C. Monllor = LMG 2476.
 1563 a *Dieffenbachia maculata* (C. & G. Lodd.) G. Don. Germany 1962. From D.W. Dye EI12 ← NCPPB 1514 ← H. Bortels D1 = LMG 2477.
 1564 a *Dieffenbachia maculata* (C. & G. Lodd.) G. Don. USA 1959. From D.W. Dye EI13 ← ICPB EC179 ← D.E. Munnecke 28C = NCPPB 910: LMG 2469.
 9020 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - stem rot. Hungary 1984. From J. Nemeth DF7.
 9879 * *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - dieffenbachia - soft rot of stem. Hungary 1984. From J. Nemeth DF5 = NCPPB 3460 - *dieffenbachia (Nemeth).
 1568 a *Dieffenbachia* sp. - cone. USA. From D.W. Dye EM1 ← ICPB ED102 ← L.A. McFadden = CFBP 2051: NCPPB 2976 - **Pathotype strain**.
 1569 a *Dieffenbachia* sp. - petiole rot. USA 1957. From D.W. Dye EM2 ← ICPB ED103 ← L.A. McFadden B27.
 8690 *Dieffenbachia* sp. - rotten stem. Ellerslie, AK, NZ Aug 1984. From C.F. Hill As25078 - rec. as *E. chrysanthemi*.
 11817 *Dieffenbachia* sp. France 1974. From CFBP 2014 ← R. Samson.

***Erwinia chrysanthemi* pv. *paradisica* (Victoria & Barros 1969) Dickey & Victoria 1979**

- 6353 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 221 ← G.A. Granada 141 - does not produce blue pigment.
 6354 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 327 ← J.I. Victoria K. C415 - does not produce blue pigment.
 6355 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 416 ← J.I. Victoria K. 22-3 - does not produce blue pigment.
 6356 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 409 ← J.I. Victoria K. 17-22 - does not produce blue pigment.
 6357 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 414 ← J.I. Victoria K. 20-23 - does not produce blue pigment.
 6359 a *Musa* sp. - plantain - soft rot of pseudostem. Colombia. From R.S. Dickey 399 ← J.I. Victoria K. ST-L13-1 - does not produce blue pigment.
 2348 a *Musa X paradisica* L. - plantain. Colombia. From D.W. Dye EG52 ← ICPB EC226 ← J.I. Victoria K. A110 = R.S. Dickey 235.
 2349 a *Musa X paradisica* L. - plantain. Colombia 1968. From D.W. Dye EG53 ← ICPB EC227 ← J.I. Victoria K. B131 = CFBP 2811: LMG 2545: NCPPB 2511: R.S. Dickey 236 - **Pathotype strain**.
 2350 a *Musa X paradisica* L. - plantain. Colombia. From D.W. Dye EG54 ← ICPB EC228 ← J.I. Victoria K. B141.
 6358 a *Musa X paradisica* L. - plantain - soft rot of pseudostem. Colombia 1973. From R.S. Dickey 443 ← NCPPB 2511 ← O. Fernandez-Borrero 1 = LMG 2542.

***Erwinia chrysanthemi* pv. *parthenii* (Starr 1947) Dye 1978**

- 1842 a *Parthenium argentatum* Gray - guayule. USA 1945. From D.W. Dye EI16 ← NCPPB 1861 ← W.H. Burkholder EG1 = ICPB EC110: LMG 2964.
 1547 a Denmark 1956. From D.W. Dye EG24 ← NCPPB 516 ← E. Hellmers = CFBP 1270: LMG 2486: W.J. Dowson 398 - **Pathotype strain**.

Erwinia chrysanthemi* pv. *zeae (Sabet 1954) Victoria *et al.* 1975

- 9880 * *Aglaonema commutatum* Schott. cv. *treubii* - leafspot. Hungary Oct 1986. From J. Nemeth AGL11 - **Aglaonema commutatum* (Nemeth).
 9881 * *Aglaonema commutatum* Schott. cv. *treubii* - leafspot. Hungary Oct 1986. From J. Nemeth AGL12 - **Aglaonema commutatum* (Nemeth).
 9882 * *Aglaonema commutatum* Schott. cv. *treubii* - leafspot. Hungary Oct 1986. From J. Nemeth AGL41 - **Aglaonema commutatum* (Nemeth).
 9883 * *Aglaonema commutatum* Schott. cv. *treubii* - leafspot. Hungary Oct 1986. From J. Nemeth AGL42 - **Aglaonema commutatum* (Nemeth).
 12193 *Dianthus caryophyllus* L. - carnation. Brazil 1992. From IBSBF 976 ← I.M.G. Almeida.
 12194 *Dianthus caryophyllus* L. - carnation. Brazil 1992. From IBSBF 977 ← I.M.G. Almeida.
 11105 *Oryza sativa* L. - rice. China. From X.Z. Ren R8.
 12200 *Phalaenopsis* sp. - orchid (hybrid). Brazil 1993. From IBSBF 1017 ← I.M.G. Almeida.
 12201 *Phalaenopsis* sp. - orchid (hybrid). Brazil 1993. From IBSBF 1018 ← I.M.G. Almeida.
 7842 *Solanum tuberosum* L. - potato - tuber. Australia 1982. From C.N. Hale ← E.J. Cother Yanco-14 = DAR 35634.
 9884 *Yucca elephantipes* Regel - spineless yucca - soft rot of stem. Guatemala Dec 1986. From J. Nemeth ← A. Kovaks Y5 - causes soft rot of potato slices (Nemeth).
 1548 a *Zea mays* L. - maize. India. From D.W. Dye EG25 ← NCPPB 708 ← A.C. Hayward 78020 = ITCC b55: LMG 2529 - rec. as *E. carotovora* f. sp. *zeae*.
 1549 a *Zea mays* L. - maize. Egypt 1961. From D.W. Dye EG26 ← NCPPB 1065 ← K.A. Sabet 16 = ATCC 27388: ICPB EC209: LMG 2495 - rec. as *E. carotovora* f. sp. *zeae*.
 2111 a *Zea mays* L. - maize. Egypt 1961. From D.W. Dye EG48 ← A. Kelman ← K.A. Sabet 16 = ATCC 27388: ICPB EC209: NCPPB 1065: LMG 2495 - rec. as *E. carotovora* f. sp. *zeae*.
 2358 a *Zea mays* L. - maize. USA. From D.W. Dye EP5 ← A. Kelman W1-1 - rec. as *E. maydis*.
 2359 a *Zea mays* L. - maize. USA. From D.W. Dye EP6 ← A. Kelman W2-18 - rec. as *E. maydis*.
 2360 a *Zea mays* L. - maize. USA. From D.W. Dye EP7 ← A. Kelman W3-20 - rec. as *E. maydis*.
 5704 a *Zea mays* L. - maize. USA 1970. From NCPPB 2538 ← A. Kelman SR58 = CFBP 2052: LMG 2505 - **Pathotype strain**.
 7131 b *Zea mays* L. - maize - sour-smelling stalk rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson A2851 - produces blue pigment on GYCA.
 7135 b *Zea mays* L. - maize - sour-smelling stalk rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson A2864 - produces blue pigment on GYCA.
 7139 b *Zea mays* L. - maize - sour-smelling cob rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson AC2865 - produces blue pigment on GYCA.
 7140 b* *Zea mays* L. - maize - sour-smelling stalk rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson B2878 - produces blue pigment on GYCA - *sweetcorn.
 7143 b *Zea mays* L. - maize - sour-smelling stalk rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson A2880 - produces blue pigment on GYCA.
 9160 *Zea mays* L. - maize. Greece 1976. From P.G. Psallidas Ar1.
 9161 *Zea mays* L. - maize. Greece 1974. From P.G. Psallidas Ar2.
 11094 a *Zea mays* L. - maize - stalk rot, foul odour, translucent leafspots. Gisborne, GB, NZ. From C.F. Hill LYN 7257.
 1395 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - stalk rot. USA. From D.W. Dye EP2 ← ICPB EM108 ← A. Kelman C2B2 = NCPPB 1851: LMG 2496 - rec. as *E. maydis* - pectinolytic.
 1573 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - stalk rot. USA. From D.W. Dye EP3 ← ICPB EM109 ← A. Kelman C6 - rec. as *E. maydis*.
 1583 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - stalk rot. USA. From D.W. Dye EP1 ← ICPB EM107 ← A. Kelman C1B1 = NCPPB 1863: LMG 2497 - rec. as *E. maydis*.
 2357 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - stalk rot. USA. From D.W. Dye EP4 ← A. Kelman C9 - rec. as *E. maydis*.
 7721 *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - top and stalk rot. Brazil 1980. From NCPPB 3144 ← F.J.B. Reifschneider E20.
 12352 *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - wilt and stalk rot. Yugoslavia 1990. From M. Arsenijevic K50.
 12353 *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - wilt and stalk rot. Yugoslavia 1990. From M. Arsenijevic K52.
 12354 *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - wilt & stem rot. Yugoslavia 1990. From M. Arsenijevic K55.

Erwinia cypripedii (Hori 1911) Bergey *et al.* 1923

- 1567 a* *Cypripedium* sp. - lady-slipper orchid - brown spot rot. USA. From D.W. Dye EK2 ← ICPB EC156 ← P.A. Ark 4773 = NCPPB 3129: ATCC 29268: LMG 2656 - *orchid (ICPB).
 1591 a *Cypripedium* sp. - lady-slipper orchid - brown spot rot. USA. From D.W. Dye EK1 ← ICPB EC155 ← P.A. Ark 4778 = ATCC 29267: NCPPB 3004: LMG 2657 - **Type strain**.
 1848 a *Cypripedium* sp. - lady-slipper orchid. USA 1950. From D.W. Dye EK3 ← NCPPB 752 ← P.A. Ark 4921 = ICPB EC157: LMG 2654.
 8811 *Cypripedium* sp. - lady-slipper orchid. USA 1950. From LMG 1268 ← NCPPB 750 ← P.A. Ark 4924.
 8812 *Cypripedium* sp. - lady-slipper orchid. USA 1950. From LMG 1269 ← NCPPB 751 ← P.A. Ark 4922.

Erwinia dissolvens (Rosen 1922) Burkholder 1948

- 1570 a *Zea mays* L. - maize. From D.W. Dye EN1S ← ICPB ED105 ← E.L. Waldee W4 = ATCC 23373: LMG 2683: NRRL B154: NCPPB 1850 - one of 2 colony types - not same as 1589 - **Type strain**.
 1589 a *Zea mays* L. - maize. From D.W. Dye EN1R ← ICPB ED105 ← E.L. Waldee W4 = ATCC 23373: NRRL B154: NCPPB 1850 - one of 2 colony types - not same as 1570.
 1571 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - rot. USA 1940. From D.W. Dye EN2L ← ICPB ED106 ← E.L. Waldee 100 = NRRL B155: NCPPB 1862 - one of 2 colony types - not same as 1572.
 1572 a? *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - rot. USA 1940. From D.W. Dye EN2S ← ICPB ED106 ← E.L. Waldee 100 = NRRL B155: NCPPB 1862 - one of 2 colony types - not same as 1571.

Erwinia herbicola (Lohnis 1911) Dye 1964

syn. *Enterobacter agglomerans* (Beijerinck 1888) Ewing & Fife 1972

syn. *Pantoea agglomerans* (Beijerinck 1888) Gavini *et al.* 1989

syn. *Pantoea stewartii* subsp. *indologenes* (Smith 1898) Mergaert *et al.* 1993

see also *Enterobacter agglomerans*

- 1377 a *Abelmoschus esculentus* (L.) Moench - okra - leafspot. India 1960. From D.W. Dye WP1 ← G. Rangaswami = NCPPB 2279 - rec. as *X. esculenti*.
 7373 a *Allium cepa* L. - onion cv. Granex - necrosis of seed stalks, leaves. South Africa Oct 1977. From M.J. Hattingh SUH1 = LMG 2595.
 7374 a *Allium cepa* L. - onion cv. Granex - necrosis of seed stalks, leaves. South Africa Oct 1977. From M.J. Hattingh SUH2 = LMG 2596.
 7375 a *Allium cepa* L. - onion cv. Granex - necrosis of seed stalks, leaves. South Africa Oct 1977. From M.J. Hattingh SUH3.
 7376 a *Allium cepa* L. - onion cv. Granex - necrosis of seed stalks, leaves. South Africa Oct 1977. From M.J. Hattingh SUH4.
 3581 b *Avena sativa* L. - oat - seed. UK (Scotland). From J.M. Young 1605 ← D.A. Webley D11.
 9900 *Beta vulgaris* L. - sugarbeet. Germany 1980. From NCPPB 3128 ← M.D. Collins C610 ← F. Schneider 0115 - rec. as *Corynebacterium beticola*.
 1376 a *Cosmos sulphureus* Cav. - cosmos - leafspot. India 1960. From D.W. Dye WO1 ← G. Rangaswami = NCPPB 2277: LMG 2563 - rec. as *X. sulphureus* (= *X. cosmicola*).
 12142 *Euonymus* sp. - papery brown leaf blotches with water-soaked edges. Ashburton, MC, NZ Nov 1993. From J.M. Young AA4g.
 12143 *Euonymus* sp. - papery brown leaf blotches with water-soaked edges. Ashburton, MC, NZ Nov 1993. From J.M. Young AA4h.
 5565 b *Glycine max* (L.) Merr. - soybean - leafspot with halo. Rukuhia, WO, NZ Feb 1977. From D.R.W. Watson C2266 - associated with *P. syringae* pv. *glycinea*.
 1373 a *Impatiens balsamina* L. - balsam. India. From D.W. Dye WM1 ← G. Rangaswami = NCPPB 2276: LMG 2562 - rec. as *X. balsamivorum*.
 1374 a *Impatiens balsamina* L. - balsam. India. From D.W. Dye WM2 ← G. Rangaswami - rec. as *X. balsamivorum*.
 1402 a *Linum usitatissimum* L. - linseed. Netherlands. From D.W. Dye FA5 ← ICPB 2556 ← E. van Olden Delft-1.
 1403 a *Linum usitatissimum* L. - linseed. Netherlands. From D.W. Dye FA6 ← ICPB 2556D ← E. van Olden Delft-1.
 2698 a *Malus X domestica* Borkh. - apple cv. McIntosh - symptomless leaf. USA. From D.W. Dye FA9 ← J.H. Riggie MSU-HMAC-K.
 786 a *Mangifera indica* L. - mango. South Africa 1947. From D.W. Dye EA4 ← ICPB EL103 ← W.J. Dowson = NCPPB 202 - rec. as *E. lathyr*.
 1513 a *Mangifera indica* L. - mango. South Africa 1947. From D.W. Dye EA7 ← NCPPB 202 ← W.J. Dowson = ICPB EL103 - rec. as *E. lathyr*.
 787 a *Musa* sp. - banana - leaf vascular bundles. 1954. From D.W. Dye EA3 ← ICPB EL102 ← Z. Volcani - rec. as *E. lathyr*.

- 89 a *Pennisetum americanum* (L.) K. Schum. - pearl millet - leafspot. India 1956. From D.W. Dye XT1 ← G. Rangaswami = NCPPB 2282.
- 788 a *Phaseolus vulgaris* L. - bean - leaf. UK 1937. From D.W. Dye EA1 ← ICPB EL101A ← W.J. Dowson 102 - rec. as *E. lathyri*.
- 789 a *Phaseolus vulgaris* L. - bean - leaf. UK 1937. From D.W. Dye EA2 ← ICPB EL101B ← W.J. Dowson 102 - rec. as *E. lathyri*.
- 1414 a *Phaseolus vulgaris* L. - bean - leaf rot. From D.W. Dye EA5 ← D.C. Graham ← D.A. Perry - rec. as *E. lathyri*.
- 1512 a *Phaseolus vulgaris* L. - bean - leaf. From D.W. Dye EA6 ← NCPPB 102 ← N.V. Needham = LMG 2552 - rec. as *E. lathyri*.
- 9134 *Populus* sp. - poplar (selection No. 1236). Netherlands Apr 1980. From M. de Kam Dsk135.
- 9135 *Populus X canadensis* Smith - gray poplar cv. Limbricht. Netherlands. From M. de Kam Dsk151.
- 2696 a *Prunus armeniaca* L. - apricot - leaf. USA. From D.W. Dye FA7 ← J.H. Riggle MSU-apricot-E.
- 2697 a *Pyrus communis* L. - pear - fireblight canker. USA. From D.W. Dye FA8 ← J.H. Riggle MSU-ISO-57.
- 77 a *Setaria italica* (L.) Beauv. - foxtail millet - leafspot. India. From D.W. Dye XN1 ← G. Rangaswami = LMG 2632: NCPPB 2280 - type strain of *Pantoea stewartii* subsp. *indologenes*.
- 81 a *Setaria italica* (L.) Beauv. - foxtail millet - leafspot. India. From D.W. Dye XN2 ← G. Rangaswami = NCPPB 2281.
- 625 a *Sorghum bicolor* (L.) Moench - sorghum. India. From D.W. Dye XX1 ← G. Rangaswami = NCPPB 2285: LMG 2602 - rec. as *X. rubrisorghii*.
- 1375 a *Tagetes erecta* L. - African marigold - leafspot. India. From D.W. Dye WN1 ← G. Rangaswami = NCPPB 2286 - rec. as *X. tagetis*.
- 83 a *Triticum aestivum* L. - wheat. From D.W. Dye ZP1 ← T.M.B. Paine ← N. James.
- 9133 *Ulmus* sp. - elm. Netherlands Aug 1977. From M. de Kam Dsk93.
- 626 a *Zea mays* L. - maize. India. From D.W. Dye XV1 ← G. Rangaswami = NCPPB 2283 - rec. as *X. maydis*.
- 91 a Canada. From D.W. Dye ZP2 ← W.A.F. Hagborg 4825 ← E.B. Roslycky 3.
- 262 a Canada. From D.W. Dye ZP3 ← W.A.F. Hagborg 4826 ← E.B. Roslycky 6 - rec. as *X. trifolii*.
- 263 a Canada. From D.W. Dye ZP4 ← W.A.F. Hagborg 4827 ← E.B. Roslycky 10 - rec. as *X. trifolii*.
- 264 a Canada. From D.W. Dye ZP5 ← W.A.F. Hagborg 4828 ← E.B. Roslycky 11 - rec. as *X. trifolii*.
- 265 a Canada. From D.W. Dye ZP6 ← W.A.F. Hagborg 4829 ← E.B. Roslycky 12 - rec. as *X. trifolii*.
- 266 Canada. From D.W. Dye ZP7 ← W.A.F. Hagborg 4830 ← E.B. Roslycky 13 - rec. as *X. trifolii*.
- 267 Canada. From D.W. Dye ZP8 ← W.A.F. Hagborg 4832 ← E.B. Roslycky 16 - rec. as *X. trifolii*.
- 268 Canada. From D.W. Dye ZP9 ← W.A.F. Hagborg 4842 ← E.B. Roslycky 17 - rec. as *X. trifolii*.
- 269 Canada. From D.W. Dye ZP10 ← W.A.F. Hagborg 4833 ← E.B. Roslycky 18 - rec. as *X. trifolii*.
- 272 a Canada. From D.W. Dye ZP11 ← W.A.F. Hagborg 4834 ← E.B. Roslycky 19 = ATCC 33243: LMG 2565: NCPPB 2971 - rec. as *X. trifolii* - **Type strain**.
- 273 Canada. From D.W. Dye ZP12 ← W.A.F. Hagborg 4835 ← E.B. Roslycky 20 - rec. as *X. trifolii*.
- 274 Canada. From D.W. Dye ZP13 ← W.A.F. Hagborg 4836 ← E.B. Roslycky 21 - rec. as *X. trifolii*.
- 275 Canada. From D.W. Dye ZP14 ← W.A.F. Hagborg 4837 ← E.B. Roslycky 22 - rec. as *X. trifolii*.
- 276 Canada. From D.W. Dye ZP15 ← W.A.F. Hagborg 4838 ← E.B. Roslycky 24 - rec. as *X. trifolii*.
- 277 a Canada. From D.W. Dye ZP16 ← W.A.F. Hagborg 4839 ← E.B. Roslycky 28 - rec. as *X. trifolii*.
- 278 a Canada. From D.W. Dye ZP17 ← W.A.F. Hagborg 4840 ← E.B. Roslycky 30 - rec. as *X. trifolii*.
- 279 a Canada. From D.W. Dye ZP18 ← W.A.F. Hagborg 4841 ← E.B. Roslycky 31 - rec. as *X. trifolii*.
- 280 a Canada. From D.W. Dye ZP19 ← W.A.F. Hagborg 4843 ← E.B. Roslycky 14 - rec. as *X. trifolii*.
- 627 a India. From D.W. Dye XV2 ← G. Rangaswami = NCPPB 2284 - rec. as *X. maydis* var. *sorghii*.
- 629 a India. From D.W. Dye XU1 ← G. Rangaswami = NCPPB 1562 - rec. as *X. annamalaiensis*.
- 1398 a Netherlands. From D.W. Dye FA1 ← ICPB 2553A ← T. Wiken L801.
- 1399 a Netherlands. From D.W. Dye FA2 ← ICPB 2553B ← T. Wiken L801.
- 1400 a Netherlands. From D.W. Dye FA3 ← ICPB 2554 ← T. Wiken L802.
- 1401 a Netherlands. From D.W. Dye FA4 ← ICPB 2555 ← T. Wiken L803.
- 2107 a From D.W. Dye XV3 ← A.C. Hayward B2844 ← S.K. Sinha - rec. as *X. maydis*.
- 2361 a South Africa. From D.W. Dye EZ1 ← NCPPB 2035 ← J.J. Joubert 40 - rec. as *E. vitivora*.
- 2362 a South Africa. From D.W. Dye EZ2 ← NCPPB 2036 ← J.J. Joubert 42 - rec. as *E. vitivora*.
- 3582 b UK. From J.M. Young 1606 ← A.J. Holding 5-3.

Erwinia herbicola* pv. *gypsophila (Brown 1934) Miller *et al.* 1981

- 12531 a *Gypsophila paniculata* L. Netherlands 1978. From NCPPB 3091 ← C.E. Quinn G412 ← H.J. Miller 78/152 - **Pathotype strain**.

Erwinia herbicola* pv. *milletiae (Kawakami & Yoshida 1920) Goto *et al.* 1980

syn. *Pantoea herbicola* pv. *milletiae* (Kawakami & Yoshida 1920) Young *et al.* 1996

- 1421 a *Wisteria floribunda* (Willd.) DC. - Japanese wisteria - gall. Japan 1956. From D.W. Dye EQ2 ← D.C. Graham JM1 ← M. Goto = NCPPB 1750.
- 6772 a *Wisteria floribunda* (Willd.) DC. - Japanese wisteria - stem gall. Japan 1976. From M. Goto EM1 = ATCC 33261: LMG 2660: NCPPB 2519 - **Pathotype strain**.
- 6773 a *Wisteria floribunda* (Willd.) DC. - Japanese wisteria - gall. Japan. From M. Goto EM2 = NCPPB 2600.
- 1574 a Japan. From D.W. Dye EQ1 ← ICPB EM102 ← M. Goto = NCPPB 955: LMG 2659.

Erwinia mallotivora Goto 1976

- 5705 a *Mallotus japonicus* (Thunb.) Muell.-Arg. - akame-gashiwa. Japan 1975. From NCPPB 2851 ← M. Goto AM1 = ATCC 29573: CFBP 2503: LMG 2708 - **Type strain**.
- 8645 a *Mallotus japonicus* (Thunb.) Muell.-Arg. - akame-gashiwa. Japan 1975. From LMG 1270 ← NCPPB 2852 ← M. Goto AM2.
- 8646 a *Mallotus japonicus* (Thunb.) Muell.-Arg. - akame-gashiwa. Japan 1975. From LMG 1271 ← NCPPB 2853 ← M. Goto AM5.

Erwinia milletiae Kawakami & Yoshida 1920

see *Erwinia herbicola* pv. *milletiae*.

Erwinia nigrifluens Wilson *et al.* 1957

- 1391 a *Juglans regia* L. - walnut - bark canker. USA 1955. From D.W. Dye ER4 ← ICPB EN104 ← J.A. Berger WC3B.
- 1575 a *Juglans regia* L. - walnut - bark canker. USA 1955. From D.W. Dye ER2 ← ICPB EN102 ← J.A. Berger WC2-2 = ATCC 13028A: NCPPB 565.
- 1576 a *Juglans regia* L. - walnut - bark canker. USA 1955. From D.W. Dye ER3 ← ICPB EN103 ← J.A. Berger WC3A = ATCC 13028B: NCPPB 566.
- 1578 a? *Juglans regia* L. - walnut - bark canker. USA 1955. From D.W. Dye ER1 ← ICPB EN101 ← J.A. Berger WC1 = ATCC 13028: LMG 2694: NCPPB 564 - atypical strain - **Type strain**.
- 4789 b *Juglans regia* L. - walnut cv. Hartley. USA. From C.I. Kado 5D312.
- 10859 * *Juglans regia* L. - walnut - trunk canker. Spain 1986. From M.M. Lopez 748-4 - *walnut (Lopez).
- 10860 a* *Juglans regia* L. - walnut - trunk canker. Spain 1986. From M.M. Lopez 748-6 - *walnut (Lopez).
- 11905 * *Juglans regia* L. - walnut - canker of branches & trunk. Iran 1992. From H. Rahimian GT1 ← B. Harighi - *walnut (Rahimian).

Erwinia nimipressuralis (Carter 1945) Dye 1969

- 1577 a *Ulmus* sp. - elm. USA 1945. From D.W. Dye ES1 ← ICPB EN1 ← J.C. Carter 41-173 = NCPPB 2045: ATCC 9912: LMG 10245 - **Type strain**.

Erwinia nulandii Schuster *et al.* 1981 - not valid

see *Erwinia persicinus*.

Erwinia persicinus Hao *et al.* 1994

- 12532 a *Lycopersicon esculentum* Mill. - tomato. Japan. From ATCC 35998 ← D.J. Brenner CDC 9108-82 ← K. Komagata HK204 = LMG 11254: NCPPB 3774: IAM 12843: JCM 3704 - **Type strain**.
- 8932 a *Phaseolus vulgaris* L. - bean - seed. USA. From M.L. Schuster 'Pinky-A' = NCPPB 3375 - Fitopatologia Brasileira 6: 345-358, 1981 - rec. as type strain of *E. nulandii*.

Erwinia psidii Neto et al. 1987

- 8426 a* *Psidium guajava* L. - yellow guava. Brazil Sep 1982. From IBSBF 435 ← J.R. Neto = ATCC 49406: NCPPB 3555 - Ref: Fitopatologia Brasileira 12, 345-350, 1987 - *guava (Neto) - **Type strain**.
- 8427 a* *Psidium guajava* L. - yellow guava. Brazil Oct 1982. From IBSBF 446 ← J.R. Neto - cotype strain - *guava (Neto).
- 8428 a* *Psidium guajava* L. - yellow guava. Brazil Feb 1983. From IBSBF 452 ← J.R. Neto - cotype strain - *guava (Neto).
- 8429 a* *Psidium guajava* L. - yellow guava. Brazil Feb 1983. From IBSBF 453 ← J.R. Neto - cotype strain - *guava (Neto).
- 8430 a* *Psidium guajava* L. - yellow guava. Brazil Feb 1983. From IBSBF 454 ← J.R. Neto - cotype strain - *guava (Neto).
- 8431 a* *Psidium guajava* L. - yellow guava. Brazil Oct 1982. From IBSBF 470 ← C.F. Robbs ← F. Akiba ENA3231 - cotype strain - *guava (Neto).
- 12186 *Psidium guajava* L. - guava. Brazil 1992. From IBSBF 954 ← L.O.S. Beriam.

Erwinia quercina Hildebrand & Schroth 1967

- 1845 a *Quercus* sp. - oak. USA 1964. From D.W. Dye FB1 ← NCPPB 1852 ← D.C. Hildebrand 1 = ATCC 29281: ICPB EQ101: LMG 2724 - **Type strain**.
- 1846 a *Quercus* sp. - oak. USA 1963. From D.W. Dye FB2 ← NCPPB 1853 ← D.C. Hildebrand C = ICPB EQ102.

Erwinia rhapontici (Millard 1924) Burkholder 1948

- 9903 *Hyacinthus orientalis* L. - garden hyacinth cv. Annamarië. Netherlands 1977. From NCPPB 2988 ← J.E. Sellwood A815a.
- 9904 *Hyacinthus orientalis* L. - garden hyacinth cv. Anna Marie. Netherlands. From NCPPB 2989 ← J.E. Sellwood A816.
- 12493 *Narcissus* sp. - daffodil, jonquil - bulb. Alexandra, CO, NZ Sep 1995. From K. Knight 95/1739 = IMI 369183.
- 11048 a* *Pisum sativum* L. - pea - pink pea seeds. Canada 1988. From H.C. Huang LRS733 - *pea (Huang).
- 1389 a *Rheum rhabarbarum* L. - rhubarb - crown rot. UK 1940. From D.W. Dye EV2 ← ICPB ER1 ← W.J. Dowson.
- 1581 a *Rheum rhabarbarum* L. - rhubarb. UK 1940. From D.W. Dye EV1 ← NCPPB 139 ← G. Metcalfe.
- 1582 a *Rheum rhabarbarum* L. - rhubarb. UK. From D.W. Dye EV3 ← NCPPB 1578 ← J.J. Panes CP28 = ICPB ER102: ATCC 29283: LMG 2688 - **Type strain**.
- 1914 a *Rheum rhabarbarum* L. - rhubarb. UK 1965. From D.W. Dye EV4 ← NCPPB 1739 ← S.A. Masser 763B.
- 9142 a *Triticum aestivum* L. - wheat - causes pink grain of wheat. UK 1973. From L.E. Claffin 220 ← ATCC 29287 ← P. Roberts A425-P - J. Appl. Bact. 37: 353-358, 1974.
- 11830 *Triticum aestivum* L. - wheat. France 1967. From CFBP 1025 ← J. Luisetti Ble1.
- 11831 *Triticum aestivum* L. - wheat. France 1967. From CFBP 1026 ← J. Luisetti Ble2.

Erwinia rubrifaciens Wilson et al. 1967

- 1915 a *Juglans regia* L. - walnut. USA 1963. From D.W. Dye FC1 ← ICPB ER103 ← E.E. Wilson 533C = ATCC 29291: CFBP 1283: LMG 2709: NCPPB 2020 - **Type strain**.
- 1916 a *Juglans regia* L. - walnut. USA 1965. From D.W. Dye FC2 ← ICPB ER104 ← E.E. Wilson 540 = NCPPB 2021.
- 1917 a *Juglans regia* L. - walnut. USA 1966. From D.W. Dye FC3 ← ICPB ER105 ← E.E. Wilson 602C = NCPPB 2022.
- 4790 b *Juglans regia* L. - walnut cv. Hartley. USA. From C.I. Kado 6D327.
- 4791 b *Juglans regia* L. - walnut cv. Hartley. USA. From C.I. Kado 6D332.
- 4792 b *Juglans regia* L. - walnut cv. Hartley. USA. From C.I. Kado 6D343.
- 4793 b *Juglans regia* L. - walnut cv. Hartley. USA. From C.I. Kado 6D348.
- 5946 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D364 ← E.E. Wilson.
- 5947 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D365 ← E.E. Wilson.
- 5948 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D366 ← E.E. Wilson.
- 5949 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D367 ← E.E. Wilson.
- 5950 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D368 ← E.E. Wilson.
- 5951 b *Juglans regia* L. - walnut. USA Oct 1977. From C.I. Kado 6D369 ← E.E. Wilson.

Erwinia salicis (Day 1924) Chester 1939

- 9308 *Populus X euramericana* (Dode) Guinier - poplar cv. Robusta - Phytobia tunnels in poplar. Netherlands Dec 1982. From M. de Kam Dsk200.
- 1379 a *Salix alba* L. - white willow cv. Calva (cricket bat willow). UK (England) 1940. From D.W. Dye EX1 ← ICPB ES4 ← W.J. Dowson 85.
- 1587 a *Salix alba* L. - white willow cv. Calva (cricket bat willow). UK 1957. From D.W. Dye EX2 ← NCPPB 447 ← W.J. Dowson = ATCC 15712: CFBP 802: LMG 2698 - **Type strain**.
- 1588 a *Salix alba* L. - white willow cv. Calva (cricket bat willow). UK 1957. From D.W. Dye EX3 ← NCPPB 1466 ← W.J. Dowson 278.
- 9137 *Salix alba* L. - white willow cv. Belders. Netherlands Dec 1982. From M. de Kam Dsk179 ← B.C. van Dam.
- 9310 *Salix alba* L. - white willow - watermark. Netherlands Oct 1980. From M. de Kam Dsk152.
- 5988 a *Salix alba* L. subsp. *vitellina* Stokes - yellow willow. UK 1972. From NCPPB 2534 ← T.F. Preece 40.
- 9136 *Salix* sp. - willow - watermark disease. UK Jun 1983. From M. de Kam Dsk174 ← B.C. van Dam.

Erwinia sp.

- 9842 *Acer buergeranum* Miq. - trident maple - shoot and leaf blight. Japan May 1982. From Y. Takikawa AC29a (52).
- 9843 *Acer buergeranum* Miq. - trident maple - shoot & leaf blight. Japan May 1982. From Y. Takikawa AC81a (41).
- 9844 *Acer buergeranum* Miq. - trident maple - shoot & leaf blight. Japan Jun 1983. From Y. Takikawa AC8303 (62).
- 9845 *Acer buergeranum* Miq. - trident maple - shoot & leaf blight. Japan Jun 1982. From Y. Takikawa ACY4 (53).
- 9846 *Acer buergeranum* Miq. - trident maple - shoot & leaf blight. Japan Sep 1982. From Y. Takikawa ACZK (43).
- 1580 *Brassica oleracea* L. var. *botrytis* L. - cauliflower. 192. From D.W. Dye ET1 ← ICPB EO1 ← F.C. Harrison - rec. as *E. oleraceae* - probably *E. herbicola* - yellow colony form.
- 1382 a *Carnegieia gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro - blossom rot. USA 1959. From D.W. Dye EH2 ← ICPB EC190 ← S.M. Alcorn 432-4 - rec. as *E. carnegieana*.
- 1847 a *Carnegieia gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1959. From D.W. Dye EH4 ← NCPPB 671 ← S.M. Alcorn 622 - rec. as *E. carnegieana*.
- 11263 ? *Colocasia esculenta* (L.) Schott - taro - corm rot. Patumahoe, AK, NZ Apr 1992. From J.M. Young 3898A.
- 11264 ? *Colocasia esculenta* (L.) Schott - taro - corm rot. Patumahoe, AK, NZ Apr 1992. From J.M. Young 3898B.
- 11265 ? *Colocasia esculenta* (L.) Schott - taro - corm rot. Patumahoe, AK, NZ Apr 1992. From J.M. Young 3898C.
- 8413 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - soft-rot leaf lesion. India. From R. Easwaramurthy E1.
- 8414 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - soft-rot leaf lesion. India. From R. Easwaramurthy E2.
- 8415 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - soft-rot leaf lesion. India. From R. Easwaramurthy E3.
- 8416 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - stem rot lesion. India. From R. Easwaramurthy E4.
- 8417 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - stem rot lesion. India. From R. Easwaramurthy E5.
- 8418 *Dieffenbachia maculata* (C. & G. Lodd.) G. Don - stem rot lesion. India. From R. Easwaramurthy E6.
- 7456 *Opuntia phaeacantha* Engelm. - cactus. USA 1964. From S.M. Alcorn 64-0P-5 = ICPB EC289 - rec. as *E. carnegieana*.
- 11809 *Panax pseudoginseng* Wallich var. *notoginseng* - ginseng. China. From X.Z. Ren TS2.
- 11810 *Panax pseudoginseng* Wallich var. *notoginseng* - ginseng. China. From X.Z. Ren TS4.
- 11811 *Panax pseudoginseng* Wallich var. *notoginseng* - ginseng. China. From X.Z. Ren TS5.
- 11266 ? *Phialophora* sp. - water-soaked rotting lesion. Tauranga, BP, NZ Apr 1992. From J.M. Young 3899A.
- 8437 b *Pyrus communis* L. - pear - symptomless flower. Hastings, HB, NZ Oct 1983. From E.M. Bache 14 - rec. as *E. amylovora*.
- 8440 b *Pyrus communis* L. - pear - ooze from margin of leaf lesion. Henderson, AK, NZ Nov 1983. From E.M. Bache 151 - rec. as *E. amylovora*.
- 10125 *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi - fruit. Australia. From R.G. Clark ← P. Fahy DAR61733 - NZ nashi fruit exported to Australia.
- 1538 *Rubus idaeus* L. - raspberry - shoot. USA 1949. From D.W. Dye EF107 ← ICPB EA123 ← D. Folsom 49-49-10A = NCPPB 2291 - rec. as *E. amylovora* f. sp. *rubi*.
- 1539 *Rubus idaeus* L. - raspberry - shoot. USA. From D.W. Dye EF108 ← ICPB EA124 ← D. Folsom - rec. as *E. amylovora* f. sp. *rubi*.
- 1841 a *Rubus idaeus* L. - raspberry. USA 1949. From D.W. Dye EF111 ← NCPPB 1859 ← D. Folsom = ICPB EA131 - rec. as *E. amylovora* f. sp. *rubi*.

- 6429 a *Rubus idaeus* L. - raspberry. USA 1949. From NCPPB 2293 ← ICPB EA127 ← D. Folsom - rec. as *E. amylovora*.
 11298 *Rubus* sp. From J. Vanneste ← CFBP 2151 ← J. Klopmeijer 2 - rec. as *E. amylovora*.
 3120 *Salix fragilis* L. - crack willow - trunk. NZ Feb 1971. From C.T. Mortlock 1 - rec. as *E. salicis*.
 3121 *Salix fragilis* L. - crack willow - trunk. NZ Feb 1971. From C.T. Mortlock 5 - rec. as *E. salicis*.
 3894 *Salix fragilis* L. - crack willow. Middlemarch, NZ. From A.G. Spiers ES1 - rec. as *E. salicis*.
 6275 *Salix fragilis* L. - crack willow - trunk canker. Opihi River, SC, NZ 1971. From C.T. Mortlock T3 - rec. as *E. salicis*.
 10153 *Salix matsudana* G. Koidz. *X S. alba* L. - willow - brown spots on bark and xylem staining. Aokautere, WN, NZ. From A.G. Spiers 417.
 10154 *Salix matsudana* G. Koidz. *X S. alba* L. - willow - brown spots on bark and xylem staining. Aokautere, WN, NZ. From A.G. Spiers 422.
 10155 *Salix matsudana* G. Koidz. *X S. alba* L. - willow - brown spots on bark and xylem staining. Aokautere, W, NZ. From A.G. Spiers 424.
 9413 *Zantedeschia* sp. - ornamental calla lily - rhizome with floury rot. AK, NZ Jun 1987. From J.M. Young 3673-26 - pectolytic.
 5772 b* *Zea mays* L. - maize. NZ Jan 1972. From J.P. Wilkie (nee Bodley) A1240 - rec. as *E. dissolvens* - *maize.
 8401 a *Zea mays* L. - maize. USA. From J.M. Young A ← Microlife Technics EO96 ← S. Lindow - probably *S. Lindow* M232A - rec. as *E. ananas* pv. *ananas*.
 4689 Colombia Jul 1975. From J.C. Lozano 1138.
 4690 Colombia. From J.C. Lozano 1143.

Erwinia stewartii (Smith 1898) Dye 1963syn. *Pantoea stewartii* subsp. *stewartii* (Smith 1898) Mergaert et al. 1993

- 256 a *Zea mays* L. - maize. USA Jul 1932. From D.W. Dye Z02 ← ICPB SS2 ← W.H. Burkholder = NCPPB 2294.
 5930 a *Zea mays* L. var. *indentata* (Sturtev.) L.H. Bailey - dent maize. USA Jul 1975. From J.G. Turner P1.
 257 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA. From D.W. Dye Z03 ← ICPB SS11 ← E.W. Lindstrom A14 = NCPPB 2295: ATCC 8199: CFBP 2349: LMG 2715 - **Type strain**.
 258 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA. From D.W. Dye Z04 ← NCPPB 449 ← L.E. Williams.
 270 a* *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA. From D.W. Dye Z05 ← J.J. Natti 3 - *sweetcorn.
 271 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA. From D.W. Dye Z06 ← J.J. Natti 6.
 721 a *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA Jul 1932. From D.W. Dye Z08 ← ICPB SS1 ← W.H. Burkholder S13 - rec. as *X. stewartii*.
 722 a Beetle. USA 1954. From D.W. Dye Z09 ← ICPB SS18 ← C.I. Hannon - rec. as *X. stewartii*.
 724 a USA. From D.W. Dye Z011 ← ATCC 8200 ← E.W. Lindstrom 3153(D51) = W.H. Burkholder SS12 - rec. as *X. stewartii*.
 5929 Corn flea beetle. USA May 1975. From J.G. Turner COL6.

Erwinia tracheiphila (Smith 1895) Bergey et al. 1923

- 5845 a *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon. USA 1972. From NCPPB 2452 ← C.E. Quinn ← S. Shanmugasundaram 52 = ATCC 33245: CFBP 2355: LMG 2707 - **Type strain**.
 1396 a *Cucumis sativus* L. - cucumber. USA 1951. From D.W. Dye EY3 ← ICPB ET102 ← W.H. Burkholder ET5 = ATCC 11417: NCPPB 2795; 3246.
 1585 a *Cucumis sativus* L. - cucumber. USA 1951. From D.W. Dye EY2 ← ICPB ET5 ← W.H. Burkholder ET5 = ATCC 11418: NCPPB 2133 - avirulent to cucumber.
 9113 *Cucumis sativus* L. - cucumber. USA 1978. From L.E. Claflin 224.
 1584 a? From D.W. Dye EY1 ← NCPPB 125 - atypical strain.
 1586 a From D.W. Dye EY4 ← ICPB ET106 ← W.H. Burkholder ET3-2 = ATCC 13381: NCPPB 3247.
 1851 From D.W. Dye EY5 ← NCPPB 1623 ← A.T. Bolton = ATCC 27003: ICPB ET107 - atypical strain - avirulent to cucumber.

Erwinia uredovora (Pon et al. 1954) Dye 1963see *Erwinia ananas* pv. *uredovora*.***Escherichia coli*** (Migula 1895) Castellani & Chalmers 1919

- 731 USA. From M.H. Dye B24 ← J.A.R. Miles W1177-K12 ← J. Lederberg.
 899 a From P.L. Bergquist K12 ← Huntington Labs K12-W6B-Me-.
 901 a From P.L. Bergquist B ← Huntington Labs B.
 6107 a USA. From R.E. Mitchell K12 ← N.J. Panopoulos N100 - used for phaseolotoxin assay.
 6495 From J.M. Young ← A. Jamieson PB873 RP4 - carries RP4 plasmid.
 6559 From J.M. Young ← A. Jamieson PB873 ← P.L. Bergquist.
 6938 b NZ Aug 1980. From D.W. Mossop ← P.L. Bergquist A19.
 6939 b NZ Aug 1980. From D.W. Mossop ← P.L. Bergquist PB965.
 6940 b NZ Aug 1980. From D.W. Mossop ← P.L. Bergquist PB1143.
 7477 b From J. Clarke JC425 - spontaneous streptomycin dependent selection of JC335 - isolated from K12.
 7483 From D.W. Mossop ← D.B. Scott c600-PBR322 - used for cloning.
 7614 a UK. From NHI 33 ← NCTC 86 ← Lister Institute = ATCC 4157: NCIB 86.
 7624 From B.A.M. Morris ← R. Riedel ERC291 - Ref: J. Bact. 145: 1110, 1981 - ECR-291 = Endo I-; Thi-; HsdR-; Hsdm+.
 7625 From B.A.M. Morris ← R. Riedel ECR-323 - J. Bact. 145: 1110, 1981 - ECR-323 = ECR-291 (ECR-291 = Endo I-; Thi-; HsdR-; Hsdm+) Pa ri dep.
 9004 a From M.D. Templeton str-W Arg-R - Ref: Biochem. J. 224: 379-388, 1984.
 9414 From D.W. Mossop C600 ← N. Ellison.
 9415 From D.W. Mossop C600Hfl ← N. Ellison.
 10151 Clinical isolate. USA 1946. From G.C. Fletcher ← NHITCC 916 ← F. Schoentknecht = ATCC 25922 - used in antibiotic sensitivity testing - Serotype Ia.
 12555 From J. Aislabie ← B. Palmer - Contains the xy/E reporter gene - turns yellow when sprayed with catechol.

***Flavobacterium* sp.**

- 12596 Freshwater sediments. USA. From G. Lloyd-Jones Y16 ← R.C. Crawford L1 = ATCC 53874 - Appl. Env. Microbiol. 52: 92-97, 1986 - re-isolate of ATCC 39723 - degrades pentachlorophenol (PCP) US Pat. 4 713 340 refers.

Gluconobacter oxydans (Henneberg 1897) De Ley 1961

- 8617 a *Dahlia* sp. - flower. Japan 1941. From J. De Ley ← IFO 3253 ← K. Kondo 14 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8618 a *Fragaria X ananassa* Duch. - cultivated strawberry. Japan 1941. From J. De Ley ← IFO 3255t1 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8620 a *Fragaria X ananassa* Duch. - cultivated strawberry. Japan 1941. From J. De Ley ← IFO 3264 ← K. Kondo 40 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8621 a *Fragaria X ananassa* Duch. - cultivated strawberry. Japan 1941. From J. De Ley ← IFO 3266t1 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8615 a *Lilium auratum* Lindl. - mountain lily. Japan 1941. From J. De Ley ← IFO 3246t1 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8616 a *Lilium auratum* Lindl. - mountain lily. Japan 1941. From J. De Ley ← IFO 3246t2 - Int. J. Syst. Bact. 30: 7-27, 1980.
 8622 a *Prunus* sp. - cherry. Japan. From J. De Ley ← IFO 3270 ← K. Kondo 20 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8619 a *Prunus tomentosa* Thunb. - Nanking cherry. Japan. From J. De Ley ← IFO 3257 ← K. Kondo 12 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8623 a *Rheum undulatum* L. - flower. Japan. From J. De Ley ← IFO 3276 ← K. Kondo 34 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8625 a *Vitis* sp. - grape. Japan 1966. From J. De Ley ← IFO 12467 ← M. Ameyama = ATCC 33280 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8614 a From J. De Ley ← ATCC 15178 - Int. J. Syst. Bact. 33: 65-81, 1983 - used in production of 5-ketofructose (US patent 3206375).
 8624 a Dried persimmon fruit. Japan 1941. From J. De Ley ← IFO 3293 ← K. Kondo 25 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8626 a Top-fermented beer. UK 1943. From J. De Ley ← NCIB 6426 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8627 a Bakers' yeast. Belgium 1929. From J. De Ley ← NCIB 8624 - Int. J. Syst. Bact. 33: 65-81, 1983.
 8628 a Beer. Netherlands. From J. De Ley ← NCIB 9108 ← A. Stouthamer Su18 - Int. J. Syst. Bact. 33: 65-81, 1983.

Hafnia alvei Moller 1954

- 7619 a NZ. From NHI 109 ← 63-4800.
 7620 a USA. From NHI 860 ← CDC 5190-70.
 7621 a USA. From NCTC 8105 ← C.A. Stuart = ATCC 13337 - biotype 32011: paracolon group - **Type strain**.
 7622 a USA. From NCTC 8106 ← C.A. Stuart - biotype 32011: paracolon group.
 7623 b USA. From NCTC 8108 ← C.A. Stuart - biotype 32011: paracolon group.

Herbaspirillum rubrisubalbicans (Christopher & Edgerton 1930) Baldani *et al.* 1996syn. *Pseudomonas rubrisubalbicans* (Christopher & Edgerton 1930) Krasilnikov 1949

- 792 a* *Saccharum officinarum* L. - sugarcane cv. M134-32 - leaf. Reunion Oct 1960. From D.W. Dye PD1 ← A.C. Hayward B384 = NCPPB 904: ICPB XR109 - *sorghum.
 793 a* *Saccharum officinarum* L. - sugarcane cv. Q67 - leaf. Australia Jan 1961. From D.W. Dye PD2 ← A.C. Hayward B477 = NCPPB 932 - *sorghum.
 3108 a* *Saccharum officinarum* L. - sugarcane. Mauritius 1956. From D.W. Dye PD3 ← W.J. Dowson 405 ← G. Orian NMS 23 & 27 = NCPPB 520 - *sorghum.
 3109 a* *Saccharum officinarum* L. - sugarcane. Sri Lanka 1962. From D.W. Dye PD4 ← A.C. Hayward B1011 = NCPPB 1243 - *sorghum.
 3110 a* *Saccharum officinarum* L. - sugarcane. Tanzania 1964. From D.W. Dye PD5 ← A.C. Hayward B2541B = NCPPB 1673 - *sorghum.
 3112 a* *Saccharum officinarum* L. - sugarcane - leaf. USA Aug 1955. From C.N. Hale ← C. Wehlburg ← B.A. Bourne = ATCC 25616: NCPPB 2994 - rec. as type strain of *P. floridana* - *sorghum.
 5714 a *Saccharum officinarum* L. - sugarcane. Jamaica 1961. From NCPPB 1026 ← A.C. Hayward B572.
 5777 a *Saccharum officinarum* L. - sugarcane. USA 1961. From NCPPB 1027 ← A.C. Hayward B579 = ATCC 19308: CFBP 1202: LMG 2286 - **Type strain**.
 8664 *Saccharum officinarum* L. - sugarcane. Mauritius 1956. From LMG 1278 ← NCPPB 519 ← G. Orian MS0L5.
 6268 *Sorghum bicolor* (L.) Moench - sorghum - leaf streak. Gisborne, GB, NZ Feb 1971. From J.P. Wilkie (nee Brodley) A1101 ← C.N. Hale.
 2850 a* *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn. USA 1961. From D.W. Dye NG5 ← NCPPB 1864 ← C. Wehlburg 6 = ICPB PA120 - rec. as *P. andropogonis* - *sorghum.

Hydrogenophaga pseudoflava Aulings *et al.* 1978 (Willems *et al.* 1989)

- 12556 River water. Germany. From J. Aislabie ← ATCC 33668 ← G. Auling GA3 = CCUG 13799: LMG 5945: DSM 1034 - **Type strain**.

Janthinobacterium lividum (Eisenberg 1891) De Ley, Segers & Gillis 1978

- 8752 *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut. NZ. From D.R. Greenwood.
 1631 From C.H. Chee CH5 ← NCTC - rec. as *Chromobacterium lividum*.
 1632 From C.H. Chee CH6 ← NCTC - rec. as *Chromobacterium amethystinum* - several colony forms.

Klebsiella oxytoca (Flugge 1886) Lautrop 1956

- 10438 *Bactrocera meganotus* (Coquillett) [Invertebrate] - fruit fly - crop and midgut. Cook Is. Sep 1989. From R.A. Fullerton 2 ← G. Hill.

Klebsiella pneumoniae (Schroeter 1886) Trevisan 1887

- 5701 a *Carnegiea gigantea* (Engelm.) Britt. & Rose - giant cactus, saguaro. USA 1944. From NCPPB 439 ← D.C. Graham Cc1 ← J.G. Brown = Burkholder EC1: ATCC 13452 - Type strain of *Erwinia camegeiana*.
 5925 From ATCC 10031 ← FDA PCI602 = NDC 401-68: NCIB 9111: NCTC 7427.

Lactobacillus plantarum (Orla-Jensen 1919) Bergey *et al.* 1923

- 5365 *Allium cepa* L. - onion - bulb. UK. From C.N. Hale ← J.D. Taylor 737A.
 5826 From NHI 1100 ← E. McCoy 17-5 = NCIB 6376: NCDO 82: ATCC 8014: ICPB 2080.

Listeria innocua Seeliger 1983

- 12989 Brain of cow. Germany 1979. From NZRM 3024 ← NCTC 11288 ← H. Seeliger SLCC3379 = ATCC 33090 - serotype 6a - **Type strain**.

Listeria monocytogenes (Murray *et al.* 1926) Pirie 1940

- 10152 Guinea pig lymph node. From G.C. Fletcher ← NHITCC 44 ← S. Li 20 = ATCC 19111: NCTC 7973 - control isolate for antibiotic sensitivity - serotype Ia.

Micrococcus luteus (Schoeter 1872) Cohn 1872

- 10909 From R.E. Beever ← D. Brewer HLX 701 = HLX 701 - Proc N.S. Inst. Sci 38 (2): 73-81, 1989 - used for bioassay of sporidesmin.

Nocardia vaccinii Demaree & Smith 1952

- 5814 a *Vaccinium* sp. - blueberry. USA. From NCPPB 954 ← P.H.A. Sneath D427 = ATCC 11092 - **Type strain**.

Oerskovia xanthineolytica Lechevalier 1972

- 8904 a From M.D. Templeton ← P.A. Sullivan - J. Bact. 142: 414-423, 1980.

Pantoea agglomerans (Beijerinck 1888) Gavini *et al.* 1989see *Enterobacter agglomerans/Erwinia herbicola*.*Pantoea agglomerans* pv. *milletiae* (Kawakami & Yoshida 1920) Young *et al.* 1996see *Erwinia herbicola* pv. *milletiae*.*Pantoea ananas* pv. *ananas* (Pon *et al.* 1954) Young *et al.* 1996see *Erwinia ananas* pv. *ananas*.*Pantoea ananas* pv. *uredovora* (Pon *et al.* 1954) Young *et al.* 1996see *Erwinia ananas* pv. *uredovora*.*Pantoea stewartii* subsp. *indologenes* Mergaert *et al.* 1993see *Erwinia herbicola*.*Pantoea stewartii* subsp. *stewartii* (Smith 1898) Mergaert *et al.* 1993see *Erwinia stewartii*.**Pseudomonas aeruginosa** (Schroeter 1872) Migula 1900

- 8648 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1968. From LMG 1272 ← NCPPB 2195 ← D.S. Gandy B231.
 8649 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1968. From LMG 1273 ← NCPPB 2196 ← D.S. Gandy B235.
 8650 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1968. From LMG 1274 ← NCPPB 2197 ← D.S. Gandy B236.
 8651 b *Aglaonema commutatum* Schott. Puerto Rico 1961. From LMG 5031 ← NCPPB 1224 ← A.C. Monllor.
 7843 a *Allium cepa* L. - onion cv. Creamgold (Pukekohe Longkeeper) - symptomless onion bulb. Australia 1982. From C.N. Hale ← E.J. Cother RCR2-2.
 7844 a *Allium cepa* L. - onion cv. Creamgold (Pukekohe Longkeeper) - bulb. Australia 1982. From C.N. Hale ← E.J. Cother S7.
 8652 b *Chrysanthemum* sp. USA 1973. From LMG 5032 ← NCPPB 2650 ← J. Cho P4b1.
 8653 b *Zea mays* L. - maize. USA 1974. From LMG 5033 ← NCPPB 2652 ← M.N. Schroth PA62.
 6286 b NZ. From J.M. Young OT2 ← M. Loutit.
 6560 b Australia. From J.M. Young KS348 ← K. Smith 348 ← V. Krishnapillai PAO25.
 6561 b Australia. From J.M. Young KS349 ← K. Smith 349 ← V. Krishnapillai PAO2.
 6562 b Australia. From J.M. Young KS350 ← K. Smith 350 ← V. Krishnapillai PAO3.
 8647 a From LMG 1242 ← CCEB 481 = ATCC 10145: NCIB 8295: NCTC 10332: NRRL B771 - **Type strain**.
 12557 Oil contaminated soil. USA. From J. Aislabie Q++ - derivative of ICPM 12558.
 12558 Oil contaminated soil. USA 1987. From J. Aislabie QP = ATCC 55081 - Appl. Environ. Microbiol. 59: 345-351, 1990 - utilises quinoline as sole

source of carbon & nitrogen.

Pseudomonas agarici Young 1970

- 2654 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Yaldhurst, MC, NZ 1968. From J.M. Young 46A = NCPPB 2290: ATCC 25943 - LOPAT - + - - - *mushroom.
- 2656 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Yaldhurst, MC, NZ 1969. From J.M. Young 71A = ATCC 25941: CFBP 2063: LMG 2112: NCPPB 2289 - LOPAT - + - - - *mushroom - **Type strain**.
- 2658 b* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Carterton, WA, NZ 1969. From J.M. Young 76A = ATCC 25942 - LOPAT - + - - - *mushroom.
- 2661 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Carterton, WA, NZ 1969. From J.M. Young 78A1 - LOPAT - + - - - *mushroom.
- 2663 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Carterton, WA, NZ 1969. From J.M. Young 78B1.
- 2674 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Yaldhurst, MC, NZ 1968. From J.M. Young 46B-H.
- 2675 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. Yaldhurst, MC, NZ 1968. From J.M. Young 46B-I.
- 3583 b* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - pit on upper surface of cap. Masterton, WA, NZ Mar 1973. From J.M. Young 1547G - LOPAT - + - - - *mushroom.
- 4106 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - bacterial droplets on gills. NZ Nov 1973. From J.M. Young 1650A1 - black pigment on benzoate medium.
- 4107 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. NZ Aug 1974. From J.M. Young 1826B1.
- 6554 b* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1972. From NCPPB 2472 ← M. Bateson 1223c5 - LOPAT - + - - - *mushroom.
- 6555 b* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1972. From NCPPB 2471 ← M. Bateson 1223b4 - LOPAT - + - - - *mushroom.
- 6556 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1970. From NCPPB 2304 ← M.J. Hurst - LOPAT - + - - - .
- 6557 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1966. From NCPPB 1999 ← L. Baker PL3-1a - LOPAT - + - - - .
- 6558 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1963. From NCPPB 1996 ← L. Baker 455 - LOPAT - + - - - *mushroom.

Pseudomonas amygdali Psallidas & Panagopoulos 1975

- 3918 a *Prunus dulcis* (Mill.) D.A. Webb - almond - leaf. Crete 1967. From C.G. Panagopoulos AI1 ← P.G. Psallidas = NCPPB 2607: ATCC 33614: LMG 2123 - **Type strain**.
- 3919 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI9 ← P.G. Psallidas = NCPPB 2608.
- 3920 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Greece (Rhodos) 1968. From C.G. Panagopoulos AI55 ← P.G. Psallidas = NCPPB 2610.
- 4678 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI2.
- 4679 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From D.W. Dye LA4 ← C.G. Panagopoulos AI12.
- 4680 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From D.W. Dye LA6 ← C.G. Panagopoulos AI20.
- 4772 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI5.
- 4773 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI7.
- 4774 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI6.
- 4775 a *Prunus dulcis* (Mill.) D.A. Webb - almond. Crete 1967. From C.G. Panagopoulos AI24.

Pseudomonas andropogonis (Smith 1911) Stapp 1928
see *Burkholderia andropogonis*.

Pseudomonas asplenii (Ark & Tompkins 1946) Savulescu 1947

- 3944 a *Asplenium nidus* L. - bird's-nest fern. From D.W. Dye ML2 ← NCPPB 1947 = NRRL B733: ICPB PA104: ATCC 23835: LMG 2137 - **Type strain**.
- 3943 b From D.W. Dye ML1 ← NCPPB 959 ← P.A. Ark = NRRL B829: ATCC 10855: ICPB PA17.

Pseudomonas aurantiaca Nakhimovskaya 1948

- 6003 a From I.V. Voronkevitch 65VKM876 = NCIB 10068 - **Type strain**.
- 6004 b From I.V. Voronkevitch 122-775.
- 6018 b From I.V. Voronkevitch 120-513.
- 6019 b From I.V. Voronkevitch 121-547.

Pseudomonas avellanae Janse *et al.* 1996

syn. *Pseudomonas syringae* pv. *avellanae* Psallidas 1993

- 9746 *Corylus avellana* L. - hazel, European filbert. Greece Jun 1976. From P.G. Psallidas FI1 = BCPPB 631: CFBP 10963: NCPPB 3487 - Pl. path. 42: 358-363, 1993 - LOPAT Ia - **Type strain**.
- 9747 *Corylus avellana* L. - hazel, European filbert. Greece Jul 1976. From P.G. Psallidas FI15 = BCPPB 645 - LOPAT Ia.
- 9748 *Corylus avellana* L. - hazel, European filbert. Greece May 1977. From P.G. Psallidas FI61 = BCPPB 714 - LOPAT Ia.
- 9749 *Corylus avellana* L. - hazel, European filbert. Greece Nov 1987. From P.G. Psallidas FI64 = BCPPB 1077 - LOPAT Ia.

Pseudomonas avenae Manns 1909

see *Acidovorax avenae* subsp. *avenae*.

Pseudomonas betle (Ragunathan 1928) Savulescu 1947

- 2820 a *Piper betle* L. - betel pepper. Sri Lanka 1953. From D.W. Dye NK1 ← NCPPB 323 ← W.J. Dowson = ATCC 19861: LMG 978 - possibly *Xanthomonas* sp. - LOPAT - - + - - **Type strain**.

Pseudomonas blatchfordae Schuster *et al.* 1980

- 8933 a *Phaseolus vulgaris* L. - bean - stem, leaf. USA. From M.L. Schuster 24L = NCPPB 3374 - Fitopatologia Brasileira 5: 283-297, 1980 - **Type strain**.

Pseudomonas ca ricapapayae Robbs 1956

- 2854 a *Carica papaya* L. - pawpaw, papaya. Brazil 1955. From D.W. Dye NP1 ← NCPPB 1872 ← C.F. Robbs ENA213 = ICPB PC137 - LOPAT - - (+) - +.
- 2855 a* *Carica papaya* L. - pawpaw, papaya. Brazil 1966. From D.W. Dye NP2 ← NCPPB 1873 ← C.F. Robbs ENA378 = ATCC 33615: CFBP 3204: LMG 2152: ICPB PC138 - LOPAT + - (+/-) - + ; *pawpaw (Robbs) - **Type strain**.
- 4086 b *Carica papaya* L. - pawpaw, papaya. 1969. From C.F. Robbs ENA2185 - re-isolate after plant inoculation with C.F. Robbs ENA378.
- 7496 b *Carica papaya* L. - pawpaw, papaya. Brazil 1981. From IBSBF 361 ← C.F. Robbs ENA2960.
- 9920 *Carica papaya* L. - pawpaw, papaya. Brazil 1976. From NCPPB 3080 ← C.F. Robbs ENA2254 - LOPAT Ib.
- 9921 *Carica papaya* L. - pawpaw, papaya. Brazil 1977. From NCPPB 3081 ← C.F. Robbs ENA 2477 ← O. Kimura - LOPAT Ib.

Pseudomonas caryophylli (Burkholder 1942) Starr & Burkholder 1942
see *Burkholderia caryophylli*.

Pseudomonas cattleyae (Pavarino 1911) Savulescu 1947

see *Acidovorax avenae* subsp. *cattleyae*.

Pseudomonas cepacia (ex Burkholder 1950) Palleroni & Holmes 1981

see *Burkholderia cepacia*.

Pseudomonas cichorii (Swingle 1925) Stapp 1928

- 9276 *Abelmoschus esculentus* (L.) Moench - okra. Brasil 1985. From IBSBF 521 ← C. Kurozawa Q-1142.
- 1024 a* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA Oct 1962. From D.W. Dye PP3 ← P. Thayer 140 ← C. Wehlburg = NCPPB 1513 -

- *cabbage, celery, chrysanthemum, endive.
- 1649 a* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA 1964. From D.W. Dye PP6 ← C. Wehlburg 120 - LOPAT III - *lettuce, poppy, tomato.
- 1650 a *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA 1964. From D.W. Dye PP7 ← C. Wehlburg 121.
- 1651 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA 1964. From D.W. Dye PP8 ← C. Wehlburg 24.
- 1652 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA 1964. From D.W. Dye PP9 ← C. Wehlburg 25.
- 2830 a* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA Oct 1962. From D.W. Dye PP13 ← NCPPB 1513 ← P. Thayer 140 - *cabbage, celery, chrysanthemum, lettuce, tomato.
- 3521 a* *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - leaf and stem. Pukekohe, AK, NZ Jun 1973. From J.P. Wilkie (nee Bodley) B1574 - LOPAT III - *cabbage, celery, chrysanthemum, cornflower, lettuce, poppy, safflower, tomato.
- 1022 a* *Brassica oleracea* L. var. *capitata* L. - cabbage. USA Feb 1962. From D.W. Dye PP1 ← P. Thayer 62-4 ← C. Wehlburg = NCPPB 1511 - *cabbage, celery, chrysanthemum, endive.
- 1648 a* *Brassica oleracea* L. var. *capitata* L. - cabbage. USA 1962. From D.W. Dye PP5 ← C. Wehlburg 62-22 - LOPAT III - *chrysanthemum, lettuce, poppy, safflower, tomato.
- 6917 a* *Carthamus tinctorius* L. - safflower - stem lesion. NZ Feb 1980. From D.R.W. Watson A2712 - rec. as *Pseudomonas* sp. - LOPAT III - *chrysanthemum, cornflower, poppy, *Ranunculus repens*, safflower, tomato.
- 5890 a* *Centaurea cyanus* L. - cornflower - angular leaf lesion. Auckland, AK, NZ Dec 1977. From D.R.W. Watson A2354 - rec. as *Pseudomonas* sp. - LOPAT III - *chrysanthemum, poppy, *Ranunculus repens*, safflower, tomato.
- 1023 a* *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. USA Jun 1962. From D.W. Dye PP2 ← P. Thayer 62-5 ← C. Wehlburg = NCPPB 1512 - *cabbage, celery, chrysanthemum, endive, poppy, safflower, tomato.
- 2736 *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. USA 1958. From J.D. Taylor 103 ← NCPPB 907 ← L.A. McFadden B44 = ATCC 14121.
- 2829 a* *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. USA 1962. From D.W. Dye PP12 ← NCPPB 1512 ← P. Thayer 62-5 - LOPAT III - *lettuce, poppy, tomato.
- 2856 a? *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum - bud blight. USA 1966. From D.W. Dye PP14 ← NCPPB 1875 ← J.H. Bolick = ICPB PC117 - atypical strain.
- 4439 a* *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum - black necrotic deltoid leaf lesion. Ranui, AK, NZ Oct 1975. From D.R.W. Watson G2033 - rec. as *Pseudomonas* sp. - LOPAT III - *chrysanthemum, cornflower, poppy, safflower, tomato.
- 5801 b *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum cv. Indianapolis. Brazil 1975. From IBSBF IBBF127 ← J.R. Neto.
- 1647 a *Cichorium endivia* L. - endive. USA 1960. From D.W. Dye PP4 ← C. Wehlburg 60-3.
- 5707 a* *Cichorium endivia* L. - endive. Germany 1929. From NCPPB 943 ← ICPB PC1 ← W. Kotte = ATCC 10857: CFBP 2101: LMG 2162: NCPPB 943: NRRL B832 - *chrysanthemum, cornflower, poppy, *Ranunculus repens*, safflower, tomato - **Type strain**.
- 9277 *Coffea arabica* L. - coffee. Brasil 1982. From IBSBF 587 ← O. Kimura ENA 2112.
- 9275 *Gerbera jamesonii* H. Bolus ex Hook.f. - Transvaal daisy. Brasil 1985. From IBSBF 508 ← J.R. Neto G1.
- 2827 a *Lactuca sativa* L. - lettuce - leaf. USA 1952. From D.W. Dye PP10 ← NCPPB 950 ← W.H. Burkholder = ICPB PC26.
- 5800 b *Lactuca sativa* L. - lettuce. Brazil 1976. From IBSBF 167 ← J.R. Neto.
- 11953 *Lactuca sativa* L. - lettuce. Spain 1984. From CFBP 2511 ← M.M. Lopez 510-3.
- 11836 *Lactuca serriola* L. - prickly lettuce cv. sativa. France 1973. From CFBP 1473 ← R. Samson 65-1.
- 414 b *Lycopersicon esculentum* Mill. - tomato - stem. Tauranga, BP, NZ Aug 1962. From N.L. Baigent ← PS626 - rec. as *P. syringae*.
- 642 b* *Lycopersicon esculentum* Mill. - tomato - fruit lesion. Nelson, NN, NZ Feb 1963. From N.L. Baigent P187 - rec. as *P. syringae* - *peach.
- 666 b* *Lycopersicon esculentum* Mill. - tomato - stem necrosis. Te Puna, BP, NZ Nov 1962. From N.L. Baigent T147 - rec. as *P. syringae* - *tomato.
- 667 b* *Lycopersicon esculentum* Mill. - tomato cv. Moneymaker - stem necrosis. Waimauku, AK, NZ Nov 1962. From N.L. Baigent T149 - rec. as *P. syringae* - LOPAT III - *tomato.
- 669 b* *Lycopersicon esculentum* Mill. - tomato - fruit lesions. Hope, NN, NZ Feb 1963. From N.L. Baigent T178 - rec. as *P. syringae* - *tomato.
- 678 b* *Lycopersicon esculentum* Mill. - tomato - lateral stem necrosis. Pukekohe, AK, NZ Feb 1963. From N.L. Baigent T185 - rec. as *P. syringae* - *tomato.
- 680 b* *Lycopersicon esculentum* Mill. - tomato - leaf petiole necrosis. Waimauku, AK, NZ Mar 1963. From N.L. Baigent T193 - rec. as *P. syringae* - *tomato.
- 681 b* *Lycopersicon esculentum* Mill. - tomato - stem lesion. Waimauku, AK, NZ Mar 1963. From N.L. Baigent T197 - rec. as *P. syringae* - *tomato.
- 682 b* *Lycopersicon esculentum* Mill. - tomato cv. Moneymaker - fruit lesion. New Plymouth, TK, NZ Mar 1963. From N.L. Baigent T203 - rec. as *P. syringae* - *tomato.
- 714 a* *Lycopersicon esculentum* Mill. - tomato - fruit. Hope, NN, NZ Mar 1963. From N.L. Baigent T221 - rec. as *P. syringae* - LOPAT III - *lettuce, poppy, tomato.
- 2314 b *Lycopersicon esculentum* Mill. - tomato - fruit - irregular, depressed, dark brown lesion penetrating core. Auckland, AK, NZ Jul 1968. From D.R.W. Watson C223 - rec. as *P. syringae* - LOPAT III.
- 3353 a* *Lycopersicon esculentum* Mill. - tomato - fruit lesion. Nelson, NN, NZ Feb 1963. From J.P. Wilkie (nee Bodley) PP15 ← N.L. Baigent P187 - rec. as *P. syringae* - LOPAT III - *celery, chicory, chrysanthemum, tomato.
- 3354 a* *Lycopersicon esculentum* Mill. - tomato - stem lesion. Nelson, NN, NZ Mar 1963. From J.P. Wilkie (nee Bodley) PP16 ← N.L. Baigent T210 - rec. as *P. syringae* - LOPAT III - *cabbage, celery, chrysanthemum, tomato.
- 3355 a* *Lycopersicon esculentum* Mill. - tomato - lateral branch. Waimauku, AK, NZ Nov 1962. From J.P. Wilkie (nee Bodley) PP18 ← N.L. Baigent T152 - rec. as *P. syringae* - LOPAT III - *celery, chrysanthemum, tomato.
- 3356 a* *Lycopersicon esculentum* Mill. - tomato - petiole. Waimauku, AK, NZ Mar 1963. From J.P. Wilkie (nee Bodley) PP19 ← N.L. Baigent T194 - rec. as *P. tomato* - LOPAT III - *cabbage, chicory, chrysanthemum, lettuce, tomato.
- 3587 b* *Lycopersicon esculentum* Mill. - tomato - stem. Leigh, AK, NZ Aug 1973. From J.P. Wilkie (nee Bodley) A1607 - LOPAT III - *cabbage, tomato.
- 9911 *Magnolia X soulangiana* Soul. - Chinese magnolia. Kenya 1984. From NCPPB 3331 ← J.E. Sellwood A2092A - LOPAT III.
- 9912 *Magnolia X soulangiana* Soul. - Chinese magnolia. Kenya 1984. From NCPPB 3332 ← J.E. Sellwood A2092B - LOPAT III.
- 2828 a *Nicotiana tabacum* L. - tobacco. Brazil 1958. From D.W. Dye PP11 ← NCPPB 1040 ← C.F. Robbs ENA1020.
- 3503 a* *Papaver rhoeas* L. - Shirley poppy, field poppy. Tanzania 1951. From J.P. Wilkie (nee Bodley) NW1 ← ICPB PP105 ← R.A. Lelliott = NCPPB 285 - rec. as *P. papaveris* - LOPAT III - *lettuce, poppy, tomato.
- 5999 a* *Primula X polyantha* Hort. - polyanthus - leaf blotch. Auckland, AK, NZ May 1978. From D.R.W. Watson C2414 - rec. as *Pseudomonas* sp. - LOPAT III - *poppy, tomato.
- 1447 a* *Ranunculus acris* L. - giant buttercup - leaf. NZ 1954. From D.W. Dye P158 - rec. as *P. syringae* - LOPAT III - *cornflower, poppy, safflower, tomato.
- 8040 *Solanum melongena* L. var. *esculentum* Nees - eggplant - leafspot. Brazil 1982. From IBSBF 402 ← J.R. Neto.
- 8041 *Solanum melongena* L. var. *esculentum* Nees - eggplant - leafspot. Brazil 1982. From IBSBF 403 ← J.R. Neto.
- 9416 a* *Triticum aestivum* L. - spring wheat cv. Park - bleached empty seed head and darkened stem. Canada Jun 1987. From D.D. Orr AG21 - Can. J. Pl. Path. 7: 168-172, 1985 - *spring wheat cv. Park (Orr).
- 9417 a* *Triticum aestivum* L. - spring wheat cv. Park - bleached empty seed head and darkened stem. Canada Jun 1987. From D.D. Orr AG27 - Can. J. Pl. Path. 7: 168-172, 1985 - *spring wheat cv. Park (Orr).
- 9418 a* *Triticum aestivum* L. - spring wheat cv. Park - bleached empty seed head and darkened stem. Canada Jun 1987. From D.D. Orr AG28 - Can. J. Pl. Path. 7: 168-172, 1985 - *spring wheat cv. Park (Orr).
- Pseudomonas corrugata* (ex Scarlett et al. 1978) Roberts & Scarlett 1981**
- 10862 * *Capsicum annum* L. - sweet pepper cv. Gedeon - pith necrosis. Spain 1984. From M.M. Lopez 592-4-4 - *tomato, pepper (Lopez).
- 5819 a *Lycopersicon esculentum* Mill. - tomato - pith necrosis. UK 1972. From NCPPB 2445 ← G.F. Slade 939-1 = ATCC 29736: CFBP 2431: LMG 2172 - **Type strain**.
- 7634 *Lycopersicon esculentum* Mill. - tomato cv. Scoresby Dwarf. Oamaru, DN, NZ. From C.F. Hill 120-3 ← M. McPhillips.
- 7635 *Lycopersicon esculentum* Mill. - tomato cv. Scoresby Dwarf - stem. Oamaru, DN, NZ. From C.F. Hill 120-Stem ← M. McPhillips.
- 8231 a *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2447 ← C.M. Scarlett M72-365-11.

- 8265 a *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2448 ← C.M. Scarlett M72-407-12.
 8266 a *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2449 ← C.M. Scarlett M72-407-A.
 8267 a *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2450 ← C.M. Scarlett M72-413-3.
 8268 *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2456 ← F.W. Catton C764.
 8269 b *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2458 ← L.A.E. Baker D110-1.
 8272 *Lycopersicon esculentum* Mill. - tomato. UK 1972. From NCPPB 2455 ← F.W. Catton C763.
 8633 *Lycopersicon esculentum* Mill. - tomato. South Africa 1981. From NCPPB 3316 ← J.F. Bradbury B9103 ← B.H. Boelema OP2.
 8634 *Lycopersicon esculentum* Mill. - tomato. NZ 1982. From NCPPB 3317 ← J.F. Bradbury B9826 ← M. Braithwaite Linc886.
 8889 a *Lycopersicon esculentum* Mill. - tomato - stem pith browning, leaf chlorosis. Auckland, AK, NZ Jul 1982. From R.G. Clark B3075 ← C.F. Hill 9461B - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819.
 8890 a* *Lycopersicon esculentum* Mill. - tomato - stem necrosis. NZ Sep 1985. From R.G. Clark B3091 ← C.F. Hill 9724 - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 8891 a* *Lycopersicon esculentum* Mill. - tomato - stem pith. Auckland, AK, NZ Oct 1982. From R.G. Clark C3134 - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 8894 a* *Lycopersicon esculentum* Mill. - tomato - stem. Lincoln, MC, NZ Nov 1982. From R.G. Clark A3136 ← C.F. Hill 2002 - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 8895 a* *Lycopersicon esculentum* Mill. - tomato - stem. Lincoln, MC, NZ Nov 1982. From R.G. Clark B3137 ← C.F. Hill 2080 - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 8896 a* *Lycopersicon esculentum* Mill. - tomato - stem pith. Levin, WN, NZ Mar 1983. From R.G. Clark B3238 ← C.F. Hill LVN20972 - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 8898 a* *Lycopersicon esculentum* Mill. - tomato - stem. NZ Feb 1984. From R.G. Clark A3351 ← C.F. Hill - produces green pigment on GYCA - agglutinates with antiserum from ICMP 5819 - *tomato.
 9303 *Lycopersicon esculentum* Mill. - tomato cv. *Virosa* - stem. Kerepehi, WO, NZ Apr 1987. From R.G. Clark D3668 - produces green pigment on GYCA.
 9847 *Lycopersicon esculentum* Mill. - tomato cv. *Musashi* 522 - pith necrosis. Japan Apr 1980. From Y. Takikawa TPS8011 (127).
 9848 *Lycopersicon esculentum* Mill. - tomato - pith necrosis. Japan Apr 1981. From Y. Takikawa TPS 8101 (173).
 9849 *Lycopersicon esculentum* Mill. - tomato cv. *Zuiko* - pith necrosis. Japan Nov 1982. From Y. Takikawa TSN8212 (385).
 10133 *Lycopersicon esculentum* Mill. - tomato. Brazil. From IBSBF 706 ← J.R. Neto.
 10135 *Lycopersicon esculentum* Mill. - tomato. Brazil. From IBSBF 707 ← J.R. Neto.
 10861 a* *Lycopersicon esculentum* Mill. - tomato - pith necrosis. Spain 1984. From M.M. Lopez 536-7-1 - *tomato, pepper (Lopez).
 10863 * *Lycopersicon esculentum* Mill. - tomato - pith necrosis. Spain 1985. From M.M. Lopez 632-5 - *tomato (Lopez).
 10864 * *Lycopersicon esculentum* Mill. - tomato cv. *Nancy* - pith necrosis. Spain 1986. From M.M. Lopez 712-2 - *tomato (Lopez).
 8270 *Medicago sativa* L. - lucerne, alfalfa. USA 1975. From NCPPB 3056 ← F.L. Lukezic PSU 309 (RB14).
 8271 *Medicago sativa* L. - lucerne, alfalfa. USA 1975. From NCPPB 3057 ← F.L. Lukezic PSU 310 (RB15).

***Pseudomonas ficuserectae* Goto 1983**

- 7848 a* *Ficus erecta* Thunb. - leaf, young shoot. Japan Aug 1977. From M. Goto L7 = ATCC 35104: CFBP 3224: LMG 5694: NCPPB 3693 - Int. J. Syst. Bact. 33: 546-550, 1983 - **F. erecta* (Goto) - **Type strain**.
 7849 a* *Ficus erecta* Thunb. - leaves, young shoots. Japan Aug 1977. From M. Goto L10 - cotype strain - **F. erecta* (Goto).
 7850 a* *Ficus erecta* Thunb. - leaves, young shoots. Japan Aug 1977. From M. Goto S1 - cotype strain - **F. erecta* (Goto).

***Pseudomonas flectens* Johnson 1956**

- 127 *Phaseolus vulgaris* L. - bean. From N.L. Baigent N1 ← Department of Agriculture, Brisbane, Queensland 14926.
 744 *Phaseolus vulgaris* L. - bean. Australia 1957. From N.L. Baigent N2 ← NCPPB 538 ← J.C. Johnson 12780 = ICPB PF101.
 745 a *Phaseolus vulgaris* L. - bean - pod. Australia 1956. From N.L. Baigent N3 ← NCPPB 539 ← J.C. Johnson 12339 = ATCC 12775: ICPB PF102: LMG 2187 - **Type strain**.

***Pseudomonas fluorescens* Migula 1895**

- 3636 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - bud and blossom soft brown rot. Te Puke, BP, NZ 1970. From D.R.W. Watson V235 ← D.R.W. Watson B1044 - rec. as *P. viridiflava* - LOPAT Va.
 11285 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flowers and fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 526 - LOPAT Va.
 11286 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flower & fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 573 - LOPAT Va.
 11287 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flower and fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 579 - LOPAT Vb.
 11288 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flower & fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 599 - LOPAT Vb.
 2329 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotches on cap. Mt Albert, AK, NZ Aug 1968. From D.R.W. Watson B226 = NCPPB 2413 - white line reaction -ve with ICMP 6956 - rec. as *Pseudomonas* sp. - LOPAT Vb.
 2441 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - pale brown stains on cap. Levin, WN, NZ Sep 1968. From D.R.W. Watson A247 - white line reaction -ve with ICMP 6956 - rec. as *Pseudomonas* sp. - LOPAT Vb.
 12214 * *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - ginger blotch on cap surface. UK. From S.P. Lincoln GB3 - also known as *Pseudomonas gingeri* - biovar I - *mushroom (Lincoln).
 12215 *Agaricus bisporus* (Lange) Imbach - chestnut mushroom (somycel 856 brown strain) - ginger blotch on cap surface. UK Jan 1994. From S.P. Lincoln LGB4 - also known as *Pseudomonas gingeri* - biovar II.
 12219 * *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - ginger blotch of cap surface. UK Aug 1992. From S.P. Lincoln SGB2 - also known as *P. gingeri* - biovar II - **A. bisporus* (Lincoln).
 4038 b *Allium cepa* L. - onion - rotted bulb. Australia 1974. From C.N. Hale 1841 ← E.J. Cother RSM7 - rec. as *Pseudomonas* sp. - LOPAT Vb.
 4039 b *Allium cepa* L. - onion - rotted bulb. Australia 1974. From C.N. Hale 1842 ← E.J. Cother RSM2 - rec. as *Pseudomonas* sp. - LOPAT Vb.
 7279 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - scales rotting individually. Puni, AK, NZ Nov 1980. From D.R.W. Watson C2822 - rec. as *Pseudomonas* sp. - LOPAT Vb - Biovar I.
 7378 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb scale necrosis. Puni, AK, NZ Dec 1980. From D.R.W. Watson AD2845 - rec. as *Pseudomonas* sp. - LOPAT Va - Biovar V.
 11932 *Allium sativum* L. - garlic. France 1976. From CFBP 2022 ← R. Samsom 584-1 - rec. as *P. fluorescens* pv. *lomagnae*.
 7173 b *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery cv. Utah 15 - butt rot. Pukekohe, AK, NZ Apr 1980. From D.R.W. Watson D2733 - rec. as *P. marginalis* - LOPAT Vb - Biovar I.
 922 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd. NZ Jul 1963. From D.W. Dye PB8 ← W.J. Kemp - rec. as *P. maculicola* - LOPAT Vb.
 2152 b *Brassica oleracea* L. var. *capitata* L. - cabbage - black lesion on seedling stem. Mt Albert, AK, NZ Jan 1968. From D.R.W. Watson C75 - rec. as *Pseudomonas* sp. - LOPAT Va.
 2155 b *Brassica oleracea* L. var. *capitata* L. - cabbage - seedling stem necrosis. Mt Albert, AK, NZ Dec 1967. From D.R.W. Watson A55 - rec. as *Pseudomonas* sp. - LOPAT Va.
 9830 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight RBS - rec. as *P. syringae* - LOPAT Va (Fletcher) - *coriander (Knight).
 9833 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight RBr - rec. as *P. syringae* - LOPAT Va (Fletcher) - *coriander (Knight).
 4219 b *Cucumis sativus* L. - cucumber (fermented in tap water). USA. From J.M. Young ← NCIB 8286 ← A. Goldstein = ATCC 11150.
 2293 b *Cucurbita maxima* Duch. - pumpkin cv. Crown - small greasy fruit lesion. Otara, AK, NZ May 1968. From D.R.W. Watson C180 - rec. as *Pseudomonas* sp. - LOPAT Va - Biovar III.

- 2403 b *Dahlia* sp. - discoloured vein from black leaf rot. Lincoln, MC, NZ Oct 1968. From D.R.W. Watson B271 - rec. as *Pseudomonas* sp. - LOPAT Vb.
- 3953 b *Freesia* sp. Netherlands 1968. From D.W. Dye MO4 ← NCPPB 2212 ← W. Kamerman S189B83 - rec. as *P. marginata* - LOPAT Vb.
- 3954 b *Iris* sp. Netherlands 1968. From D.W. Dye MO5 ← NCPPB 2224 ← W. Kamerman S190-87 - rec. as *P. marginata* - LOPAT Vb.
- 3481 b *Lactuca sativa* L. - lettuce - leaf vein stained brown. Whangarei, ND, NZ Dec 1972. From J.P. Wilkie (nee Bodley) B1421 - rec. as *P. marginalis* pv. *marginalis* - LOPAT Vb.
- 3617 b *Lactuca sativa* L. - lettuce - stem pith. Pukekohe, AK, NZ Apr 1973. From C.N. Hale 15581 - rec. as *P. marginalis* pv. *marginalis* - LOPAT Va - Biovar V.
- 7478 *Leucaena glauca* (L.) Benth. - white popinac. Belize. From J. Lenne L1.
- 7479 *Leucaena glauca* (L.) Benth. - white popinac. Belize. From J. Lenne L2.
- 7480 *Leucaena glauca* (L.) Benth. - white popinac. Belize. From J. Lenne L4.
- 2356 b *Lycopersicon esculentum* Mill. - tomato - discoloured vein from wilted leaf. Auckland, AK, NZ Jun 1968. From D.R.W. Watson F213 - associated with *Clavibacter michiganensis* subsp. *michiganensis* - rec. as *P. syringae* - LOPAT Vb.
- 6411 b *Lycopersicon esculentum* Mill. - tomato cv. Potentate - stem lesion. NZ Nov 1978. From D.R.W. Watson A2461 - rec. as *Pseudomonas* sp. - LOPAT Va.
- 6419 b *Lycopersicon esculentum* Mill. - tomato - fruit scab. Welcome Bay, BP, NZ Nov 1978. From D.R.W. Watson D2464 - associated with *Clavibacter michiganensis* subsp. *michiganensis* - rec. as *Pseudomonas* sp. - LOPAT Va.
- 2811 b *Nicotiana tabacum* L. - tobacco - leafspot. Zimbabwe. From D.W. Dye NH2 ← NCPPB 263 ← R.E. Massey - rec. as *P. angulata* - LOPAT Va.
- 2383 b *Papaver somniferum* L. - poppy cv. Daneborg - stem rot. NZ Nov 1968. From D.R.W. Watson B299 ← J.P. Bodley - rec. as *P. viridiflava* - LOPAT Vb - Biovar II.
- 2424 b *Papaver somniferum* L. - poppy cv. Daneborg - hollow black soft stem. Auckland, AK, NZ Nov 1968. From D.R.W. Watson C299 ← J.P. Bodley - rec. as *P. viridiflava* - LOPAT Va - Biovar III.
- 5775 a *Phaseolus vulgaris* L. - bean. UK 1965. From NCPPB 1810 ← E. Billing Aa ← A.F. Lott - rec. as *P. viridiflava* - LOPAT Va.
- 2449 b *Populus* sp. - poplar - stem canker, internal staining. Hunua, AK, NZ Jan 1969. From D.R.W. Watson D363 - rec. as *P. syringae* - LOPAT Vb.
- 3957 b *Primula obconica* Hance. France 1961. From D.W. Dye MQ2 ← NCPPB 1618 ← M. Lemattre IA61 - rec. as *P. primulae* - LOPAT Va.
- 2431 b *Prunus avium* (L.) L. - cherry - leaves showing extensive shot-holing. Roxburgh, CO, NZ Nov 1968. From D.R.W. Watson A293 - rec. as *P. syringae* - LOPAT Vb.
- 9392 *Triticum monococcum* L. - one grained wheat - leaf blade. Bulgaria 1982. From V.I. Vassilev V23 - LOPAT V - rec. as *P. syringae* pv. *atrofaciens*.
- 7404 b *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson AC2863 - rec. as *Pseudomonas* sp. - LOPAT Va.
- 540 From N.L. Baigent P22 ← ICPB 2020.
- 560 From N.L. Baigent PL91 ← ICPB PM146 ← M.E. Rhodes D270 - rec. as *P. syringae* pv. *morsprunorum* - LOPAT Va.
- 824 b From N.L. Baigent PA4 ← ICPB PA4 - rec. as *P. syringae* pv. *aptata* - LOPAT Va.
- 1279 From R.L. Bielecki ← L.E. Casida Jr P195 - metabolizes phosphite to phosphate.
- 3512 a Pre-filter tanks. UK May 1951. From J.M. Young 1580A1 ← NCIB 9046 ← M.E. Rhodes 28-5 = ATCC 13525: NCPPB 1964: NCTC 10038 - LOPAT Va - Biovar V - Biotype A - **Type strain**.
- 3520 a Czechoslovakia. From J.M. Young 1581 ← NCIB 9886 ← O. Lysenko = CCEB 448a: ATCC 15456: NCPPB 1598 - proteolytic - LOPAT Va - Biovar III.
- 3964 b From D.W. Dye MV2 ← NCPPB 1922 ← H.H. Thornberry V3 = ICPB PV8 - rec. as *P. syringae* pv. *viburni* - LOPAT Va.
- 3966 a 1944. From D.W. Dye MX1 ← NCPPB 967 = ATCC 13495: ICPB PW2: NRRL B899 - rec. as *P. washingtoniae* - LOPAT Va - Biovar V.
- 5334 Peat moss on mushroom bed. Australia 1970. From N.G. Nair DAR26767 ← P.C. Fahy - antagonistic to *P. tolaasii*.

***Pseudomonas fuscovaginae* Miyajima et al. 1983 (possibly a synonym of *P. asplenii* Ark & Tompkins 1946) Savulescu 1947)**

- 5939 a *Oryza sativa* L. - rice. Japan. From A. Tanii 7103 - cotype strain.
- 5940 a *Oryza sativa* L. - rice. Japan. From A. Tanii 6801 = CFBP 2065: LMG 2158: NCPPB 3085 - **Type strain**.
- 5941 a *Oryza sativa* L. - rice. Japan. From A. Tanii BM-I - cotype strain.
- 9995 a* *Oryza sativa* L. - rice - leaf sheath. Burundi. From P. Rott HMB264 ← H. Maraité - *rice (Rott).
- 9996 * *Oryza sativa* L. - rice - leaf sheath. Madagascar. From P. Rott 40-1 - *rice (Rott).
- 9997 * *Oryza sativa* L. - rice - leaf sheath. Madagascar. From P. Rott 48-1 - *rice (Rott).
- 9998 * *Oryza sativa* L. - rice - leaf sheath. Madagascar. From P. Rott GR2 - *rice (Rott).
- 9999 * *Oryza sativa* L. - rice - leaf sheath. Rwanda. From P. Rott RWd8 - *rice (Rott).
- 11283 * *Oryza sativa* L. - rice cv. Himali - seed. Nepal. From D.D. Shakya A3887 - 8th Int. Conf. Pl. Path. Bact. June 1992, Versailles, France - *rice (Shakya).
- 11284 * *Oryza sativa* L. - rice cv. Himali - seed. Nepal. From D.D. Shakya A3888 - 8th Int. Conf. Pl. Pathol. Bact. Versailles, France, June 1992 - *seedling rice (Shakya).
- 11824 *Oryza sativa* L. - rice. Colombia 1986. From CFBP 2806 ← R. Zeigler.
- 10137 *Triticum aestivum* L. - wheat. Brazil 1989. From IBSBF 743 ← V.A. Malavolta Jr.

Pseudomonas gingeri Wong & Preece (1982) (invalid name)
see *Pseudomonas* sp.

Pseudomonas gladioli pv. *agaricicola* Lincoln et al. 1991
see *Burkholderia gladioli* pv. *agaricicola*

Pseudomonas gladioli pv. *alliicola* (Burkholder 1942) Young et al. 1996
see *Burkholderia gladioli* pv. *alliicola*.

Pseudomonas gladioli pv. *gladioli* Severini 1913
see *Burkholderia gladioli* pv. *gladioli*.

Pseudomonas glumae Kurita & Tabei 1967
see *Burkholderia glumae*.

***Pseudomonas hibiscicola* Moniz 1963**

- 3945 a? *Hibiscus rosa-sinensis* L. - Chinese hibiscus. India 1964. From D.W. Dye MM1 ← NCPPB 1683 ← G. Rangaswami = ATCC 19867: LMG 980 - possibly *Xanthomonas* sp. - LOPAT - - - - - **Type strain**.

***Pseudomonas marginalis* (Brown 1918) Stevens 1925**

- 9503 b* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - soft rot lesion of cool stored fruit. Te Puke, BP, NZ Aug 1987. From R.G. Clark A3676 - LOPAT IVa - *kiwifruit fruit.
- 9505 b* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - soft rot lesion of cool stored fruit. Te Puke, BP, NZ Sep 1987. From R.G. Clark D3678 - LOPAT IVa - *kiwifruit fruit.
- 11289 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds. Kumeu, AK, NZ Nov 1991. From K.R. Everett 359 - LOPAT IVb.
- 11290 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flowers and fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 587 - LOPAT IVb.
- 11291 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 754 - LOPAT IVa.
- 7280 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - scales rotting individually. Puni, AK, NZ Nov 1980. From D.R.W. Watson D2822 - rec. as *Pseudomonas* sp. - LOPAT IVa.
- 8127 b* *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaf, bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale RM2 - rec. as *Pseudomonas* sp. - LOPAT IVb - *onion.
- 8128 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaf, bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale RU6 - LOPAT IV.
- 8129 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaf, bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale RU9 - LOPAT IVb.

- 8130 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaf, bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale R15 - LOPAT IV.
- 11309 * *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb soft rot. Pukekohe, AK, NZ Mar 1992. From P.J. Wright 92-11 - LOPAT IVb - *onion (Wright).
- 6693 b *Allium porrum* L. - leek - pale brown stripe extending up from base of leaf sheath. Auckland, AK, NZ May 1979. From D.R.W. Watson C2575 - rec. as *P. syringae* - LOPAT IVa - pale pink pigment produced on GCYA.
- 920 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd. NZ Jul 1963. From D.W. Dye PB6 ← W.J. Kemp = NCPPB 2726 - rec. as *P. syringae* pv. *maculicola* - LOPAT IVb.
- 6039 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd spot. NZ May 1978. From D.R.W. Watson B2417 - rec. as *Pseudomonas* sp. - LOPAT IVa.
- 9992 *Brassica oleracea* L. var. *italica* Plenck - sprouting broccoli - blackening of head. Auckland, AK, NZ. From M.A. Manning 267 - rec. as *Pseudomonas* sp. - LOPAT IVa.
- 2746 b *Coriandrum sativum* L. - coriander. 1968. From J.D. Taylor 95 ← M. Bateson 1005a - rec. as *Pseudomonas* sp. - LOPAT IVb.
- 7430 b *Cyclamen persicum* Mill. - florist's cyclamen - leafspot. NZ Feb 1981. From D.R.W. Watson U2894 - rec. as *Pseudomonas* sp. - produces pink pigment on GCYA - LOPAT IVa.
- 7432 b *Cyclamen persicum* Mill. - florist's cyclamen - corm rot. NZ Mar 1981. From D.R.W. Watson E2904 - rec. as *Pseudomonas* sp. - LOPAT IVb.
- 11310 * *Daucus carota* L. var. *sativus* Hoffm. - carrot - root soft rot. Rakaia, MC, NZ Sep 1992. From P.J. Wright 92-12 - LOPAT IVb - *carrot, potato (Wright).
- 11311 * *Daucus carota* L. var. *sativus* Hoffm. - carrot - bulb soft rot. Rakaia, MC, NZ Sep 1992. From P.J. Wright 92-13 - LOPAT IVb - *carrot, potato (Wright).
- 6010 b *Lupinus* sp. - lupin - seed. USSR 1963. From I.V. Voronkevitch 8536 - rec. as *P. xanthochlora* - LOPAT IV.
- 6105 b* *Lycopersicon esculentum* Mill. - tomato - green fruit. Mt Albert, AK, NZ Jun 1978. From W.J. Kemp TD - LOPAT IVa - *tomato.
- 3554 b* *Phaseolus coccineus* L. - runner bean - leaf. UK 1963. From C.N. Hale 1590 ← NCPPB 1558 ← G.E. Jones 64-63 = ICPB PM173 - *cabbage, celery, chrysanthemum, tomato.
- 3888 b *Populus* sp. - poplar. UK 1961. From D.W. Dye P294 ← NCPPB 1306 ← G.E. Jones 299 - rec. as *P. syringae* - LOPAT IVa.
- 398 b *Rosa* sp. - blast. Auckland, AK, NZ Oct 1962. From N.L. Baigent PS614 = NCPPB 1915: ICPB PS238 - rec. as *P. syringae* - LOPAT IVb.
- 403 b *Rosa* sp. - rose cv. Queen Elizabeth - bud blast. Gore, SL, NZ Oct 1962. From N.L. Baigent PS618 - rec. as *P. syringae* - LOPAT IVb.
- 404 b *Rosa* sp. - rose cv. Perfecta - bud blast. Gore, SL, NZ Oct 1962. From N.L. Baigent PS619 - rec. as *P. syringae* - LOPAT IVb.
- 11301 * *Solanum tuberosum* L. - potato cv. Desiree - tuber hard rot. Invercargill, SL, NZ Aug 1992. From P.J. Wright 92-3 - LOPAT IV - *potato (Wright).
- 11305 * *Solanum tuberosum* L. - potato cv. Rua - tuber hard rot. Southgate, NZ Aug 1992. From P.J. Wright 92-7 - LOPAT IVb - *potato (Wright).
- 2328 b *Zea mays* L. - maize - brown blotches on leaf sheath. Earnsclough, CO, NZ Mar 1968. From D.R.W. Watson A128 - rec. as *Pseudomonas* sp. - LOPAT IVa.
- 6002 b USSR. From I.V. Voronkevitch 8539 - rec. as *P. xanthochlora* - LOPAT IV.
- 6005 b USSR 1964. From I.V. Voronkevitch 8540 - rec. as *P. xanthochlora* - LOPAT IV.
- 9257 From M. Paschke ← D.E. Mathre.

***Pseudomonas marginalis* pv. *alfalfae* Shinde & Lukezic 1974**

- 5708 a *Medicago sativa* L. - lucerne, alfalfa. USA 1971. From NCPPB 2644 ← F.L. Lukezic P1 = CFBP 2039: LMG 2214 - **Pathotype strain**.
- 8658 *Medicago sativa* L. - lucerne, alfalfa. USA 1971. From LMG 5039 ← NCPPB 2645 ← P.A. Shinde P5.
- 8659 *Medicago sativa* L. - lucerne, alfalfa. USA 1971. From LMG 5040 ← NCPPB 2646 ← P.A. Shinde P6.

***Pseudomonas marginalis* pv. *marginalis* (Brown 1918) Stevens 1925**

- 11279 *Brassica rapa* L. China. From X.Z. Ren Tn1.
- 11280 *Brassica rapa* L. China. From X.Z. Ren Tn2.
- 3553 a* *Cichorium intybus* L. - chicory, witloof - leaf. USA 1949. From C.N. Hale 1589 ← NCPPB 667 ← B.A. Friedman CIBP = ATCC 10844: CFBP 1387: LMG 2215: NCPPB 667 - *celery, chicory, chrysanthemum, tomato - **Type strain**.
- 3552 *Lactuca sativa* L. - lettuce. USA. From C.N. Hale 1588 ← NCPPB 247 ← E.F. Smith = NCTC 1981.
- 3555 b* *Lactuca sativa* L. - lettuce - leaf. UK 1965. From C.N. Hale 1591 ← NCPPB 1689 ← M.R.M. Clark 19083 - *chicory, chrysanthemum, tomato.
- 3616 b *Lactuca sativa* L. - lettuce - stem pith. Pukekohe, AK, NZ Apr 1973. From C.N. Hale 1558M - LOPAT IVb.
- 5989 b *Lactuca sativa* L. - lettuce. 1977. From S.A. Miller 3555B - laboratory derived streptomycin resistant selection of ICMP 3555.
- 11906 *Solanum tuberosum* L. - potato. USA 1970. From CFBP 1538 ← D. Cuppels Bula1-5 - biovar II.

***Pseudomonas marginalis* pv. *pastinacae* (Burkholder 1960) Young *et al.* 1978**

- 5709 a *Pastinaca sativa* L. - parsnip. USA 1959. From NCPPB 806 ← W.H. Burkholder PP6 = ATCC 13889: CFBP 2038: LMG 2238 - **Pathotype strain**.
- 8660 b *Pastinaca sativa* L. - parsnip. From LMG 5042 ← NCPPB 804 ← W.H. Burkholder PP12 = ATCC 13891.
- 8661 b *Pastinaca sativa* L. - parsnip. USA 1959. From LMG 5043 ← NCPPB 805 ← W.H. Burkholder PP5 = ATCC 13888.
- 8662 b *Pastinaca sativa* L. - parsnip. USA 1959. From LMG 5044 ← NCPPB 807 ← W.H. Burkholder PP21 = ATCC 13891.

***Pseudomonas marginalis*-like (Brown 1918) Stevens 1925**

- 12345 *Helianthus annuus* L. - sunflower - stem pith necrosis. Yugoslavia 1988. From M. Arsenijevic Su134 - LOPAT + + + + - ; (Arsenijevic).
- 12346 *Helianthus annuus* L. - sunflower - stem pith necrosis. Yugoslavia 1988. From M. Arsenijevic Su142 - LOPAT + + + + - ; (Arsenijevic).
- 12347 *Helianthus annuus* L. - sunflower - stem pith necrosis. Yugoslavia 1988. From M. Arsenijevic Su150 - LOPAT + + + + - ; (Arsenijevic).
- 12348 *Helianthus annuus* L. - sunflower - stem pith necrosis. Yugoslavia 1988. From M. Arsenijevic Su182 - LOPAT + + + + - ; (Arsenijevic).

***Pseudomonas meliae* Ogimi 1981**

- 6289 a* *Melia azedarach* L. - chinaberry. Japan Oct 1974. From C. Ogimi 2 = ATCC 33050: LMG 2220: NCPPB 3033 - *chinaberry (Ogimi) - **Type strain**.

***Pseudomonas mendocina* Palleroni 1970**

- 12598 From G. Lloyd-Jones KR1 (Y3) ← W.A. Deutz KR1 - Appl. Env. Microbiol. 60: 2858-2863, 1994 - utilises toluene as sole carbon source - imported strain.

***Pseudomonas paucimobilis* Holmes *et al.* 1977**

- 12559 Human vagina. Whakatane, BP, NZ. From J. Aislabie ← NZCDC 1230.

***Pseudomonas plantarii* Azegami *et al.* 1987**

see *Burkholderia plantarii*.

***Pseudomonas pseudoalcaligenes* subsp. *citrulli* Schaad *et al.* 1978**

see *Acidovorax avenae* subsp. *citrulli*.

***Pseudomonas putida* (Trevisan 1889) Migula 1895**

- 3350 b *Abrus precatorius* L. - crab's eye vine - seed. Pakistan. From D.R.W. Watson A1416 ← S. Masood 77 - Zentbl. Bakt. Parasitkde 123: 622-627, 1969 (as *P. phaseolicola*) - rec. as *Pseudomonas* sp. - LOPAT Vb.
- 2304 b *Cucurbita maxima* Duch. - pumpkin cv. Crown - small greasy fruit lesion. Te Kauwhata, WO, NZ May 1968. From D.R.W. Watson C176 - rec. as *P. lachrymans* - LOPAT Vb.
- 6410 b *Dahlia* sp. - black rot of stem tip. Massey, AK, NZ Nov 1978. From D.R.W. Watson B2449 - rec. as *Pseudomonas* sp. - LOPAT Vb.
- 9068 b *Glycine max* (L.) Merr. - soybean cv. Hersonskaia - leafspot. Hungary 1978. From J. Nemeth SZ40 ← E. Laszlo - rec. as *P. syringae* pv. *tabaci* - LOPAT Vb.
- 3511 b *Hyphantria cunea* (Drury) [Invertebrate] - web worm. Czechoslovakia. From J.M. Young 1579 ← NCIB 9887 ← O. Lysenko = CCEB 520 -

- LOPAT Va.
- 3969 b *Lactuca sativa* L. - lettuce. UK 1942. From D.W. Dye PJ2 ← NCPPB 152 ← W.J. Dowson - rec. as *P. viridilivida* - fluorescent - LOPAT Va.
- 3970 b *Lactuca sativa* L. - lettuce. USA 1915. From D.W. Dye PJ3 ← NCPPB 1923 ← N.A. Brown = ATCC 19048: NRRL B893: ICPB PV4: F.M. Clara G23 - rec. as *P. viridilivida* - fluorescent - LOPAT Va.
- 3508 b *Lycopersicon esculentum* Mill. - tomato - internal stem tissue. Auckland, AK, NZ Aug 1971. From J.P. Wilkie (nee Bodley) 1181 = NCPPB 2748 - rec. as *P. syringae* pv. *syringae* - LOPAT Va - pectate gel +ve.
- 3993 a *Phalaenopsis* sp. - orchid - leafspot. USA Oct 1950. From D.W. Dye NL3 ← ICPB PC107 ← P.A. Ark 5034 = NCPPB 1874 - rec. as *P. cattleyae* - reported *orchid (ICPB) - LOPAT Va.
- 3880 a *Pyrus communis* L. - pear - blossom. USA 1920. From D.W. Dye MH1 ← NCPPB 244 ← B.T.P. Barker = NCTC 393: ATCC 6876 - rec. as *P. barkeri* - LOPAT Va.
- 2758 a Soil. USA. From D.W. Dye ← R.Y. Stanier 90 = NCIB 9494: ATCC 12633 - Biotype A - **Type strain.**
- 12599 UK (Wales). From G. Lloyd-Jones PaW130 (G7) ← P.A. Williams - plasmid-cured derivative of PaW 340 (ICMP 12600) - rifampicin resistant.
- 12600 UK (Wales). From G. Lloyd-Jones PaW340 (G5) ← P.A. Williams mt-2 - J. Bact. 120: 416-423, 1972 - derivative of *P. putida* mt-2 cured of TOL plasmid.
- 12601 From G. Lloyd-Jones AC34 (G11) ← P.A. Williams RP4 ← C.J. Duggelby - contains IncP plasmid - ampicillin, tetracyclin, kanomycin resistant - imported strain.
- 12796 UK (Wales). From G. Lloyd-Jones mt-2 (PaW1) ← P.A. Williams mt-2 PaW1) = NCIMB 12182 - J. Bact. 120: 416-423, 1974 - contains TOL plasmid encoded for degradation of toluene, m- and p-xylenes and their metabolites.
- 12797 Garden soil. From G. Lloyd-Jones NAH2 ← P.A. Williams ← W.C. Evans = NCIMB 8916 - utilizes anthracene, naphthalene, and phenathrene - imported strain.
- 12798 From G. Lloyd-Jones F1 (Y6) ← W.A. Deutz F1 - J. Biol. Chem. 264: 14940-14946, 1989 - imported strain.

Pseudomonas reactans Preece & Wong (1982) (invalid name)
see *Pseudomonas* sp.

Pseudomonas rubrilineans (Lee et al. 1925) Stapp 1928
see *Acidovorax avenae* subsp. *avenae*.

Pseudomonas rubrisubalbicans (Christopher & Edgerton 1930) Krasilnikov 1949
see *Herbaspirillum rubrisubalbicans*

Pseudomonas savastanoi pv. *glycinea* (Coerper 1919) Gardan et al. 1992
syn. *Pseudomonas syringae* pv. *glycinea* (Coerper 1919) Young et al. 1978

- 807 *Glycine max* (L.) Merr. - soybean. From N.L. Baigent PE6 ← NCPPB 291 ← M. Noble.
- 2185 *Glycine max* (L.) Merr. - soybean - leaf blight. Massey, AK, NZ Mar 1968. From D.R.W. Watson A141 - avirulent to soybean.
- 2186 b *Glycine max* (L.) Merr. - soybean cv. Sequoia - leaf blight. Lincoln, MC, NZ Mar 1968. From D.R.W. Watson B127 - LOPAT Ib.
- 2188 b* *Glycine max* (L.) Merr. - soybean - leaf blight. Massey, AK, NZ Mar 1968. From D.R.W. Watson F141 = NCPPB 2415 - LOPAT Ia - *soybean, dwarf bean.
- 2189 a* *Glycine max* (L.) Merr. - soybean cv. Disoy - leaf blight. Lincoln, MC, NZ Mar 1968. From D.R.W. Watson B149 = CFBP 2214: LMG 5066: NCPPB 2411 - *soybean - **Pathotype strain.**
- 2236 *Glycine max* (L.) Merr. - soybean - pustular leaf blight. Helensville, AK, NZ Apr 1968. From D.R.W. Watson H167.
- 2400 b* *Glycine max* (L.) Merr. - soybean - exudate from leaf lesion. Blenheim, MB, NZ Mar 1968. From D.R.W. Watson A123 - non-fluorescent - *soybean.
- 3482 a* *Glycine max* (L.) Merr. - soybean - leaf blight. Gisborne, GB, NZ Feb 1973. From C.N. Hale 1512 = NCPPB 2725 - produces coronatine - LOPAT Ia - *soybean.
- 4181 b* *Glycine max* (L.) Merr. - soybean - angular leaf lesion. Ruakura, WO, NZ Feb 1975. From D.R.W. Watson B1921 - *soybean.
- 4182 b* *Glycine max* (L.) Merr. - soybean - angular leaf lesion with halo. Ruakura, WO, NZ Feb 1975. From D.R.W. Watson E1920 - *soybean.
- 4333 a* *Glycine max* (L.) Merr. - soybean. Canada. From NCPPB 1271 ← NCIB 8613 ← W.A.F. Hagborg 1636 = CDAO 682: ICPB PG106 - produces coronatine - *soybean.
- 4459 b *Glycine max* (L.) Merr. - soybean. Yugoslavia 1962. From NCPPB 1783 ← D. Sutic ← M. Babovic.
- 4604 b *Glycine max* (L.) Merr. - soybean - leafspot. Helensville, AK, NZ Jan 1976. From C.N. Hale 2104.
- 4630 *Glycine max* (L.) Merr. - soybean - small brown angular leaf lesion. Helensville, AK, NZ Jan 1976. From D.R.W. Watson C2111.
- 4631 *Glycine max* (L.) Merr. - soybean - dark brown angular leaf lesions greasy mosaic effect. Helensville, AK, NZ Jan 1976. From D.R.W. Watson A2112.
- 4632 *Glycine max* (L.) Merr. - soybean - small red brown angular leaf lesion. Helensville, AK, NZ Jan 1976. From D.R.W. Watson B2113.
- 4966 a *Glycine max* (L.) Merr. - soybean. France 1974. From NCPPB 2753 ← CFBP 1563 ← B. Rat 106-1-1.
- 5027 a *Glycine max* (L.) Merr. - soybean. France 1974. From NCPPB 2752 ← CFBP 1560 ← B. Rat 118-12.
- 5378 b* *Glycine max* (L.) Merr. - soybean - leafspot. Mt Albert, AK, NZ Feb 1977. From E.J. Craigie - *soybean.
- 5559 b* *Glycine max* (L.) Merr. - soybean - leaf blight with halo. Rukuhia, WO, NZ Feb 1977. From D.R.W. Watson G2266 - non-fluorescent - *soybean.
- 5560 *Glycine max* (L.) Merr. - soybean - leaf blight. Rukuhia, WO, NZ Feb 1977. From D.R.W. Watson A2267 - non-fluorescent.
- 5562 b* *Glycine max* (L.) Merr. - soybean - leaf blight with halo. Rukuhia, WO, NZ Feb 1977. From D.R.W. Watson B2270 - non-fluorescent - *soybean.
- 5928 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1962. From NCPPB 1783 ← D. Sutic ← M. Babovic.
- 7082 *Glycine max* (L.) Merr. - soybean. Australia 1970. From J.V. Leary PGB3 ← M.L. Moffett.
- 9024 *Glycine max* (L.) Merr. - soybean cv. Ewans - seed. Hungary 1980. From J. Nemeth SZ46 ← E. Laszlo - LOPAT + - - - -.
- 9025 *Glycine max* (L.) Merr. - soybean cv. BS33 - leafspot. Hungary 1982. From J. Nemeth SZ49 ← E. Laszlo - LOPAT Ia.
- 9026 *Glycine max* (L.) Merr. - soybean cv. ISZ-10 - leafspot. Hungary 1982. From J. Nemeth SZ50 ← E. Laszlo - LOPAT Ia.
- 10448 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S1 - LOPAT Ia (Arsenijevic).
- 10449 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S49 - LOPAT Ia (Arsenijevic).
- 10450 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S65 - LOPAT Ia (Arsenijevic).
- 10451 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S71 - LOPAT Ia (Arsenijevic).
- 10452 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S74 - LOPAT Ia (Arsenijevic).
- 10453 *Glycine max* (L.) Merr. - soybean. Yugoslavia 1982. From M. Arsenijevic S77 - LOPAT Ia (Arsenijevic).
- 12212 *Glycine max* (L.) Merr. - soybean. NZ. From C. Bender G70 ← ICMP 4180 ← D.R.W. Watson A1955 - single colony isolate - mutant strain CFA+ coupling- CMA+ kanamycin resistant.
- 9923 *Glycine wightii* (Graph. ex Wight & Arn.) Verac. Malawi 1973. From NCPPB 2926 ← J.F. Bradbury B5604 - LOPAT Ia.
- 6372 *Phaseolus* sp. - bean. USA. From R.E. Mitchell ← A. Anderson 101 ← M. Curiale.
- 6373 *Phaseolus* sp. - bean. USA. From R.E. Mitchell ← A. Anderson 100 ← M. Curiale.
- 1468 Canada. From D.W. Dye PE1 ← M. Kocur BS398 ← W.A.F. Hagborg 4467.
- 9589 From M.C. Whalen ← N.T. Keen ← R.E. Stall - J. Bact. 169: 5789-5794, 1987 - Race 0.
- 9590 From M.C. Whalen ← N.T. Keen Psg6 - Proc. Natl. Acad. Sci. USA 81: 6024-6028, 1984 - Race 6.

Pseudomonas savastanoi pv. *phaseolicola* (Burkholder 1926) Gardan et al. 1992
syn. *Pseudomonas syringae* pv. *phaseolicola* (Burkholder 1926) Young et al. 1978

- 4419 a* *Dolichos* sp. - potato weed - leaf halo blight. Tanzania 1964. From NCPPB 1647 ← A.C. Hayward B2317 - produces phaseolotoxins - *bean, *Peuraria montana*.
- 5006 *Macropitium atropurpureum* (DC.) Urb. - siratro. Australia Sep 1972. From R.E. Mitchell ← M.L. Moffett 0205.
- 5007 *Macropitium atropurpureum* (DC.) Urb. - siratro - seed. Australia Sep 1972. From R.E. Mitchell ← M.L. Moffett 0206.
- 1608 b* *Phaseolus coccineus* L. - runner bean - leafspot no halo. Blenheim, MB, NZ Dec 1964. From D.W. Dye PQ20 - *bean.
- 2731 a *Phaseolus coccineus* L. - runner bean. UK 1958. From J.D. Taylor 12 ← NCPPB 605 ← E. Billing P44 - Race 1.
- 3020 *Phaseolus coccineus* L. - runner bean. UK 1963. From D.W. Dye PQ22 ← NCPPB 1494 ← R.A. Lelliott - Race 1.

- 3604 *Phaseolus coccineus* L. - runner bean cv. Prizewinner - pod. Blenheim, MB, NZ Feb 1970. From C.N. Hale 817A - non-fluorescent - Race 1.
- 3614 a *Phaseolus coccineus* L. - runner bean - leaf. Canterbury, NZ Feb 1971. From C.N. Hale 1125 - LOPAT I - Race 1.
- 3615 *Phaseolus coccineus* L. - runner bean - leaf. Auckland, AK, NZ Jan 1971. From C.N. Hale 1070 ← D.R.W. Watson - Race 1.
- 3620 *Phaseolus coccineus* L. - runner bean - typical halo blight. Auckland, AK, NZ Jan 1971. From D.R.W. Watson F126 ← D.R.W. Watson M1070.
- 3672 *Phaseolus coccineus* L. - runner bean - leaf. Blenheim, MB, NZ Jan 1974. From C.N. Hale 1689.
- 4094 *Phaseolus coccineus* L. - runner bean cv. Streamliner - leaf. Blenheim, MB, NZ Feb 1975. From C.N. Hale 1922.
- 4134 *Phaseolus coccineus* L. - runner bean cv. Goliath - leaves. Blenheim, MB, NZ Feb 1975. From C.N. Hale 1907 - rough colony form.
- 4269 b* *Phaseolus coccineus* L. - runner bean cv. 236 - leaf. Blenheim, MB, NZ Jan 1971. From C.N. Hale 1074 = J.D. Taylor 427 - agglutinates with antiserum from ICMP 3573 - Race 1 by leafpod test - Race 2 by phage test - *bean.
- 4346 a *Phaseolus coccineus* L. - runner bean. UK 1958. From NCPPB 604 ← E. Billing P45 - Race 1.
- 4603 *Phaseolus coccineus* L. - runner bean cv. Prizewinner - leaf - typical halo blight symptoms. Blenheim, MB, NZ Jan 1976. From C.N. Hale 2105 - agglutinates with antiserum from ICMP 3573 - Race 1.
- 5861 *Phaseolus coccineus* L. - runner bean cv. Goliath - small greasy leaf lesion with halo. Blenheim, MB, NZ Jan 1978. From C.N. Hale 2399.
- 5862 *Phaseolus coccineus* L. - runner bean cv. Goliath - small round greasy lesion with halo. Blenheim, MB, NZ Jan 1978. From C.N. Hale 2398.
- 5863 *Phaseolus coccineus* L. - runner bean cv. Streamliner - small greasy leaf lesion with halo. Blenheim, MB, NZ Jan 1978. From C.N. Hale 2397.
- 5912 *Phaseolus coccineus* L. - runner bean - leaf lesion with halo. Auckland, AK, NZ Jan 1978. From D.R.W. Watson M2381 - agglutinates with antiserum from ICMP 3573.
- 6312 *Phaseolus coccineus* L. - runner bean cv. Streamline - pod. Blenheim, MB, NZ Feb 1979. From C.N. Hale 2513.
- 6567 b* *Phaseolus coccineus* L. - runner bean. UK 1958. From R.E. Mitchell ← J. Turner 3-6E-12t ← NCPPB 604 - does not produce phaseolotoxins - laboratory derived selecti on of 3WT (ICMP 6568) - *bean.
- 6568 *Phaseolus coccineus* L. - runner bean. UK 1958. From R.E. Mitchell ← J. Turner 3WT ← NCPPB 604 - produces phaseolotoxins.
- 1413 *Phaseolus* sp. - bean. From D.W. Dye PQ13 ← H. Stolp 321.
- 2760 *Phaseolus* sp. - Japanese bean cv. LW4 - dark brown angular lesions on leaf. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson A867.
- 2764 *Phaseolus* sp. - Japanese bean cv. Taisho Kintoki - dark greasy lesion on dry pod. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson A869.
- 2766 b* *Phaseolus* sp. - Japanese bean cv. LW4 - small angular red lesion on chlorotic leaf. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson A882 - *bean.
- 2768 *Phaseolus* sp. - Japanese bean cv. LW3 - small angular red-brown leaf lesion. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson C885.
- 2772 *Phaseolus* sp. - Japanese bean cv. Ohtenashi - small necrotic angular leaf lesion. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson B875.
- 3022 b* *Phaseolus* sp. - bean. Sweden 1956. From D.W. Dye PQ24 ← NCPPB 380 ← L. Nilsson - Race 2 - *bean, *Peuraria montana*.
- 3079 *Phaseolus* sp. - bean. USA. From D.R.W. Watson ← ATCC 11365 ← W.H. Burkholder PP7 - avirulent to bean.
- 553 a* *Phaseolus vulgaris* L. - bean - pod. Matawhero, GB, NZ Jan 1953. From N.L. Baigent J3 ← D.W. Dye PQ15 = NCPPB 1099 - *bean (NCPPB).
- 637 a* *Phaseolus vulgaris* L. - bean - leafspot. Matawhero, GB, NZ Jan 1953. From D.W. Dye PQ17 ← N.L. Baigent J5 = NCPPB 1101 - Race 1 - *bean (NCPPB).
- 718 a* *Phaseolus vulgaris* L. - bean - leafspot. Otara, AK, NZ Feb 1953. From N.L. Baigent J1 ← D.W. Dye PQ14 = NCPPB 1098 - Race 1 - *bean (NCPPB).
- 719 a* *Phaseolus vulgaris* L. - bean - pod. Gisborne?, GB, NZ Jan 1963. From N.L. Baigent J4 ← D.W. Dye PQ16 = NCPPB 1100 - oxidase +ve? - *bean (NCPPB).
- 720 a* *Phaseolus vulgaris* L. - bean - leafspot. Gisborne, GB, NZ Jan 1963. From N.L. Baigent J6 ← D.W. Dye PQ18 = NCPPB 1102 - *bean (NCPPB).
- 1262 b* *Phaseolus vulgaris* L. - dwarf bean - leaves. Mt Albert, AK, NZ Mar 1964. From D.W. Dye PQ1 - *bean.
- 1264 b* *Phaseolus vulgaris* L. - dwarf bean - leaf. Mt Albert, AK, NZ Mar 1964. From D.W. Dye PQ3 - *bean.
- 1266 b* *Phaseolus vulgaris* L. - bean - ooze from pod. Mt Albert, AK, NZ Mar 1964. From D.W. Dye PQ5 - *bean.
- 1268 b* *Phaseolus vulgaris* L. - bean - pod lesion ooze. Mt Albert, AK, NZ Mar 1964. From D.W. Dye PQ7 - *bean.
- 1270 b* *Phaseolus vulgaris* L. - bean - pod. Blenheim, MB, NZ Feb 1964. From D.W. Dye PQ9 - *bean.
- 1271 b* *Phaseolus vulgaris* L. - bean - pod. Blenheim, MB, NZ Feb 1964. From D.W. Dye PQ10 - *bean.
- 2146 *Phaseolus vulgaris* L. - bean - leaf halo blight. Auckland, AK, NZ Dec 1967. From D.R.W. Watson A51 - non-fluorescent - LOPAT I.
- 2147 *Phaseolus vulgaris* L. - bean - leaf halo blight. Auckland, AK, NZ Dec 1967. From D.R.W. Watson A52.
- 2150 b* *Phaseolus vulgaris* L. - bean cv. Brittlewax - leaf halo blight. Mt Albert, AK, NZ Jan 1968. From D.R.W. Watson A59 - *bean.
- 2183 *Phaseolus vulgaris* L. - bean - leaf halo blight. Dannevirke, WA, NZ Jan 1968. From D.R.W. Watson A84.
- 2740 a *Phaseolus vulgaris* L. - bean. Canada. From J.D. Taylor 11 ← NCPPB 52 ← CDAO = ATCC 19304: CFBP 1390: ICPB PM110: LMG 2245 - LOPAT I - **Pathotype strain**.
- 3019 *Phaseolus vulgaris* L. - bean - leaf. Tanzania 1962. From D.W. Dye PQ21 ← NCPPB 1341 ← A.C. Hayward B1209 - Race 2.
- 3021 a *Phaseolus vulgaris* L. - bean. Hungary 1956. From D.W. Dye PQ23 ← NCPPB 1103 ← Z. Klement E1356 - Race 1.
- 3492 b* *Phaseolus vulgaris* L. - bean - leaf. Mt Albert, AK, NZ Nov 1972. From C.N. Hale 1377 - LOPAT Ia - *bean.
- 3573 b* *Phaseolus vulgaris* L. - bean cv. Brittlewax - leaf halo blight. Mt Albert, AK, NZ Jan 1968. From D.R.W. Watson F53 ← ICMP 2150 ← D.R.W. Watson A59 - *bean.
- 3603 *Phaseolus vulgaris* L. - bean cv. Greencrop - leaf. Rakaia, MC, NZ Feb 1970. From C.N. Hale 825A - non-fluorescent.
- 3605 *Phaseolus vulgaris* L. - bean - leaf. Blenheim, MB, NZ Feb 1973. From C.N. Hale 1484.
- 3606 b *Phaseolus vulgaris* L. - bean - leaf. Canterbury, NZ Feb 1971. From C.N. Hale 1123 - Race 1.
- 3607 b *Phaseolus vulgaris* L. - bean - leaf. Canterbury, NZ Feb 1971. From C.N. Hale 1114 - Race 1.
- 3608 a *Phaseolus vulgaris* L. - bean - pod. Canterbury, NZ Feb 1971. From C.N. Hale 1113 - Race 1.
- 3611 b *Phaseolus vulgaris* L. - bean cv. Contender - leaf. Blenheim, MB, NZ Jan 1971. From C.N. Hale 1080 - Race 2 - does not produce phaseolotoxins.
- 3612 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder - leaf. Blenheim, MB, NZ Jan 1971. From C.N. Hale 1079 - Race 1.
- 3613 *Phaseolus vulgaris* L. - bean cv. Pencilpod - leaf. Blenheim, MB, NZ Jan 1971. From C.N. Hale 1077 - Race 2.
- 3670 *Phaseolus vulgaris* L. - bean cv. Longjohn. Blenheim, MB, NZ Jan 1974. From C.N. Hale 1687.
- 3671 *Phaseolus vulgaris* L. - bean cv. Longjohn - leaf. Blenheim, MB, NZ Jan 1974. From C.N. Hale 1688.
- 4132 *Phaseolus vulgaris* L. - bean cv. Tendergreen - leaves. Wairau, MB, NZ Jan 1975. From C.N. Hale 1914 - rough colony form.
- 4422 *Phaseolus vulgaris* L. - bean - pod. Gisborne, GB, NZ Feb 1953. From D.W. Dye PQ48 ← NCPPB 1100 ← D.W. Dye J4.
- 4611 *Phaseolus vulgaris* L. - bean cv. Dwarf 271 - leaves, pods, small brown lesions, yellow haloes, watersoaking. Blenheim, MB, NZ Feb 1976. From C.N. Hale 2114 - agglutinates with antiserum from ICMP 3573 - Race 2.
- 4612 *Phaseolus vulgaris* L. - bean cv. Dwarf 271 - leaves, pods, brown lesions with watersoaked margins, yellow haloes. Blenheim, MB, NZ Feb 1976. From C.N. Hale 2118 - produces phaseolotoxins - agglutinates with antiserum from I CMP 3573 - Race 2.
- 4613 *Phaseolus vulgaris* L. - bean cv. Dwarf 271 - brown watersoaked lesion with yellow halo. Blenheim, MB, NZ Feb 1976. From C.N. Hale 2119 - agglutinates with antiserum from ICMP 3573 - Race 2.
- 4633 *Phaseolus vulgaris* L. - bean cv. Dwarf 271 - red brown leafspot. Marlborough, MB, NZ Feb 1976. From D.R.W. Watson B2117 - weakly fluorescent - agglutinates with antiserum from ICMP 3 573.
- 4988 a *Phaseolus vulgaris* L. - bean. NZ Feb 1953. From NCPPB 1098 ← E. Billing ZJ1 ← D.W. Dye J1 - Race 1.
- 4993 *Phaseolus vulgaris* L. - bean. France 1964. From NCPPB 2765 ← CFBP 531 ← J.P. Prunier 159-1 - Race 2.
- 5039 a *Phaseolus vulgaris* L. - bean. Canada 1949. From NCPPB 1374 ← W.A.F. Hagborg 3573.
- 5040 *Phaseolus vulgaris* L. - bean. Ethiopia 1961. From NCPPB 1057 ← A.C. Hayward B660 - Race 1.
- 5362 *Phaseolus vulgaris* L. - bean. USA. From R.E. Mitchell ← S.S. Patil HB36.
- 5913 *Phaseolus vulgaris* L. - bean - leaf lesion with necrotic border. NZ Jan 1978. From D.R.W. Watson M2382 - agglutinates with antiserum from ICMP 3573.
- 6313 *Phaseolus vulgaris* L. - bean cv. Contender - pod. Blenheim, MB, NZ Feb 1979. From C.N. Hale 2514.
- 6645 *Phaseolus vulgaris* L. - bean. Australia Feb 1966. From P.C. Fahy DAR30471 ← B. Ballantyne - Race 1.
- 6796 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder. NZ Jan 1971. From R.E. Mitchell 3612-2 ← ICMP 3612 ← C.N. Hale 1079 - selection from

- ICMP 3612 - produces phaseolotoxin.
- 6797 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder. NZ Jan 1971. From R.E. Mitchell 3612-3 ← ICMP 3612 ← C.N. Hale 1079 - selection from ICMP 3612 - produces phaseolotoxins.
- 6831 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder. NZ Jan 1971. From R.E. Mitchell 3612-16 ← ICMP 3612 ← C.N. Hale 1079 - produces phaseolotoxins.
- 6832 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder. NZ Jan 1971. From R.E. Mitchell 3612-15 ← ICMP 3612 ← C.N. Hale 1079 - does not produce phaseolotoxins.
- 6833 *Phaseolus vulgaris* L. - bean cv. Pencilpod - leaf. NZ Jan 1971. From R.E. Mitchell 3613-8 ← ICMP 3613 ← C.N. Hale 1077 - produces phaseolotoxins.
- 6834 *Phaseolus vulgaris* L. - bean cv. Pencilpod - leaf. NZ Jan 1971. From R.E. Mitchell 3613-4 ← ICMP 3613 ← C.N. Hale 1077 - does not produce phaseolotoxins.
- 6835 *Phaseolus vulgaris* L. - bean cv. Pencilpod - leaf. NZ Jan 1971. From R.E. Mitchell 3613-5 ← ICMP 3613 ← C.N. Hale 1077 - does not produce phaseolotoxins.
- 6836 *Phaseolus vulgaris* L. - bean cv. Dwarf 271. NZ Feb 1976. From R.E. Mitchell 4612-10 ← ICMP 4612 ← C.N. Hale 2118 - produces phaseolotoxins.
- 6837 *Phaseolus vulgaris* L. - bean cv. Dwarf 271. NZ Feb 1976. From R.E. Mitchell 4612-12 ← ICMP 4612 ← C.N. Hale 2118 - does not produce phaseolotoxins.
- 6838 *Phaseolus vulgaris* L. - bean cv. Dwarf 271. NZ Feb 1976. From R.E. Mitchell 4612-11-1 ← ICMP 4612 ← C.N. Hale 2118.
- 6839 *Phaseolus vulgaris* L. - bean cv. Dwarf 271. NZ Feb 1976. From R.E. Mitchell 4612-11-6 ← ICMP 4612 ← C.N. Hale 2118 - selection From ICMP 4612 - does not produce phaseolotoxin.
- 6840 *Phaseolus vulgaris* L. - bean cv. Dwarf 271. NZ Feb 1976. From R.E. Mitchell 4612-11-10 ← ICMP 4612 ← C.N. Hale 2118 - selection From ICMP 4612 - does not produce phaseolotoxin.
- 6930 *Phaseolus vulgaris* L. - dwarf bean cv. Green Beauty - systemic chlorosis, necrotic lesion surrounded by chloritic halo on leaf. Apr 1980. From J.C. Shanks 2736Bea.
- 9030 *Phaseolus vulgaris* L. - bean cv. King-Horn Wax - leafspot. Hungary 1977. From J. Nemeth BAB4 - LOPAT Ia.
- 9031 *Phaseolus vulgaris* L. - bean cv. Tapiol Cirmos - leafspot. Hungary. From J. Nemeth TC172 - LOPAT Ia.
- 9885 *Phaseolus vulgaris* L. - bean cv. Amboy - seed. Hungary Mar 1986. From J. Nemeth AMB832 - LOPAT Ia - *bean (Nemeth).
- 10444 *Phaseolus vulgaris* L. - bean. USSR 1980. From V.A. Muras 4012 (35) - LOPAT Ia.
- 4324 b* *Pueraria montana* (Lour.) Merr. = *Glycine javanica* auct. non L. Zimbabwe 1961. From NCPPB 1134 ← A.C. Hayward B792A - rec. as *P. glycinea* - produces phaseolotoxins - **P. montana*, avirulent to soybean.
- 4332 b* *Pueraria montana* (Lour.) Merr. = *Glycine javanica* auct. non L. Zimbabwe 1961. From NCPPB 1137 ← A.C. Hayward B811 ← A. Rothwell MR17241 - rec. as *P. glycinea* - produces phaseolotoxins - **P. montana*, avirulent to soybean.
- 4402 b* *Pueraria montana* (Lour.) Merr. = *Glycine javanica* auct. non L. Zimbabwe 1961. From NCPPB 1139 ← A.C. Hayward B809B - rec. as *P. glycinea* - produces phaseolotoxins - **P. montana*, avirulent to soybean.
- 4469 b* *Pueraria montana* (Lour.) Merr. = *Glycine javanica* auct. non L. - halo-less leafspot. Australia 1970. From NCPPB 2385 ← J.C. Johnson 18859 ← M.L. Moffett 082 - **P. montana*, avirulent to soybean.
- 2762 *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - small dark green greasy leaf lesion. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson B868.
- 2770 b* *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - angular dark brown leaf lesion. Lincoln, MC, NZ Mar 1970. From D.R.W. Watson A886 - *dwarf bean.
- 4343 a *Vigna radiata* (L.) R. Wilcz. - mung bean. USA 1971. From NCPPB 2435 ← H.A.J. Hoitink.
- 4426 a *Vigna radiata* (L.) R. Wilcz. - mung bean. Tanzania 1965. From D.W. Dye ← NCPPB 1812 ← D.C. Graham.
- 4994 * *Vigna radiata* (L.) R. Wilcz. - mung bean. USA. From NCPPB 2798 ← D.C. Hildebrand HB49A ← H.A.J. Hoitink 15A - *mung bean (NCPPB).
- 5000 * *Vigna radiata* (L.) R. Wilcz. - mung bean. USA. From NCPPB 2800 ← D.C. Hildebrand HB51 ← N.J. Palleroni = H.A.J. Hoitink 3-71 - *mung bean (NCPPB).
- 5059 * *Vigna radiata* (L.) R. Wilcz. - mung bean. USA. From NCPPB 2799 ← D.C. Hildebrand HB49B ← H.A.J. Hoitink 15a - toxin +ve - *mung bean (NCPPB).
- 834 a* USA 1956. From N.L. Baigent J7 ← P.N. Patel PP8 ← W.H. Burkholder - *Physiol. Pl. Path.* 20: 91-97, 1982 - produces phaseolotoxin - *bean, *Pueraria montana*.

Pseudomonas savastanoi* pv. *savastanoi (ex Smith 1908) Gardan *et al.* 1992syn. *Pseudomonas syringae* pv. *savastanoi* (ex Smith 1908) Young *et al.* 1978

- 7711 *Fraxinus excelsior* L. - European ash - canker. Netherlands 1978. From J.D. Janse PD116 - rec. as pathotype strain of *P. syringae* subsp. *savastanoi* pv. *fraxini*.
- 7712 a *Fraxinus excelsior* L. - European ash - canker. Netherlands 1978. From J.D. Janse PD159 - rec. as *P. syringae* subsp. *savastanoi* pv. *fraxini*.
- 9129 a *Fraxinus excelsior* L. - European ash. Netherlands Mar 1982. From M. de Kam Dsk167 - rec. as *P. syringae* subsp. *savastanoi* pv. *fraxini* - LOPAT Ia.
- 9130 a *Fraxinus excelsior* L. - European ash. Netherlands Jan 1983. From M. de Kam Dsk170 - rec. as *P. syringae* subsp. *savastanoi* pv. *fraxini* - LOPAT Ib.
- 9131 a *Fraxinus excelsior* L. - European ash. Netherlands Apr 1983. From M. de Kam Dsk184 ← C.C. de Vlaam - rec. as *P. syringae* subsp. *savastanoi* pv. *fraxini* - LOPAT Ia.
- 9132 a *Fraxinus excelsior* L. - European ash. Netherlands Apr 1983. From M. de Kam Dsk185 ← C.C. de Vlaam - rec. as *P. syringae* subsp. *savastanoi* pv. *fraxini* - LOPAT Ib.
- 12033 *Fraxinus excelsior* L. - European ash. France 1977. From CFBP 2168 ← M. Ridé Fe502.
- 4347 a *Fraxinus* sp. - ash. USA. From NCPPB 1006 ← ICPB PS19 ← N.A. Brown = NRRL B875 - LOPAT Ib.
- 4348 a *Fraxinus* sp. - ash. UK 1959. From NCPPB 1464 ← A.C. Hayward B84 ← D. Sutic AC7.
- 4999 *Jasminum* sp. Greece 1968. From NCPPB 2788 ← C.G. Panagopoulos R2.
- 4476 *Ligustrum japonicum* Thunb. Italy 1968. From NCPPB 2328 ← G.L. Ercolani 218.
- 791 a* *Nerium oleander* L. - oleander - leaf knot. Gisborne, GB, NZ Jan 1958. From D.W. Dye PC2 - *oleander.
- 4351 a *Nerium oleander* L. - oleander. USA 1961. From NCPPB 1343 ← E.E. Wilson N16.
- 4432 a *Nerium oleander* L. - oleander. Yugoslavia. From NCPPB 640 ← A.C. Hayward ← D. Sutic = ATCC 13523.
- 4435 a *Nerium oleander* L. - oleander. USA 1961. From NCPPB 1345 ← E.E. Wilson N15.
- 11818 *Nerium oleander* L. - oleander. France 1977. From CFBP 2087 ← L. Gardan K119-1.
- 1411 a *Olea europaea* L. - olive - gall. USA 1961. From D.W. Dye PC6 ← ICPB PS170 ← E.E. Wilson 06 = NCPPB 1344 - LOPAT Ib.
- 4352 a *Olea europaea* L. - olive. Yugoslavia. From NCPPB 639 ← A.C. Hayward ← D. Sutic = ATCC 13522: CFBP 1670: LMG 2209 - **Pathotype strain**.
- 4537 a *Olea europaea* L. - olive. USA 1961. From NCPPB 1342 ← E.E. Wilson 07.
- 4990 a *Olea europaea* L. - olive. Italy 1969. From NCPPB 2327 ← G.L. Ercolani 206.
- 4998 *Olea europaea* L. - olive. France 1967. From NCPPB 2780 ← CFBP 1020 ← F. Eskandari OL-NICE1.
- 12032 *Olea europaea* L. - olive. Algeria 1977. From CFBP 2070 ← L. Gardan KC2-1.

Pseudomonas solanacearum (Smith 1896) Smith 1914
see *Burkholderia solanacearum*.

***Pseudomonas* sp.**

- 12799 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 1 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12800 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 2 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12801 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 3 - produces toxin to fungi -

- LOPAT II - *kiwifruit flower buds (Hu).
- 12802 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 4 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12803 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 5 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12804 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 6 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12805 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 7 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12806 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 9 - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12807 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 10 - produces toxin to fungi - LOPAT II - *kiwifruit flower bud (Hu).
- 12808 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 11 - produces toxin to fungi - LOPAT II - *kiwifruit flower bud (Hu).
- 12809 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1994. From F.-P. Hu 12 - produces toxin to fungi - LOPAT II - *kiwifruit flower bud (Hu).
- 12810 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 13 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower bud (Hu).
- 12811 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 15 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12812 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 16 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12813 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 17 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12814 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 18 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12815 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 19 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12816 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 20 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12817 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China Apr 1995. From F.-P. Hu 21 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12818 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - leaves. China Jun 1995. From F.-P. Hu 22 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12819 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - leaves. China Jun 1995. From F.-P. Hu 23 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12820 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - leaves. China Jun 1995. From F.-P. Hu 24 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12821 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - leaves. China Jun 1995. From F.-P. Hu 25 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12822 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 26 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12823 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 27 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12824 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 28 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12825 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 29 ← D.H. Fang - does not produce toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12826 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 32 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12827 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 33 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12828 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 34 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12829 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - petals, stamens. China May 1995. From F.-P. Hu 35 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 12830 b* *Actinidia chinensis* Planch. - mihoutao, Chinese gooseberry - leaves. China Jun 1995. From F.-P. Hu 36 ← D.H. Fang - produces toxin to fungi - LOPAT II - *kiwifruit flower buds (Hu).
- 3272 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - necrotic flower bud. Riverhead, AK, NZ Nov 1971. From J.P. Wilkie (nee Bodley) A1210 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *bean, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 3273 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - necrotic flower bud. Oratia, AK, NZ Nov 1971. From J.P. Wilkie (nee Bodley) C1192 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *bean, cucumber, kiwifruit, passionfruit, peach, tomato.
- 3633 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - red-brown necrosis of petals, stamens. Te Puke, BP, NZ Nov 1969. From D.R.W. Watson V145 ← D.R.W. Watson K669 - one of 2 colony forms - not same as 3632 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7100 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - dormant vegetative bud. Te Puke, BP, NZ Feb 1980. From J.M. Young 2706B1 - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7103 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - wash from unblemished leaves. Te Puke, BP, NZ Mar 1980. From J.M. Young 2717A1 - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7123 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - dormant vegetative bud, epiphytic association. Te Puke, BP, NZ Jul 1980. From J.M. Young 2797A1 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7208 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - early season dormant vegetative bud, epiphytic association. Te Puke, BP, NZ Feb 1980. From J.M. Young 2704A - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7211 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - wash from healthy leaves. Te Puke, BP, NZ Apr 1981. From J.M. Young 2922A - rec. as *P. viridiflava* - LOPAT II.
- 7213 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - epiphytic association on leaves. Te Puke, BP, NZ Apr 1981. From J.M. Young 2921A - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 7215 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - dark angular leafspot with chlorotic halo. Te Puke, BP, NZ Nov 1980. From J.M. Young 2826A - rec. as *P. viridiflava* - LOPAT II.
- 7216 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - healthy floral bud. Te Puke, BP, NZ Nov 1980. From J.M. Young T5 - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 8751 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - wash from leaves. Riwaka, NN, NZ Jul 1984. From J.M. Young 3384B3 - rec. as *P. viridiflava* - LOPAT II - ice nucleation +ve.
- 8936 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Nov 1984. From R. Herd D3408 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *kiwifruit.
- 8937 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Nov 1984. From R. Herd A3409 - toxin +ve - rec. as *P. viridiflava* -

- LOPAT II.
- 8946 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - anther. Te Puke, BP, NZ 1984. From R. Herd H3419 - LOPAT II.
- 8950 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - leafspot. Riwaka, NN, NZ May 1984. From J.M. Young 3377DA1 - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 8952 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - wash from unblemished leaf. Te Puke, BP, NZ May 1984. From J.M. Young 3378PA3 - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 8953 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - wash from unblemished leaf. Te Puke, BP, NZ May 1984. From J.M. Young 3378PA4 - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 8954 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Jul 1984. From J.M. Young 3381-3 - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 8956 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - wash from unblemished leaves. Riwaka, NN, NZ Jul 1984. From J.M. Young 3382(3) - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 8957 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - wash from leaves. Riwaka, NN, NZ Jul 1984. From J.M. Young 3384RM1 - ice nucleation +ve - rec. as *P. viridiflava* - LOPAT II.
- 11169 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - anther. Riwaka, NN, NZ Dec 1991. From J.M. Young 3855C2 - rec. as LOPAT Ia - 92% DNA-DNA homology with ICMP 8937 - LOPAT Ia.
- 11170 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3854D1KKD1 - toxin +ve - rec. as *P. viridiflava* - LOPAT II.
- 11172 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Dec 1991. From J.M. Young 3859A2 - toxin +ve - rec. as *P. viridiflava* - LOPAT II.
- 11296 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - stamens. Kumeu, AK, NZ Nov 1991. From K.R. Everett 11 - rec. as *P. viridiflava* - LOPAT II - *kiwifruit (Everett).
- 11297 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds. Kumeu, AK, NZ Nov 1991. From K.R. Everett 357 - toxin +ve - rec. as *P. viridiflava* - LOPAT II - *kiwifruit (Everett).
- 12378 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - rotted bud. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3916A - toxin +ve - LOPAT II.
- 12379 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - chlorotic angular leafspot. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3918A - toxin +ve - LOPAT II.
- 12380 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - rotted bud. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3919A - toxin +ve - LOPAT II.
- 12381 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - angular leafspot with chlorotic halo. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3921A - non-fluorescent -toxin +ve - LOPAT II.
- 12382 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - brown anthers of open flower. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3923A - toxin +ve - LOPAT II.
- 12383 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - angular leafspots with chlorotic halo. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3924A - toxin +ve - LOPAT II.
- 12384 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - rotted bud. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3925E - toxin +ve - LOPAT II.
- 12385 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - brown anthers of open flower. Te Puke Research Orchard, BP, NZ Dec 1994. From J.M. Young 3928B - toxin +ve - LOPAT (+) - + - +.
- 12386 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - angular leafspot with chlorotic halo. NZ Dec 1994. From J.M. Young 3929B - toxin +ve - LOPAT II.
- 12387 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - angular leafspot with chlorotic halo. Katikati, BP, NZ Dec 1994. From J.M. Young 3931A - toxin +ve - LOPAT II.
- 12388 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - rotted anthers of open flower. Te Puke, BP, NZ Dec 1994. From J.M. Young 3934D - toxin +ve - LOPAT II.
- 12389 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - rotted bud. Te Puke, BP, NZ Dec 1994. From J.M. Young 3935F - toxin +ve - LOPAT II.
- 12390 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - angular leafspot with chlorotic halo. Te Puna, BP, NZ Dec 1994. From J.M. Young 3941A - toxin +ve - LOPAT II.
- 12445 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - leafspot. Te Puke, BP, NZ Dec 1994. From J.M. Young 3921C - LOPAT - - + . + ; pectolytic, syringomycin +.
- 10191 *Actinidia* sp. - mihoutao, Chinese gooseberry - discolored stamens of female flower. China May 1989. From D.R.W. Watson C22 - acid from sucrose; toxin +ve - LOPAT II.
- 2442 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - blotch on cap. Mt Albert, AK, NZ Nov 1968. From D.R.W. Watson A301 - LOPAT - + (+) - - ; pectate gel +ve.
- 2837 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1957. From D.W. Dye ND4 ← NCPPB 387 ← I.F. Storey = ATCC 14340: ICMP PT109: NCTC 387 - white line reaction +ve with *P. tolaasii* - rec. as *P. tolaasii* - LOPAT Vb - avirulent to mushroom.
- 2840 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1962. From D.W. Dye ND7 ← NCPPB 1311 ← G.E. Jones 341 - white line reaction +ve with *P. tolaasii* - LOPAT Vb - avirulent to mushroom.
- 6552 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1968. From NCPPB 2193 ← D.S. Gandy B196 - white line reaction +ve with *P. tolaasii* - LOPAT Vb.
- 6948 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - no symptom. USA Feb 1978. From B. Myers PSU101 ← D.J. Rouse - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii* - LOPAT Vb.
- 6953 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - browning of cap. From J.M. Young 2587(a) - white line reaction +ve with *P. tolaasii* - LOPAT Vb.
- 6954 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - browning of cap. From J.M. Young 2587-3 - white line reaction +ve with *P. tolaasii* - LOPAT Vb.
- 6956 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK. From J.M. Young ← W.C. Wong 113w - white line reaction +ve with *P. tolaasii* - rec. as *P. reactans* - LOPAT V.
- 6957 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - blotched cap. USA Feb 1979. From B. Myers PSU122 - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii*.
- 6958 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap showing golden blotch. USA Nov 1979. From B. Myers PSU143A - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii*.
- 6959 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK. From J.M. Young ← W.C. Wong 168w - white line reaction +ve with *P. tolaasii* - rec. as *P. reactans* - LOPAT V.
- 6962 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. From J.M. Young 2291WL ← ICMP 2291 ← D.S. Gandy B26 - single colony selection of *P. tolaasii* ICMP 2291 - white line reaction +ve with *P. tolaasii* - LOPAT Vb.
- 8872 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1981. From NCPPB 3146 ← T.F. Preece 926 - J. Appl. Bact. 52: 43-48, 1982 - rec. as *P. gingeri* (invalid name) - LOPAT Va.
- 8873 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. From NCPPB 3149 ← T.F. Preece 113 - J. Appl. Bact. 47: 401-407, 1979 - white line reaction +ve with *P. tolaasii* - rec. as *P. reactans* - LOPAT Va (NCPPB) - avirulent to mushroom (Wong).
- 9522 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - ooze from gill constriction. North Is., NZ. From P.B. Rainey PMS-PV29 - LOPAT - + + - -.
- 7356 *Allium cepa* L. - onion cv. Pukekohe Longkeeper - leafspot. Puni, AK, NZ Dec 1980. From D.R.W. Watson B2841 - LOPAT - - - - -.
- 9377 *Allium sativum* L. - garlic. Brasil Sep 1985. From IBSBF 536 ← J.R. Neto AA1 - non-fluorescent.
- 9378 *Allium sativum* L. - garlic. Brasil Sep 1985. From IBSBF 538 ← J.R. Neto AA2 - non-fluorescent.

- 9379 *Allium sativum* L. - garlic. Brasil Sep 1985. From IBSBF 539 ← J.R. Neto AA3 - non-fluorescent.
- 9380 *Allium sativum* L. - garlic. Brasil Sep 1985. From IBSBF 540 ← J.R. Neto AA4 - non-fluorescent.
- 9381 *Allium sativum* L. - garlic. Brasil Sep 1985. From IBSBF 552 ← J.R. Neto AA5 - non-fluorescent.
- 3641 *Berberis thunbergii* DC. - barberry. USA 1933. From C.N. Hale 1655 ← NCPPB 2150 ← F.M. Clara G35 = ICPB PB1 - rec. as *P. syringae* pv. *berberidis*.
- 3639 *Berberis vulgaris* L. - barberry cv. *Atropurpurea*. UK 1967. From C.N. Hale 1653 ← NCPPB 2014 ← E. Forsyth - rec. as *P. syringae* pv. *berberidis*.
- 7481 *Centrosema* sp. Colombia. From J. Lenne C31 - LOPAT + - - - -.
- 7482 *Centrosema* sp. Colombia. From J. Lenne C32 - LOPAT + - - - -.
- 4707 *Crataegus monogyna* Jacq. - hawthorn - epiphyte on healthy plant. France. From J.P. Paulin B1035 - LOPAT - - - - -.
- 4709 *Crataegus monogyna* Jacq. - hawthorn - epiphyte on healthy plant. France. From J.P. Paulin B1096 - non-fluorescent - LOPAT - - - - -.
- 11159 *Cucumis melo* L. - melon - olive watersoaked fruit spots. Gisborne, GB, NZ Mar 1992. From J.M. Young 3893A.
- 11160 *Cucumis melo* L. - melon - olive water-soaked spots on fruit. Gisborne, GB, NZ Mar 1992. From J.M. Young 3893B.
- 12356 *Cucumis melo* L. - melon - wilt and stem rot. Yugoslavia 1989. From M. Arsenijevic Di3 - LOPAT - + - + + ; (Arsenijevic).
- 12357 *Cucumis melo* L. - melon - wilt and stem rot. Yugoslavia 1989. From M. Arsenijevic Di6 - LOPAT - + - + + ; (Arsenijevic).
- 12358 *Cucumis melo* L. - melon - wilt and stem rot. Yugoslavia 1989. From M. Arsenijevic Di12 - LOPAT - + - + + ; (Arsenijevic).
- 11519 *Delphinium elatum* L. - candle larkspur - blackened stems, leaves. Pukekohe, AK, NZ. From J.M. Young 3901A - LOPAT - - - - -.
- 11520 *Delphinium elatum* L. - candle larkspur - blackened stems, leaves. Pukekohe, AK, NZ Dec 1992. From J.M. Young 3901E - LOPAT - - - - -.
- 12136 *Euonymus* sp. - papery brown leaf blotches with watersoaked edges. Ashburton, MC, NZ Nov 1993. From J.M. Young AA4a - LOPAT Ia - fluorescent.
- 8948 a? *Ficus palmata* Forsk. - wild fig - leafspot, blight. India. From ITCC ← J.C. Durgapal - Ind. Phytopath. 33: 533-535, 1980 - rec. as pathotype strain of *P. syringae* pv. *fici* - LOPAT - + - - -.
- 12144 *Geranium traversii* Hook.f. - brown (1-2mm) leafspots and browning developing along veins. Motukarara, MC, NZ Nov 1993. From J.M. Young LL9a - LOPAT non-fluorescent.
- 12146 *Geranium traversii* Hook.f. - brown (1-2mm) leafspots and browning developing along veins. Motukarara, MC, NZ Nov 1993. From J.M. Young LL9d - LOPAT non-fluorescent.
- 9382 *Gladiolus* sp. Brasil Mar 1987. From IBSBF 604 ← J.R. Neto GL3 - LOPAT Ib.
- 9383 *Gladiolus* sp. Brasil Mar 1987. From IBSBF 605 ← J.R. Neto GL1 - LOPAT Ib.
- 9384 *Gladiolus* sp. Brasil Mar 1987. From IBSBF 606 ← J.R. Neto GL2 - LOPAT Ib.
- 855 b *Glycine max* (L.) Merr. - soybean. USA 1951. From N.L. Baigent PE7 ← ICPB PG102 ← W.H. Burkholder PG2 = NCPPB 1883: NRRL B791: ATCC 8727 - rec. as *P. syringae* pv. *glycinea* - LOPAT - - - - -.
- 867 b *Glycine max* (L.) Merr. - soybean. USA 1962. From N.L. Baigent PE5 ← ICPB PG7 ← M.P. Starr PG7 = NCPPB 2070 - rec. as *P. syringae* pv. *glycinea* - LOPAT - - - - -.
- 2394 *Glycine max* (L.) Merr. - soybean - angular leaf lesion. Helensville, AK, NZ May 1968. From D.R.W. Watson B179 - LOPAT - + - - -.
- 9313 b *Hibiscus rosa-sinensis* L. - Chinese hibiscus - leaf. USA Mar 1984. From J.B. Jones PSH1 - Pl. Dis. 5: 441-443, 1986 - rec. as pathotype strain of *P. syringae* pv. *hibisci* - LOPAT - . + - ; pectate gel +ve.
- 8888 *Hosta plantaginea* (Lam.) Asch. - fragrant plantain lily. China. From X.Z. Ren Hp2 - LOPAT - - - - -.
- 8909 *Hosta plantaginea* (Lam.) Asch. - fragrant plantain lily. China. From X.Z. Ren Hp4 - LOPAT - - - - -.
- 8911 *Hosta plantaginea* (Lam.) Asch. - fragrant plantain lily. China. From X.Z. Ren Hp6 - LOPAT - - - - -.
- 8913 *Hosta plantaginea* (Lam.) Asch. - fragrant plantain lily. China. From X.Z. Ren Hp8 - LOPAT - - - - -.
- 8915 *Hosta plantaginea* (Lam.) Asch. - fragrant plantain lily. China. From X.Z. Ren Hp10 - LOPAT - - - - -.
- 3971 *Lactuca sativa* L. - lettuce - rot. USA. From D.W. Dye PJ4 ← NCPPB 1963 ← N.A. Brown = ATCC 512 - rec. as cotype strain of *P. viridilivida* - LOPAT - - - - -.
- 10198 *Luffa aegyptiaca* Mill. - leaf. India. From M. Prasad.
- 10199 *Luffa aegyptiaca* Mill. - leaf. India. From M. Prasad.
- 6714 *Lycopersicon esculentum* Mill. - tomato cv. *Elvira* - stem necrosis. Whangarei, ND, NZ Jun 1979. From D.R.W. Watson B2573 - rec. as *P. viridiflava* - LOPAT - + - - -.
- 9858 * *Lycopersicon esculentum* Mill. - tomato cv. *Dumbito* - necrosis of stem nodes extending to internodes & leaf rachis. Canada May 1984. From B.N. Dhanvantari TSN09 - LOPAT + + - - - ; (Dhanvantari) - *tomato (Dhanvantari).
- 9859 * *Lycopersicon esculentum* Mill. - tomato cv. *Laura* - necrosis of stem nodes extending to leaf rachis. Canada May 1984. From B.N. Dhanvantari TSN14 - LOPAT + + - - - ; (Dhanvantari) - *tomato (Dhanvantari).
- 9860 * *Lycopersicon esculentum* Mill. - tomato cv. *Jumbo* - necrosis of stem nodes, internodes & leaf rachis. Canada May 1984. From B.N. Dhanvantari TSN16 - LOPAT + + - - - ; (Dhanvantari) - *tomato (Dhanvantari).
- 10136 *Lycopersicon esculentum* Mill. - tomato. Brazil. From IBSBF 708 ← J.R. Neto - LOPAT Va.
- 12343 *Lycopersicon esculentum* Mill. - tomato - wilt and stem rot. Yugoslavia 1989. From M. Arsenijevic Pt127 - LOPAT + - - + + ; (Arsenijevic).
- 12344 *Lycopersicon esculentum* Mill. - tomato - wilt and stem rot. Yugoslavia 1989. From M. Arsenijevic Pt129 - LOPAT + - - + + ; (Arsenijevic).
- 2132 *Magnolia* sp. - leaf lesion. Auckland, AK, NZ Dec 1967. From D.R.W. Watson A30 - rec. as *P. syringae*.
- 12372 *Magnolia* sp. - angular leafspot. Mt Albert, AK, NZ May 1995. From J.M. Young A3945.
- 12377 *Magnolia* sp. - angular leafspot. Mt Albert, AK, NZ May 1995. From J.M. Young B3945.
- 12404 *Magnolia* sp. - angular leafspot. Mt Albert, AK, NZ May 1995. From J.M. Young D3945.
- 4706 *Malus X domestica* Borkh. - apple - epiphyte on healthy plant. France. From J.P. Paulin B944 - non-fluorescent - LOPAT - - - - -.
- 4710 *Malus X domestica* Borkh. - apple - epiphyte on healthy plant. France. From J.P. Paulin B853 - non-fluorescent - LOPAT - - - - -.
- 11526 *Malus X domestica* Borkh. - apple. NZ. From K. Knight 422 PR2 - LOPAT + - - - - .
- 11527 *Malus X domestica* Borkh. - apple. NZ. From K. Knight 422 BS8 - LOPAT + - - - - .
- 11528 *Malus X domestica* Borkh. - apple. NZ. From K. Knight 422 BS4 - LOPAT + - - - - .
- 11529 *Malus X domestica* Borkh. - apple. NZ. From K. Knight 418-3 - fluorescent; LOPAT - - - - - .
- 10000 *Musa* sp. - banana. Indonesia. From S.J. Eden-Green T334.
- 10001 *Musa* sp. - banana. Indonesia. From S.J. Eden-Green T389.
- 10002 *Musa* sp. - banana. Indonesia. From S.J. Eden-Green T394.
- 10003 *Musa* sp. - banana. Indonesia. From S.J. Eden-Green T440.
- 11143 *Musa* sp. - banana. Micronesia 1992. From J.M. Young BAN2.
- 11144 *Musa* sp. - banana. Micronesia 1992. From J.M. Young BAN3.
- 11145 *Musa* sp. - banana. Micronesia 1992. From J.M. Young BAN5.
- 11146 *Musa* sp. - banana. Micronesia 1992. From J.M. Young BAN6.
- 11147 *Musa* sp. - banana. Micronesia 1992. From J.M. Young BAN7.
- 11148 *Musa* sp. - banana. Micronesia 1992. From J.M. Young K2.
- 11149 *Musa* sp. - banana. Micronesia 1992. From J.M. Young K3.
- 11150 *Musa* sp. - banana. Micronesia 1992. From J.M. Young K6.
- 11151 *Musa* sp. - banana. Micronesia 1992. From J.M. Young K7.
- 11152 *Musa* sp. - banana. Micronesia 1992. From J.M. Young YH5B.
- 790 a *Nerium oleander* L. - oleander - stem gall. Nelson, NN, NZ 1955. From D.W. Dye PC1 = NCPPB 2682 - rec. as *P. savastanoi* - LOPAT V.
- 4925 *Nerium oleander* L. - oleander. USA 1969. From NCPPB 2809 ← M.N. Schroth OB2 - LOPAT - - . - + ; pectate gel +ve.
- 8424 *Nerium* sp. - leafspot. Titirangi, AK, NZ Oct 1983. From C.F. Hill AS2586 - LOPAT + - - - -.
- 794 b *Nicotiana tabacum* L. - tobacco - leaf. Czechoslovakia. From D.W. Dye PH1 ← M. Kocur BS429 - LOPAT V - avirulent to tobacco.
- 12178 *Olearia traversii* (F. Muell.) Hook.f. - akeake - black leafspot (4-5mm) with chlorosis and grey centre. Harewood, MC, NZ Nov 1993. From J.M. Young WW7a - LOPAT - - . - . ; fluorescent.

- 2885 *Passiflora edulis* Sims - passionfruit - angular papery leaf lesion. NZ Nov 1970. From J.P. Wilkie (nee Bodley) A1037 - LOPAT - - - - .
- 5783 *Passiflora edulis* Sims - passionfruit. NZ Aug 1954. From R.C. Luketina 372N1 ← ICMP 372 ← D.W. Dye P157 - pectolytic strain - rec. as *P. viridiflava* - LOPAT - - (+) - - .
- 4004 *Phaseolus vulgaris* L. - bean cv. Canadian Wonder - pod. UK 1933. From D.W. Dye PJ5 ← ICPB PV102 ← W.J. Dowson 53 = NCPPB 3255 - rec. as *P. viridilivida*.
- 405 *Pisum sativum* L. - pea. WA, NZ Oct 1962. From N.L. Baigent PN2 - rec. as *P. syringae* pv. *pisi* - avirulent to pea.
- 10139 *Pisum sativum* L. - pea. Brazil. From IBSBF 714 ← C.F. Robbs - rec. as *P. syringae* pv. *syringae* - LOPAT Va.
- 10140 *Pisum sativum* L. - pea. Brazil. From IBSBF 715 ← C.F. Robbs - rec. as *P. syringae* pv. *syringae* - LOPAT Va.
- 3958 *Primula obconica* Hance. France 1962. From D.W. Dye MQ3 ← NCPPB 1619 ← M. Lematire IA62 - rec. as *P. syringae* pv. *primulae* - LOPAT + - - + - .
- 561 *Prunus avium* (L.) L. - wild cherry. From N.L. Baigent PL92 ← ICPB PM147 ← H. Stolp 338 - rec. as *P. syringae* pv. *morsprunorum* - LOPAT - + - - - .
- 559 *Prunus domestica* L. - plum cv. Zwetshe. Germany. From N.L. Baigent PL90 ← ICPB PM144 ← H. Stolp - rec. as *P. syringae* pv. *morsprunorum*.
- 460 *Prunus persica* (L.) Batsch - peach cv. Hale Haven - stem canker. Governors Bay, MC, NZ Nov 1962. From N.L. Baigent PS544 - rec. as *P. syringae* - LOPAT - + + - - .
- 564 *Prunus persica* (L.) Batsch - peach. UK. From D.W. Dye PL81 ← W.J. Dowson 172 - rec. as *P. morsprunorum* - not LOPAT la.
- 8385 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - marginal necrosis of leaf following frost - oily necrosis - distinct margin. NZ Sep 1982. From J.M. Young 3105B - rough fluorescent colonies - oxidase +ve.
- 8407 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit. NZ. From I.C. Harvey C4038.
- 4708 *Pyrus communis* L. - pear - epiphyte on healthy plant. France. From J.P. Paulin B1136 - non-fluorescent - LOPAT - - - - - .
- 9742 *Pyrus communis* L. - pear cv. Packham - flower. NZ Oct 1984. From S.V. Thomson 67 - antagonistic to *Erwinia amylovora*.
- 9562 * *Saccharum officinarum* L. - sugarcane - spindle rot of leaves. India Aug 1987. From D.G. Hapase 2 ← A.S. Patil - *sugarcane (Patil).
- 4928 *Salix* sp. - willow. NZ 1968. From NCPPB 2746 ← D.R.W. Watson A52 - rec. as *P. syringae* pv. *syringae* - LOPAT - - - - - .
- 12349 *Solanum nigrum* L. - black nightshade - leaf blight. Yugoslavia 1992. From M. Arsenijevic Po1 - rec. as *P. viridiflava-like* - LOPAT + - - + - ; (Arsenijevic).
- 12350 *Solanum nigrum* L. - black nightshade - leaf blight. Yugoslavia 1992. From M. Arsenijevic Po3 - rec. as *P. viridiflava-like* - LOPAT + - - + - ; (Arsenijevic).
- 2428 *Solanum tuberosum* L. - potato - discoloured vein from stem rot. Gisborne, GB, NZ Nov 1968. From D.R.W. Watson C307 - non-fluorescent - LOPAT - - - - - .
- 10006 *Syzygium aqueum* (Burm.f.) Alston - water rose-apple. Indonesia 1987. From S.J. Eden-Green T298.
- 12373 *Vitex lucens* Kirk - puriri - irregular brown leaf lesions. Omahanui, Tauranga, BP, NZ Jan 1995. From J.M. Young 3943B.
- 12376 *Vitex lucens* Kirk - puriri - irregular brown leaf lesions. Omahanui, Tauranga, BP, NZ Jan 1995. From J.M. Young 3943E.
- 4858 *Vitis vinifera* L. - grape. UK 1974. From NCPPB 2667 ← M. Bateson 1097-1 - LOPAT - - - - - .
- 12170 *Weinmannia racemosa* L.f. - kamahi - irregular shaped chocolate brown leaf lesions. Taupo, TO, NZ Dec 1993. From J.M. Young TT2a - LOPAT (+)-.-.; fluorescent.
- 12173 *Weinmannia racemosa* L.f. - kamahi - irregular chocolate brown (1-1.5mm dia.) leafspots. Taupo, TO, NZ Nov 1993. From J.M. Young TT2d - LOPAT - - .-.-.; fluorescent.
- 7395 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson C2859 - LOPAT - + - - - .
- 7397 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson C2860 - LOPAT - + - - - .
- 7398 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson D2861 - LOPAT - - - - - .
- 7399 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson E2861 - non-fluorescent - LOPAT - + - - - .
- 7401 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson A2863 - LOPAT - + - - - .
- 7403 *Zea mays* L. - maize - top rot. Pukekohe, AK, NZ Jan 1981. From D.R.W. Watson AA2863 - LOPAT - - - - - .
- 12355 ? *Zea mays* L. var. *rugosa* Bonaf. - sweetcorn - wilt and stem rot. Yugoslavia 1990. From M. Arsenijevic K109 - fluorescent on King's medium B (Fletcher) - rec. as *Erwinia chrysanthemi*.
- 140 Canada. From D.W. Dye PF1 ← M. Kocur BS397 ← W.A.F. Hagborg 3003 - LOPAT + - - - - ; avirulent to oat.
- 558 UK. From N.L. Baigent PL89 ← ICPB PM145 ← J.E. Crosse - rec. as *P. morsprunorum* - LOPAT - - - - - .
- 4937 From R.E. Mitchell 4937 ← R.D. Durbin BR(2)WS R76 - produces tabtoxin - LOPAT + - (+/-) - + ; pectate gel +ve.
- 5335 Soil. Australia 1970. From N.G. Nair DAR26768 ← P.C. Fahy - LOPAT - + - - - .
- 6949 USA 1979. From B. Myers PSU113A - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii* - avirulent to mushroom.
- 6950 Ground soybean mushroom compost supplement. USA 1979. From B. Myers PSU113B - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii*.
- 6951 USA 1979. From B. Myers PSU113C - white line reaction -ve with ICMP 6956 - rec. as *P. tolaasii* - avirulent to mushroom.
- 6952 Soil (casing under blotched mushroom). USA Feb 1979. From B. Myers PSU118 - rec. as *P. tolaasii*.
- 12470 Hydrocarbon-contaminated soil. From J. Aislabie CB3.
- 12560 Lake water. Canada. From J. Aislabie HL7B ← J. Foght - unstable strain; probably no longer able to metabolise PAHs.
- 12602 PCB-contaminated soil. UK (Wales). From G. Lloyd-Jones CB406 (G17) - Appl. Env. Microbiol. 60: 691-696, 1994 - utilises biphenyl as a sole source of carbon.
- 12603 PCB-contaminated site. From G. Lloyd-Jones LB400 (G14) ← F.J. Mondello LB400 ← H. Finkbeiner - J. Bact. 171: 1733-1735, 1989 - utilises biphenyl as sole carbon source - imported strain.
- 12604 Garden soil. UK (Wales). From G. Lloyd-Jones IC (Y1) - Microbiol. 140: 499-508, 1994 - utilises biphenyl as sole carbon source.

Pseudomonas stutzeri (Lehmann & Neumann 1896) Sijderius 1946

- 12561 Human spinal fluid. From J. Aislabie ← NZCDC 2007 = ATCC 17588: NCIB 11358 - **Type strain.**

Pseudomonas syringae van Hall 1902

Pseudomonas syringae as it is presently circumscribed contains seven genomic groups which may be considered to represent species. Isolates received as *Pseudomonas* sp., as *P. syringae*, or as pathovars of *P. syringae*, which have the determinative biochemical characters of *P. syringae* pv. *syringae* (shown below as 'syringae group'), but which were isolated from hosts from which strains pathogenic to lilac have not been isolated, are included in *P. syringae*.

- 9497 a *Acer rubrum* L. - maple. USA. From C.L. Bender Ps61 ← L. Moore UCRDAL 078229 - J. Bact. 165: 534-541 - rec. as non-toxicogenic strain of *P. syringae* pv. *syringae* - resistant to rifampicin (50ug/ml) and chloramphenicol (50ug/ml).
- 9498 a *Acer rubrum* L. - maple. From C.L. Bender Ps61(pPT23ATn5) - laboratory derived selection - contains pPT23A to make coronatine - rec. as *P. syringae* pv. *syringae*.
- 9001 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Chico-Hayward - cane. USA 1982. From C.M. Lai 1652-4A - Pl. Dis. 67: 1283-4, 1983 - LOPAT la - syringae group.
- 9002 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Chico-Hayward - cane. USA 1982. From C.M. Lai 1997A - Pl. Dis. 67: 1283-4, 1983 - LOPAT la - syringae group.
- 11164 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - infected anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3854E1 - >80% DNA-DNA homology with *P. syringae* pv. *tomato* CFBP 2212 - non-fluorescent - LOPAT la.
- 11165 b *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - infected anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3854KKD2 - >80% DNA-DNA homology with *P. syringae* pv. *tomato* CFBP 2212 - non-fluorescent - LOPAT la.
- 11166 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - infected anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3854C1KKC1 - non-fluorescent - LOPAT la.
- 11167 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - infected anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3854A1KKA1 - non-fluorescent - LOPAT la.
- 11168 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - anther. Katikati, BP, NZ Dec 1991. From J.M. Young 3857A2 - non-fluorescent - LOPAT la.
- 11292 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds. NZ Nov 1991. From K.R. Everett 112 - LOPAT 1a.

- 11293 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds. Kumeu, AK, NZ Nov 1991. From K.R. Everett 301 - LOPAT lb.
- 11294 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - buds, flowers and fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 633 - LOPAT la.
- 11295 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruitlets. Kumeu, AK, NZ Dec 1991. From K.R. Everett 816 - LOPAT lb.
- 3414 a *Allium cepa* L. - onion - leaf. Japan. From M. Goto = NCPPB 2737 - toxin +ve - LOPAT la.
- 3413 a *Allium porrum* L. - leek - flower stem. Blenheim, MB, NZ Nov 1971. From C.N. Hale 1206 = NCPPB 2692 - LOPAT la.
- 3642 *Allium porrum* L. - leek - stem. UK 1949. From C.N. Hale 1652 = NCPPB 268 = W.J. Dowson - LOPAT la.
- 3643 a* *Allium porrum* L. - leek - leaf. Pukekohe, AK, NZ Sep 1973. From C.N. Hale 1626 = NCPPB 2694 - LOPAT la - *onion (NCPPB).
- 3644 a* *Allium porrum* L. - leek - leaf. Pukekohe, AK, NZ Sep 1973. From C.N. Hale 1629 = NCPPB 2693 - fuscous strain - LOPAT la - *onion (NCPPB).
- 4012 a* *Allium porrum* L. - leek - leaf. Pukekohe, AK, NZ Jul 1974. From C.N. Hale 1825 - LOPAT la - *leek.
- 6689 a *Allium porrum* L. - leek - pale brown stripe extending up from base of leaf sheath. Auckland, AK, NZ May 1979. From D.R.W. Watson B2559 - produces pale pink pigment on GYCA - LOPAT la.
- 8960 a *Allium porrum* L. - leek. France 1965. From CFBP 752 = J.P. Prunier - rec. as *P. syringae* pv. *porri* - LOPAT la.
- 8961 a *Allium porrum* L. - leek. France 1978. From CFBP 1908 = R. Samson 1063-4 = NCPPB 3364 - rec. as pathotype strain of *P. syringae* pv. *porri* - LOPAT la.
- 8962 a *Allium porrum* L. - leek. France 1975. From CFBP 1911 = F. Poutier 352-1 - rec. as *P. syringae* pv. *porri* - LOPAT la.
- 8963 a *Allium porrum* L. - leek. France 1979. From CFBP 1912 = R. Samson 1355-2 - fuscous strain - rec. as *P. syringae* pv. *porri* - LOPAT la.
- 8964 a *Allium porrum* L. - leek. France 1980. From CFBP 2360 = R. Samson 1448-1 - rec. as *P. syringae* pv. *porri* - LOPAT la.
- 8965 a *Allium porrum* L. - leek. France 1981. From CFBP 2366 = J.F. Chauveau D624 - rec. as *P. syringae* pv. *porri* - LOPAT la.
- 7391 *Avena sativa* L. - oat cv. Omihia - leaf blotch without halo. Waikato, WO, NZ Jan 1981. From D.R.W. Watson A2856 - toxin +ve - LOPAT la - syringae group.
- 7409 b *Avena sativa* L. - oat - leaf blotch without halo. Waikato, WO, NZ Jan 1981. From D.R.W. Watson A2867 - toxin +ve - LOPAT la.
- 7411 b *Avena sativa* L. - oat - leaf blotch. Waikato, WO, NZ Jan 1981. From D.R.W. Watson A2868 - LOPAT la - syringae group.
- 2414 a* *Betula pendula* Roth - silver birch - leaf. Auckland, AK, NZ Nov 1968. From D.R.W. Watson A297 = NCPPB 2732 - LOPAT la - *peach.
- 5049 b* *Brassica napus* L. - rape. Canada 1973. From NCPPB 2670 = A.W. Henry OS73-9BII SC - rec. as *Pseudomonas* sp. - LOPAT la - syringae group - *rape (NCPPB).
- 9916 *Brassica napus* L. - rape. Australia 1980. From NCPPB 3208 = J.F. Bradbury B8516 = J.A. Wong 822b/80B - LOPAT la.
- 11739 *Broussonetia papyrifera* (L.) Venten. - paper mulberry. China. From X.Z. Ren = Q. Huang PB2.
- 11740 *Broussonetia papyrifera* (L.) Venten. - paper mulberry. China. From X.Z. Ren = Q. Huang Pb6.
- 11807 *Broussonetia papyrifera* (L.) Venten. - paper mulberry. China. From X.Z. Ren = Q. Huang Pb7.
- 11808 *Broussonetia papyrifera* (L.) Venten. - paper mulberry. China. From X.Z. Ren = Q. Huang Pb9.
- 3284 b *Callistemon viminalis* (Soland. ex Gaertn.) Cheel. - weeping bottlebrush cv. Captain Cook - leafspot. Titirangi, AK, NZ Jul 1972. From J.P. Wilkie (nee Bodley) P205 = J.P. Wilkie (nee Bodley) A1317 = NCPPB 2733 - LOPAT la.
- 3313 b *Callistemon viminalis* (Soland. ex Gaertn.) Cheel. - weeping bottlebrush cv. Captain Cook - leaf. Titirangi, AK, NZ Jul 1972. From J.P. Wilkie (nee Bodley) P206 = NCPPB 2734 - LOPAT la - syringae group.
- 5099 *Callistemon viminalis* (Soland. ex Gaertn.) Cheel. - weeping bottlebrush cv. Captain Cook. NZ Jul 1972. From NCPPB 2734 = J.P. Wilkie (nee Bodley) P206 - LOPAT la - syringae group.
- 6450 b *Capsicum annuum* L. - sweet pepper - leaf lesion. Auckland, AK, NZ Jan 1979. From D.R.W. Watson C2503 - rec. as *Pseudomonas* sp. - LOPAT la - syringae group.
- 3892 b *Capsicum* sp. USA 1963. From D.W. Dye P298 = NCPPB 1908 = L.A. Person = ICPB PS173-92B - LOPAT la - syringae group.
- 12161 *Carmichaelia williamsii* Kirk - native broom - blackening of vascular system, (1-10cm) leaf streaks along stem. Tauranga, BP, NZ Dec 1993. From J.M. Young OO22a - LOPAT la - fluorescent.
- 12164 *Carmichaelia williamsii* Kirk - native broom - blackening of vascular system, (1-10cm) leaf streaks along stem. Tauranga, BP, NZ Dec 1993. From J.M. Young OO22d - LOPAT la non-fluorescent.
- 10202 *Carum carvi* L. - caraway. South Is., NZ. From K. Knight 23.
- 9917 *Catalpa bignonioides* Walt. - common catawba. UK 1976. From NCPPB 2893 = P. Roberts A715 - LOPAT (+) - - - -.
- 3992 a* *Cattleya* sp. - cattleya orchid. USA. From D.W. Dye NL4 = ICPB PC145 = C.M. Lai SL407 - rec. as *P. cattleyae* - LOPAT la - *orchid (ICPB).
- 12340 *Coriandrum sativum* L. - coriander - leafspot and blight. Yugoslavia 1990. From M. Arsenijevic Ko7 - LOPAT la (Arsenijevic).
- 4368 b* *Cornus mas* L. - Cornelian cherry. Germany 1974. From D.W. Dye = NCPPB 2637 = L.E. Webb DSM60483 - rec. as *Pseudomonas* sp. - LOPAT lb - syringae group - **Cornus* sp. (NCPPB).
- 4484 *Cornus mas* L. - Cornelian cherry. Germany 1974. From D.W. Dye = NCPPB 2638 = L.E. Webb = DSM 60-484 - rec. as *Pseudomonas* sp. - LOPAT lb - syringae group.
- 4377 b *Crataegus* sp. - hawthorn. UK 1961. From NCPPB 1296 = G.E. Jones 87 - LOPAT la - syringae group.
- 3401 b *Cucumis sativus* L. - cucumber. Kenya 1962. From D.W. Dye PG10 = NCPPB 1401 = A.C. Hayward B1353 - rec. as *P. lachrymans*.
- 4924 b* *Cucurbita* sp. - squash. USA 1967. From NCPPB 2803 = M.N. Schroth 5 - toxin +ve - LOPAT la - syringae group - *squash.
- 5103 b* *Cucurbita* sp. - squash. USA 1967. From NCPPB 2804 = M.N. Schroth 7 - toxin +ve - LOPAT la - *cucumber, melon, pumpkin, squash.
- 5060 b *Diospyros kaki* L.f. - Japanese persimmon. USA. From NCPPB 2806 = D.C. Hildebrand 10 = C.M. Lai 4144 - rec. as *Pseudomonas* sp. - LOPAT lb - pectate lyase +ve.
- 4930 a *Euonymus japonica* Thunb. - Japanese spindle tree. France 1974. From NCPPB 2784 = CFBP 1542 = L. Gardan E.7.2 - toxin +ve - LOPAT la.
- 3424 a* *Euphorbia pulcherrima* Willd. ex Klotsch - red poinsettia - leafspot. Mt Albert, AK, NZ Jun 1972. From D.W. Dye P202 = C.F. Hill = NCPPB 2738 - LOPAT la - syringae group - *poinsettia (Hill).
- 3425 a* *Euphorbia pulcherrima* Willd. ex Klotsch - pink poinsettia - green leafspot. Epsom, AK, NZ Jun 1972. From D.W. Dye P230 = C.F. Hill = NCPPB 2739 - LOPAT la - syringae group - *poinsettia (Hill).
- 3426 a* *Euphorbia pulcherrima* Willd. ex Klotsch - red poinsettia - lesion on green leaf. Epsom, AK, NZ Jun 1972. From D.W. Dye P204 = C.F. Hill = NCPPB 2740 - LOPAT lb - syringae group - *poinsettia.
- 4327 a* *Glycine max* (L.) Merr. - soybean. USA 1951. From NCPPB 1883 = ICPB PG102 = W.H. Burkholder PG2 = ATCC 8727: NRRL B791 - does not produce coronatine - LOPAT - - - - - *soybean.
- 9924 *Glycine max* (L.) Merr. - soybean. Kenya 1979. From NCPPB 3197 = J.F. Bradbury B7925 = E. Nthumbi b - LOPAT la.
- 5072 a *Hibiscus* sp. Australia. From NCPPB 798 = A.C. Hayward 79276 = C.J. Magee - LOPAT la - syringae group.
- 6048 b *Hoheria populinea* A. Cunn. - houhere, lacebark - scabby leafspot. NZ May 1978. From D.R.W. Watson K2420 - rec. as *Pseudomonas* sp. - toxin +ve - LOPAT la.
- 12147 *Hoheria populinea* A. Cunn. - houhere, lacebark - angular black (1-3mm) leafspots with magenta haloes. Tauranga, BP, NZ Dec 1993. From J.M. Young OO19a - LOPAT la non-fluorescent.
- 12150 *Hoheria populinea* A. Cunn. - houhere, lacebark - angular black (1-3mm) leafspots with magenta haloes. Tauranga, BP, NZ Dec 1993. From J.M. Young OO19d - LOPAT la - non-fluorescent.
- 12160 *Hoheria populinea* A. Cunn. - houhere, lacebark - angular black (1-3mm) leafspots with magenta haloes. Tauranga, BP, NZ Dec 1993. From J.M. Young OO19p - LOPAT la - non-fluorescent.
- 12174 *Hoheria populinea* A. Cunn. - houhere, lacebark - black sunken (1-2mm dia.) with magenta haloes. Taupo, TO, NZ Nov 1993. From J.M. Young T27a - LOPAT lb - fluorescent.
- 12177 *Hoheria populinea* A. Cunn. - houhere, lacebark - black sunken (1-2mm) leafspot with magenta haloes. Taupo, TO, NZ Nov 1993. From J.M. Young TT27d - LOPAT lb - fluorescent.
- 2448 b *Hordeum vulgare* L. - barley - dark brown irregular blotch on leaf blade. Lincoln, MC, NZ Jan 1969. From D.R.W. Watson A347 - rec. as *Pseudomonas* sp. - LOPAT la.
- 6445 b *Idesia polycarpa* Maxim. - leafspot with halo. Auckland, AK, NZ Jan 1979. From D.R.W. Watson A2502 - rec. as *Pseudomonas* sp. - toxin +ve - LOPAT la.

- 12008 *Ligustrum lucidum* Ait. - glossy privet. China. From X.Z. Ren Lig3 ← H.T. Yang - rec. as *P. syringae* pv. *ligustri*.
- 12009 *Ligustrum lucidum* Ait. - glossy privet. China. From X.Z. Ren Lig4 - rec. as *P. syringae* pv. *ligustri*.
- 6855 b *Lolium perenne* L. - perennial ryegrass - Puccinia graminis pustule on leaf. NZ Mar 1980. From D.R.W. Watson C2722 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 12494 *Lolium* sp. - ryegrass - seed heads. Ashburton, MC, NZ 1995. From K. Knight ← H. Pearson 2480.
- 6011 b *Lupinus* sp. - lupin - seed. USSR 1964. From I.V. Voronkevitch 8535 - rec. as *P. lupini* - LOPAT Ia - syringae group.
- 6012 b *Lupinus* sp. - lupin - seed. USSR 1963. From I.V. Voronkevitch 8533 - rec. as *P. lupini* - LOPAT Ia - syringae group.
- 6013 b *Lupinus* sp. - lupin - seed. USSR 1963. From I.V. Voronkevitch 8532 - rec. as *P. lupini* - LOPAT Ia - syringae group.
- 668 b* *Lycopersicon esculentum* Mill. - tomato. NZ Jan 1963. From N.L. Baigent T155 - LOPAT Ia - *tomato.
- 12334 *Magnolia* sp. - leafspot and blight. Yugoslavia 1991. From M. Arsenijevic Mg1 - LOPAT Ia (Arsenijevic).
- 12335 *Magnolia* sp. - leafspot and blight. Yugoslavia 1991. From M. Arsenijevic Mg3 - LOPAT Ia (Arsenijevic).
- 12336 *Magnolia* sp. - leafspot and blight. Yugoslavia 1991. From M. Arsenijevic Mg6 - LOPAT Ia (Arsenijevic).
- 7836 b *Magnolia quinquepeta* (Buc'hoz) Dandy - magnolia - large dark brown angular leaf spot - faint chlorosis. NZ Nov 1982. From C.F. Hill AS3544 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 2384 b *Magnolia* sp. - dark shrunken petal blotches. Auckland, AK, NZ Aug 1968. From D.R.W. Watson B239 - LOPAT Ib.
- 3886 b *Magnolia* sp. Netherlands 1956. From D.W. Dye P292 ← NCPPB 383 ← R.A. Lelliott - LOPAT Ia.
- 4376 b *Magnolia* sp. Netherlands 1956. From NCPPB 386 ← R.A. Lelliott - LOPAT Ia.
- 4488 b *Magnolia* sp. UK 1955. From NCPPB 385 ← R.A. Lelliott - LOPAT Ia.
- 6701 b *Magnolia* sp. - leafspot. Wellington, WN, NZ. From J.E. Sheridan WU63 - LOPAT Ia.
- 6705 b *Magnolia* sp. - dark brown angular leafspot. Wellington, WN, NZ May 1979. From D.R.W. Watson F2567 - LOPAT (+) - - - +.
- 6710 b *Magnolia* sp. - leafspot. Wellington, WN, NZ. From D.R.W. Watson M2568 ← J.E. Sheridan WU63 - LOPAT Ia.
- 8454 b *Magnolia* sp. - leafspot. Mt Albert, AK, NZ Nov 1983. From D.R.W. Watson E3315 ← C.F. Hill AS22763P - LOPAT Ia.
- 8464 b *Magnolia* sp. - leafspot. Pukekohe, AK, NZ Nov 1983. From D.R.W. Watson F3317 ← C.F. Hill AS22760P - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 8459 b *Magnolia stellata* (Sieb. & Zucc.) Maxim. - star magnolia - leafspot. Mt Albert, AK, NZ Nov 1983. From D.R.W. Watson E3316 ← C.F. Hill AS22762P - rec. as *Pseudomonas* sp. - LOPAT I - syringae group.
- 4940 b *Mahonia lomariifolia* Takeda - black angular leaf lesion with chlorotic halo. Christchurch, MC, NZ Jun 1976. From J.M. Young 2183B - rec. as *Pseudomonas* sp. - LOPAT I.
- 4944 b *Mahonia lomariifolia* Takeda - black angular leaf lesion with chlorotic halo. NZ Jul 1976. From J.M. Young 2185A - rec. as *Pseudomonas* sp. - LOPAT (+) - - - +; syringae group.
- 3417 b *Mahonia* sp. - angular leafspot. NZ Sep 1972. From J.M. Young 1333A1 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 717 b *Matthiola incana* (L.) R. Br. - stock - stem lesion. Christchurch, MC, NZ 1955. From D.W. Dye P162 - LOPAT Ia.
- 8786 b *Morus* sp. - mulberry - branch canker. China 1983. From X.Z. Ren PS9 - LOPAT (+) - - - +.
- 3547 b *Musa* sp. - small fruited banana - dark brown oval leaf lesion. Auckland, AK, NZ Aug 1969. From D.R.W. Watson B566 - LOPAT Ia - syringae group.
- 3622 b *Musa* sp. - small fruited banana - leaf necrosis. NZ May 1969. From D.R.W. Watson S148 ← D.R.W. Watson B554 - LOPAT Ib - syringae group.
- 4416 a *Nerium oleander* L. - oleander. USA. From NCPPB 2516 ← C.M. Lai 4138 - LOPAT Ia - syringae group.
- 4527 a *Nerium oleander* L. - oleander. USA 1971. From NCPPB 2434 ← C.M. Lai 4134 - LOPAT Ia.
- 5106 b *Nerium oleander* L. - oleander. USA 1969. From NCPPB 2810 ← M.N. Schroth OB3 - rec. as *Pseudomonas* sp. - LOPAT Ib.
- 9258 b *Onobrychis viciifolia* Scop. - sainfoin. USA 1978. From M. Paschke ← D.E. Mathre 1 - Phytopath. 70: 161-167, 1980 - LOPAT Ib.
- 12001 * *Parrotia persica* C.A. Mey - Persian iron wood - leaves. Iran 1991. From H. Rahimian PPb6 - *Persian iron wood (Rahimian).
- 12002 * *Parrotia persica* C.A. Mey - Persian iron wood - leaf. Iran 1991. From H. Rahimian PP8 - *Persian iron wood.
- 139 b *Passiflora edulis* Sims - passionfruit. NZ. From N.L. Baigent PM19 ← ICPB PP106 ← W.D. Reid - non-fluorescent - LOPAT Ib.
- 2437 b *Passiflora edulis* Sims - passionfruit - brown leaf lesions tending to become more pale. Auckland, AK, NZ Oct 1968. From D.R.W. Watson A283 - LOPAT Ib - syringae group.
- 4102 b *Pelargonium peltatum* (L.) L'Her. ex Ait. - pelargonium - large wet lesions on leaves. Auckland, AK, NZ Sep 1974. From J.M. Young 1853B1 - LOPAT Ia - syringae group.
- 3890 *Phaseolus limensis* MacFady. - Lima bean. USA 1937. From D.W. Dye P296 ← NCPPB 1900 ← W.H. Burkholder SY-F = ICPB PS5: NRRL B868 - LOPAT Ib.
- 9959 *Philadelphus coronarius* L. - mock orange cv. Aureus. UK. From NCPPB 3257 - rec. as *P. syringae* pv. *syringae* - LOPAT Ia.
- 9960 *Philadelphus coronarius* L. - mock orange. UK. From NCPPB 3258 - rec. as *P. syringae* pv. *syringae* - LOPAT Ia.
- 4370 *Piper nigrum* L. - black pepper. Brazil 1958. From NCPPB 1041 ← C.F. Robbs ENA1700 - LOPAT Ib - syringae group.
- 4480 *Piper nigrum* L. - black pepper. Brazil 1958. From NCPPB 1038 ← C.F. Robbs ENA1710 - LOPAT Ia - syringae group.
- 3315 b* *Pisum sativum* L. - pea. Auckland, AK, NZ 1970. From J.D. Taylor 239A = NCPPB 2689 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - LOPAT Ia - *pea.
- 3317 b* *Pisum sativum* L. - pea. Auckland, AK, NZ 1970. From J.D. Taylor 245A = NCPPB 2690 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - LOPAT Ia - *pea.
- 3940 *Pisum sativum* L. - garden pea cv. William Massey - seed. Lincoln, MC, NZ Jun 1974. From C.N. Hale 1792 ← C.F. Hill 27-5 - agglutinates with antiserum from *P. syringae* pv. *pisi* ICMP 3 575 - homoserine -ve - rec. as *P. syringae* pv. *pisi*.
- 4919 a *Pisum sativum* L. - pea. Otara, AK, NZ Dec 1970. From NCPPB 2690 ← D.W. Dye P308 ← J.D. Taylor 245A - rec. as *P. syringae* pv. *syringae* - homoserine +ve.
- 5319 b* *Pisum sativum* L. - garden pea cv. Victory Freezer - wet brown leaf lesion. Australia Oct 1976. From D.R.W. Watson B2205 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *pea, peach.
- 5322 b* *Pisum sativum* L. - garden pea cv. Ajax - blight. Australia Oct 1976. From D.R.W. Watson K2210 ← D.W. Dye - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *pea.
- 5323 b* *Pisum sativum* L. - garden pea cv. Victory Freezer - blight. Australia Oct 1976. From D.R.W. Watson A2218 ← D.W. Dye - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *pea.
- 5324 b* *Pisum sativum* L. - garden pea - blight. Canterbury, NZ 1976. From D.R.W. Watson M2214 ← C.F. Hill - rec. as *P. syringae* pv. *syringae* - homoserine +ve - avirulent to pea.
- 3576 b* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge. Canterbury, NZ 1968. From D.R.W. Watson P17 ← J.D. Taylor 222 ← J.M. Young 19 = NCPPB 2688 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - LOPAT Ia - *pea.
- 3941 *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Rovar - seed. Lincoln, MC, NZ Jun 1974. From C.N. Hale 1793 ← C.F. Hill 23-8 - agglutinates with antiserum from *P. syringae* pv. *pisi* ICMP 3575 - homoserine -ve - rec. as *P. syringae* pv. *pisi*.
- 4494 a *Pogostemon heyneanus* Benth. - patchouli. Malawi 1969. From NCPPB 2246 ← J.F. Bradbury B3997A - LOPAT Ia - syringae group.
- 3885 b *Populus* sp. - poplar. UK. From D.W. Dye P291 ← NCPPB 294 ← K.A. Sabet 2 - rec. as *P. syringae* pv. *syringae* - pectolytic strain - LOPAT Ib.
- 4852 b *Populus* sp. - poplar. France 1964. From NCPPB 2776 ← CFBP 600 ← M. Ridé - rec. as *P. syringae* pv. *syringae* - LOPAT I - syringae group - pathogenic to.
- 4853 b *Populus* sp. - poplar. UK 1970. From NCPPB 2703 ← J.F. Bradbury B4405 ← A. Beaton 36-III - rec. as *P. syringae* pv. *syringae* - LOPAT Ia.
- 9126 b *Populus* sp. - poplar. Netherlands May 1977. From M. de Kam Dsk96 - syringomycin -ve - syringae group - rec. as *P. syringae* pv. *syringae* - LOPAT Ia - pathogenic to.
- 12443 *Primula X polyantha* Hort. - polyanthus - leafspot. Mosgiel, DN, NZ 1995. From K. Knight 95-1338.
- 9405 *Protea cynaroides* L. - king protea - leafspot. Australia. From UQM 2296 ← A.C. Hayward 0820 ← S.G. Wimalajeewa A - rec. as *P. syringae* pv. *proteae* - LOPAT - - - -.
- 9406 *Protea cynaroides* L. - king protea - leafspot. Australia. From UQM 2297 ← A.C. Hayward 0821 ← S.C. Wimalajeewa B - rec. as *P. syringae* pv. *proteae* - LOPAT - - - -.
- 9407 *Protea cynaroides* L. - king protea - leafspot. Australia. From UQM 2298 ← A.C. Hayward 0822 ← S.C. Wimalajeewa S - rec. as *P. syringae*

- pv. *proteae* - LOPAT - . - + ; polypectate +ve.
- 9408 *Protea cynaroides* L. - king protea - leafspot. Australia. From UQM 2299 ← A.C. Hayward 0823 ← S.C. Wimalajeewa 4 - rec. as *P. syringae* pv. *proteae* - LOPAT - . - + ; polypectate +ve.
- 693 ?* *Prunus armeniaca* L. - apricot cv. Trevatt - leafspot. Roxburgh, CO, NZ Nov 1962. From N.L. Baigent PS535 - LOPAT la - *apricot.
- 4122 b *Prunus armeniaca* L. - apricot - leaf wash plated onto medium containing 50ppm streptomycin. Havelock North, HB, NZ Dec 1974. From J.M. Young 1879B1 - resistant to 1000ppm streptomycin - rec. as *P. syringae* pv. *syringae*.
- 3429 a *Prunus avium* (L.) L. - cherry - sunken brown necrotic lesions on green and ripe fruit. Alexandra, CO, NZ Nov 1972. From J.M. Young 1409A2 - LOPAT la.
- 3676 b? *Prunus avium* (L.) L. - cherry. Alexandra, CO, NZ Nov 1972. From J.M. Young 1409D1 - LOPAT la.
- 3677 b? *Prunus avium* (L.) L. - cherry cv. Dawson - bud lesion. Alexandra, CO, NZ Nov 1972. From J.M. Young 1410A1 - LOPAT la.
- 5332 *Prunus avium* (L.) L. - cherry cv. Dawson - fruit. Alexandra, CO, NZ Nov 1976. From D.R.W. Watson A2243.
- 10560 a *Prunus cerasus* L. - sour cherry - leaves, fruit. Yugoslavia 1985. From M. Arsenijevic V79 - Zastita bilja 39: 185, 1988 - LOPAT 1a (Arsenijevic).
- 10561 *Prunus cerasus* L. - sour cherry - leaves and fruit. Yugoslavia 1985. From M. Arsenijevic V85 - Zastita bilja 39: 185, 1988 - LOPAT la (Arsenijevic).
- 10562 a *Prunus cerasus* L. - sour cherry - leaves and fruit. Yugoslavia 1985. From M. Arsenijevic V88 - Zastita bilja 39: 185, 1988 - LOPAT la (Arsenijevic).
- 10563 a *Prunus cerasus* L. - sour cherry - leaves and fruit. Yugoslavia 1985. From M. Arsenijevic V93 - Zastita bilja 39: 185, 1988 - LOPAT la (Arsenijevic).
- 3421 a* *Prunus persica* (L.) Batsch - peach. USA. From J.M. Young 1431A1 ← W.M. Dowler 312 - LOPAT la - *peach (Dowler).
- 3423 a?* *Prunus persica* (L.) Batsch - peach. USA. From J.M. Young 1433A1 ← W.M. Dowler 635 - LOPAT la - *peach (Dowler).
- 3690 b *Prunus persica* (L.) Batsch - peach. UK. From J.M. Young 1720A1 ← NCPPB 1501 ← P. Matthews 91 - pectolytic strain - rec. as *P. syringae* pv. *syringae*.
- 5086 a?* *Prunus persica* (L.) Batsch - peach. France 1969. From NCPPB 2779 ← CFBP 1582 ← L. Gardan 862-7 - pectolytic strain - rec. as *P. syringae* pv. *syringae* - *peach.
- 8405 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit. NZ. From I.C. Harvey A3695.
- 8406 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit. From I.C. Harvey B3998.
- 11909 *Pueraria montana* (Lour.) Merr. = *Glycine javanica* auct. non L. Zimbabwe. From CFBP 1645 ← A. Rothwell MR17241 = NCPPB 1137 - rec. as *P. syringae* pv. *glycinea*.
- 2438 *Quercus* sp. - oak - leaf shot-hole with halo. Auckland, AK, NZ Oct 1968. From D.R.W. Watson A282 - LOPAT la.
- 4851 b *Quercus* sp. - oak. Germany 1975. From NCPPB 2870 ← L.E. Webb DSM60617 - rec. as *Pseudomonas* sp. - LOPAT la.
- 5078 b *Quercus* sp. - oak. Germany 1975. From NCPPB 2871 ← L.E. Webb DSM60618 - rec. as *Pseudomonas* sp. - LOPAT la.
- 5001 b *Rhus* sp. From NCPPB 2811 ← D.C. Hildebrand 4 ← D.C. Sands - rec. as *Pseudomonas* sp. - LOPAT la - syringae group.
- 12337 *Ricinus communis* L. - castor - leafspot. Yugoslavia 1990. From M. Arsenijevic Ri4 - Pl. Dis. 76: 1283, 1992 - LOPAT la (Arsenijevic).
- 12338 *Ricinus communis* L. - castor - leafspot. Yugoslavia 1990. From M. Arsenijevic Ri8 - Pl. Dis. 76: 1283, 1992 - LOPAT la (Arsenijevic).
- 12339 *Ricinus communis* L. - castor - leafspot. Yugoslavia 1990. From M. Arsenijevic Ri13 - Pl. Dis. 76: 1283, 1992 - LOPAT la (Arsenijevic).
- 456 a* *Rubus idaeus* L. - raspberry - shoot. Christchurch, MC, NZ Nov 1954. From D.W. Dye P159 = NCPPB 1913: ICPB PS229 - LOPAT la - syringae group - *raspberry.
- 5093 b *Rubus idaeus* L. - raspberry. France 1974. From NCPPB 2782 ← CFBP 1586 ← J. Luisetti E-23-4 - LOPAT - - - - ; syringae group.
- 4926 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry. USA. From NCPPB 2815 ← D.C. Hildebrand S76 ← C.M. Lai 4171 - LOPAT la - syringae group.
- 11050 * *Saccharum officinarum* L. - sugarcane - leaf streak and stripe with whitish centre. Iran Dec 1986. From H. Rahimain 162 - rec. as *P. syringae* pv. *syringae* - *sugarcane, weakly on peach (Rahimian).
- 2148 b *Salix fragilis* L. - crack willow - lesion on bud. Mt Albert, AK, NZ Jan 1968. From D.R.W. Watson A57 = NCPPB 2745 - LOPAT la.
- 12230 *Sandersonia* sp. - leafspot and wither of seedling. Timaru, SC, NZ Jan 1995. From K. Knight 196A.
- 12231 *Sandersonia* sp. - leafspot and wither of seedling. Timaru, SC, NZ Jan 1995. From K. Knight 196B.
- 5020 *Secale cereale* L. - ryegrass. Mexico. From NCPPB 2707 ← J.F. Bradbury B5306 - J. Appl. Bact. 77: 195-207, 1995 - rec. as *P. syringae* pv. *coronafaciens* - LOPAT I - syringae group.
- 6378 *Setaria italica* (L.) Beauv. - foxtail millet. USA Feb 1976. From R.E. Mitchell ← A.K. Vidaver 480 - rec. as *P. syringae* pv. *syringae* - LOPAT la - syringae group.
- 4375 a *Sorghum sudanense* (Piper) Stapf - Sudangrass. Hungary 1967. From NCPPB 2109 ← Z. Klement S2-1 ← M. Hevesi - LOPAT lb - syringae group.
- 4379 b *Sorghum sudanense* (Piper) Stapf - Sudangrass. Hungary 1960. From NCPPB 1906 ← ICPB PS146 ← Z. Klement AD15 - LOPAT lb - syringae group.
- 4477 b *Sorghum sudanense* (Piper) Stapf - Sudangrass. Yugoslavia 1964. From NCPPB 2263 ← M. Arsenijevic SIR21 - LOPAT I - syringae group.
- 2184 *Tilia* sp. - lime, linden - angular leaf lesion with dark border. Masterton, WA, NZ Mar 1968. From D.R.W. Watson A136 - LOPAT la.
- 4914 a *Trifolium pratense* L. - red clover. UK 1965. From NCPPB 1767 ← R.A. Lelliott C7 - LOPAT la - syringae group.
- 7068 *Triticum aestivum* L. - wheat cv. Kopara. NZ. From J.E. Sheridan WU74a - LOPAT + - - - -.
- 7345 *Tropaeolum majus* L. - garden nasturtium - greasy leaf lesion. Auckland, AK, NZ Nov 1980. From D.R.W. Watson A2836 - LOPAT la.
- 2133 *Tropaeolum* sp. - nasturtium - greasy angular leaf lesion. Auckland, AK, NZ Dec 1967. From D.R.W. Watson A32 - LOPAT la.
- 5931 b *Ulmus pumila* L. - Siberian elm - black angular leafspot. Earnsclough, CO, NZ Feb 1978. From J.M. Young 2396A - rec. as *Pseudomonas* sp. - LOPAT lb.
- 5932 b *Ulmus pumila* L. - Siberian elm - black angular leafspot. Earnsclough, CO, NZ Feb 1978. From J.M. Young 2396B - rec. as *Pseudomonas* sp. - LOPAT (+) - - - +.
- 6493 *Ulmus pumila* L. - Siberian elm - black angular leafspot. Earnsclough, CO, NZ Mar 1979. From J.M. Young 2531A - LOPAT lb.
- 4360 b *Vaccinium* sp. - blueberry. USA. From D.R.W. Watson A2001 ← L.W. Moore ← F.M. Zeitoun - LOPAT la - syringae group.
- 4605 b *Vaccinium* sp. - valley blueberry. USA. From D.R.W. Watson B2101 ← L.W. Moore ← F.M. Zeitoun - LOPAT lb - syringae group.
- 10445 *Vicia faba* L. - broad bean. USSR. From V.A. Muras 8414 ← I.V. Voronkevitch 218 - rec. as *P. syringae* pv. *syringae* - LOPAT la.
- 5080 b *Vicia villosa* Roth - hairy vetch - leaf surface. USA. From NCPPB 2678 ← G.L. Ercolani HVC4 - LOPAT la - syringae group.
- 5088 b *Vicia villosa* Roth - hairy vetch - leaf surface. USA. From NCPPB 2677 ← G.L. Ercolani HVB7 - LOPAT la - syringae group.
- 5573 *Vigna radiata* (L.) R. Wilcz. - mung bean - brown leaf blotch. Bombay, AK, NZ Mar 1977. From D.R.W. Watson A2281 - LOPAT lb - syringae group.
- 3623 b *Vitis vinifera* L. - grape cv. Albany Surprise - large irregular leaf lesions, brown, dry & tattered. Henderson, AK, NZ Jan 1969. From D.R.W. Watson S153 ← D.R.W. Watson B374 - LOPAT lb - syringae group.
- 4854 *Vitis vinifera* L. - grape. Argentina 1968. From NCPPB 2805 ← D.C. Hildebrand 12 ← A.E. Klingner PR60 - LOPAT la.
- 9925 *Wisteria floribunda* (Willd.) DC. - Japanese wisteria. UK 1982. From NCPPB 3256 ← J.E. Sellwood A1750 - LOPAT lb.
- 5042 a *X Triticosecale* sp. - triticale. Mexico 1973. From NCPPB 2714 ← J.F. Bradbury B5686 - J. Appl. Bact. 77: 195-207, 1994 - rec. as *P. syringae* pv. *coronafaciens* - LOPAT I - syringae group.
- 4417 b *Zea mays* L. - maize. Yugoslavia 1965. From NCPPB 2264 ← M. Arsenijevic 1a - LOPAT la - syringae group.
- 4896 a* *Zea mays* L. - maize. UK 1974. From NCPPB 2751 ← M.J. Hurst 131-3 ← D. Barnes - LOPAT la - syringae group - *maize.
- 6015 b* *Zea mays* L. - maize. USSR 1962. From I.V. Voronkevitch 8299 - rec. as *P. holci* - LOPAT la - syringae group - *maize, peach.
- 6362 b *Zea mays* L. - maize - necrotic lesions. USA. From R.E. Mitchell ← A.K. Vidaver 'Seward' - rec. as *P. syringae* pv. *syringae* - LOPAT la - syringae group.
- 6363 b *Zea mays* L. - maize - necrotic lesions. USA. From R.E. Mitchell ← A.K. Vidaver - rec. as *P. syringae* pv. *syringae* - LOPAT la - syringae group.
- 6380 b *Zea mays* L. - maize. USA May 1974. From R.E. Mitchell ← A.K. Vidaver PS13 - rec. as *P. syringae* pv. *syringae* - LOPAT la - syringae group.
- 6381 b *Zea mays* L. - maize - necrotic leaf lesion. USA Feb 1976. From R.E. Mitchell ← A.K. Vidaver 'Holdrege' - rec. as *P. syringae* pv. *syringae* - LOPAT la - syringae group.

- 3082 From ATCC 12885 ← Eli Lilly Co X205 = FDA PCI841 - standard for hygromycin bioassay - LOPAT Ia.
 3955 a From D.W. Dye MP1 ← NCPPB 1498 ← C.M. Moskovets 7963 = ATCC 19875 - Aust. Pl. Path. 23: 66-68, 1994 - rec. as *P. syringae* pv. *panici* - pathotype strain of *P. syringae* pv. *panici* - LOPAT Ia - syringae group.
 4312 a USA. From NCPPB 1866 ← ICPB PA11 ← W.S. Beach 3 = ATCC 13453: NRRL B824 - J. Appl. Bact. 77: 195-207, 1994 - HR in tobacco - rec. as *P. angulata* - LOPAT Ib - syringae group.
- Pseudomonas syringae* pv. *aceris*** (Ark 1939) Young *et al.* 1978
 9850 *Acer buergeranum* Miq. - trident maple - leafspot. Japan Jun 1983. From Y. Takikawa AC83b-1 (550) - LOPAT Ib.
 9851 *Acer buergeranum* Miq. - trident maple - leafspot. Japan May 1984. From Y. Takikawa ACSZ8401 (445) - LOPAT Ib.
 9852 *Acer buergeranum* Miq. - trident maple - leafspot. Japan Nov 1983. From Y. Takikawa Kaede4-1 (444) - LOPAT Ib.
 2802 a *Acer* sp. - maple. USA. From D.W. Dye NE1 ← NCPPB 958 ← P.A. Ark = ATCC 10853: CFBP 2339: ICPB PA1: LMG 2106 NRRL B820 - LOPAT Ib - **Pathotype strain.**
- Pseudomonas syringae* pv. *actinidiae*** Takikawa *et al.* 1989
 9617 a *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - canker and leafspot. Japan Jun 1984. From Y. Takikawa Kw11 = NCPPB 3739 - Ann. Phytopath. Soc. Japan 55: 437-444, 1989 - **Pathotype strain.**
 9853 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - canker and leafspot. Japan May 1984. From Y. Takikawa Kw1 (319) - Ann. Phytopath. Soc. Japan 55: 437-444, 1989 - LOPAT Ia.
 9854 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - canker and leafspot. Japan Jun 1984. From Y. Takikawa Kw30 (349) - Ann. Phytopath. Soc. Japan 55: 437-444, 1989 - LOPAT Ia.
 9855 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - canker and leafspot. Japan Jun 1984. From Y. Takikawa Kw41 (351) - Ann. Phytopath. Soc. Japan 55: 437-444, 1989 - LOPAT Ia.
- Pseudomonas syringae* pv. *aesculi*** Durgapal & Singh 1980
 8947 *Aesculus indica* Colebr. - horse chestnut - leaf spot. India. From ITCC ← J.C. Durgapal = CFBP 2894: NCPPB 3681 - Ind. Phytopath. 33: 533-535, 1980 - LOPAT Ib - **Pathotype strain.**
- Pseudomonas syringae* pv. *antirrhini*** (Takimoto 1920) Young *et al.* 1978
 2738 a *Antirrhinum majus* L. - snapdragon. UK 1968. From J.D. Taylor 152E - LOPAT I.
 2739 a *Antirrhinum majus* L. - snapdragon. UK 1968. From J.D. Taylor 156D - LOPAT I.
 2813 a *Antirrhinum majus* L. - snapdragon - leaf. Australia 1962. From D.W. Dye NI1 ← NCPPB 1398 ← P.G. Valder = A.C. Hayward B1383 - LOPAT I.
 2871 a *Antirrhinum majus* L. - snapdragon - leaf. Australia May 1964. From D.W. Dye PZ4 ← M.L. Moffett 16266 = NCPPB 1778.
 4303 a *Antirrhinum majus* L. - snapdragon - leaf. UK 1965. From D.W. Dye ← NCPPB 1817 ← G.E. Jones C539 = CFBP 1620: LMG 5057 - **Pathotype strain.**
 4391 a *Antirrhinum majus* L. - snapdragon. UK 1965. From D.W. Dye ← NCPPB 1816 ← G.E. Jones C538A - LOPAT I.
 4453 a *Antirrhinum majus* L. - snapdragon. UK 1966. From D.W. Dye ← NCPPB 1818 ← G.E. Jones C537A - LOPAT I.
 4959 a *Antirrhinum majus* L. - snapdragon. UK 1965. From NCPPB 1762 ← R.A. Lelliott A6 - LOPAT I.
 5010 a *Antirrhinum majus* L. - snapdragon. UK 1965. From NCPPB 1761 ← R.A. Lelliott A4.
- Pseudomonas syringae* pv. *apii*** (Jagger 1921) Young *et al.* 1978
 1657 b *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA. From D.W. Dye PT1 ← C. Wehlburg 46 = NCPPB 2720 - LOPAT Ia.
 1658 b *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA. From D.W. Dye PT2 ← C. Wehlburg 47 = NCPPB 2721 - LOPAT Ia.
 1659 b *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. USA. From D.W. Dye PT3 ← C. Wehlburg 48 = NCPPB 2722.
 2814 a *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery - leaf. USA 1942. From D.W. Dye PT4 ← NCPPB 1626 ← W.H. Burkholder PJ2 = ATCC 9654: CFBP 2103: ICPB PA102: LMG 2132: NRRL B772 - LOPAT I - **Pathotype strain.**
 11947 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. France 1976. From CFBP 2278 ← F. Poutier 469-19.
- Pseudomonas syringae* pv. *aptata*** (Brown & Jamieson 1913) Young *et al.* 1978
 459 a *Beta vulgaris* L. - sugarbeet. USA 1959. From N.L. Baigent ← NCPPB 871 ← C.L. Schneider B10 = CFBP 1617: LMG 5059 - LOPAT Ia; syringae group - **Pathotype strain.**
 4387 a *Beta vulgaris* L. - sugarbeet. From D.W. Dye NJ2 ← NCPPB 603 ← P.A. Ark = ATCC 10205: NRRL B789: ICPB PA105 - syringae group.
 4388 a *Beta vulgaris* L. - sugarbeet. USA 1959. From D.W. Dye NJ4 ← NCPPB 872 ← C.L. Schneider B11 - syringae group.
 4456 a *Beta vulgaris* L. - sugarbeet. Italy 1974. From D.W. Dye ← NCPPB 2664 ← U. Mazzucchi IPV-B0185 - syringae group.
 4508 a *Beta vulgaris* L. - sugarbeet. USA 1959. From D.W. Dye NJ5 ← NCPPB 873 ← C.L. Schneider B12 - LOPAT I - syringae group.
 11935 *Beta vulgaris* L. - sugarbeet. France 1982. From CFBP 2134 ← R. Samson SA84-6.
 11951 *Beta vulgaris* L. - sugarbeet. Netherlands 1985. From CFBP 2471 ← J.D. Janse PD565.
 4301 *Lactuca sativa* L. - lettuce - leaf. USA. From D.W. Dye NJ1 ← NCPPB 260 ← E.F. Smith = NCTC 1977.
- Pseudomonas syringae* pv. *atrofaciens*** (McCulloch 1920) Young *et al.* 1978
 5016 a *Hordeum vulgare* L. - barley. Canada 1953. From NCPPB 2818 ← W.A.F. Hagborg 4182 - LOPAT Ia - syringae group.
 10443 *Secale cereale* L. - rye - scale. Ukraine 1984. From V.A. Muras 9056 ← L.A. Pasichnik K8281 - LOPAT Ia.
 1852 a* *Triticum aestivum* L. - wheat cv. Aotea. Waikari, NC, NZ Jan 1967. From D.W. Dye PV2 = NCPPB 2613 - LOPAT Ia - syringae group - *wheat.
 1912 a* *Triticum aestivum* L. - wheat cv. Aotea. Waikari, NC, NZ Jan 1967. From D.W. Dye PV3 = NCPPB 2718 - LOPAT Ia; syringae group - *wheat.
 1913 a* *Triticum aestivum* L. - wheat cv. Aotea. Canterbury, NZ Feb 1967. From D.W. Dye PV4 = NCPPB 2719 - LOPAT Ia - *wheat.
 4394 a *Triticum aestivum* L. - wheat - leaf. Auckland, AK, NZ Dec 1968. From D.W. Dye PV13 ← NCPPB 2612 ← J.P. Wilkie (nee Bodley) A3 = CFBP 2213: LMG 5095 - LOPAT Ia - syringae group - **Pathotype strain.**
 5011 *Triticum aestivum* L. - wheat. Zimbabwe 1973. From NCPPB 2712 ← J.F. Bradbury B5645 - LOPAT Ia - syringae group.
 9389 *Triticum aestivum* L. - wheat cv. Sadovo I - grain. Bulgaria 1978. From V.I. Vassilev V2 - LOPAT Ia.
 9390 *Triticum aestivum* L. - wheat cv. Sadovo - base of culm. Bulgaria 1979. From V.I. Vassilev V4 - LOPAT Ia.
 9391 *Triticum aestivum* L. - wheat cv. Trakia - leaf blade. Bulgaria 1980. From V.I. Vassilev V8 - LOPAT Ia.
 9393 *Triticum aestivum* L. - wheat cv. Charodeika - leaf blade. Bulgaria 1983. From V.I. Vassilev V28 - LOPAT Ia.
 9394 *Triticum aestivum* L. - wheat. USSR. From V.I. Vassilev I2632 ← U.I. Schneider ← M.K. Illuhina - LOPAT Ia.
 9395 *Triticum aestivum* L. - wheat - leaf. USSR. From V.I. Vassilev K788 ← I.B. Koroleva - serogroup 3, non-fluorescent (Vassiliev) - LOPAT Ia.
 9396 *Triticum aestivum* L. - wheat - root neck. USSR. From V.I. Vassilev KI392 - serogroup 4 - LOPAT Ia.
 9397 *Triticum aestivum* L. - wheat - glume. Ukraine. From V.I. Vassilev K2467 - serogroup 1 - LOPAT Ia.
 9919 *Triticum turgidum* L. - durum wheat. Italy 1978. From NCPPB 3261 ← L. Varvaro 4G - LOPAT Ia.
 4318 USA 1966. From D.W. Dye ← NCPPB 1870 = ICPB PA106: NRRL B773 - LOPAT Ia.
 4386 From D.W. Dye ← NCPPB 117 ← W.J. Dowson.
 4454 USA. From D.W. Dye PV10 ← NCPPB 1869 ← W.A.F. Hagborg 909 = NRRL B827: ICPB PA14.
 4516 Western Samoa. From D.W. Dye PV9 ← NCPPB 1868 ← W.A.F. Hagborg 1440 = ATCC 9004: NRRL B826: ICPB PA13 - LOPAT Ia - syringae group.
- Pseudomonas syringae* pv. *avellanae* Psallidas 1993
 see *Pseudomonas avellanae*.
- Pseudomonas syringae* pv. *atropurpurea*** (Reddy & Godkin 1923) Young *et al.* 1978
 4315 *Agrostis* sp. - bentgrass. UK 1965. From D.W. Dye ← NCPPB 1768 ← D.C. Graham G127.
 4460 *Arrhenatherum elatius* (L.) Beauv. ex J. & C. Presl - tall oatgrass. UK 1965. From D.W. Dye ← NCPPB 1769 ← D.C. Graham G128.
 4451 *Bromus* sp. - bromegrass. Canada 1962. From D.W. Dye PF5 ← NCPPB 1328 ← A.C. Hayward B1128.
 4328 *Lolium multiflorum* Lam. - Westerwolds ryegrass. Japan 1967. From D.W. Dye ← NCPPB 2396 ← T. Tominaga 704.
 4457 a *Lolium multiflorum* Lam. - Italian ryegrass. Japan 1967. From D.W. Dye ← NCPPB 2397 ← T. Tominaga P1-6-1 = CFBP 2340: LMG 5030 -

Pathotype strain.

- Pseudomonas syringae* pv. *berberidis*** (Thornberry & Anderson 1931) Young *et al.* 1978
- 8899 *Berberis gagnepainii* C.K. Schneid. - barberry. From S.J. Roberts SC097 = NCPPB 3282.
- 8901 *Berberis julianae* C.K. Schneid. - wintergreen barberry. From S.J. Roberts SC126 = NCPPB 3281.
- 4065 a *Berberis* sp. - barberry - necrotic leaf lesion with dark brown centre, red margin. Otara, AK, NZ Nov 1972. From J.M. Young 1407A2 = NCPPB 2723 - one of 2 colony forms - not same as 4116 - LOPAT Ia.
- 4116 a *Berberis* sp. - barberry - necrotic leaf lesion with dark brown centre, red margin. Otara, AK, NZ Nov 1972. From J.M. Young 1407A1 = CFBP 1727: LMG 2147: NCPPB 2724 - one of 2 colony forms - not same as 4065 - LOPAT Ia - **Pathotype strain.**
- 4117 *Berberis* sp. - barberry - necrotic leaf lesion, dark brown centre, red margin. Otara, AK, NZ Nov 1972. From J.M. Young 1407B1 - white colony form - not same as 4118.
- 4118 *Berberis* sp. - barberry - necrotic leaf lesion, dark brown centre, red margin. Otara, AK, NZ Nov 1972. From J.M. Young 1407B2 - yellow colony form - not same as 4117 - LOPAT Ia.
- 9611 *Berberis* sp. - barberry - angular leafspot. Whangarei, ND, NZ May 1988. From J.M. Young A3760A.
- 3640 ? *Berberis thunbergii* DC. - barberry. USA 1942. From C.N. Hale 1654 ← NCPPB 1871 ← W.H. Burkholder PB3 = ICPB PB3: NRRL B831: ATCC 13454.
- 8900 *Berberis X ottawensis* C.K. Schneid. From S.J. Roberts SC108 = NCPPB 3293.
- Pseudomonas syringae* pv. *cannabina*** (Sutic & Dowson 1959) Young *et al.* 1978
- 2821 b *Cannabis sativa* L. - Indian hemp. Yugoslavia 1958. From D.W. Dye PW4 ← NCPPB 1162 ← D. Sutic - LOPAT Ib.
- 2822 a *Cannabis sativa* L. - Indian hemp. Hungary 1957. From D.W. Dye PW5 ← NCPPB 1410 ← Z. Klement L02 - fuscous strain - LOPAT- . - - +.
- 2823 a *Cannabis sativa* L. - Indian hemp. Hungary 1957. From D.W. Dye PW6 ← NCPPB 1437 ← Z. Klement L01 = CFBP 2341: LMG 5096 - LOPAT Ib - **Pathotype strain.**
- 4317 a *Cannabis sativa* L. - Indian hemp. Yugoslavia. From D.W. Dye ← NCPPB 2069 ← W.J. Dowson 610 = ATCC 13436: ICPB PC114 - fuscous strain.
- 522 a From N.L. Baigent PW2 ← ICPB PC116 ← Z. Klement - LOPAT Ib.
- Pseudomonas syringae* pv. *castaneae*** Takanashi & Shimizu 1989
- 9419 a* *Castanea crenata* Sieb. & Zucc. - Japanese chestnut - canker on twig. Japan May 1977. From K. Takanashi C3 ← K. Shimizu = NIAES 2088 - LOPAT Ia (Takanashi) - *chestnut (Takanashi) - **Pathotype strain.**
- 9420 a* *Castanea crenata* Sieb. & Zucc. - Japanese chestnut - canker on twig. Japan May 1977. From K. Takanashi C17 ← K. Shimizu - LOPAT Ia (Takanashi) - *chestnut (Takanashi).
- 9421 a* *Castanea crenata* Sieb. & Zucc. - Japanese chestnut - canker on twig. Japan May 1977. From K. Takanashi C47 ← K. Shimizu - LOPAT Ia (Takanashi) - *chestnut (Takanashi).
- Pseudomonas syringae* pv. *ciccaronei*** (Ercolani & Caldarola 1972) Young *et al.* 1978
- 5710 a *Ceratonia siliqua* L. - carob. Italy 1969. From NCPPB 2355 ← G.L. Ercolani CR113 = CFBP 2342: ICPB PC146: LMG 5541 - **Pathotype strain.**
- Pseudomonas syringae* pv. *coriandricola*** Toben & Rudolph 1996
- 2733 *Coriandrum sativum* L. - coriander. UK 1968. From J.D. Taylor 82A = NCPPB 3115 - rec. as *Pseudomonas* sp. - non-fluorescent - LOPAT Ia - pectate gel +ve.
- 2745 *Coriandrum sativum* L. - coriander. UK 1968. From J.D. Taylor 70A - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 9625 * *Coriandrum sativum* L. - coriander - leaf blast. Ashburton, MC, NZ Jan 1988. From K. Knight 0005I - rec. as *P. syringae* - LOPAT Ia - *coriander (Knight).
- 9626 * *Coriandrum sativum* L. - coriander - leaf blast. Ashburton, MC, NZ Jan 1988. From K. Knight 0005III - rec. as *P. syringae* - LOPAT Ia - *coriander (Knight).
- 9829 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight 1st Inst. - rec. as *P. syringae* - LOPAT Ia - *coriander (Knight).
- 9831 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight 1st inst - rec. as *P. syringae* - LOPAT Ia - *coriander (Knight).
- 9832 * *Coriandrum sativum* L. - coriander - leaf. Darfield, MC, NZ Oct 1988. From K. Knight 3incorr - rec. as *P. syringae* - LOPAT I - *coriander (Knight).
- 9834 * *Coriandrum sativum* L. - coriander - leaf. NZ Oct 1988. From K. Knight 4owncoriflo - rec. as *P. syringae* - LOPAT I - *coriander (Knight).
- 9835 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight 2indcor - rec. as *P. syringae* - LOPAT I - *coriander (Knight).
- 9836 * *Coriandrum sativum* L. - coriander - leaf. India Oct 1988. From K. Knight Flo1 - rec. as *P. syringae* - LOPAT Ia - *coriander (Knight).
- 10200 *Coriandrum sativum* L. - coriander. NZ. From K. Knight 15 - LOPAT Ia.
- 10203 *Coriandrum sativum* L. - coriander. Canterbury, NZ. From K. Knight 25 - LOPAT Ia.
- 10204 *Coriandrum sativum* L. - coriander. Canterbury, NZ. From K. Knight 27 - LOPAT Ia.
- 10205 *Coriandrum sativum* L. - coriander. NZ. From K. Knight 31 - LOPAT Ia.
- 10206 *Coriandrum sativum* L. - coriander. NZ. From K. Knight 35 - LOPAT Ia.
- 10207 *Coriandrum sativum* L. - coriander. Methven, MC, NZ. From K. Knight 37 - LOPAT Ia.
- 11153 * *Coriandrum sativum* L. - coriander - leaf blight. NZ. From K. Knight 31 - rec. as *P. syringae* - *coriander (Knight).
- 11154 * *Coriandrum sativum* L. - coriander - leaf blight. Canterbury, NZ. From K. Knight 37 - rec. as *P. syringae* - *coriander (Knight).
- 11155 * *Coriandrum sativum* L. - coriander - leaf blight. Lincoln, MC, NZ. From K. Knight 15 - rec. as *P. syringae* - *coriander (Knight).
- 11156 * *Coriandrum sativum* L. - coriander - leaf blight. NZ. From K. Knight 25 - rec. as *P. syringae* - *coriander (Knight).
- 11157 * *Coriandrum sativum* L. - coriander - leaf blight. NZ. From K. Knight 27 - rec. as *P. syringae* - *coriander (Knight).
- 11158 * *Coriandrum sativum* L. - coriander - leaf blight. Lincoln, MC, NZ. From K. Knight 35 - rec. as *P. syringae* - *coriander (Knight).
- 12341 *Coriandrum sativum* L. - coriander - leafspot and blight. Yugoslavia 1990. From M. Arsenijevic Ko21 - LOPAT Ia (Arsenijevic).
- 12342 *Coriandrum sativum* L. - coriander - leafspot and blight. Yugoslavia 1990. From M. Arsenijevic Ko28 - LOPAT Ia (Arsenijevic).
- 12471 *Coriandrum sativum* L. - coriander. Germany. From K. Ruldof GSPB1965 = NCPPB 3781 - **Pathotype strain.**
- 10201 Anise. South Is., NZ. From K. Knight 20 - LOPAT 1b.
- Pseudomonas syringae* pv. *coronafaciens*** (Elliott 1920) Young *et al.* 1978
- 3113 a* *Avena sativa* L. - oat - leaf. UK 1958. From C.N. Hale ← D.W. Dye PF3 ← R.A. Lelliott 03 = CFBP 2216: LMG 5060: NCPPB 600 - LOPAT Ia - *oat - **Pathotype strain.**
- 3114 a* *Avena sativa* L. - oat - leaf. Canada 1962. From C.N. Hale ← D.W. Dye PF4 ← W.A.F. Hagborg 5260 = NCPPB 1357: ICPB PC133 - LOPAT Ia - *oat.
- 4302 *Avena sativa* L. - oat - leaf. Germany 1959. From D.W. Dye ← NCPPB 874 ← D. Knosel = ICPB PC134.
- 4313 *Avena sativa* L. - oat - leaf. UK 1962. From D.W. Dye ← NCPPB 1253 ← E. Billing W63 = ICPB PC132.
- 4314 *Avena sativa* L. - oat - leaf. Canada 1954. From D.W. Dye ← NCPPB 1356 ← W.A.F. Hagborg 4354.
- 4329 *Avena sativa* L. - oat - leaf. Kenya 1970. From D.W. Dye ← NCPPB 2481 ← J.F. Bradbury B4591.
- 4420 *Avena sativa* L. - oat. Yugoslavia 1954. From D.W. Dye ← NCPPB 876 ← D. Sutic = ICPB PC136.
- 4957 *Avena sativa* L. - oat. NZ 1969. From NCPPB 2680 ← D.W. Dye PF6 ← J.P. Wilkie (nee Bodley) A611.
- 4958 *Avena sativa* L. - oat - halo-less leafspot. Canada 1933. From NCPPB 2816 ← W.A.F. Hagborg 3035.
- 5110 *Avena sativa* L. - oat - halo-less leafspot. Canada 1968. From NCPPB 2823 ← W.A.F. Hagborg 5639.
- 6492 *Avena sativa* L. - oat - leaf. UK 1958. From J.M. Young 3113SR ← ICMP 3113 ← R.A. Lelliott - laboratory derived streptomycin resistant selection of ICMP 3113.
- 10052 *Avena sativa* L. - oat. USA. From T.M. Barta Pc27 ← R.D. Durbin ← M.P. Starr - LOPAT Ia.
- 10053 *Avena sativa* L. - oat. USA Jul 1983. From T.M. Barta T47 ← S. Hirano - LOPAT Ia.
- 10055 *Phleum pratense* L. - timothy. USA. From T.M. Barta T1 ← R.D. Durbin - LOPAT Ia.
- 4421 *Secale cereale* L. - ryegrass. Canada 1962. From D.W. Dye ← NCPPB 1327 ← A.C. Hayward B1129.

- 9922 *Secale cereale* L. - rye. USA 1975. From NCPPB 2902 ← N.W. Schaad C119 - LOPAT Ib.
 10056 *Zea mays* L. - corn. USA. From T.M. Barta 1531 ← R. Bowden - LOPAT Ia.
 799 ? USA. From N.L. Baigent PF2 ← ICPB PC104 - LOPAT + - - - ; avirulent to oat.
 10054 USA. From T.M. Barta CHS2 ← R.D. Durbin ← R. Ribeiro - LOPAT Ia.
- Pseudomonas syringae* pv. *cunninghamiae* He & Goto 1995**
 11894 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC1 - *Chinese fir (He) - **Pathotype strain**.
 11895 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC2 - *Chinese fir (He).
 11896 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC3 - *Chinese fir (He).
 11897 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC4 - *Chinese fir (He).
 11898 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC5 - *Chinese fir (He).
 11899 * *Cunninghamia lanceolata* Hook. - Chinese fir - brown, small spots with yellow haloes on needles (leaves). China. From X.Y. He PC6 - *Chinese fir, *Cryptomeria fortunei* (He).
- Pseudomonas syringae* pv. *daphniphylli* Ogimi et al. 1990**
 9757 a* *Daphniphyllum teijsmanni* Zoll. - himeyuzuriha - galls on trunk, twigs and petioles. Japan Feb 1981. From C. Ogimi DAT1 = ATCC 49211: NCPPB 3617 - J. Japanese Forestry Society 72: 17-22, 1990 - LOPAT Ia - **D. teijsmanni* (Ogimi) - **Pathotype strain**.
- Pseudomonas syringae* pv. *delphinii* (Smith 1904) Young et al. 1978**
 760 * *Delphinium elatum* L. - candle larkspur. UK 1958. From N.L. Baigent PA5 ← NCPPB 650 ← E. Billing P40 = ICPB PD104 - LOPAT Ib - *candle larkspur.
 761 b *Delphinium elatum* L. - candle larkspur. UK 1960. From N.L. Baigent PA6 ← NCPPB 868 ← R.A. Lelliott T42 - LOPAT Ib.
 5014 a* *Delphinium elatum* L. - candle larkspur. UK 1962. From NCPPB 1254 ← E. Billing - *candle larkspur.
 523 a* *Delphinium* sp. 1933. From N.L. Baigent PA3 ← ICPB PD1 ← W.H. Burkholder PD1 = NCPPB 1878: NRRL B836: ATCC 8719 - LOPAT Ib - *delphinium.
 525 a *Delphinium* sp. - delphinium. Palmerston North, WI, NZ Dec 1957. From D.W. Dye PA2 ← W.J. Kemp - LOPAT Ib - avirulent to delphinium.
 529 a* *Delphinium* sp. - delphinium. Palmerston North, WI, NZ Dec 1957. From D.W. Dye PA1 ← W.J. Kemp = CFBP 2215: ICPB PD105: LMG 5381: NCPPB 1879 - LOPAT Ib - *delphinium - **Pathotype strain**.
 2734 a* *Delphinium* sp. UK. From J.D. Taylor 85A - *delphinium.
 4330 a *Delphinium* sp. UK 1974. From D.W. Dye ← NCPPB 2666 ← N. Biggs 17-7 = DSM 60568 - fuscous strain - LOPAT Ib.
 524 b* From N.L. Baigent PA4 ← ICPB PD2 - LOPAT Ib - *delphinium.
- Pseudomonas syringae* pv. *dendropanacis* Ogimi et al. 1988**
 9150 a *Dendropanax trifidus* (Thunb.) Mak. ex Hara - kakuremino - galls on trunk, twig and petiole. Japan May 1979. From C. Ogimi DT1 = ATCC 43298: NCPPB 3464 - Ann. Phytopath. Soc. Japan 54: 296-302, 1988 - LOPAT Ib - **Pathotype strain**.
- Pseudomonas syringae* pv. *dysoxylis* (Hutchinson 1949) Young et al. 1978**
 395 a* *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - leaf. Waitakere, AK, NZ Sep 1962. From N.L. Baigent PY3 ← N.L. Baigent PDY8 = NCPPB 1882: ICPB PD108 - LOPAT Ib - syringae group - *kohekohe.
 545 a *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - leaf. Auckland, AK, NZ 1949. From D.W. Dye PY5 ← NCPPB 225 ← P.B. Hutchinson = ATCC 19863: CFBP 2356: LMG 5062 - J. Appl. Bact. 77: 195-207, 1994 - LOPAT Ia - syringae group - **Pathotype strain**.
 2415 *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - greasy leafspot. Auckland, AK, NZ Oct 1968. From D.R.W. Watson C280 - non-fluorescent - fuscous strain.
 6465 *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - greasy leafspot. Titirangi, AK, NZ Jan 1979. From D.R.W. Watson A2505 - fuscous strain - LOPAT Ib.
 9745 *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe. NZ. From A. Stewart P8 ← J. Townsend.
 396 NZ. From N.L. Baigent PY4 ← ICPB PD103 - LOPAT Ia.
- Pseudomonas syringae* pv. *erobotryae* (Takimoto 1931) Young et al. 1978**
 4316 *Eriobotrya japonica* (Thunb.) Lindl. - loquat. USA 1970. From D.W. Dye ← NCPPB 2514 ← C.M. Lai 4060 - fuscous strain.
 4455 a* *Eriobotrya japonica* (Thunb.) Lindl. - loquat. USA 1970. From D.W. Dye MB1 ← NCPPB 2331 ← C.M. Lai = LMG 2184: D.C. Hildebrand 404 - fuscous strain - LOPAT Ia - *loquat - **Pathotype strain**.
 4462 *Eriobotrya japonica* (Thunb.) Lindl. - loquat. USA 1970. From D.W. Dye ← NCPPB 2515 ← C.M. Lai 4104.
 4967 *Eriobotrya japonica* (Thunb.) Lindl. - loquat. USA. From NCPPB 2802 ← D.C. Hildebrand PU7 ← C.M. Lai H424.
 5028 *Eriobotrya japonica* (Thunb.) Lindl. - loquat. USA. From NCPPB 2801 ← D.C. Hildebrand PU5 ← C.M. Lai H425 - fuscous strain.
 6670 a* *Eriobotrya japonica* (Thunb.) Lindl. - loquat. Jan 1978. From I. Pascoe VPRI10290 ← D.L. Jones - fuscous strain (weak) - LOPAT Ia - *loquat.
 8629 a* *Eriobotrya japonica* (Thunb.) Lindl. - loquat - stem lesion. MARC, Quarantine, NZ Mar 1984. From E.M. Bache L3 - plants held in quarantine, from Japan - LOPAT Ia - pale fuscous strain - *loquat.
 8630 a* *Eriobotrya japonica* (Thunb.) Lindl. - loquat - stem lesion. MARC, Quarantine, NZ Mar 1984. From E.M. Bache L4 - plants held in quarantine, from Japan - LOPAT Ia - fuscous strain - *loquat.
 8636 a* *Eriobotrya japonica* (Thunb.) Lindl. - loquat - stem lesion. Palmerston North, WI, NZ. From E.M. Bache LA - plants held in quarantine, from Japan - LOPAT Ia - *loquat.
 9119 a *Eriobotrya japonica* (Thunb.) Lindl. - loquat - stem. Te Puke, BP, NZ Feb 1986. From C.N. Hale - plants held in quarantine, from Japan - fuscous strain - LOPAT Ia.
- Pseudomonas syringae* pv. *fici* Durgapal & Singh 1980 (invalid name)
 see *Pseudomonas* sp.
- Pseudomonas syringae* pv. *garcae* (Amaral et al. 1956) Young et al. 1978**
 3648 b *Coffea arabica* L. - coffee. Brazil 1956. From D.W. Dye MA1 ← NCPPB 512 ← A.P. Viegas = W.J. Dowson 393 - LOPAT Ia.
 3649 b *Coffea arabica* L. - coffee. Kenya 1962. From D.W. Dye MA2 ← NCPPB 1399 ← A.C. Hayward B1380 - LOPAT Ia.
 4323 a *Coffea arabica* L. - coffee. Brazil. From D.W. Dye ← NCPPB 588 ← C.G. Teixeira = ATCC 19864: CFBP 1634: LMG 5064 - fuscous strain - **Pathotype strain**.
 4466 *Coffea arabica* L. - coffee. Brazil. From D.W. Dye ← NCPPB 589 ← C.G. Teixeira - fuscous strain.
 4655 *Coffea arabica* L. - coffee. Brazil. From D.W. Dye ← J.R. Neto 153 ← C.F. Robbs ENA936 - fuscous strain.
 4962 *Coffea arabica* L. - coffee. Kenya 1973. From NCPPB 2710 ← J.F. Bradbury B5481.
 5019 a* *Coffea arabica* L. - coffee. Kenya 1972. From NCPPB 2708 ← J.F. Bradbury B5356 ← C. Baker 15W - *coffee (NCPPB).
 5802 *Coffea arabica* L. - coffee cv. Mundo Novo. Brazil Jul 1976. From IBSBF 400 ← J.R. Neto C48.
 5803 *Coffea arabica* L. - coffee cv. Mundo Novo. Brazil Jul 1976. From IBSBF 401 ← J.R. Neto P58.
 5804 *Coffea arabica* L. - coffee cv. Mundo Novo. Brazil Jul 1976. From IBSBF 402 ← J.R. Neto GA50 - fuscous strain.
 8047 a *Coffea arabica* L. - coffee cv. S.L. 28 - die-back of twig. Kenya Aug 1974. From A.H. Ramos 3647 = IMI B6625 - Pl. Dis. 65: 581-4, 1981 - LOPAT I - syringae group.
- Pseudomonas syringae* pv. *glycinea* (Coerper 1919) Young et al. 1978
 see *Pseudomonas savastanoi* pv. *glycinea*.

Pseudomonas syringae* pv. *helianthi (Kawamura 1934) Young *et al.* 1978

- 827 *Helianthus annuus* L. - sunflower. Ethiopia 1961. From N.L. Baigent NA1 ← NCPPB 1054 ← A.C. Hayward B664A = ATCC 19866.
 828 a *Helianthus annuus* L. - sunflower. Ethiopia 1961. From N.L. Baigent NA2 ← NCPPB 1055 ← A.C. Hayward B664B = ICPB PH103 - LOPAT I.
 3263 a* *Helianthus annuus* L. - sunflower - leafspot. Canada. From D.W. Dye NA3 ← D.R.W. Watson 254 ← L.J. Piening = NCPPB 2639 - LOPAT Ia - *sunflower.
 3549 a* *Helianthus annuus* L. - sunflower - dark angular lesion on leaf, yellow border. Hastings, HB, NZ Mar 1969. From D.R.W. Watson A441 = NCPPB 2744 - rec. as *P. syringae* - LOPAT Ia - *sunflower.
 3922 b *Helianthus annuus* L. - sunflower. Zambia 1962. From D.W. Dye NA6 ← NCPPB 1229 ← A.C. Hayward B879A - LOPAT Ia.
 4463 *Helianthus annuus* L. - sunflower. Germany 1967. From NCPPB 2635 ← DSM 60-129 ← D. Massfeller PH1.
 4531 a *Helianthus annuus* L. - sunflower - leafspot. Mexico. From D.W. Dye NA7 ← NCPPB 2640 ← L.J. Piening = CFBP 2067: LMG 5067 - fuscous strain - LOPAT Ia - **Pathotype strain**.
 10564 a *Helianthus annuus* L. - sunflower - leaves. Yugoslavia 1987. From M. Arsenijevic Su1 - Pl. Dis. 73: 368, 1989 - LOPAT 1a (Arsenijevic).
 10565 a *Helianthus annuus* L. - sunflower - leaves. Yugoslavia 1987. From M. Arsenijevic Su15 - Pl. Dis. 73: 368, 1989 - LOPAT Ia (Arsenijevic).
 10566 a *Helianthus annuus* L. - sunflower - leaves. Yugoslavia 1987. From M. Arsenijevic Su20 - Pl. Dis. 73: 368, 1989 - LOPAT Ia (Arsenijevic).
 11933 *Helianthus annuus* L. - sunflower. France 1981. From CFBP 2043 ← R. Samson SA35-1.

Pseudomonas syringae* pv. *hibisci Jones *et al.* 1986

- 9314 a *Hibiscus rosa-sinensis* L. - Chinese hibiscus - leaf. USA Mar 1984. From J.B. Jones PSH3 - Pl. Dis. 70: 441-443, 1986 - LOPAT Ib.
 9623 a *Hibiscus rosa-sinensis* L. - Chinese hibiscus - leaf. USA 1984. From J.B. Jones PSH2 = CFBP 2895: NCPPB 3682 - **Pathotype strain**.

Pseudomonas syringae* pv. *japonica (Mukoo 1955) Dye *et al.* 1980

see *P. syringae* pv. *syringae*.

Pseudomonas syringae* pv. *lachrymans (Smith & Bryan 1915) Young *et al.* 1978

- 826 a* *Cucumis sativus* L. - cucumber. UK 1957. From N.L. Baigent PG4 ← NCPPB 467 ← R.A. Lelliott CU4 - LOPAT Ia - *cucumber, melon, pumpkin.
 829 a* *Cucumis sativus* L. - cucumber. Hungary 1958. From N.L. Baigent PG3 ← NCPPB 1097 ← Z. Klement RO7 - LOPAT Ia - *cucumber, melon, pumpkin.
 3399 a* *Cucumis sativus* L. - cucumber. Denmark 1949. From D.W. Dye PG8 ← NCPPB 540 ← E. Hellmers = ICPB PL4 - *cucumber.
 3400 a* *Cucumis sativus* L. - cucumber. Hungary 1957. From D.W. Dye PG9 ← NCPPB 1096 ← Z. Klement R02 - LOPAT I - *cucumber, melon, pumpkin.
 3402 b* *Cucumis sativus* L. - cucumber. Hungary 1958. From D.W. Dye PG11 ← NCPPB 1428 ← Z. Klement R08 - *cucumber.
 3507 b* *Cucumis sativus* L. - cucumber - fruit. Hungary 1957. From D.W. Dye P303 ← ICPB PL107 ← Z. Klement R016 = NCPPB 1436 - rec. as *P. lachrymans* - LOPAT Ia - *cucumber, melon, pumpkin.
 3985 a* *Cucumis sativus* L. - cucumber. Canada 1951. From D.W. Dye PG16 ← NCPPB 534 ← Z.A. Patrick = ICPB PL5: NCPPB 541 - LOPAT Ia - *cucumber, melon, pumpkin.
 3986 b* *Cucumis sativus* L. - cucumber. Hungary 1957. From D.W. Dye PG14 ← NCPPB 1436 ← Z. Klement R016 - LOPAT Ia - *cucumber.
 3987 a* *Cucumis sativus* L. - cucumber. Denmark. From D.W. Dye PG15 ← NCPPB 277 ← E. Hellmers - LOPAT Ia - *cucumber.
 3988 a?* *Cucumis sativus* L. - cucumber. USA 1935. From D.W. Dye PG17 ← NCPPB 537 ← P.A. Ark PL3 = ATCC 7386: CFBP 2104: LMG 5070 - atypical - possibly *P. syringae* pv. *syringae* - LOPAT Ia - *cucumber, melon, pumpkin cv. Delica - **Pathotype strain**.
 4322 a* *Cucumis sativus* L. - cucumber. Canada 1951. From D.W. Dye ← NCPPB 541 ← Z.A. Patrick = ICPB PL5: NCPPB 534 - LOPAT Ia - *cucumber.
 4464 a* *Cucumis sativus* L. - cucumber cv. Marketeer - fruit. USA Oct 1952. From D.W. Dye PG18 ← NCPPB 542 ← P.A. Ark Q = ICPB PL104 - LOPAT I - *cucumber.
 4963 a* *Cucumis sativus* L. - cucumber. France 1960. From NCPPB 2754 ← CFBP 70 ← M. Ridé - LOPAT I - *cucumber.
 5032 b* *Cucumis sativus* L. - cucumber. Hungary 1958. From NCPPB 1425 ← Z. Klement R06 - *cucumber.
 6490 b? *Cucumis sativus* L. - cucumber. USA 1935. From J.M. Young 3988SR ← ICMP 3988 ← P.A. Ark PL3 - laboratory derived streptomycin resistant selection of ICMP 3988 - atypical - possibly *P. syringae* pv. *syringae*.
 9027 *Cucumis sativus* L. - cucumber - leafspot. Hungary 1978. From J. Nemeth U1 - LOPAT Ia.
 9028 *Cucumis sativus* L. - cucumber - leafspot. Hungary 1978. From J. Nemeth U3 - LOPAT Ia.
 9029 *Cucumis sativus* L. - cucumber - leafspot. Hungary 1978. From J. Nemeth U4 - LOPAT Ia.
 1448 a* Canada. From D.W. Dye PG1 ← M. Kocur BS399 ← W.A.F. Hagborg - LOPAT Ia - *cucumber.

Pseudomonas syringae* pv. *lapsa (Ark 1940) Young *et al.* 1978

- 3947 a *Zea* sp. - corn hybrid - seed. From D.W. Dye MN2 ← NCPPB 2096 ← B.P. Chakravarti = CFBP 1731: ICPB PL117: LMG 2206 - LOPAT Ia - **Pathotype strain**.
 3946 b From D.W. Dye MN1 ← NCPPB 953 ← P.A. Ark = ICPB PL2: NRRL B842 - LOPAT Ia.
 8813 From LMG 5006 ← DSM 50274.

Pseudomonas syringae* pv. *ligustri [invalid name]

see *P. syringae*.

Pseudomonas syringae* pv. *maculicola (McCulloch 1911) Young *et al.* 1978

- 2744 b* *Brassica nigra* (L.) W.D.J. Koch - mustard. UK 1968. From J.D. Taylor 65B - LOPAT Ia - *cabbage.
 4335 *Brassica oleracea* L. - kale. UK 1967. From NCPPB 2010 ← F.W. Catton C595.
 795 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leaf. Ohakune, RI, NZ Mar 1958. From D.W. Dye PB1 ← W.J. Kemp = NCPPB 1886: ICPB PM170 - *cauliflower.
 921 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd. Rotorua, BP, NZ Jul 1963. From D.W. Dye PB7 ← W.J. Kemp.
 923 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd. Rotorua, BP, NZ Jul 1963. From D.W. Dye PB9 ← W.J. Kemp.
 2735 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leaf. USA 1937. From J.D. Taylor 101 ← NCPPB 952 ← W.H. Burkholder = ICPB PM1: NRRL B844: F.M. Clara G37 - LOPAT Ia.
 3935 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower. NZ Mar 1965. From D.W. Dye PB15 ← D.A. Shackleton DS29 = CFBP 1657: LMG 5071: NCPPB 2039 - LOPAT Ia - **Pathotype strain**.
 3936 b *Brassica oleracea* L. var. *botrytis* L. - cauliflower. Levin, WN, NZ Mar 1965. From D.W. Dye PB16 ← D.A. Shackleton DS30 = NCPPB 2040 - LOPAT Ia.
 4427 *Brassica oleracea* L. var. *botrytis* L. - cauliflower. UK 1966. From NCPPB 2038 ← J. Harrison ← M.T. Dervish 959-66.
 4984 a *Brassica oleracea* L. var. *botrytis* L. - cauliflower. UK 1965. From NCPPB 1776 ← R.A. Lelliott PM2.
 5034 a *Brassica oleracea* L. var. *botrytis* L. - cauliflower. UK 1965. From NCPPB 1766 ← G.E. Jones 474.
 4981 a *Brassica oleracea* L. var. *capitata* L. - cabbage. Zimbabwe 1970. From NCPPB 2704 ← J.F. Bradbury B4493.
 11281 *Brassica rapa* L. China. From X.Z. Ren Cb42.
 11282 *Brassica rapa* L. China. From X.Z. Ren Cb43.
 4326 *Raphanus sativus* L. - radish. USA 1965. From NCPPB 1820 ← N. Keen B70 = ICPB PM176.

Pseudomonas syringae* pv. *mellea (Johnson 1923) Young *et al.* 1978

- 5711 a *Nicotiana tabacum* L. - tobacco. Japan 1968. From NCPPB 2356 ← K. Ono N6802 = CFBP 2344: LMG 5072 - LOPAT Ib - **Pathotype strain**.

Pseudomonas syringae* pv. *mori (Boyer & Lambert 1893) Young *et al.* 1978

- 536 b* *Morus alba* L. - white mulberry. 1957. From N.L. Baigent K3 ← D.W. Dye PR3 ← W.J. Kemp = NCPPB 1893: ICPB PM167 - re-isolate after plant inoculation with ICMP 535 - LOPAT Ia - *mulberry.
 537 * *Morus alba* L. - white mulberry - leaf. NZ 1957. From N.L. Baigent K4 ← D.W. Dye PR4 ← W.J. Kemp = NCPPB 1894: ICPB PM168 - *mulberry.

- 555 b *Morus alba* L. - white mulberry - leafspot. Christchurch, MC, NZ Dec 1962. From D.W. Dye PR7 ← W.J. Kemp = NCPPB 1895: ICPB PM169 - LOPAT Ia.
- 3591 b *Morus alba* L. - white mulberry. Hungary 1958. From J.P. Wilkie (nee Bodley) PR12 ← NCPPB 1407 ← Z. Klement T02 - LOPAT Ia.
- 3592 b *Morus alba* L. - white mulberry. Hungary 1958. From J.P. Wilkie (nee Bodley) PR13 ← NCPPB 1445 ← Z. Klement T03 - LOPAT Ia.
- 3593 b *Morus alba* L. - white mulberry. Hungary 1960. From J.P. Wilkie (nee Bodley) PR14 ← NCPPB 1415 ← Z. Klement T05 - LOPAT Ia.
- 3594 b *Morus alba* L. - white mulberry. Hungary 1958. From J.P. Wilkie (nee Bodley) PR15 ← NCPPB 1037 ← Z. Klement T06 - rec. as *P. mori* var. *huszi* - LOPAT Ia.
- 3595 b *Morus alba* L. - white mulberry. Hungary 1958. From J.P. Wilkie (nee Bodley) PR16 ← NCPPB 1413 ← Z. Klement T04 - rec. as *P. mori* var. *huszi* - LOPAT Ia.
- 4331 a *Morus alba* L. - white mulberry. Hungary 1958. From D.W. Dye ← NCPPB 1034 ← Z. Klement T01 = ATCC 19873: CFBP 1642: LMG 5074 - LOPAT Ia - **Pathotype strain**.
- 4425 a *Morus alba* L. - white mulberry. NZ 1962. From NCPPB 1892 ← N.L. Baigent = ICPB PM160 - LOPAT I.
- 4468 a* *Morus alba* L. - white mulberry - leaf. Alexandra, CO, NZ 1957. From D.W. Dye PR17 ← NCPPB 1894 ← D.W. Dye PR4 = ICPB PM168 - LOPAT I - *mulberry.
- 4518 a *Morus alba* L. - white mulberry - leafspot. Christchurch, MC, NZ Dec 1962. From D.W. Dye PR19 ← NCPPB 1895 ← D.W. Dye PR7 = ICPB PM169 - LOPAT I.
- 4985 *Morus alba* L. - white mulberry. From NCPPB 2812 ← D.C. Hildebrand 5 ← R.G. Grogan.
- 6941 a *Morus alba* L. - white mulberry cv. Ichinose. Japan Aug 1971. From K. Takahashi S7133-1.
- 6944 *Morus alba* L. - white mulberry cv. Ichinose. Japan Jun 1972. From K. Takahashi S7233-1.
- 6947 *Morus bombycis* Koidzumi - mulberry cv. Kenmochi. Japan Jun 1972. From K. Takahashi S7433-8.
- 535 b* *Morus* sp. - mulberry. Otago, NZ 1957. From N.L. Baigent K2 ← D.W. Dye PR2 ← W.J. Kemp = NCPPB 1894 - *mulberry.
- 539 *Morus* sp. - mulberry. From N.L. Baigent PR8 ← ICPB PM135 - LOPAT Ia.
- 554 b *Morus* sp. - mulberry - leafspot. Christchurch, MC, NZ Dec 1962. From D.W. Dye PR6 ← W.J. Kemp - LOPAT Ia.
- 806 *Morus* sp. - mulberry - leafspot. Mt Albert, AK, NZ. From N.L. Baigent K1 ← D.W. Dye PR1 - avirulent to mulberry.
- 3276 b *Morus* sp. - mulberry - twig canker. Hastings, HB, NZ Jun 1972. From D.W. Dye PR10 ← J.P. Wilkie (nee Bodley) 1312 - LOPAT Ia.
- 3590 ? *Morus* sp. - mulberry. From J.P. Wilkie (nee Bodley) PR11 ← NCPPB 980 ← W.H. Burkholder 3 = ICPB PM117: ATCC 19872 - atypical strain - avirulent to mulberry.
- 5037 a *Morus* sp. - mulberry. Uganda 1973. From NCPPB 2711 ← J.F. Bradbury B5579A - LOPAT I.
- 7852 *Morus* sp. - mulberry - leaf. NZ 1982. From M.J. Fletcher 3190 ← C.F. Hill - LOPAT Ia.
- 11950 *Morus* sp. - mulberry. France 1984. From CFBP 2453 ← J.F. Chauveau 1900B.
- 556 b From N.L. Baigent PR9 ← ICPB PM143 ← H. Stolp 244 - rec. as *P. mori* var. *huszi* - LOPAT Ia.

Pseudomonas syringae* pv. *morsprunorum (Wormald 1931) Young *et al.* 1978

- 565 *Prunus armeniaca* L. - apricot. UK. From D.W. Dye PL82 ← W.J. Dowson 270.
- 557 a *Prunus avium* (L.) L. - cherry - leafspot. UK. From N.L. Baigent PL88 ← ICPB PM123B ← J.E. Crosse C1-2 - LOPAT Ia.
- 562 ? *Prunus avium* (L.) L. - wild cherry. From N.L. Baigent PL93 ← ICPB PM148 ← H. Stolp MP27 - possibly *P. syringae* pv. *syringae* - LOPAT Ib.
- 563 ? *Prunus avium* (L.) L. - cherry - leaf. From N.L. Baigent PL94 ← ICPB PM158 ← H. Stolp PS24 - possibly *P. syringae* pv. *syringae* - LOPAT Ib.
- 566 a *Prunus avium* (L.) L. - cherry cv. Napoleon - leafspot. UK Aug 1951. From D.W. Dye PL84 ← J.E. Crosse C13.
- 567 a *Prunus avium* (L.) L. - cherry cv. Napoleon - leafspot. UK. From D.W. Dye PL87 ← J.E. Crosse NA3 = NCPPB 560.
- 568 a* *Prunus avium* (L.) L. - cherry cv. Napoleon. UK. From D.W. Dye PL155 ← J.E. Crosse C22 - *cherry (Crosse).
- 569 *Prunus avium* (L.) L. - cherry - seedling. UK. From D.W. Dye PL156 ← J.E. Crosse C26.
- 1442 *Prunus avium* (L.) L. - cherry cv. Napoleon - leaf. UK 1951. From D.W. Dye PL83 ← J.E. Crosse C11.
- 1443 ? *Prunus avium* (L.) L. - cherry cv. Napoleon - leafspot. UK Jun 1952. From D.W. Dye PL85 ← J.E. Crosse C1-2.
- 1444 ? *Prunus avium* (L.) L. - cherry cv. Napoleon - leaf. UK 1952. From D.W. Dye PL86 ← J.E. Crosse C2-2.
- 3016 a* *Prunus avium* (L.) L. - wild cherry. UK 1961. From D.W. Dye PL98 ← NCPPB 1463 ← J.E. Crosse C46 - *cherry (Crosse).
- 3712 a *Prunus avium* (L.) L. - cherry. Netherlands 1953. From J.M. Young 1731A ← NCPPB 624 ← A. Fuchs F3 - LOPAT Ib.
- 3714 *Prunus avium* (L.) L. - sweet cherry. Italy 1965. From J.M. Young 1733A ← NCPPB 1781 ← G.L. Ercolani CF2 - LOPAT Ia.
- 3715 a *Prunus avium* (L.) L. - sweet cherry. Italy 1965. From J.M. Young 1734A ← NCPPB 1782 ← G.L. Ercolani CF8 - LOPAT Ia.
- 3720 a *Prunus avium* (L.) L. - cherry. USA. From J.M. Young 1708A ← W.H. English 5D42 - LOPAT Ia.
- 3976 a *Prunus avium* (L.) L. - sweet cherry. Netherlands 1955. From NCPPB 617 ← P. Matthews ← A. Fuchs F18.
- 4428 a *Prunus avium* (L.) L. - sweet cherry. UK. From NCPPB 2168 ← C.M.E. Garrett C19.
- 4983 a* *Prunus avium* (L.) L. - cherry. Greece 1961. From NCPPB 2787 ← C.G. Panagopoulos K1 - *cherry.
- 5043 a *Prunus cerasus* L. - sour cherry. France 1974. From NCPPB 2755 ← CFBP 1564 ← J. Luisetti E-13-9.
- 710 a *Prunus domestica* L. - European plum. Yugoslavia 1955. From N.L. Baigent PL95 ← NCPPB 879 ← D. Sutic.
- 711 a *Prunus domestica* L. - European plum. UK 1960. From N.L. Baigent PL96 ← NCPPB 1095 ← E. Billing W79.
- 3689 b *Prunus domestica* L. - European plum. UK 1959. From J.M. Young 1719A1 ← NCPPB 1292 ← G.E. Jones 82 - rec. as *P. syringae* - LOPAT I.
- 3717 a *Prunus domestica* L. - European plum. Romania 1969. From J.M. Young 1736A ← NCPPB 2320 ← I. Lazar 973.
- 3718 b *Prunus domestica* L. - European plum. Romania 1969. From J.M. Young 1737A ← NCPPB 2321 ← I. Lazar 1018.
- 3719 b *Prunus domestica* L. - European plum. Romania 1969. From J.M. Young 1738A ← NCPPB 2322 ← I. Lazar 1201.
- 3895 *Prunus domestica* L. - European plum cv. Victoria - leaf wash. UK Sep 1959. From J.M. Young 1756 ← C.M.E. Garrett D2.
- 3896 *Prunus domestica* L. - European plum cv. Victoria - leaf wash. UK Sep 1959. From J.M. Young 1757 ← C.M.E. Garrett D4RA.
- 3897 a *Prunus domestica* L. - European plum cv. Victoria. UK Mar 1960. From J.M. Young 1758 ← C.M.E. Garrett D5RA - LOPAT I.
- 3898 *Prunus domestica* L. - European plum cv. Victoria - rain wash. UK Aug 1960. From J.M. Young 1759 ← C.M.E. Garrett D10RB1.
- 3899 a *Prunus domestica* L. - European plum cv. Cambridge Gage - leaf wash. UK 1964. From J.M. Young 1760 ← C.M.E. Garrett D35 - LOPAT Ia.
- 4336 b *Prunus domestica* L. - European plum. Switzerland 1965. From NCPPB 2422 ← T. Burki 87.
- 4991 a *Prunus domestica* L. - European plum. France 1965. From NCPPB 2756 ← CFBP 1565 ← J. Luisetti 696.
- 5795 a? *Prunus domestica* L. - European plum. From ATCC 19322 ← NCPPB 48 ← H. Wormald IPP = CFBP 2351: LMG 5075: NCPPB 2995 - atypical strain - probably not *P. syringae* pv. *morsprunorum* - **Pathotype strain**.
- 3716 *Prunus* sp. South Africa 1967. From J.M. Young 1735A ← NCPPB 2242 ← B.H. Boelema 1.

Pseudomonas syringae* pv. *myricae Ogimi & Higuchi 1981

- 7118 a *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - stem gall. Japan May 1978. From C. Ogimi MR1 = ATCC 33544: LMG 5668: NCPPB 3143 - **Pathotype strain**.
- 7120 a *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - stem gall. Japan May 1978. From C. Ogimi MR13.
- 11123 *Myrica rubra* Sieb. & Zucc. - Chinese bayberry. China. From X.Z. Ren Mr8.
- 11510 * *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - knot and canker of stem. China Dec 1986. From Y.X. Zhang Sm5 - rec. as *P. syringae* subsp. *savastanoi* pv. *myricae* Acta Phytopathol. Sinica 21: 21-25. - LOPAT + - (+/-) - + ; serotype 1 - *Chinese bayberry (Zhang).
- 11511 * *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - knot and canker of stem. China Dec 1986. From Y.X. Zhang SM7 - rec. as *P. syringae* subsp. *syringae* pv. *myricae* - LOPAT + - ± - + ; serotype 1 - *Chinese bayberry (Zhang).
- 11512 * *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - knot and canker of stem. China Dec 1986. From Y.X. Zhang Sm12 - rec. as *P. syringae* subsp. *savastanoi* pv. *myricae* - LOPAT + - ± - + ; serotype 1 - *Chinese bayberry (Zhang).
- 11513 * *Myrica rubra* Sieb. & Zucc. - Chinese bayberry - knot and canker of stem. China Dec 1986. From Y.X. Zhang Sm15 - rec. as *P. syringae* subsp. *savastanoi* pv. *myricae* - LOPAT + - ± - + ; serotype 1 - *Chinese bayberry (Zhang).

Pseudomonas syringae* pv. *oryzae Kuwata 1985

- 9088 a *Oryza sativa* L. - rice cv. Akihikari - leaf lesion. Kanagi-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 1-2 = LMG 10912: NCPPB 3683 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia - **Pathotype strain**.
- 9089 a *Oryza sativa* L. - rice cv. Akihikari - leaf lesion. Kanagi-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 2-3 - Ann. Phytopath. Soc. Japan

- 51: 212-218, 1985 - LOPAT Ia.
- 9090 a *Oryza sativa* L. - rice cv. Akihikari - leaf lesion. Kanagi-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 5-1 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9091 a *Oryza sativa* L. - rice cv. Kochiminori - leaf lesion. Kanita-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 6-3 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9092 a *Oryza sativa* L. - rice cv. Kochiminori - leaf lesion. Kanita-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 8-3 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9093 a *Oryza sativa* L. - rice cv. Wasetoramochi - leaf lesion. Kanita-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 12-2 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9094 a *Oryza sativa* L. - rice cv. Kochiminori - leaf lesion. Kanita-machi, Aomori Pref., Japan Aug 1983. From H. Kuwata 21-1 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9095 a *Oryza sativa* L. - rice cv. Wasetoramochi - leaf lesion. Kanita-machi, Aomori Pref., Japan Aug 1983. From H. Kuwata 35-2 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9096 a *Oryza sativa* L. - rice cv. Wasetoramochi - leaf lesion. Kanita-machi, Aomori Pref., Japan Jul 1983. From H. Kuwata 13-3 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.
- 9097 a *Oryza sativa* L. - rice cv. Akihikari - leaf lesion. Japan Aug 1983. From H. Kuwata 36-1 - Ann. Phytopath. Soc. Japan 51: 212-218, 1985 - LOPAT Ia.

Pseudomonas syringae pv. *panici* (Elliott 1923) Young *et al.* 1978
see *Pseudomonas syringae*.

***Pseudomonas syringae* pv. *papulans* (Rose 1917) Dhanvantari 1977**

- 4040 a* *Malus X domestica* Borkh. - apple cv. Mutsu. USA. From B.N. Dhanvantari P34A ← A.L. Jones Mutsu3a = NCPPB 2845 - LOPAT I - *apple.
- 4041 *Malus X domestica* Borkh. - apple cv. Mutsu. USA. From B.N. Dhanvantari P34B ← A.L. Jones Mutsu3b.
- 4043 *Malus X domestica* Borkh. - apple cv. Mutsu. USA. From B.N. Dhanvantari P35B ← A.L. Jones Mutsu4b.
- 4044 a* *Malus X domestica* Borkh. - apple cv. Mutsu - blister spots on fruit. Canada Sep 1968. From B.N. Dhanvantari P27A = NCPPB 2847 - LOPAT I - *apple.
- 4045 a *Malus X domestica* Borkh. - apple cv. Mutsu - blister spots on fruit. Canada Sep 1968. From B.N. Dhanvantari P27B - LOPAT I.
- 4046 a *Malus X domestica* Borkh. - apple cv. Mutsu - blister spots on fruit. Canada Sep 1974. From B.N. Dhanvantari P29A ← J. Brown - LOPAT I.
- 4047 b *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1974. From B.N. Dhanvantari P29B ← J. Brown.
- 4048 a* *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1973. From B.N. Dhanvantari P30A = ATCC 19875: CFBP 1754: LMG 5076: NCPPB 2848 - LOPAT Ib - *apple - **Pathotype strain**.
- 4049 a *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1973. From B.N. Dhanvantari P30B - LOPAT I.
- 4050 a *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Aug 1974. From B.N. Dhanvantari P31A ← G. Bonn = NCPPB 2849.
- 4051 *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Aug 1974. From B.N. Dhanvantari P31B.
- 4052 *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1974. From B.N. Dhanvantari P32A ← G. Bonn.
- 4053 *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1974. From B.N. Dhanvantari P32B ← G. Bonn.
- 4054 *Malus X domestica* Borkh. - apple cv. Mutsu - blister spots on fruit. Canada Sep 1973. From B.N. Dhanvantari P33A - LOPAT I.
- 4055 a* *Malus X domestica* Borkh. - apple - blister spots on fruit. Canada Sep 1973. From B.N. Dhanvantari P33B = NCPPB 2850 - LOPAT I - *apple.
- 4986 a* *Malus X domestica* Borkh. - apple cv. Mutsu. USA. From NCPPB 2846 ← B.N. Dhanvantari P35A ← A.L. Jones Mutsu-4a - LOPAT I - *apple.
- 3881 b *USA*. From D.W. Dye MJ1 ← NCPPB 1015 = ICPB PP4: ATCC 7389: NRRL B855 - LOPAT Ia.

***Pseudomonas syringae* pv. *passiflorae* (Reid 1938) Young *et al.* 1978**

- 125 b *Passiflora edulis* Sims - passionfruit - leaf lesion. Te Puke, BP, NZ Jun 1962. From N.L. Baigent PM13 ← N.L. Baigent PF47.
- 126 a* *Passiflora edulis* Sims - passionfruit. Tauranga, BP, NZ Oct 1961. From N.L. Baigent PM14 ← N.L. Baigent PF100 = NCPPB 1391 - *passionfruit.
- 128 a* *Passiflora edulis* Sims - passionfruit - fruit lesion. Tauranga, BP, NZ Jan 1962. From N.L. Baigent PM15 ← N.L. Baigent PF2 = NCPPB 1386 - LOPAT I - *passionfruit.
- 129 a* *Passiflora edulis* Sims - passionfruit - fruit lesion. Tauranga, BP, NZ Jan 1962. From N.L. Baigent PM11 ← N.L. Baigent PF3 = CFBP 2346: LMG 5185: NCPPB 1387 - LOPAT I - *passionfruit - **Pathotype strain**.
- 130 a* *Passiflora edulis* Sims - passionfruit - fruit lesion. Te Puke, BP, NZ Jan 1962. From N.L. Baigent PM16 ← N.L. Baigent PF9 = NCPPB 1388 - LOPAT I - *passionfruit.
- 136 a* *Passiflora edulis* Sims - passionfruit - fruit lesion. Tauranga, BP, NZ Jan 1962. From N.L. Baigent PM10 ← N.L. Baigent PF25 = NCPPB 1390 - *passionfruit.
- 137 b *Passiflora edulis* Sims - passionfruit - stem canker. Te Puke, BP, NZ Jun 1962. From N.L. Baigent PM17 ← N.L. Baigent PF46.
- 138 *Passiflora edulis* Sims - passionfruit - fruit lesion. Te Puke, BP, NZ Jun 1962. From N.L. Baigent PM18 ← N.L. Baigent PF48.
- 822 b *Passiflora edulis* Sims - passionfruit - vine. Te Puke, BP, NZ Sep 1962. From N.L. Baigent PM24 ← N.L. Baigent PF54.
- 823 *Passiflora edulis* Sims - passionfruit - fruit. Te Puke, BP, NZ Sep 1962. From N.L. Baigent PM25 ← N.L. Baigent PF55.
- 1449 a* *Passiflora edulis* Sims - passionfruit cv. Purple Granadilla - fruit. Te Puke, BP, NZ 1963. From D.W. Dye PM7 ← W.J. Kemp - LOPAT I - *passionfruit.
- 1450 a* *Passiflora edulis* Sims - passionfruit - fruit. Te Puke, BP, NZ 1963. From D.W. Dye PM8 ← W.J. Kemp - LOPAT I - *passionfruit.
- 1478 a* *Passiflora edulis* Sims - passionfruit - grease spot. Te Puke, BP, NZ 1963. From D.W. Dye PM1 - LOPAT I - *passionfruit.
- 1479 b* *Passiflora edulis* Sims - passionfruit - grease spot. Te Puke, BP, NZ 1963. From D.W. Dye PM2 - *passionfruit.
- 1480 b* *Passiflora edulis* Sims - passionfruit - grease spot. Te Puke, BP, NZ 1963. From D.W. Dye PM3 - *passionfruit.
- 1481 *Passiflora edulis* Sims - passionfruit - stem lesions. Kumeu, AK, NZ 1963. From D.W. Dye PM4.
- 1483 *Passiflora edulis* Sims - passionfruit - grease-spot on fruit. Te Puke, BP, NZ 1963. From D.W. Dye PM6.
- 4513 *Passiflora edulis* Sims - passionfruit. Tauranga, BP, NZ Jan 1961. From D.W. Dye PM29 ← NCPPB 1391 ← N.L. Baigent PF100.
- 4530 b* *Passiflora edulis* Sims - passionfruit. NZ. From D.W. Dye PM31 ← NCPPB 224 ← W.D. Reid = ATCC 19876 - *passionfruit.
- 1482 *Passiflora mollissima* (HBK) Bailey - banana passionfruit - leafspot. Te Puke, BP, NZ 1963. From D.W. Dye PM5.

***Pseudomonas syringae* pv. *persicae* (Prunier *et al.* 1970) Young *et al.* 1978**

- 3706 a *Prunus cerasifera* J.F. Ehrh. - myrobalan plum. UK 1966. From J.M. Young 1722A ← NCPPB 2075 ← C.M.E. Garrett EP20 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 3707 a *Prunus cerasifera* J.F. Ehrh. - myrobalan plum. UK 1966. From J.M. Young 1723A ← NCPPB 2076 ← C.M.E. Garrett EP26 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 3708 a *Prunus cerasifera* J.F. Ehrh. - myrobalan plum. UK 1966. From J.M. Young 1724A ← NCPPB 2077 ← C.M.E. Garrett EP33 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 3709 a *Prunus cerasifera* J.F. Ehrh. - myrobalan plum. UK 1966. From J.M. Young 1725A ← NCPPB 2078 ← C.M.E. Garrett EP44 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 3710 a *Prunus cerasifera* J.F. Ehrh. - myrobalan plum. UK 1966. From J.M. Young 1739A ← NCPPB 2073 ← C.M.E. Garrett EP3 - rec. as *Pseudomonas* sp. - LOPAT Ia.
- 3979 a *Prunus persica* (L.) Batsch - peach. France 1969. From NCPPB 2254 ← M. Ridé 815-1 ← L. Gardan.
- 3980 a *Prunus persica* (L.) Batsch - peach. France 1968. From NCPPB 2324 ← A. Vigouroux A17-2.
- 4982 b *Prunus persica* (L.) Batsch - peach. France 1969. From NCPPB 2757 ← CFBP 1569 ← L. Gardan 803-4.
- 4992 a *Prunus persica* (L.) Batsch - peach. France. From NCPPB 2760 ← CFBP 1572 ← A. Vigouroux 38-6.
- 4997 b *Prunus persica* (L.) Batsch - peach - leaf surface. France 1970. From NCPPB 2763 ← CFBP 1575 ← L. Gardan A-3-1.
- 5044 b *Prunus persica* (L.) Batsch - peach. France 1969. From NCPPB 2759 ← CFBP 1571 ← L. Gardan 853-12.
- 5058 a* *Prunus persica* (L.) Batsch - peach. France 1974. From NCPPB 2762 ← CFBP 1574 ← J. Luisetti E-61-5 - *peach.

- 5846 a *Prunus persica* (L.) Batsch - peach. France 1974. From NCPPB 2761 ← CFBP 1573 ← J.P. Prunier E-52-5 = LMG 5184- see also 12393 - **Pathotype strain**.
- 7096 *Prunus persica* (L.) Batsch - peach cv. Improved Fayette - chocolate brown and dark brown die-back. Earnsclough, CO, NZ Sep 1980. From J.M. Young 31CO - LOPAT Ia.
- 7099 a* *Prunus persica* (L.) Batsch - peach cv. Hale Haven - twig die-back - dark bark layer over-runs cortex - chocolate necrotic tissue dar kens. NZ Sep 1980. From J.M. Young 46CO - LOPAT Ia - *nectarine, peach, Japanese plum.
- 7468 a* *Prunus persica* (L.) Batsch - peach cv. P38 - orange brown lesion with red indistinct margin on twig. NZ Sep 1980. From J.M. Young CO32 - LOPAT Ia - *nectarine, peach, Japanese plum.
- 8780 b *Prunus persica* (L.) Batsch - peach cv. Mayred - pale necrosis of root 30cm below crown. NZ Oct 1984. From J.M. Young 3389-4.
- 8781 b *Prunus persica* (L.) Batsch - peach cv. Mayred - pale necrosis of rootstock 20cm below crown. NZ Oct 1984. From J.M. Young 3389-6.
- 8782 b *Prunus persica* (L.) Batsch - peach cv. Mayred - pale necrosis of rootstock 10cm below crown. NZ Oct 1984. From J.M. Young 3389-8.
- 12391 b *Prunus persica* (L.) Batsch - peach. France. From L. Gardan L76-22.
- 12392 *Prunus persica* (L.) Batsch - peach. France 1967. From CFBP 1067 ← A. Vigouroux 509-2.
- 12394 *Prunus persica* (L.) Batsch - peach. France 1969. From CFBP 1570 ← L. Gardan841.8 =NCPBP 2758.
- 12395 *Prunus persica* (L.) Batsch - peach. France 1968. From CFBP 2023 ← J.P. Prunier 720.21.
- 12396 *Prunus persica* (L.) Batsch - peach. France 1975. From CFBP 2025 ← J. Luisetti G114.3
- 12397 *Prunus persica* (L.) Batsch - peach. France 1976. From CFBP 2026 ← J. Luisetti H55
- 12398 *Prunus persica* (L.) Batsch - peach. France 1977. From CFBP 2027 ← J. Luisetti K53.3
- 12399 *Prunus persica* (L.) Batsch - peach. France 1974. From CFBP 2816 ←L. Gardan G114-3
- 12400 *Prunus persica* (L.) Batsch - peach. France 1979. From CFBP 2819 ←J.L. Gaignard M24
- 12401 *Prunus persica* (L.) Batsch - peach. France 1980. From CFBP 2821 ← J.L. GaignardN219-5
- 12402 *Prunus persica* (L.) Batsch - peach. France 1982. From CFBP 2822 ← J.L. GaignardJB38-1
- 3680 b* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - light brown sunken lesions on fruit. Clyde, CO, NZ Dec 1972. From J.M. Young 1425A4 - rec. as *P. syringae* - LOPAT Ia - *nectarine.
- 5786 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Independence - twigs, bud lesions. Earnsclough, CO, NZ Aug 1977. From J.M. Young 2300A - rec. as *Pseudomonas* sp. - non-fluorescent - LOPAT Ia.
- 6766 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - small cankers girdling spurs. Earnsclough, CO, NZ Oct 1979. From J.M. Young 2617A.
- 6769 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Independence - die-back of branches, dry cankers. Earnsclough, CO, NZ Nov 1979. From J.M. Young 2634A.
- 7094 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - brown die-back on twig. Earnsclough, CO, NZ Sep 1980. From J.M. Young 6CO - LOPAT Ia - *nectarine, peach, Japanese plum.
- 7095 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Early Red Three - die-back, necrotic twig lesions. Earnsclough, CO, NZ Sep 1980. From J.M. Young 29CO - LOPAT Ia.
- 7097 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Kent Grand - dark brown lesions & necrotic die-back similar to blast symptom. Earnsclough, CO, NZ Sep 1980. From J.M. Young 33CO - LOPAT Ia.
- 7098 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Royal Giant - dark necrotic stem die-back. NZ Sep 1980. From J.M. Young 34CO - LOPAT Ia.
- 7467 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - active margin of stem die-back, pale brown necrosis. Earnsclough, CO, NZ Sep 1980. From J.M. Young CO4 - LOPAT Ia - *nectarine, peach, Japanese plum.
- 8386 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Fantasia - fruit lesions. Clyde, CO, NZ Nov 1982. From J.M. Young 3161A - blue fluorescent.
- 8390 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Fantasia - dry or gumming sucken lesions on fruit. Earnsclough, CO, NZ Dec 1982. From J.M. Young 3172R - fuscous strain - non-fluorescent - LOPAT Ia.
- 8391 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Fantasia - dry or gumming lesion on fruit. Clyde, CO, NZ Oct 1982. From J.M. Young 3173A - weakly fluorescent - LOPAT Ia.
- 8394 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Sunglo - wash from unblemished fruit. Clyde, CO, NZ Mar 1983. From J.M. Young 3235LT - weak blue fluorescent - LOPAT Ia.
- 8396 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Fairlane - dry lesion on fruit. Earnsclough, CO, NZ Mar 1983. From J.M. Young 3236A - LOPAT Ia.
- 8419 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - sucken necrotic spot on fruit. Earnsclough, CO, NZ Nov 1982. From J.M. Young A3145 - LOPAT Ia.
- 8783 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - root. Earnsclough, CO, NZ Oct 1984. From J.M. Young 3390.
- 8784 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Flavortop - faint necrosis of root. NZ Oct 1984. From J.M. Young 3391.
- 2126 b* *Prunus salicina* Lindl. - Japanese plum cv. Santa Rosa - exudate from dead buds. Hastings, HB, NZ Oct 1967. From D.R.W. Watson A7 - rec. as *Pseudomonas* sp. - LOPAT Ia - *myrobalan, nectarine.
- 7090 a* *Prunus salicina* Lindl. - Japanese plum cv. Friar - pale brown lesion extending from bud. Clyde, CO, NZ Sep 1980. From J.M. Young 50CO - LOPAT Ia - *nectarine, peach, Japanese plum.
- 7091 *Prunus salicina* Lindl. - Japanese plum cv. Laroda. Clyde, CO, NZ Sep 1980. From J.M. Young 72CO - LOPAT Ia.
- 7092 a* *Prunus salicina* Lindl. - Japanese plum cv. Frontier - medium-dark brown, dry lesion. Earnsclough, CO, NZ Sep 1980. From J.M. Young 81CO - LOPAT Ia - *nectarine, peach, Japanese plum.
- 7093 *Prunus salicina* Lindl. - Japanese plum cv. Freedom - chocolate brown lesions and die-back. Earnsclough, CO, NZ Sep 1980. From J.M. Young 77CO - LOPAT Ia.

Pseudomonas syringae pv. *phaseolicola* (Burkholder 1926) Young *et al.* 1978
see *Pseudomonas savastanoi* pv. *phaseolicola*.

***Pseudomonas syringae* pv. *philadelphii* Roberts 1985**

- 8902 a *Philadelphus coronarius* L. - mock orange - leaf lesion. UK (England). From S.J. Roberts SC021 ← T.F. Preece = NCPPB 3258 - J. Appl. Bact. 59: 283-290, 1985.
- 8903 a *Philadelphus coronarius* L. - mock orange cv. Aureus - leaf lesion. UK (England). From S.J. Roberts SC053 = CFBP 2898: NCPPB 3257 - J. Appl. Bact. 59: 283-290, 1985 - **Pathotype strain**.

***Pseudomonas syringae* pv. *photiniae* Goto 1983a**

- 7840 a* *Photinia glabra* (Thunb.) Maxim. - Japanese photinia - leaf, stem and bud. Japan Jul 1976. From M. Goto A5 = CFBP 2899: NCPPB 3688 - **P. glabra* (Goto) - **Pathotype strain**.
- 7846 a* *Photinia glabra* (Thunb.) Maxim. - Japanese photinia - leaf, stem, bud. Japan Jul 1976. From M. Goto A1 - **P. glabra* (Goto).
- 7847 a* *Photinia glabra* (Thunb.) Maxim. - Japanese photinia - leaf, stem, bud. Japan Jul 1976. From M. Goto A10 - **P. glabra* (Goto).

***Pseudomonas syringae* pv. *pisi* (Sackett 1916) Young *et al.* 1978**

- 815 b* *Pisum sativum* L. - pea - leaf. USA Jul 1944. From N.L. Baigent PN1 ← D.W. Dye PN1 ← W.H. Burkholder PP5 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - LOPAT Ia - *pea.
- 2282 b* *Pisum sativum* L. - pea - leaf blight. Lincoln, MC, NZ Nov 1967. From D.R.W. Watson C20 - homoserine +ve - *pea cv. Onward.
- 2451 *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - greasy angular dark green leaf lesion. Canterbury, NZ Jan 1969. From D.R.W. Watson B349 - homoserine +ve.
- 2452 a* *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - greasy blister lesions on stem. Canterbury, NZ Jan 1969. From D.R.W. Watson B356 = CFBP 2105: LMG 5079: NCPPB 2585 - homoserine +ve - Race 2 - *partridge pea, garden pea - **Pathotype strain**.

- 2651 a* *Pisum sativum* L. - garden pea cv. Dark Skinned Perfection - blight. Canterbury, NZ 1969. From J.M. Young 8 = NCPPB 2354 - homoserine +ve - *pea.
- 2652 a* *Pisum sativum* L. - garden pea cv. Jade - blight. Ashburton, MC, NZ 1969. From J.M. Young 15 - homoserine +ve - *pea.
- 2653 a* *Pisum sativum* L. - garden pea cv. Jade - blight. Darfield, MC, NZ 1969. From J.M. Young 20 - homoserine +ve - *pea.
- 2787 a *Pisum sativum* L. - pea - blight. Australia. From J.D. Taylor 277 ← NCPPB 123 ← R.W. Wilson - homoserine +ve - Race 1 - non-fluorescent.
- 2788 a *Pisum sativum* L. - pea - blight. USA 1945. From J.D. Taylor 278 ← NCPPB 297 = ATCC 11042 - homoserine +ve - Race 2.
- 2789 b *Pisum sativum* L. - pea - blight. USA 1945. From J.D. Taylor 279 ← NCPPB 298 ← W.H. Burkholder PP6 = ATCC 11043 - homoserine +ve.
- 2790 b *Pisum sativum* L. - pea - blight. Canada. From J.D. Taylor 280 ← NCPPB 300 ← H. Katznelson - homoserine +ve.
- 2791 b* *Pisum sativum* L. - pea - blight. Canada 1946. From J.D. Taylor 281 ← NCPPB 1358 ← W.A.F. Hagborg 3128 - homoserine +ve - LOPAT Ia - *pea.
- 2792 b *Pisum sativum* L. - pea - blight. Canada 1951. From J.D. Taylor 282 ← NCPPB 1362 ← W.A.F. Hagborg 3863 = ICPB PP124 - homoserine +ve.
- 2793 b *Pisum sativum* L. - pea - blight. Canada 1952. From J.D. Taylor 283 ← NCPPB 1364 ← W.A.F. Hagborg 4070 - homoserine +ve - Race 1.
- 2794 b *Pisum sativum* L. - pea - blight. Canada 1953. From J.D. Taylor 284 ← NCPPB 1365 ← W.A.F. Hagborg 4155 - homoserine +ve; oxidase +ve?.
- 2795 * *Pisum sativum* L. - pea - blight. Hungary 1956. From J.D. Taylor 286 ← NCPPB 1434 ← Z. Klement P035 - homoserine +ve - *pea.
- 2797 a *Pisum sativum* L. - pea - blight. South Africa 1961. From J.D. Taylor 288 ← NCPPB 1653 ← B.H. Boelema P7 - homoserine +ve.
- 3078 *Pisum sativum* L. - pea - pod. USA 1951. From W.H. Burkholder PP1 ← F.M. Clara G32 = ATCC 11055 - homoserine +ve.
- 3198 b *Pisum sativum* L. - pea - leaf. India Oct 1971. From D.W. Dye PN27 ← S.V. Hegde Pp2 - agglutinates with antiserum from ICMP 3575 - homoserine +ve.
- 3255 b *Pisum sativum* L. - pea - leaf. India Oct 1971. From D.W. Dye PN28 ← S.V. Hegde Pp1 = NCPPB 2482 - agglutinates with antiserum From ICMP 3575 - homoserine +ve.
- 3256 b *Pisum sativum* L. - pea - leaf. India Oct 1971. From D.W. Dye PN29 ← S.V. Hegde Pp3 - agglutinates with antiserum from ICMP 3575 - homoserine +ve.
- 3257 b *Pisum sativum* L. - pea - leaf. India Oct 1971. From D.W. Dye PN30 ← S.V. Hegde Pp4 - agglutinates with antiserum from ICMP 3575 - homoserine +ve.
- 3314 * *Pisum sativum* L. - pea. Auckland, AK, NZ 1970. From J.D. Taylor 236A - homoserine +ve - *pea.
- 3316 b* *Pisum sativum* L. - pea. Auckland, AK, NZ 1970. From J.D. Taylor 241B - *pea.
- 3575 b* *Pisum sativum* L. - garden pea cv. Jade - dark centred, yellow bordered tan leaf lesion. Canterbury, NZ Jan 1969. From D.R.W. Watson P16 ← J.D. Taylor 220 ← D.R.W. Watson A350 - homoserine +ve - *pea.
- 4011 *Pisum sativum* L. - pea. Canterbury, NZ 1971. From C.N. Hale ← J.D. Taylor 461 - homoserine +ve.
- 4345 a *Pisum sativum* L. - garden pea. Italy 1969. From NCPPB 2222 ← G.L. Ercolani PP11 - homoserine +ve - Race 1.
- 4433 a* *Pisum sativum* L. - garden pea. Canada 1946. From NCPPB 1359 ← W.A.F. Hagborg 3750 - homoserine +ve - *pea.
- 4505 * *Pisum sativum* L. - garden pea - blight. USA 1945. From D.W. Dye PN17 ← NCPPB 297 = ATCC 11042 - homoserine +ve - Race 2 - *pea.
- 5082 b *Pisum sativum* L. - pea. Otara, AK, NZ Dec 1970. From NCPPB 2689 ← D.W. Dye P307 ← J.D. Taylor 239A - rec. as *P. syringae* pv. *syringae* - homoserine +ve.
- 5306 b* *Pisum sativum* L. - garden pea - wet brown leaf lesion. Australia Nov 1976. From D.R.W. Watson F2232 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *pea.
- 5309 b* *Pisum sativum* L. - garden pea cv. Greenfeast - wet brown leaf lesion. Canterbury, NZ Nov 1976. From D.R.W. Watson E2248 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - LOPAT Ia - *pea.
- 5310 b* *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - wet brown leaf lesion. Australia Oct 1976. From D.R.W. Watson B2203 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 5311 b* *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - blight. Australia Oct 1976. From D.R.W. Watson A2209 ← D.W. Dye - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 5312 b* *Pisum sativum* L. - garden pea cv. Polaris - seed. NZ 1976. From D.R.W. Watson M2213 ← C.F. Hill 141 - agglutinates with antiserum From ICMP 5375 - homoserine +ve - *pea.
- 5313 b* *Pisum sativum* L. - garden pea - blight. Canterbury, NZ 1976. From D.R.W. Watson M2215 ← C.F. Hill - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 5314 b* *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - blight. Australia Oct 1976. From D.R.W. Watson A2216 ← D.W. Dye - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 5316 b* *Pisum sativum* L. - garden pea - blight. Australia Oct 1976. From D.R.W. Watson B2220 ← D.W. Dye - non-fluorescent - agglutinates with antiserum from ICMP 3575 - homoserine +ve - Race 7 - *pea.
- 5318 b* *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - small dark brown angular leaf lesion. Australia Oct 1976. From D.R.W. Watson A2206 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 5320 b* *Pisum sativum* L. - garden pea cv. Ajax - small dark brown angular leaf lesion. Australia Oct 1976. From D.R.W. Watson C2207 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *peach.
- 5321 b* *Pisum sativum* L. - garden pea cv. Victory Freezer - small dark brown angular leaf lesion. Australia Oct 1976. From D.R.W. Watson D2208 - rec. as *P. syringae* pv. *syringae* - homoserine +ve - *pea.
- 5326 b* *Pisum sativum* L. - garden pea cv. Polaris - small brown angular leaf lesion. Australia Nov 1976. From D.R.W. Watson F2244 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
- 6281 *Pisum sativum* L. - garden pea cv. Dark Skinned Perfection - blight. Canterbury, NZ 1970. From J.D. Taylor 384A - Race 2.
- 8381 b* *Pisum sativum* L. - pea - leafspot. Canterbury, NZ Mar 1983. From C.N. Hale ← I.C. Harvey 3303 - agglutinates with antiserum from ICMP 3326 - homoserine +ve - *pea.
- 10138 ? *Pisum sativum* L. - pea. Brazil. From IBSBF 719 ← J.R. Neto - homoserine + - LOPAT III.
- 10213 *Pisum sativum* L. - pea cv. Martus - seed. USA 1975. From J.D. Taylor 870A - LOPAT Ia - Race 3.
- 10214 *Pisum sativum* L. - pea cv. Asgrow Seed Co. USA 1985. From J.D. Taylor 1380A - LOPAT Ia - Race 4.
- 10215 *Pisum sativum* L. - pea cv. Belinda - seed. UK 1985. From J.D. Taylor 1491A - LOPAT Ia - Race 2.
- 10216 *Pisum sativum* L. - pea cv. Sprite. UK 1986. From J.D. Taylor 1554A - LOPAT Ia - Race 4.
- 10217 *Pisum sativum* L. - pea cv. Sprite. UK 1986. From J.D. Taylor 1556A - LOPAT Ia - Race 1.
- 10218 *Pisum sativum* L. - pea. Hungary 1956. From J.D. Taylor 1683 = NCPPB 1434 - LOPAT Ia - Race 6.
- 10219 *Pisum sativum* L. - pea. India 1971. From J.D. Taylor 1684 - LOPAT Ia, Race 1.
- 10220 *Pisum sativum* L. - pea. France 1973. From J.D. Taylor 1688 = NCPPB 2766 - LOPAT Ia - race 6.
- 10221 *Pisum sativum* L. - pea cv. Small Sieve Freezer. Australia 1976. From J.D. Taylor 1692 ← D.R.W. Watson A2206 - LOPAT Ia - Race 2.
- 10222 *Pisum sativum* L. - pea cv. Stegholt - seed. France 1986. From J.D. Taylor 1704B - LOPAT Ia - Race 6.
- 10223 *Pisum sativum* L. - pea cv. Belinda - seed. UK 1986. From J.D. Taylor 1747A - LOPAT Ia - Race 6.
- 10421 *Pisum sativum* L. - pea cv. Countess - seed. UK 1987. From J.D. Taylor 1785A - LOPAT Ia - Race 6.
- 10422 *Pisum sativum* L. - pea cv. Countess - seed. UK 1987. From J.D. Taylor 1787A - LOPAT Ia - Race 4.
- 10423 *Pisum sativum* L. - pea cv. Progreta - seed. UK 1987. From J.D. Taylor 1792 - LOPAT Ia - Race 4.
- 10424 *Pisum sativum* L. - pea cv. Small Sieve Freezer - seed. Canada 1988. From J.D. Taylor 2186A - LOPAT Ia - Race 3.
- 10425 *Pisum sativum* L. - pea cv. Rondo - seed. Canada 1988. From J.D. Taylor 2191A - LOPAT Ia - Race 3.
- 10426 *Pisum sativum* L. - pea - seed. 1988. From J.D. Taylor 2221A - LOPAT Ia - Race 5.
- 10427 *Pisum sativum* L. - pea cv. Bikini - seed. 1989. From J.D. Taylor 2301A - LOPAT Ia - Race 5.
- 10428 *Pisum sativum* L. - pea. Australia 1976. From J.D. Taylor 2491A ← ICMP 5316 - selected from single colony of ICMP 5316 - LOPAT Ia - Race 7.
- 10429 *Pisum sativum* L. - pea cv. Scout - seed. 1989. From J.D. Taylor 2532A - LOPAT Ia - Race 5.
- 10430 *Pisum sativum* L. - pea cv. Snowflake. Zimbabwe 1989. From J.D. Taylor 4012 - LOPAT Ia - Race 5.
- 10439 *Pisum sativum* L. - pea cv. Puget - seed. USA 1978. From J.D. Taylor 974B - race 5, LOPAT Ia.

- 11936 *Pisum sativum* L. - garden pea. France 1982. From CFBP 2258 ← R. Samson SB19-1.
 2650 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge - blight. Wanaka, OL, NZ 1968. From J.M. Young 25 - homoserine +ve - *pea.
 2955 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Rondo - leaf. Blenheim, MB, NZ 1969. From D.W. Dye PN12 ← J.D. Taylor 299A - homoserine +ve - non-fluorescent - LOPAT Ia - Race 1 - *pea.
 2956 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Blue Prussian - leaf. Canterbury, NZ 1970. From D.W. Dye PN13 ← J.D. Taylor 360 = NCPPB 2353 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - Race 2 - *pea.
 2957 b* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Maple - leaf. Hawea, OL, NZ 1969. From D.W. Dye PN14 ← J.D. Taylor 367 = ICPB PP133 - homoserine +ve - LOPAT Ia - *pea.
 3325 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge. Canterbury, NZ 1970. From J.D. Taylor 374A - homoserine +ve - Race 2 - *pea.
 3326 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge. Canterbury, NZ 1971. From J.D. Taylor 414A - homoserine +ve - Race 2 - *pea.
 3327 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge. Canterbury, NZ 1971. From J.D. Taylor 453B - homoserine +ve - Race 2 - *pea.
 4538 b* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Blue Prussian - leaf. Canterbury, NZ 1970. From D.W. Dye PN34 ← NCPPB 2353 ← J.D. Taylor 360 - agglutinates with antiserum from ICMP 3575 - homoserine +ve - *pea.
 6280 *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Blue Prussian - blight. Canterbury, NZ 1971. From J.D. Taylor 539A - homoserine +ve - Race 1.
 6282 b* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge - blight. Canterbury, NZ 1971. From J.D. Taylor 592 - homoserine +ve - Race 2 - *pea.

Pseudomonas syringae pv. *porri* Samson, Poutier & Rat (1984) (invalid name)
 see *P. syringae*.

Pseudomonas syringae pv. *primulae* (Ark & Gardner 1936) Young *et al.* 1978

- 3956 a *Primula* sp. USA. From D.W. Dye MQ1 ← NCPPB 133 ← P.A. Ark = ATCC 19306: CFBP 1660: LMG 2252 - LOPAT Ib - **Pathotype strain**.
 2732 *Primula X polyantha* Hort. - polyanthus. UK 1967. From J.D. Taylor 56E - LOPAT Ib.
 8670 *Primula X polyantha* Hort. - polyanthus - leaf. Hamilton, WO, NZ Jul 1984. From H.J. Boesewinkel - LOPAT Ib.
 8814 From LMG 5010 ← DSM 50292 ← W.H. Burkholder PP3 = ATCC 10860 - LOPAT - - - - - ; pectate gel +ve.

Pseudomonas syringae pv. *proteae* Moffett 1983 (invalid name)
 see *P. syringae*.

Pseudomonas syringae pv. *rhapiolepidis* Ogimi *et al.* 1992

- 9756 a* *Rhapiolepis umbellata* Makino - sharinbai - galls on trunk, twigs & petioles. Japan May 1980. From C. Ogimi RU2 = ATCC 49212: NCPPB 3618 - J. For. Soc. Jpn 74: 308-313, 1992 - LOPAT Ib - **R. umbellata* (Ogimi) - **Pathotype strain**.

Pseudomonas syringae pv. *ribicola* (Bohn & Maloit 1946) Young *et al.* 1978

- 3882 a *Ribes aureum* Pursh - golden currant. From D.W. Dye MK1 ← NCPPB 963 ← G.W. Bohn B6 = ATCC 13456: CFBP 2348: LMG 2276: NRRL B859: ICPB PR2 - LOPAT - - - - - ; **Pathotype strain**.
 3883 *Ribes aureum* Pursh - golden currant. From D.W. Dye MK2 ← NCPPB 1010 ← G.W. Bohn B5 = ICPB PR1: NRRL B858 - LOPAT Ib.

Pseudomonas syringae pv. *savastanoi* (Smith 1908) Young *et al.* 1978
 see *Pseudomonas savastanoi* pv. *savastanoi*.

Pseudomonas syringae pv. *sesami* (Malkoff 1906) Young *et al.* 1978

- 3386 b *Sesamum indicum* L. - sesame - leaf. India Sep 1971. From D.W. Dye NB3 ← S.V. Hegde PSM1223 = ICPB PS290.
 3387 b *Sesamum indicum* L. - sesame - leaf. India Sep 1971. From D.W. Dye NB4 ← S.V. Hegde PSM1226 = ICPB PS291.
 4372 *Sesamum indicum* L. - sesame. From D.W. Dye ← NCPPB 1214 ← C.A. Thomas M1.
 4414 *Sesamum indicum* L. - sesame. Greece 1959. From NCPPB 1033 ← D.G. Zachos = ATCC 19881.
 4473 *Sesamum indicum* L. - sesame. India 1971. From NCPPB 2483 ← J.F. Bradbury B5020.
 4481 *Sesamum indicum* L. - sesame. From NCPPB 1213 ← W.J. Dowson ← C.A. Thomas V25.
 4995 *Sesamum indicum* L. - sesame. India 1970. From NCPPB 2705 ← J.F. Bradbury B4499 ← B.P. Chakravarti PSM1.
 5048 *Sesamum indicum* L. - sesame. Tanzania 1962. From NCPPB 1330 ← A.C. Hayward B999.
 7459 *Sesamum indicum* L. - sesame. Brazil 1980. From IBSBF 244 ← J.R. Neto.
 11063 *Sesamum indicum* L. - sesame cv. Burirum - leafspot. Thailand. From S. Prathuangwong TISTR901.
 11064 *Sesamum indicum* L. - sesame cv. Mhasarakham 60 - leafspot. Thailand. From S. Prathuangwong TISTR902.
 11065 *Sesamum indicum* L. - sesame cv. Mhasarakham 60 - leafspot. Thailand. From S. Prathuangwong TISTR903.
 11066 *Sesamum indicum* L. - sesame cv. Nakornsawan - leafspot. Thailand. From S. Prathuangwong TISTR904.
 763 a Yugoslavia. From N.L. Baigent NB1 ← NCPPB 1016 ← D. Sutic = ATCC 19879: CFBP 1671: LMG 2289 - **Pathotype strain**.
 764 b Yugoslavia. From N.L. Baigent NB2 ← NCPPB 1017 ← D. Sutic = ATCC 19880.

Pseudomonas syringae pv. *striafaciens* (Elliott 1927) Young *et al.* 1978

- 4418 * *Avena sativa* L. - oat - leaf. Zimbabwe 1971. From NCPPB 2480 ← J.F. Bradbury B4757 - *oat.
 4483 b* *Avena sativa* L. - oat. Japan 1967. From NCPPB 2394 ← T. Tominaga P1-19-1 - *oat.
 10057 *Avena sativa* L. - oat. USA 1980. From T.M. Barta 1515 ← R. Bowden - LOPAT Ia.
 4996 a *X Triticosecale* sp. - triticales. Mexico 1973. From NCPPB 2713 ← J.F. Bradbury B5666 - LOPAT I - syringae group.
 8815 a *X Triticosecale* sp. - triticales. Mexico 1973. From LMG 5188 ← NCPPB 2713 ← J.F. Bradbury B5666 - LOPAT I - syringae group.
 3961 a? From D.W. Dye MT1 ← NCPPB 1898 ← C. Elliott 70 = ATCC 10730: CFBP 1674: ICPB PS1: LMG 2330 - LOPAT Ia - avirulent to oat - **Pathotype strain**.

Pseudomonas syringae pv. *syringae* van Hall 1902

Isolates received as *P. syringae*, or as pathovars of *P. syringae*, are listed as *P. syringae* pv. *syringae* if they have been proved pathogenic to lilac, or if they were isolated from a plant which has a shared host in common with isolates that are pathogenic to lilac and they have the determinative biochemical characters of pv. *syringae* (shown below as 'syringae group').

syn. *Pseudomonas syringae* pv. *japonica* (Mukoo 1955) Dye *et al.* 1980

- 5074 b* *Abelmoschus esculentus* (L.) Moench - okra. Kenya 1965. From NCPPB 1696 ← A.C. Hayward B2675 - LOPAT Ia - *lilac.
 11949 *Allium cepa* L. - onion. Japan. From CFBP 2338 ← M. Goto greenonion12.
 9295 b* *Alnus cordata* (Loisel.) Duby - Italian alder - black lesions on stem, trunk, leaf die-back. Kumeu, AK, NZ Apr 1986. From R.G. Clark B3521 - LOPAT Ia - *lilac.
 9296 b* *Alnus cordata* (Loisel.) Duby - Italian alder - black lesions on trunk, stem, leaf die-back. Kumeu, AK, NZ Feb 1987. From R.G. Clark A3665 - LOPAT Ia - *lilac.
 11049 * *Bellis perennis* L. - English daisy - necrotic leafspots. Iran Mar 1985. From H. Rahimian M120 - *English daisy (Rahimian).
 4732 b* *Beta vulgaris* L. subsp. *cicla* (L.) Koch - silver beet - discrete black lesions on leaf lamina. Epsom, AK, NZ May 1975. From C.F. Hill AS5921A - rec. as *P. syringae* pv. *aptata* - LOPAT Ia - *silver beet.
 4733 b* *Beta vulgaris* L. subsp. *cicla* (L.) Koch - silver beet - discrete black lesions on leaf lamina. Epsom, AK, NZ May 1975. From C.F. Hill AS5921B - rec. as *P. syringae* pv. *aptata* - non-fluorescent - LOPAT Ia - *silver beet.
 4734 b* *Beta vulgaris* L. subsp. *cicla* (L.) Koch - silver beet - black leaf lesions. Hastings, HB, NZ Jun 1975. From C.F. Hill AS5965 - rec. as *P. syringae* pv. *aptata* - LOPAT Ia - *silver beet, lilac.
 6036 a* *Beta vulgaris* L. subsp. *cicla* (L.) Koch - silver beet - leaf lesion. Auckland, AK, NZ May 1978. From D.R.W. Watson C2415 - rec. as *Pseudomonas* sp. - LOPAT Ia - *lilac.
 4265 a* *Bromus willdenowii* Kunth - prairiegrass - small grey brown leafspots elongating to dry dark brown stripes. Lincoln, MC, NZ May 1974. From

- D.R.W. Watson B1839 - rec. as *P. syringae* pv. *coronafaciens* - LOPAT (+) - - - +; syringae group - *lilac.
- 4267 b* *Bromus willdenowii* Kunth - prairiegrass - small grey brown leafspots elongating to dry dark brown stripes. Lincoln, MC, NZ May 1974. From D.R.W. Watson A1839 - rec. as *P. syringae* pv. *coronafaciens* - LOPAT I - *lilac, peach.
- 4339 b* *Bromus willdenowii* Kunth - prairiegrass - purple streaks on leaf blades. Palmerston North, WI, NZ Aug 1975. From D.J. Mathers 1991 ← C.N. Hale - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group - *peach.
- 6007 a* *Camellia sinensis* (L.) O. Kuntze - tea. USSR 1948. From I.V. Voronkevitch 122 - rec. as *P. citriputeale* - LOPAT Ia - syringae group - *lilac, peach.
- 4918 b* *Centrosema pubescens* Benth. Uganda 1973. From NCPPB 2709 ← J.F. Bradbury B5047 - LOPAT Ib - *lilac.
- 3506 a* *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon. USA 1963. From D.W. Dye P302 ← ICPB PL114 - rec. as *P. lachrymans* - LOPAT Ia - syringae group - *lilac.
- 6009 a* *Citrus aurantium* L. - sour orange, Seville orange. USSR 1949. From I.V. Voronkevitch 7 - rec. as *P. citriputeale* - LOPAT Ia - syringae group - *lilac, peach.
- 2379 b *Citrus limon* (L.) Burm.f. - lemon - twig lesion. Inglewood, TK, NZ Sep 1968. From D.R.W. Watson A260 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 3910 a* *Citrus limon* (L.) Burm.f. - lemon - fruit. Greece Mar 1963. From C.G. Panagopoulos Ie5 - LOPAT I - syringae group - *lilac.
- 4409 a *Citrus limon* (L.) Burm.f. - lemon. Italy 1968. From NCPPB 2307 ← U. Mazzucchi 67 - LOPAT I - syringae group.
- 4917 a* *Citrus limon* (L.) Burm.f. - lemon. France 1968. From NCPPB 2770 ← CFBP 1580 ← J.P. Prunier 850-1 - LOPAT I - syringae group - *lilac.
- 4923 a* *Citrus limon* (L.) Burm.f. - lemon. Greece 1963. From NCPPB 2785 ← C.G. Panagopoulos G4 - syringae group - *lemon.
- 5901 b* *Citrus limon* (L.) Burm.f. - lemon - brown depressed fruit lesion. Nelson, NN, NZ Jan 1978. From D.R.W. Watson A2365 - LOPAT Ia - syringae group - *lemon.
- 5902 a* *Citrus limon* (L.) Burm.f. - lemon - brown depressed fruit blotch. Nelson, NN, NZ Jan 1978. From D.R.W. Watson B2365 - LOPAT Ia - syringae group - *lemon.
- 6366 a* *Citrus limon* (L.) Burm.f. - lemon. USA. From R.E. Mitchell ← A.K. Vidaver PS268 - LOPAT I - syringae group.
- 9890 *Citrus limon* (L.) Burm.f. - lemon - fruit lesion. Italy Apr 1985. From J. Nemeth ← A. Kovacs PX3 - LOPAT Ia.
- 5092 b *Citrus reticulata* Blanco - Clementine mandarin. France 1975. From NCPPB 2781 ← CFBP 1607 ← J. Luisetti G20-9 - LOPAT Ia - syringae group.
- 6006 a* *Citrus reticulata* Blanco - Clementine mandarin. USSR 1948. From I.V. Voronkevitch 5 - rec. as *P. citriputeale* - LOPAT Ia - syringae group - *lilac, peach.
- 6008 a* *Citrus reticulata* Blanco - Clementine mandarin. USSR 1949. From I.V. Voronkevitch 500 - rec. as *P. citriputeale* - LOPAT Ia - syringae group - *lilac, peach.
- 3909 b* *Citrus sinensis* (L.) Osbeck - orange - shoot. Greece Apr 1968. From C.G. Panagopoulos Ie34 - *lilac.
- 5102 a* *Citrus sinensis* (L.) Osbeck - sweet orange. Greece 1962. From NCPPB 2786 ← C.G. Panagopoulos G1 - syringae group - *orange.
- 2377 b* *Citrus* sp. - citrus - leaf lesion with halo. Avondale, AK, NZ Nov 1968. From D.R.W. Watson B291 - rec. as *Pseudomonas* sp. - LOPAT Ia - *lilac.
- 2378 b* *Citrus* sp. - citrus - leaf lesion with halo. Avondale, AK, NZ Nov 1968. From D.R.W. Watson B290 - rec. as *Pseudomonas* sp. - LOPAT Ia - *lilac.
- 3891 b *Citrus* sp. - New Zealand grapefruit - leaf on infected twig. NZ Jan 1952. From D.W. Dye P297 ← NCPPB 1903 ← D.W. Dye P135 = ICPB PS134A - LOPAT Ia - syringae group.
- 4496 *Citrus* sp. Italy 1970. From NCPPB 2326 ← G.L. Ercolani 120.
- 4899 *Citrus* sp. USA 1969. From NCPPB 2813 ← M.N. Schroth S61.
- 5104 *Citrus* sp. USA. From NCPPB 2814 ← D.C. Hildebrand S69 ← C.M. Lai.
- 11964 *Corylus avellana* L. - hazel. France. From CFBP 2633 ← L. Gardan T13-1.
- 5096 b* *Cotoneaster* sp. France 1975. From NCPPB 2858 ← J.E. Sellwood A598 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group - *lilac.
- 5345 b* *Cucumis melo* L. - rock melon - large watersoaked lesions on fruit. Te Puke, BP, NZ Mar 1977. From C.F. Hill AS8560A - rec. as *P. syringae* pv. *lachrymans* - LOPAT Ia - syringae group - *cucumber, lilac (weak reaction).
- 5360 a* *Cucumis melo* L. - rock melon - leaf lesion. Te Puke, BP, NZ Mar 1977. From C.F. Hill AS8560B - rec. as *P. syringae* pv. *lachrymans* - LOPAT Ia - syringae group - *cucumber, melon, pumpkin.
- 7349 b *Cucumis melo* L. - melon cv. Prince - superficial stem necrosis. Te Puke, BP, NZ Dec 1980. From D.R.W. Watson A2842 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 7501 b* *Cucumis melo* L. - melon cv. Prince. NZ Jan 1982. From C.F. Hill PL1 ← W.L. Blundell - rec. as *P. syringae* pv. *lachrymans* - LOPAT Ia - syringae group - *cucumber, pumpkin cv. Delica, lilac.
- 7502 b* *Cucumis melo* L. - melon cv. Prince. Northland, ND, NZ Jan 1982. From C.F. Hill PL2 ← W.L. Blundell - rec. as *P. syringae* pv. *lachrymans* - LOPAT Ia - syringae group - *cucumber.
- 2430 b* *Cucumis sativus* L. - cucumber - large areas of leaf dry and brown. Whangarei, ND, NZ Oct 1968. From D.R.W. Watson A274 - rec. as *Pseudomonas* sp. - LOPAT Ib - syringae group - *cucumber.
- 5397 b* *Cucumis sativus* L. - cucumber cv. Short Green. Mt Albert, AK, NZ Dec 1976. From W.J. Kemp 3 ← P. Vi - rec. as *Pseudomonas* sp. - LOPAT I - syringae group - *cucumber, melon, lilac (weak reaction).
- 5398 b *Cucumis sativus* L. - cucumber cv. Short Green. Mt Albert, AK, NZ Dec 1976. From W.J. Kemp 4 ← P. Vi - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 5399 b* *Cucumis sativus* L. - cucumber cv. Short Green. Mt Albert, AK, NZ Dec 1976. From W.J. Kemp 5 ← P. Vi - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group - *lilac.
- 5823 a* *Cucumis sativus* L. - cucumber - large angular brown lesion with halo. Havelock North, HB, NZ Nov 1977. From C.F. Hill AS9634A - rec. as *P. syringae* pv. *lachrymans* - LOPAT Ia - syringae group - *cucumber, melon, pumpkin, pumpkin cv. Delica, lilac.
- 2443 b* *Cucurbita maxima* Duch. - pumpkin - large irregular patches of dry tissue on seedling leaves. Auckland, AK, NZ Nov 1968. From D.R.W. Watson D300 - rec. as *P. syringae* - LOPAT I - syringae group - *lilac, cucumber, melon.
- 3938 b* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ May 1974. From C.N. Hale 1787 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group - *lilac, melon, pumpkin.
- 4948 a* *Cucurbita maxima* Duch. - pumpkin - leaf. Christchurch, MC, NZ Mar 1973. From NCPPB 2741 ← J.P. Wilkie (nee Bodley) P211 ← C.F. Hill PUMPK2 - LOPAT Ia - syringae group - *cucumber, melon, pumpkin, pumpkin cv. Delica.
- 5302 a* *Cucurbita maxima* Duch. - pumpkin. NZ Mar 1973. From NCPPB 2742 ← J.P. Wilkie (nee Bodley) P212 ← C.F. Hill PUMPK3 - LOPAT Ia - syringae group - *cucumber, lilac, avirulent to melon.
- 12301 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock G1 - LOPAT Ia - *lilac (weak reaction).
- 12303 *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock G2 - LOPAT Ia; syringomycin +ve.
- 12304 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock I1 - LOPAT Ia - *lilac.
- 12305 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock I2 - syringomycin +ve - LOPAT Ia - *squash.
- 12306 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock I3 - LOPAT Ia - *lilac.
- 12307 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock K1 - LOPAT Ia - *lilac.
- 12308 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock K2 - LOPAT Ia - *lilac.
- 12309 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock L1 - LOPAT Ia - *lilac.
- 12310 *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock L2 - LOPAT Ia.
- 12311 b* *Cucurbita maxima* Duch. - squash - fruit surface warts. Mangatawhiri, AK, NZ Apr 1994. From K.R. Sharrock L3 - LOPAT Ia - *lilac.
- 6704 b* *Cucurbita* sp. - squash - leafspot. Pukekohe, AK, NZ Dec 1979. From C.F. Hill 3403 - rec. as *P. viridiflava* - toxin +ve - LOPAT Ia - *lilac.
- 6784 a* *Diospyros kaki* L.f. - Japanese persimmon - angular leafspot. Tauranga, BP, NZ Dec 1979. From J.M. Young 2677B1 - LOPAT Ia - syringae group - *lilac.
- 6787 b *Diospyros kaki* L.f. - Japanese persimmon cv. Fuyu - angular leafspot. Mt Albert, AK, NZ Dec 1979. From J.M. Young 2676A1 - syringae group.
- 6795 b *Diospyros kaki* L.f. - Japanese persimmon - angular leafspot. Mt Albert, AK, NZ Jan 1980. From J.M. Young 2683A1 - LOPAT Ib - syringae

- group.
- 7121 a* *Diospyros kaki* L.f. - Japanese persimmon cv. Fuyu - dark vertically splitting stem lesion. Mt Albert, AK, NZ Dec 1980. From J.M. Young 2833A - LOPAT lb - syringae group - *lilac.
- 7122 b *Diospyros kaki* L.f. - Japanese persimmon - dark vertically splitting stem lesion. Mt Albert, AK, NZ Dec 1980. From J.M. Young 2839A - LOPAT lb - syringae group.
- 7203 b *Diospyros kaki* L.f. - Japanese persimmon. Tauranga, BP, NZ Jan 1980. From J.M. Young 2690B - LOPAT la.
- 7204 a* *Diospyros kaki* L.f. - Japanese persimmon - leaf lesion. Tauranga, BP, NZ Dec 1980. From J.M. Young 2895A - LOPAT la - syringae group - *lilac.
- 7606 b* *Diospyros kaki* L.f. - Japanese persimmon cv. Fuyu - stem lesion. Te Puke, BP, NZ Nov 1981. From J.M. Young A3000-4 - LOPAT la - *lilac.
- 7608 a* *Diospyros kaki* L.f. - Japanese persimmon cv. Gailey - stem lesion. Te Puke, BP, NZ Nov 1981. From J.M. Young A3002B - LOPAT la - syringae group - ice nucleation +ve - *lilac.
- 11962 a* *Euonymus japonica* Thunb. - Japanese spindle tree. France 1984. From CFBP 2631 ← L. Gardan T9-6 - *lilac (Shafik).
- 11958 a* *Forsythia* sp. France 1979. From CFBP 2576 ← L. Gardan M16-2 - *lilac (Shafik).
- 6305 a* *Hordeum vulgare* L. - barley. Japan 1951. From K. Nishiyama P1-20-2 ← H. Mukoo ← K. Yoshida = NCPPB 3093 - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - Pathotype strain of *P. syringae* pv. *japonica*.
- 6384 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A10 ← S. Yoshimura - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6385 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A9 ← S. Yoshimura - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6386 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A8 ← S. Yoshimura - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6387 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A7 ← S. Yoshimura - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6388 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A6 - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6389 a* *Hordeum vulgare* L. - barley. Japan May 1976. From K. Nishiyama 76A5 - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 5063 a *Juglans regia* L. - walnut. USA 1959. From NCPPB 649 ← P.A. Ark - toxin +ve - rec. as *P. syringae* - LOPAT la.
- 5077 a* *Juglans regia* L. - walnut. France 1965. From NCPPB 2777 ← CFBP 700 ← J. Luisetti 264-1 - toxin +ve - rec. as *P. syringae* - LOPAT la - syringae group - *lilac.
- 415 b* *Lycopersicon esculentum* Mill. - tomato. Tauranga, BP, NZ Nov 1962. From N.L. Baigent T146 - LOPAT I - syringae group - *lilac (weak reaction).
- 2842 a* *Lycopersicon esculentum* Mill. - tomato. Yugoslavia 1952. From D.W. Dye NC19 ← NCPPB 878 ← D. Sutic a-Zemun - LOPAT lb - syringae group - *lilac.
- 3504 a* *Lycopersicon esculentum* Mill. - tomato - vascular tissue. Auckland, AK, NZ Nov 1971. From J.P. Wilkie (nee Bodley) 1205 = NCPPB 2747 - LOPAT - - - (+) - ; *lilac.
- 3523 a *Lycopersicon esculentum* Mill. - tomato. Australia Aug 1970. From J.P. Wilkie (nee Bodley) ZZ27 ← M.L. Moffett 088 = NCPPB 2749 - LOPAT lb - syringae group.
- 3524 b *Lycopersicon esculentum* Mill. - tomato. Australia Sep 1971. From J.P. Wilkie (nee Bodley) ZZ28 ← M.L. Moffett 0130 = NCPPB 2750 - LOPAT lb - syringae group.
- 4268 b *Lycopersicon esculentum* Mill. - tomato - small black scab on ripe fruit. Auckland, AK, NZ Jan 1975. From D.R.W. Watson E1902 - rec. as *Pseudomonas* sp. - LOPAT la - syringae group.
- 4355 b *Lycopersicon esculentum* Mill. - tomato - black angular leaf lesion. Henderson, AK, NZ Sep 1975. From D.R.W. Watson A2000 - LOPAT la - syringae group.
- 4610 b* *Lycopersicon esculentum* Mill. - tomato - dark brown leaf blotch. Drury, AK, NZ Jan 1976. From D.R.W. Watson C2094 - rec. as *Pseudomonas* sp. - LOPAT la - syringae group - *tomato.
- 5965 b *Lycopersicon esculentum* Mill. - tomato - discoloured stem vasculature of wilted plant. Massey, AK, NZ Mar 1978. From D.R.W. Watson B2405 - associated with *Clavibacter michiganensis* subsp. *michiganensis* - rec. as *Pseudomonas* sp. - LOPAT I - syringae group.
- 6364 a *Lycopersicon esculentum* Mill. - tomato. USA. From R.E. Mitchell ← A.K. Vidaver 5D4171 - LOPAT la - syringae group.
- 4369 b* *Magnolia* sp. UK 1956. From NCPPB 384 ← R.A. Lelliott - rec. as *P. syringae* - LOPAT la - *magnolia (NCPPB), lilac.
- 457 a* *Malus X domestica* Borkh. - apple cv. Golden Delicious - twig. Havelock North, HB, NZ Nov 1954. From D.W. Dye P160 = NCPPB 2731 - LOPAT lb - *apple, lilac.
- 2392 b *Malus X domestica* Borkh. - apple cv. Ballarat - deep irregular twig canker. Dunedin, DN, NZ Aug 1968. From D.R.W. Watson B240 - LOPAT lb - syringae group.
- 3930 a* *Malus X domestica* Borkh. - apple. Hungary 1970. From J.M. Young 1774 ← Z. Klement MA3 = NCPPB 2508 - *apple (NCPPB).
- 4893 b *Malus X domestica* Borkh. - apple. France 1964. From NCPPB 2775 ← CFBP 602 ← M. Ridé - syringae group.
- 12331 *Malus X domestica* Borkh. - apple - blight of shoots. Yugoslavia 1990. From M. Arsenijevic J50 - LOPAT la (Arsenijevic).
- 12332 *Malus X domestica* Borkh. - apple - blight of shoots. Yugoslavia 1990. From M. Arsenijevic J51 - LOPAT la (Arsenijevic).
- 12333 *Malus X domestica* Borkh. - apple - blight of shoots. Yugoslavia 1990. From M. Arsenijevic J52 - LOPAT la (Arsenijevic).
- 4495 b* *Medicago sativa* L. - lucerne, alfalfa. Yugoslavia 1967. From NCPPB 2268 ← M. Arsenijevic 38 - LOPAT la - *lilac.
- 3876 a* *Oryza sativa* L. - rice. Hungary. From D.W. Dye ME1 ← NCPPB 388 ← Z. Klement A289 = ATCC 19874 - rec. as *P. oryzaicola* - LOPAT la - syringae group - *lilac, peach.
- 3877 a* *Oryza sativa* L. - rice. Hungary 1956. From D.W. Dye ME2 ← NCPPB 1417 ← Z. Klement A309 - rec. as *P. oryzaicola* - LOPAT la - syringae group - *lilac.
- 4965 a* *Oryza sativa* L. - rice. Australia 1974. From NCPPB 2715 ← J.F. Bradbury B5817 ← E.J. Cother RS-A - rec. as *P. oryzaicola* - LOPAT I - syringae group - *rice (NCPPB).
- 4860 a* *Panicum miliaceum* L. - broomcorn millet. Australia 1962. From NCPPB 1242 ← A.C. Hayward B997 - rec. as *P. syringae* pv. *atrofaciens* - LOPAT la - syringae group - *lilac, peach, wheat.
- 6377 b* *Panicum miliaceum* L. - broomcorn millet. USA Feb 1976. From R.E. Mitchell ← A.K. Vidaver HS191 - LOPAT la - *lilac.
- 4490 a* *Pennisetum americanum* (L.) K. Schum. - pearl millet. Ethiopia 1961. From NCPPB 1053 ← A.C. Hayward B667 - LOPAT la - syringae group - *lilac.
- 458 a* *Persea americana* Mill. - avocado - blast. Mt Albert, AK, NZ Oct 1955. From D.W. Dye P163 = ICPB PS232: NCPPB 1914 - LOPAT la - syringae group - *avocado, lilac.
- 7405 b *Persea americana* Mill. - avocado cv. Zutano - twig lesion. Te Puke, BP, NZ Jan 1981. From D.R.W. Watson A2866 - LOPAT lb - syringae group.
- 3028 *Phaseolus lunatus* L. - sieva bean. Kenya 1962. From D.W. Dye P196 ← NCPPB 1239 ← A.C. Hayward B958A - LOPAT la - syringae group.
- 2737 ? *Phaseolus vulgaris* L. - bean. UK. From J.D. Taylor 146 ← A.L. Wharton 77 - atypical strain.
- 3189 a* *Phaseolus vulgaris* L. - bean - leaf. Levin, WN, NZ Jan 1971. From C.N. Hale 1237 = NCPPB 2686 - LOPAT la - syringae group - *lilac.
- 3394 a* *Phaseolus vulgaris* L. - bean - irregular brown leafspot with yellow border. Levin, WN, NZ Feb 1973. From D.R.W. Watson A1525 = NCPPB 2684 - LOPAT la - syringae group - *bean, lilac.
- 3396 a* *Phaseolus vulgaris* L. - bean - irregular brown leafspot with yellow border. Levin, WN, NZ Feb 1973. From D.R.W. Watson C1525 - *bean, lilac, peach.
- 3462 a* *Phaseolus vulgaris* L. - bean cv. Dwarf Early Gal - brown leafspot with darker border surrounded by yellow. NZ Feb 1973. From D.R.W. Watson A1478 = NCPPB 2687 - LOPAT la - syringae group - *peach.
- 3525 a* *Phaseolus vulgaris* L. - bean - brown leaf blotch with chlorotic halo. Levin, WN, NZ Feb 1973. From D.R.W. Watson A1489 = NCPPB 2685 - LOPAT la - syringae group - *lilac.
- 3550 a* *Phaseolus vulgaris* L. - bean - red-brown leaf lesion with pale green border. Canterbury, NZ Feb 1969. From D.R.W. Watson D389 - LOPAT la - *bean, peach.
- 3628 a* *Phaseolus vulgaris* L. - bean - red-brown leaf blotches paler dry centre. Woodend, SL, NZ Feb 1970. From D.R.W. Watson S136

- ← D.R.W. Watson E826 - LOPAT Ia - syringae group - *bean, peach, lilac.
- 3889 *Phaseolus vulgaris* L. - bean. UK 1965. From D.W. Dye P295 ← NCPPB 1770 ← D.C. Graham G129 - syringae group.
- 4378 a *Phaseolus vulgaris* L. - bean cv. Henderson Bush. USA 1929. From NCPPB 1901 ← ICPB PS10 ← R. Nelson = NRRL B871: F.M. Clara G15 - LOPAT Ia - syringae group.
- 4915 a* *Phaseolus vulgaris* L. - bean - rain splashes. USA. From NCPPB 2673 ← G.L. Ercolani RA4 - LOPAT I - syringae group - *lilac.
- 4916 a* *Phaseolus vulgaris* L. - bean. France 1965. From NCPPB 2771 ← CFBP 760 ← J.P. Prunier 286-1 - LOPAT I - syringae group - *bean, lilac.
- 9888 * *Phaseolus vulgaris* L. - bean cv. Bolyi Sarga - leafspot. Hungary Jul 1984. From J. Nemeth MB701 - LOPAT Ia - *bean (Nemeth).
- 9889 * *Phaseolus vulgaris* L. - bean cv. Bolyi Sarga - leafspot. Hungary Jul 1984. From J. Nemeth MB702 - LOPAT + - - - + ; (Nemeth) - *bean (Nemeth).
- 9891 * *Phaseolus vulgaris* L. - bean cv. Tapioi Cirmos - leafspot. Hungary Jul 1981. From J. Nemeth TA2 - LOPAT Ia (Nemeth) - *bean (Nemeth).
- 5763 a* *Pinus radiata* D. Don - radiata pine, Monterey pine - stem. Kaiangaroa, TO, NZ Aug 1977. From Y.N. Brunnsden B - LOPAT Ia - syringae group - *lilac, pine.
- 5766 a* *Pinus radiata* D. Don - radiata pine, Monterey pine - stem. Kaiangaroa, TO, NZ Aug 1977. From Y.N. Brunnsden D - LOPAT Ia - syringae group - *lilac, pine.
- 5769 a* *Pinus radiata* D. Don - radiata pine, Monterey pine - stem. Kaiangaroa, TO, NZ Aug 1977. From Y.N. Brunnsden E - LOPAT Ia - *pine.
- 2796 b *Pisum sativum* L. - pea - blight. South Africa 1957. From J.D. Taylor 287 ← NCPPB 1652 ← B.H. Boelema P2 = ICPB PP125: A.C. Hayward B2328 - rec. as *P. pisi* - homoserine -ve.
- 3319 a* *Pisum sativum* L. - pea. Auckland, AK, NZ 1970. From J.D. Taylor 250A = NCPPB 2691 - *lilac, pea.
- 3543 *Pisum sativum* L. - pea. NZ 1970. From D.R.W. Watson P29 ← J.D. Taylor 299G - homoserine -ve.
- 3939 *Pisum sativum* L. - garden pea cv. Pomaro - seed. Lincoln, MC, NZ Jun 1974. From C.N. Hale 1791 ← C.F. Hill 24-2 - homoserine -ve - LOPAT Ia.
- 4897 a* *Pisum sativum* L. - pea. Canterbury, NZ 1968. From NCPPB 2688 ← J.M. Young 19 - homoserine +ve - rec. as *P. syringae* pv. *syringae* - LOPAT Ia - *lilac.
- 5055 b* *Pisum sativum* L. - pea. France 1973. From NCPPB 2766 ← CFBP 1436 ← J.P. Paulin 91-4 - rec. as *P. syringae* pv. *pisi* - homoserine -ve - *pea.
- 5884 b *Pisum sativum* L. - garden pea cv. Small Sieve Freezer - leaf blight. Australia Oct 1977. From D.R.W. Watson G2307.
- 2649 a* *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea cv. Partridge - blight. Canterbury, NZ 1968. From J.M. Young 19 = NCPPB 2688 - homoserine +ve - LOPAT Ia - *lilac, pea.
- 9365 a* *Populus deltoides* Bartr. ex Marsh. X *P. ciliata* L. - poplar - leafspots. NZ Feb 1986. From A.G. Spiers 217 - ice nucleation -ve, syringomycin +ve - LOPAT Ia - *poplar, willow (R.H. Haworth), lilac.
- 9127 b* *Populus trichocarpa* Torr. & A. Gray - Western balsam poplar (sel. no. 4597). Netherlands Mar 1978. From M. de Kam Dsk111 - LOPAT Ia - *lilac.
- 9128 b* *Populus trichocarpa* Torr. & A. Gray - Western balsam poplar (sel. no. 4597). Netherlands Mar 1978. From M. de Kam Dsk112 - LOPAT Ib - *lilac.
- 3887 a *Populus X euramericana* (Dode) Guinier - Eugene poplar. UK. From D.W. Dye P293 ← NCPPB 981 ← W.J. Dowson 171 = ICPB PR7: NRRL B863 - LOPAT Ib - syringae group.
- 9366 * *Populus X euramericana* (Dode) Guinier - Eugene poplar - brown stem lesion. NZ Feb 1986. From A.G. Spiers 221 - ice nucleation +ve, syringomycin -ve - LOPAT Ia - *poplar, willow (R.H. Haworth), lilac.
- 9372 * *Populus X euramericana* (Dode) Guinier - Eugene poplar - leafspot. NZ Feb 1986. From A.G. Spiers 220 - ice nucleation -ve, syringomycin -ve - LOPAT Ia - *poplar, willow (R.H. Haworth), lilac.
- 9328 a* *Populus X generosa* A. Henry - poplar - black stem lesions. NZ Feb 1986. From A.G. Spiers 12 - ice nucleation +ve, syringomycin +ve - LOPAT Ia - *poplar, willow (R.H. Haworth), lilac.
- 9329 a* *Populus X generosa* A. Henry - poplar - black stem lesion. NZ Feb 1986. From A.G. Spiers 21 - ice nucleation +ve, syringomycin +ve - LOPAT Ib - *poplar, willow (R.H. Haworth) lilac.
- 409 a* *Prunus armeniaca* L. - apricot. Earnsclough, CO, NZ Nov 1962. From N.L. Baigent PS506 - LOPAT Ib - syringae group - *apricot, lilac.
- 462 a* *Prunus armeniaca* L. - apricot - leafspot. Horotane, MC, NZ Oct 1952. From D.W. Dye P125 = NCPPB 1093 - LOPAT Ib - syringae group - *apricot.
- 464 b* *Prunus armeniaca* L. - apricot. Clyde, CO, NZ Oct 1953. From D.W. Dye P140 - LOPAT Ia - syringae group - *apricot.
- 465 b *Prunus armeniaca* L. - apricot. Clyde, CO, NZ Oct 1953. From D.W. Dye P142 - LOPAT Ia.
- 505 b *Prunus armeniaca* L. - apricot cv. Roxburgh Red - leafspot. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS539 - LOPAT Ia.
- 518 b *Prunus armeniaca* L. - apricot cv. Moorpark - stem canker. NZ Nov 1962. From N.L. Baigent PS557 - LOPAT Ib.
- 519 b* *Prunus armeniaca* L. - apricot cv. Moorpark - leafspot. NZ Nov 1962. From N.L. Baigent PS560 - syringae group - *lilac, apricot.
- 520 b *Prunus armeniaca* L. - apricot cv. Trevatt - stem lesion. Roxburgh, CO, NZ Nov 1962. From N.L. Baigent PS565 - LOPAT Ib.
- 521 b* *Prunus armeniaca* L. - apricot - fruit spot. Bay View, HB, NZ Nov 1962. From N.L. Baigent PS622 - LOPAT Ia - *apricot.
- 694 b* *Prunus armeniaca* L. - apricot cv. Moorpark - stem canker. Dunstan, CO, NZ Nov 1962. From N.L. Baigent PS563 - *apricot.
- 848 b *Prunus armeniaca* L. - apricot cv. Trevatt. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS526 - LOPAT Ia.
- 850 b *Prunus armeniaca* L. - apricot cv. Newcastle - stem. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS555 - LOPAT Ib - syringae group.
- 852 b *Prunus armeniaca* L. - apricot cv. Moorpark. Dunstan, CO, NZ Nov 1962. From N.L. Baigent PS558 - LOPAT Ia.
- 859 b *Prunus armeniaca* L. - apricot - stem. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS507 - LOPAT Ia.
- 862 b *Prunus armeniaca* L. - apricot - fruit. Hawkes Bay, HB, NZ Nov 1962. From N.L. Baigent PS624 - LOPAT Ib.
- 1446 *Prunus armeniaca* L. - apricot - stem. NZ 1952. From D.W. Dye P131 - non-fluorescent - LOPAT Ia.
- 2157 *Prunus armeniaca* L. - apricot - fruit scab. Alexandra, CO, NZ Feb 1968. From D.R.W. Watson A88 - LOPAT Ia.
- 2160 *Prunus armeniaca* L. - apricot - corky lesion on fruit. Alexandra, CO, NZ Feb 1968. From D.R.W. Watson A117 - LOPAT Ia.
- 2408 a* *Prunus armeniaca* L. - apricot - large shot hole in leaf. Roxburgh, CO, NZ Nov 1968. From D.R.W. Watson B286 - LOPAT Ia - *peach.
- 3548 a* *Prunus armeniaca* L. - apricot - irregular brown lesions on fruitlets, some with greyish bacterial exudate. Alexandra, CO, NZ Nov 1970. From D.R.W. Watson H1033 - LOPAT Ia - *peach.
- 3674 b *Prunus armeniaca* L. - apricot cv. Moorpark. Earnsclough, CO, NZ Oct 1972. From J.M. Young 1345A1 - LOPAT Ia - syringae group.
- 3675 b *Prunus armeniaca* L. - apricot cv. Moorpark. Alexandra, CO, NZ Nov 1972. From J.M. Young 1393A1 - LOPAT Ia - syringae group.
- 3686 b *Prunus armeniaca* L. - apricot cv. Newcastle - twig die-back. NZ Oct 1951. From J.M. Young 1717A1 ← NCPPB 1092 ← D.W. Dye P40 - LOPAT Ia.
- 3692 b *Prunus armeniaca* L. - apricot. Yugoslavia 1967. From J.M. Young 1726A1 ← NCPPB 2260 ← M. Arsenijevic 77 - LOPAT Ia - syringae group.
- 3703 b *Prunus armeniaca* L. - apricot cv. Newcastle. Mt Albert, AK, NZ Dec 1972. From J.M. Young 1423A1 - LOPAT Ib.
- 3903 b *Prunus armeniaca* L. - apricot - bud. Australia 1962. From J.M. Young 1764 ← C.M.E. Garrett S65 ← P.T. Jenkins - LOPAT Ib - syringae group.
- 3924 a* *Prunus armeniaca* L. - apricot. Hungary 1970. From J.M. Young 1766 ← Z. Klement AP7 = NCPPB 2507 - LOPAT Ia - *apricot (Klement).
- 3925 b *Prunus armeniaca* L. - apricot. Hungary 1970. From J.M. Young 1767 ← Z. Klement AP10 - LOPAT Ia - syringae group.
- 3926 b *Prunus armeniaca* L. - apricot. Hungary 1970. From J.M. Young 1768 ← Z. Klement AP21 - syringae group.
- 4112 *Prunus armeniaca* L. - apricot. Hungary 1970. From J.M. Young 1901A1 ← Z. Klement AP24.
- 4113 b* *Prunus armeniaca* L. - apricot. Yugoslavia 1967. From J.M. Young 1900A1 ← Z. Klement 96 ← M. Arsenijevic 96 = NCPPB 2261 - syringae group - *apricot (Klement).
- 4713 a* *Prunus armeniaca* L. - apricot cv. Moorpark - watersoaked necrotic pimples on fruit. Alexandra, CO, NZ Oct 1975. From J.M. Young 2016A - LOPAT I - syringae group - *lilac.
- 4715 a* *Prunus armeniaca* L. - apricot cv. Moorpark - watersoaked necrotic pimples on fruit. Alexandra, CO, NZ Oct 1975. From J.M. Young 2020A - field isolation resistant to 1000ppm streptomycin - LOPAT I - syringae group - *lilac.
- 4719 b *Prunus armeniaca* L. - apricot cv. Moorpark - watersoaked necrotic pimples on fruit. Alexandra, CO, NZ Oct 1975. From J.M. Young 2021A - syringae group.
- 4742 b* *Prunus armeniaca* L. - apricot cv. Trevatt - washings from healthy leaves onto medium containing 100ppm streptomycin. Hastings, HB, NZ Oct

1975. From J.M. Young 2028A - resistant to 1000ppm streptomycin - *peach.
- 4746 b* *Prunus armeniaca* L. - apricot cv. Trevatt - wash from unblemished leaves. Napier, HB, NZ Oct 1975. From J.M. Young 2032B - *peach.
- 4753 b* *Prunus armeniaca* L. - apricot cv. Moorpark - wash from unblemished leaves. Alexandra, CO, NZ Oct 1975. From J.M. Young 2034A - *peach.
- 4756 b* *Prunus armeniaca* L. - apricot cv. Moorpark - wash from unblemished leaves. Alexandra, CO, NZ Oct 1975. From J.M. Young 2035A - *peach.
- 4758 b *Prunus armeniaca* L. - apricot cv. Moorpark - raised faint red-brown fruit spot. Earnsclough, CO, NZ Oct 1975. From J.M. Young 2039A1 - syringae group.
- 4892 b *Prunus armeniaca* L. - apricot. France 1966. From NCPPB 2768 ← J.P. Prunier 864 = CFBP 1587 - syringae group.
- 6491 b* *Prunus armeniaca* L. - apricot cv. Moorpark - twig. Conroys Gulley, CO, NZ Nov 1978. From J.M. Young TB1 - naturally occurring streptomycin resistant pathogenic strain - syringae group - *peach.
- 6577 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. From J.M. Young 15 - naturally occurring streptomycin resistant strain.
- 6579 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. From J.M. Young 35 - naturally occurring streptomycin resistant strain.
- 6581 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. NZ Sep 1979. From J.M. Young 38.
- 6583 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. NZ. From J.M. Young 21 - naturally occurring streptomycin resistant strain.
- 6585 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. NZ. From J.M. Young 82 - naturally occurring streptomycin resistant strain.
- 6587 *Prunus armeniaca* L. - apricot cv. Moorpark - wash from healthy leaves. NZ. From J.M. Young 11 - naturally occurring streptomycin resistant strain.
- 6637 *Prunus armeniaca* L. - apricot cv. Moorpark. NZ 1962. From J.M. Young 520RN - laboratory derived selection of ICMP 520, resistant to rifampycin, nalidixic acid.
- 6639 *Prunus armeniaca* L. - apricot cv. Moorpark. From J.M. Young 3674RN - laboratory derived selection of ICMP 3674, resistant to rifampycin, nalidixic acid.
- 6640 *Prunus armeniaca* L. - apricot. From J.M. Young 862RN - laboratory derived selection of ICMP 862, resistant to rifampycin, nalidixic acid.
- 6763 b* *Prunus armeniaca* L. - apricot cv. Moorpark - twig. NZ 1978. From J.M. Young TB1SR - naturally occurring streptomycin resistant isolate from natural infection - syringae group - *peach.
- 410 b *Prunus avium* (L.) L. - cherry cv. Twyford. Earnsclough, CO, NZ Nov 1962. From N.L. Baigent PS513 - LOPAT I - syringae group.
- 504 b *Prunus avium* (L.) L. - cherry - leafspot. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS538 - LOPAT Ia.
- 508 a *Prunus avium* (L.) L. - cherry - petiole. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS549 - LOPAT Ia - syringae group.
- 847 a* *Prunus avium* (L.) L. - cherry. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS550 - LOPAT Ia - syringae group - *lilac.
- 849 b* *Prunus avium* (L.) L. - cherry - leaf. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS537 - LOPAT Ia - syringae group - *lilac.
- 2129 *Prunus avium* (L.) L. - cherry cv. Dawson - watersoaked lesions on fruit. Alexandra, CO, NZ Nov 1967. From D.R.W. Watson A18 - LOPAT I.
- 2660 b *Prunus avium* (L.) L. - cherry. Wellington, WN, NZ 1965. From J.M. Young ← D.A. Shackleton 47 - LOPAT Ia.
- 3026 b* *Prunus avium* (L.) L. - sweet cherry. Hungary 1958. From D.W. Dye P194 ← NCPPB 1089 ← Z. Klement AB3 - LOPAT Ia - *lilac.
- 3027 b *Prunus avium* (L.) L. - wild cherry. UK 1950. From D.W. Dye P195 ← NCPPB 310 ← J.E. Crosse - LOPAT Ia.
- 3621 a* *Prunus avium* (L.) L. - cherry cv. Early Rivers - brown sunken lesions on frosted twigs. Marlborough, MB, NZ Dec 1969. From D.R.W. Watson S142 ← D.R.W. Watson B742 - LOPAT Ia - syringae group - *lilac.
- 3683 b* *Prunus avium* (L.) L. - sweet cherry. Hungary 1958. From J.M. Young 1713A ← NCPPB 1087 ← Z. Klement AB1 - LOPAT Ia - *lilac.
- 3684 a *Prunus avium* (L.) L. - sweet cherry. Hungary 1958. From J.M. Young 1714A1 ← NCPPB 1088 ← Z. Klement AB2 - syringae group.
- 3685 a *Prunus avium* (L.) L. - sweet cherry. Hungary 1958. From J.M. Young 1715A1 ← NCPPB 1090 ← Z. Klement AB5.
- 3701 b *Prunus avium* (L.) L. - cherry. USA. From J.M. Young 1710A ← A. Kelman Y17 - LOPAT Ia - *lilac.
- 3702 b? *Prunus avium* (L.) L. - cherry. USA. From J.M. Young 1711A1 ← A. Kelman Y22 - atypical - pectolytic strain - LOPAT Ia.
- 6638 *Prunus avium* (L.) L. - cherry cv. Dawson. From J.M. Young 3677RN - laboratory derived selection of ICMP 3677, resistant to rifampycin, nalidixic acid.
- 9033 *Prunus avium* (L.) L. - cherry - shoot lesion. Hungary 1984. From J. Nemeth CSER32 - LOPAT Ia - syringae group.
- 9067 b* *Prunus avium* (L.) L. - cherry - shoot lesion. Hungary 1984. From J. Nemeth 4M3 - LOPAT Ia - *lilac.
- 9887 * *Prunus avium* (L.) L. - sweet cherry - shoot necrosis. Hungary Jun 1984. From J. Nemeth 4M4 - LOPAT Ia - *cherry (Nemeth).
- 10573 a* *Prunus avium* (L.) L. - sweet cherry. Yugoslavia 1985. From M. Arsenijevic V109 - 7th Inter. conf. pl. path. bact. Budapest 11-16 June 1989 - LOPAT Ia.
- 3901 a* *Prunus cerasus* L. - sour cherry. Canada 1965. From J.M. Young 1762A ← C.M.E. Garrett S82 - LOPAT Ia - syringae group - *lilac.
- 3931 b *Prunus cerasus* L. - sour cherry. Hungary 1970. From J.M. Young 1775 ← Z. Klement B34 - syringae group.
- 5084 a *Prunus cerasus* L. - sour cherry. France 1974. From NCPPB 2769 ← CFBP 1579 ← J. Luisetti E-13-7 - syringae group.
- 546 b *Prunus domestica* L. - European plum - canker. USA Apr 1961. From N.L. Baigent P185 ← N.L. Baigent PS640 ← W.H. English - syringae group.
- 3694 a* *Prunus domestica* L. - European plum. Romania 1969. From J.M. Young 1728A1 ← NCPPB 2318 ← I. Lazar 925 - LOPAT Ia - syringae group - *lilac.
- 3902 a *Prunus domestica* L. - European plum - leaf wash. UK May 1963. From J.M. Young 1763 ← C.M.E. Garrett S75 - LOPAT I - syringae group.
- 4857 a *Prunus domestica* L. - European plum. France 1972. From NCPPB 2774 ← CFBP 1581 ← J. Luisetti P522 - syringae group.
- 6589 *Prunus domestica* L. - European plum. Romania 1969. From J.M. Young 3694RN - laboratory derived selection of ICMP 3694, resistant to rifampycin, nalidixic acid.
- 3688 a* *Prunus dulcis* (Mill.) D.A. Webb - almond. NZ Jan 1951. From J.M. Young 1718A1 ← NCPPB 1094 ← D.W. Dye P67 - LOPAT I - syringae group - *lilac.
- 3697 b *Prunus dulcis* (Mill.) D.A. Webb - almond. USA. From J.M. Young 1696A1 ← W.H. English 5D420 - syringae group.
- 5075 a *Prunus dulcis* (Mill.) D.A. Webb - almond. France 1974. From NCPPB 2767 ← CFBP 1577 ← J.P. Prunier E-62-1 - syringae group.
- 4929 b* *Prunus laurocerasus* L. - cherry-laurel. France 1975. From D.W. Dye ← NCPPB 2855 ← P. Roberts A595 - LOPAT Ia - *lilac.
- 399 b* *Prunus persica* (L.) Batsch - peach. Hastings, HB, NZ Mar 1962. From N.L. Baigent PS608 - LOPAT Ia - *lilac.
- 406 a *Prunus persica* (L.) Batsch - peach - stem. Auckland, AK, NZ Nov 1962. From N.L. Baigent PS611 - LOPAT Ib - syringae group.
- 407 b *Prunus persica* (L.) Batsch - peach. Auckland, AK, NZ Nov 1962. From N.L. Baigent PS612 - LOPAT Ib.
- 509 b* *Prunus persica* (L.) Batsch - peach cv. Rochester - leafspot. NZ Apr 1962. From N.L. Baigent PS352 - LOPAT Ib - *peach.
- 708 b *Prunus persica* (L.) Batsch - peach - leafspot. Havelock North, HB, NZ Dec 1962. From N.L. Baigent PS638 - LOPAT Ia.
- 860 a *Prunus persica* (L.) Batsch - peach - leaf. NZ Nov 1962. From N.L. Baigent PS553 - LOPAT Ia - syringae group.
- 3419 b *Prunus persica* (L.) Batsch - peach. USA. From J.M. Young 1429A1 ← W.M. Dowler 026 - LOPAT Ia.
- 3420 a* *Prunus persica* (L.) Batsch - peach. USA. From J.M. Young 1430A1 ← W.M. Dowler 310 - LOPAT Ia - syringae group - *peach (Dowler).
- 3422 b* *Prunus persica* (L.) Batsch - peach. USA. From J.M. Young 1432A1 ← W.M. Dowler 459 - LOPAT Ia - *peach (Dowler).
- 3687 a* *Prunus persica* (L.) Batsch - peach - branch canker. NZ Sep 1951. From J.M. Young 1716A1 ← NCPPB 1091 ← D.W. Dye P32 - LOPAT I - syringae group - *lilac.
- 3691 b *Prunus persica* (L.) Batsch - peach. USA 1956. From J.M. Young 1721A1 ← NCPPB 1907 ← ICPB PS148 - LOPAT Ia.
- 3695 b* *Prunus persica* (L.) Batsch - peach. Romania 1969. From J.M. Young 1729A1 ← NCPPB 2319 ← I. Lazar 531 - LOPAT Ia - *lilac.
- 3696 b *Prunus persica* (L.) Batsch - peach. Romania 1969. From J.M. Young 1730A1 ← NCPPB 2330 ← I. Lazar 525 - LOPAT Ia - syringae group.
- 3927 b* *Prunus persica* (L.) Batsch - peach. Hungary 1970. From J.M. Young 1771 ← Z. Klement 36 - *lilac.
- 3928 b *Prunus persica* (L.) Batsch - peach. Hungary 1970. From J.M. Young 1772 ← Z. Klement 29 - syringae group.
- 3929 b *Prunus persica* (L.) Batsch - peach. Hungary 1970. From J.M. Young 1773 ← Z. Klement PE1.
- 4969 a* *Prunus persica* (L.) Batsch - peach - leaf surface. France 1970. From NCPPB 2764 ← CFBP 1576 ← L. Gardan E-3-1 - rec. as *P. syringae* pv. *persicae* - LOPAT Ia - syringae group - *lilac.
- 6379 b *Prunus persica* (L.) Batsch - peach. USA Feb 1976. From R.E. Mitchell ← A.K. Vidaver B3A - syringae group.
- 8383 a* *Prunus persica* (L.) Batsch - peach cv. Flamecrest - marginal spreading necrosis of leaf following frost - oily necrosis - distinct m argin. NZ Sep 1982. From J.M. Young 3105A - LOPAT Ib - syringae group - *lilac.

- 9032 *Prunus persica* (L.) Batsch - peach - bud. Hungary 1976. From J. Nemeth B2 ← A. Kovacs - LOPAT Ia - syringae group.
- 514 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - shoot. Mt Albert, AK, NZ Dec 1962. From N.L. Baigent PS635 - LOPAT Ib - syringae group - *nectarine, lilac.
- 641 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit lesion. Havelock North, HB, NZ Feb 1963. From N.L. Baigent PS641 - LOPAT Ib - syringae group - *nectarine.
- 2402 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - leaf shot-hole. Auckland, AK, NZ Oct 1968. From D.R.W. Watson C273 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 8398 b* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - small sunken necrotic spot on mature fruit from storage. NZ May 1983. From J.M. Young 3242A - LOPAT Ia - syringae group - *lilac.
- 8403 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - branch. Earnsclough, CO, NZ. From G. Harper PDHS4985 - LOPAT Ia - syringae group.
- 9294 b* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Armking - twig die-back. NZ Oct 1986. From J.M. Young 3638 - LOPAT I - *lilac.
- 461 a* *Prunus salicina* Lindl. - Japanese plum cv. Satsuma - leaf. Horotane, MC, NZ Oct 1952. From D.W. Dye P122 - LOPAT Ia - syringae group - *lilac, plum.
- 516 a* *Prunus salicina* Lindl. - Japanese plum cv. Purpleking - stem canker. Central Otago, CO, NZ Nov 1962. From N.L. Baigent PS531 - LOPAT Ia - syringae group - *lilac, plum.
- 2168 b* *Prunus salicina* Lindl. - Japanese plum - cracked lesions on fruit. Alexandra, CO, NZ Jan 1968. From D.R.W. Watson B72 - associated with *X. campestris* pv. *pruni* - LOPAT Ia - syringae group - *plum.
- 3682 *Prunus* sp. From J.M. Young 1712A1 ← NCPPB 625 ← A. Fuchs F17 - LOPAT Ia.
- 3699 b *Prunus* sp. - cherry. USA. From J.M. Young 1701A1 ← W.H. English 5D4133 - LOPAT Ia.
- 3700 b *Prunus* sp. - cherry. USA. From J.M. Young 1709A1 ← A. Kelman Y3 - LOPAT Ia.
- 3900 b *Prunus* sp. - cherry. USA 1960. From J.M. Young 1761A ← C.M.E. Garrett S29 ← R.N. Goodman - LOPAT Ia.
- 3904 b *Prunus* sp. - cherry - leaf. Australia 1962. From J.M. Young 1765 ← C.M.E. Garrett S71 ← P.T. Jenkins - LOPAT Ia.
- 11261 *Pyrus calleryana* Decne. - ornamental pear cv. Aristocrat - healthy dormant bud. USA Jul 1990. From R.E. Mitchell ← C. Bender FF5 ← G. Sundin.
- 397 b *Pyrus communis* L. - pear - bud. Auckland, AK, NZ Nov 1962. From N.L. Baigent PS613 - LOPAT Ib - syringae group.
- 455 a* *Pyrus communis* L. - pear - blossom blast. Havelock North, HB, NZ Oct 1953. From D.W. Dye P148 = NCPPB 1085: ICPB PS135: ATCC 13393 - LOPAT Ia - syringae group - *pear.
- 466 b* *Pyrus communis* L. - pear - blossom blast. Havelock North, HB, NZ Oct 1953. From D.W. Dye P147 - LOPAT Ia - syringae group - *pear.
- 709 a* *Pyrus communis* L. - pear cv. Winter Nelis - blossom. Havelock North, HB, NZ 1953. From D.W. Dye P164 - LOPAT Ia - syringae group - *lilac.
- 2128 a* *Pyrus communis* L. - pear - black lesion on fruit with exudate. Havelock North, HB, NZ Nov 1967. From D.R.W. Watson B15 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group - *lilac, pear.
- 2747 *Pyrus communis* L. - pear. UK 1959. From J.D. Taylor 149 ← E. Billing P55 = NCPPB 1105.
- 3025 a *Pyrus communis* L. - pear. UK 1960. From D.W. Dye P193 ← NCPPB 1083 ← A.A. Nichols 44-2b - LOPAT Ia.
- 3081 b *Pyrus communis* L. - pear - blossom. USA 1955. From ATCC 12274 ← W.H. Burkholder PS21 - LOPAT Ia - syringae group.
- 3906 b *Pyrus communis* L. - pear - shoot. Greece Jun 1967. From C.G. Panagopoulos IA8 - syringae group.
- 3907 *Pyrus communis* L. - pear - shoot. Greece Jun 1967. From C.G. Panagopoulos IA7A.
- 3908 *Pyrus communis* L. - pear - spur. UK (England). From C.G. Panagopoulos WD1.
- 3932 b *Pyrus communis* L. - pear. 1964. From J.M. Young 1777 ← Z. Klement C86 ← W.J. Dowson - syringae group.
- 3933 a *Pyrus communis* L. - pear - shoot. Greece Jun 1967. From J.M. Young Ia7B ← C.G. Panagopoulos Ia7 - syringae group.
- 4491 a *Pyrus communis* L. - pear. UK 1959. From NCPPB 1074 ← E. Billing W136 - syringae group.
- 5079 a *Pyrus communis* L. - pear. UK 1962. From NCPPB 1259 ← L.A.E. Baker 413 - syringae group.
- 5085 a *Pyrus communis* L. - pear. France 1965. From NCPPB 2778 ← CFBP 1147 ← J. Luisetti 41 - syringae group.
- 9886 *Pyrus communis* L. - pear - shoot necrosis. Hungary May 1985. From J. Nemeth ← A. Kovacs KK22 - LOPAT Ia.
- 9892 *Pyrus communis* L. - pear - shoot necrosis. Hungary Jun 1985. From J. Nemeth ← A. Kovacs ZK6 - LOPAT Ia.
- 716 b *Rosa* sp. - leaf. Gore, SL, NZ Oct 1962. From N.L. Baigent PS616 - rec. as *Pseudomonas* sp. - avirulent to lilac - LOPAT Ia - syringae group.
- 2432 b *Rosa* sp. - exudate from brown stem lesion. Mt Albert, AK, NZ Dec 1968. From D.R.W. Watson B313 - rec. as *Pseudomonas* sp. - LOPAT Ia - syringae group.
- 5094 a* *Rosa* sp. France 1975. From NCPPB 2783 ← CFBP 1608 ← J. Luisetti G26 - LOPAT Ia - *lilac.
- 5105 b* *Rosa* sp. USA 1975. From NCPPB 2807 ← D.C. Hildebrand ← N.J. Panopoulos - LOPAT Ia - *lilac.
- 6365 b *Rosa* sp. USA. From R.E. Mitchell ← A.K. Vidaver 5D4214 - LOPAT Ia - syringae group.
- 463 a* *Salix fragilis* L. - crack willow - leafspot. Horotane, MC, NZ Oct 1953. From D.W. Dye P126 = NCPPB 1911: ICPB PS225 - LOPAT Ib - syringae group - *willow.
- 3893 b* *Salix matsudana* G. Koidz. - Pekin willow cv. Tortuosa. UK 1967. From D.W. Dye P299 ← NCPPB 2052 ← R.A. Lelliott W3 - LOPAT Ia - syringae group - *lilac.
- 9327 a* *Salix X erythroflexuosa* Rag. & Alberti - willow - stem lesion. NZ 1985. From A.G. Spiers 5 - ice nucleation +ve, syringomycin -ve - LOPAT Ia - *willow, poplar (R.H. Haworth), lilac.
- 9330 a* *Salix X erythroflexuosa* Rag. & Alberti - willow - black stem lesion. NZ Feb 1986. From A.G. Spiers 30 - ice nucleation +ve, syringomycin +ve - LOPAT Ib - *poplar, willow.
- 4415 b *Sorghum bicolor* (L.) Moench - sweet sorghum. Yugoslavia 1964. From NCPPB 2262 ← M. Arsenijevic SIR7 - LOPAT I - syringae group.
- 4474 a *Sorghum bicolor* (L.) Moench - sorghum. Hungary 1967. From NCPPB 2106 ← Z. Klement C1 ← M. Hevesi - LOPAT I - syringae group.
- 6014 a* *Sorghum bicolor* (L.) Moench - sorghum - stem. USSR 1961. From I.V. Voronkevitch 8300 - rec. as *P. holci* - LOPAT I - syringae group - *lilac, maize, peach.
- 3406 a* *Sorghum* sp. - tridgrass - red-brown exudate encrusted leaf stripe. Gisborne, GB, NZ Jan 1973. From D.R.W. Watson E1453 - LOPAT Ia - syringae group - *lilac.
- 1445 a* *Syringa vulgaris* L. - lilac - leaf. Horotane Valley, MC, NZ 1952. From D.W. Dye P123 = NCPPB 1902: ICPB PS133 - LOPAT Ia - syringae group - *lilac, peach.
- 3023 a* *Syringa vulgaris* L. - lilac. UK 1950. From D.W. Dye P191 ← NCPPB 281 ← K.A. Sabet = ATCC 19310: CFBP 1392: ICPB PS255: LMG 1247 - LOPAT Ia - syringae group - *lilac, cucumber, melon, pumpkin - **Type strain**.
- 3029 a* *Syringa vulgaris* L. - lilac. UK. From D.W. Dye P197 ← NCPPB 93 ← W.J. Dowson - LOPAT Ia - syringae group - *lilac, peach.
- 3080 a* *Syringa vulgaris* L. - lilac. USA 1955. From ATCC 12273 ← W.H. Burkholder PS20 - LOPAT Ia - syringae group - *lilac.
- 3475 a* *Syringa vulgaris* L. - lilac. UK 1957. From J.M. Young 1559A ← NCPPB 524 ← J. Rishbeth = W.J. Dowson 410 - LOPAT Ia - syringae group - *lilac.
- 3476 a* *Syringa vulgaris* L. - lilac. UK 1960. From J.M. Young 1560A ← NCPPB 1070 ← E. Billing W48-3 - LOPAT Ia - syringae group - *lilac, cucumber, melon, pumpkin.
- 3477 b* *Syringa vulgaris* L. - lilac. UK 1961. From J.M. Young 1561A ← NCPPB 1071 ← E. Billing W54-1 - LOPAT Ia - *lilac.
- 3478 a* *Syringa vulgaris* L. - lilac. UK. From J.M. Young 1562A ← NCPPB 1205 ← A.M. Paton M82 - LOPAT I - syringae group - *lilac.
- 3491 b* *Syringa vulgaris* L. - lilac - brown greasy lesion. Pukekohe, AK, NZ Oct 1970. From D.R.W. Watson B1016 = NCPPB 2736 - LOPAT Ia - *peach.
- 3509 a* *Syringa vulgaris* L. - lilac. USA. From J.M. Young 1577 ← A. Kelman - LOPAT Ia - syringae group - *lilac.
- 3556 a* *Syringa vulgaris* L. - lilac - leaf. UK (Scotland) 1973. From J.M. Young 1593A ← A.M. Paton C - LOPAT Ia - syringae group - *cabbage, chrysanthemum, cichory, lettuce, lilac, tomato.
- 3557 a* *Syringa vulgaris* L. - lilac - leaf. UK (Scotland) 1973. From J.M. Young 1592A ← A.M. Paton B - LOPAT Ia - syringae group - *lilac, cucumber, melon, pumpkin.
- 4894 a* *Syringa vulgaris* L. - lilac. 1959. From NCPPB 2679 ← C.M.E. Garrett S26 - *lilac.
- 4932 b* *Syringa vulgaris* L. - lilac. UK 1967. From NCPPB 2702 ← J.F. Bradbury B3637A - pectolytic(?) strain - *lilac.

- 5076 a* *Syringa vulgaris* L. - lilac. France 1965. From NCPPB 2773 ← CFBP 775 ← J. Luisetti 227-3 - LOPAT I - syringae group - *lilac, cucumber, melon, pumpkin.
- 11957 *Thuja* sp. France 1979. From CFBP 2575 ← L. Gardan M100-3.
- 4895 a* *Triticum aestivum* L. - wheat. USA 1972. From NCPPB 2842 ← J.D. Otta 297 - LOPAT I - syringae group - *sorghum, wheat (Otta).
- 5087 a* *Triticum aestivum* L. - wheat. USA 1972. From NCPPB 2844 ← J.D. Otta 292 - LOPAT Ia - syringae group - *sorghum, wheat (Otta).
- 6390 a* *Triticum aestivum* L. - wheat. Japan Apr 1976. From K. Nishiyama 76A4 ← T. Kajiwara - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6391 a* *Triticum aestivum* L. - wheat. Japan Apr 1976. From K. Nishiyama 76A3 ← T. Kajiwara - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6392 a* *Triticum aestivum* L. - wheat. Japan Apr 1976. From K. Nishiyama 76A2 ← T. Kajiwara - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group - *lilac.
- 6393 a *Triticum aestivum* L. - wheat. Japan Apr 1976. From K. Nishiyama 76A1 ← T. Kajiwara - rec. as *P. syringae* pv. *japonica* - LOPAT I - syringae group.
- 9114 b* *Triticum aestivum* L. - wheat. USA 1983. From L.E. Clafin 356 - LOPAT Ia - *lilac.
- 10567 a* *Triticum aestivum* L. - wheat - seed head. Yugoslavia 1987. From M. Arsenijevic Ps4 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 10568 a* *Triticum aestivum* L. - wheat - seed head. Yugoslavia 1987. From M. Arsenijevic Ps5 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 10569 a* *Triticum aestivum* L. - wheat - stem. Yugoslavia 1988. From M. Arsenijevic Ps66 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 10570 a* *Triticum aestivum* L. - wheat - stem. Yugoslavia 1988. From M. Arsenijevic Ps67 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 10571 a* *Triticum aestivum* L. - wheat - stem. Yugoslavia 1988. From M. Arsenijevic Ps91 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 10572 a* *Triticum aestivum* L. - wheat - stem. Yugoslavia 1988. From M. Arsenijevic Ps92 - Zastita Bilja 40: 187, 1989 - LOPAT Ia (Arsenijevic) - *cherry, bean (Arsenijevic).
- 4413 USA. From NCPPB 1899 ← ICPB PS3 ← A.C. Braun B45 = NRRL B866 - LOPAT Ib.
- 6578 NZ Sep 1979. From J.M. Young 15P ← J.M. Young 15 - laboratory derived selection of ICMP 6577 - carries RP4 plasmid from *E. coli*.
- 6580 NZ Sep 1979. From J.M. Young 35P ← J.M. Young 35 - laboratory derived selection of ICMP 6579 - carries RP4 plasmid from *E. coli*.
- 6582 NZ Sep 1979. From J.M. Young 38P ← J.M. Young 38 - laboratory derived selection of ICMP 6581 - carries RP4 plasmid from *E. coli*.
- 6584 NZ Sep 1979. From J.M. Young 21P ← J.M. Young 21 - laboratory derived selection of ICMP 6583 - carries RP4 plasmid of *E. coli*.
- 6586 NZ Sep 1979. From J.M. Young 82P ← J.M. Young 82 - laboratory derived selection of ICMP 6585 - carries RP4 plasmid of *E. coli*.
- 6588 NZ Sep 1979. From J.M. Young 11P ← J.M. Young 11 - laboratory derived selection of ICMP6587 - carries RP4 plasmid of *E. coli*.
- 6641 NZ Sep 1979. From J.M. Young 520RNT - laboratory derived rifampycin, nalidixic acid resistant selection - carries RP4 plasmid from ICMP 6578.

Pseudomonas syringae* pv. *tabaci (Wolf & Foster 1917) Young *et al.* 1978

- 12192 *Desmodium canum* Schinz & Thellung. Brazil 1992. From IBSBF 974 ← M.A.S. Tanaka IAC6896.
- 3378 a* *Glycine max* (L.) Merr. - soybean - leafspot. Australia Feb 1972. From D.W. Dye PH9 ← M.L. Moffett 0155 = NCPPB 2730 - associated with *X. campestris* pv. *glycines* - *tobacco.
- 3432 b* *Glycine max* (L.) Merr. - soybean - leaf lesion. Australia Feb 1972. From D.R.W. Watson D1519 = NCPPB 2728 - associated with *X. campestris* pv. *glycines* - *tobacco.
- 3433 a* *Glycine max* (L.) Merr. - soybean - leaf lesion. Australia Feb 1972. From D.R.W. Watson E1519 = NCPPB 2729 - associated with *X. campestris* pv. *glycines* - *tobacco.
- 2810 b* *Nicotiana tabacum* L. - tobacco. USA. From D.W. Dye NH1 ← NCPPB 79 ← A.R. Wilson = ICPB PA108 - rec. as *P. angulata* - *tobacco.
- 2812 b* *Nicotiana tabacum* L. - tobacco - leaf. Malawi 1962. From D.W. Dye NH3 ← NCPPB 1237 ← A.C. Hayward B931 = ICPB PA130 - rec. as *P. angulata* - *tobacco.
- 2832 b* *Nicotiana tabacum* L. - tobacco - leaf. Zambia 1962. From D.W. Dye PH4 ← NCPPB 1233 ← A.C. Hayward B873A - *tobacco.
- 2833 b* *Nicotiana tabacum* L. - tobacco - leaf. Zambia 1962. From D.W. Dye PH5 ← NCPPB 1234 ← A.C. Hayward B875 - *tobacco.
- 2834 a* *Nicotiana tabacum* L. - tobacco - leaf. Hungary 1959. From D.W. Dye PH6 ← NCPPB 1408 ← Z. Klement H35 = ICPB PT126 - LOPAT I - *tobacco.
- 2835 a* *Nicotiana tabacum* L. - tobacco. Hungary 1959. From D.W. Dye PH7 ← NCPPB 1427 ← Z. Klement H59 = CFBP 2106: ICPB PT124: LMG 5393 - *tobacco - **Pathotype strain**.
- 2836 a* *Nicotiana tabacum* L. - tobacco - leaf. Hungary 1956. From D.W. Dye PH8 ← NCPPB 1429 ← Z. Klement H04 = ICPB PT125 - tabtoxin production weak - *tobacco.
- 2851 a* *Nicotiana tabacum* L. - tobacco. From D.W. Dye NH4 ← NCPPB 1865 ← A.C. Braun B99 = NRRL B821: ICPB PA3 - rec. as *P. angulata* - LOPAT I - *tobacco.
- 4934 a* *Nicotiana tabacum* L. - tobacco. Hungary 1956. From NCPPB 1429 ← Z. Klement H04 = ICPB PT125 - does not produce tabtoxin - *tobacco.
- 4956 a* *Nicotiana tabacum* L. - tobacco. Malawi 1962. From NCPPB 1238 ← A.C. Hayward B934 = ICPB PA131 - rec. as *P. angulata* - does not produce tabtoxin - *tobacco.
- 5004 b* *Nicotiana tabacum* L. - tobacco. Zimbabwe. From NCPPB 214 ← G.R. Bates - rec. as *P. angulata* - does not produce tabtoxin - *tobacco.
- 5107 b* *Nicotiana tabacum* L. - tobacco. From NCPPB 1919 ← ICPB PT12 ← W.S. Beach 80 = NRRL B887 - LOPAT Ib - *tobacco.
- 8631 b* *Nicotiana tabacum* L. - tobacco - leaf lesion. Nelson, NN, NZ Mar 1984. From T.L. Scott TOB1 - LOPAT Ia - *tobacco.
- 10043 *Nicotiana tabacum* L. - tobacco. From T.M. Barta 11528R ← ATCC 11528 ← W.D. Valleau 18-2 - rifampicin resistant derivative of ATCC 11528 - race 0, LOPAT 1a.
- 10044 *Nicotiana tabacum* L. - tobacco. From T.M. Barta Pa45R ← D. Durbin - rifampicin resistant - race 0, LOPAT 1a.
- 10045 *Nicotiana tabacum* L. - tobacco. From T.M. Barta Vir78 ← K. Knoche ← R.W. Fulton - race 1, LOPAT 1a.
- 10046 *Nicotiana tabacum* L. - tobacco. USA. From T.M. Barta B76(PtB76) ← R.D. Durbin ← R. Ribeiro - LOPAT Ia.
- 10048 *Nicotiana tabacum* L. - tobacco. USA. From T.M. Barta LS1 ← K. Knoche - race 1, LOPAT Ia.
- 10049 *Nicotiana tabacum* L. - tobacco. USA 1982. From T.M. Barta JS-81-75 ← H.S. Spurr ← J. Skoog - tabtoxin producer - race 0.
- 10050 *Nicotiana tabacum* L. - tobacco. USA 1986. From T.M. Barta NC86-2M ← H.S. Spurr - race 1, LOPAT Ia.
- 10051 *Nicotiana tabacum* L. - tobacco. USA 1984. From T.M. Barta JS-84-116 ← H.S. Spurr - race 0, LOPAT Ia.
- 4410 b *Phaseolus vulgaris* L. - bean. Brazil 1973. From NCPPB 2618 ← C.F. Robbs ENA 2077 ← R.L.D. Ribeiro - HR in tobacco.
- 4525 b *Phaseolus vulgaris* L. - bean. Brazil 1973. From NCPPB 2617 ← C.F. Robbs ENA 2035 ← R.L.D. Ribeiro - HR in tobacco.
- 4497 b* Zimbabwe. From NCPPB 221 ← G.R. Bates 7855 - *tobacco.

Pseudomonas syringae* pv. *tagetes (Hellmers 1955) Young *et al.* 1978

- 4091 a *Tagetes erecta* L. - African marigold. Zimbabwe 1972. From D.W. Dye LC1 ← NCPPB 2488 ← J.F. Bradbury B5063 = CFBP 1694: LMG 5092 - LOPAT Ib - **Pathotype strain**.
- 4092 *Tagetes erecta* L. - African marigold. UK 1970. From D.W. Dye LC2 ← NCPPB 2489 ← J.F. Bradbury B4532.
- 5866 *Tagetes erecta* L. - African marigold - leaf. Australia 1976. From P.C. Fahy DAR26807.
- 6369 *Tagetes erecta* L. - African marigold - leafspots with strong apical chlorosis. Australia 1976. From R.E. Mitchell ← R.D. Durbin PT3A ← P.C. Fahy DAR26807.
- 6370 *Tagetes erecta* L. - African marigold - leafspots with strong apical chlorosis. Australia 1976. From R.E. Mitchell PT3BS ← R.D. Durbin PT3B ← P.C. Fahy DAR26807.
- 6564 *Tagetes erecta* L. - African marigold. From R.E. Mitchell ← R.D. Durbin 3IID1.
- 11161 *Tagetes erecta* L. - African marigold. Australia. From ATCC 53554 ← R.D. Durbin C42mr2+ - produces tagetitoxin - re-isolate of single colony.
- 6371 *Tagetes* sp. - marigold - leafspotting only, no apical or halo chlorosis symptoms. USA 1978. From R.E. Mitchell ← R.D. Durbin 'Wisc-A'.

Pseudomonas syringae* pv. *theae (Hori 1915) Young *et al.* 1978

- 3923 a *Camellia sinensis* (L.) O. Kuntze - tea - leaf. Japan 1970. From M. Goto PT1 = CFBP 2353: LMG 5092: NCPPB 2598 - **Pathotype strain.**
3934 a *Camellia sinensis* (L.) O. Kuntze - tea - leaf. Japan. From M. Goto PT3.

Pseudomonas syringae* pv. *tomato (Okabe 1933) Young *et al.* 1978

- 809 *Lycopersicon esculentum* Mill. - tomato - stem necrosis. Kumeu, AK, NZ Feb 1963. From N.L. Baigent PS644 - LOPAT lb.
837 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1962. From N.L. Baigent T153.
838 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1963. From N.L. Baigent T198.
842 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ 1962. From N.L. Baigent T125.
2841 a* *Lycopersicon esculentum* Mill. - tomato. Denmark 1949. From D.W. Dye NC18 ← NCPPB 269 ← E. Hellmers - LOPAT la - *tomato.
2843 a* *Lycopersicon esculentum* Mill. - tomato. USA 1942. From D.W. Dye NC20 ← NCPPB 1008 ← W.H. Burkholder = ICPB PT9: NRRL B884 - LOPAT la - *tomato.
2844 a* *Lycopersicon esculentum* Mill. - tomato. UK 1960. From D.W. Dye NC21 ← NCPPB 1106 ← R.A. Lelliott T44 = CFBP 2212: LMG 5093 - LOPAT la - *tomato - **Pathotype strain.**
2845 a* *Lycopersicon esculentum* Mill. - tomato. UK 1960. From D.W. Dye NC22 ← NCPPB 1108 ← R.A. Lelliott T77 - LOPAT la - *tomato.
2846 a* *Lycopersicon esculentum* Mill. - tomato. Canada 1956. From D.W. Dye NC23 ← NCPPB 1369 ← W.A.F. Hagborg 4513 - LOPAT la - *tomato.
3357 a* *Lycopersicon esculentum* Mill. - tomato - fruit lesions. Henderson, AK, NZ Mar 1972. From J.P. Wilkie (nee Bodley) 1274 - *tomato.
3358 a* *Lycopersicon esculentum* Mill. - tomato - leaf lesion. Hastings, HB, NZ Nov 1971. From J.P. Wilkie (nee Bodley) 1211 - *tomato.
3359 a* *Lycopersicon esculentum* Mill. - tomato - leaf lesion. Levin, WN, NZ Oct 1972. From J.P. Wilkie (nee Bodley) A1366 - *tomato.
3362 a* *Lycopersicon esculentum* Mill. - tomato - stem lesion. Tolaga Bay, GB, NZ Dec 1972. From J.P. Wilkie (nee Bodley) B1420 = NCPPB 2683 - LOPAT I - *tomato.
3502 a* *Lycopersicon esculentum* Mill. - tomato - stem. USA May 1948. From J.P. Wilkie (nee Bodley) NC34 ← ICPB PP101 ← P.A. Ark - rec. as *P. punctulans* - LOPAT la - *tomato.
3647 *Lycopersicon esculentum* Mill. - tomato - leaf lesion. Australia 1973. From J.P. Wilkie (nee Bodley) 1656 ← M.L. Moffett 0258.
4259 b* *Lycopersicon esculentum* Mill. - tomato - small dark angular leaf lesion. Lincoln, MC, NZ Sep 1972. From J.P. Wilkie (nee Bodley) A1332 - agglutinates with antiserum from ICMP 2843 - *tomato.
4263 b* *Lycopersicon esculentum* Mill. - tomato - black fleck on leaf, stem. Levin, WN, NZ Oct 1972. From J.P. Wilkie (nee Bodley) B1366 - *tomato.
4325 a *Lycopersicon esculentum* Mill. - tomato. Canada 1944. From D.W. Dye ← NCPPB 1367 ← W.A.F. Hagborg 1799.
4358 b* *Lycopersicon esculentum* Mill. - tomato - black angular leaf lesion. Henderson, AK, NZ Sep 1975. From D.R.W. Watson B2000 - rec. as *P. syringae* - LOPAT la - *tomato.
4395 b* *Lycopersicon esculentum* Mill. - tomato - brown angular leaf lesion with yellow border. Levin, WN, NZ Sep 1972. From D.R.W. Watson M3361 ← ICMP 3361 ← J.P. Wilkie (nee Bodley) A1337 - *tomato.
4498 *Lycopersicon esculentum* Mill. - tomato. Yugoslavia 1953. From D.W. Dye NC36 ← NCPPB 880 ← D. Sutic 'B-Misljenovac'.
4499 a *Lycopersicon esculentum* Mill. - tomato. Canada 1948. From NCPPB 1368 ← W.A.F. Hagborg 3420.
4608 b* *Lycopersicon esculentum* Mill. - tomato hybrid dwarf - angular brown leafspot with yellow halo. Pukekohe, AK, NZ Jan 1976. From D.R.W. Watson C2092 - rec. as *Pseudomonas* sp. - LOPAT la - *tomato.
4933 a *Lycopersicon esculentum* Mill. - tomato. UK 1973. From NCPPB 2563 ← E. Buckler P16A-B2.
5109 *Lycopersicon esculentum* Mill. - tomato. Switzerland 1969. From NCPPB 2424 ← T. Burki 190.
6285 a* *Lycopersicon esculentum* Mill. - tomato - leaf lesion. NZ Jan 1972. From J.P. Wilkie (nee Bodley) 1236 - LOPAT la - *tomato.
6374 *Lycopersicon esculentum* Mill. - tomato. USA. From R.E. Mitchell ← D. Coplin 70.
6375 *Lycopersicon esculentum* Mill. - tomato. USA. From R.E. Mitchell ← D. Coplin 30.
6451 *Lycopersicon esculentum* Mill. - tomato - scabby leafspot. Auckland, AK, NZ Jan 1979. From D.R.W. Watson C2504.
7230 b* *Lycopersicon esculentum* Mill. - tomato cv. Ganet - petiole streak. Mangere, AK, NZ Aug 1980. From D.R.W. Watson A2792 - *tomato.
7380 *Lycopersicon esculentum* Mill. - tomato - leafspot. Gisborne, GB, NZ Dec 1980. From D.R.W. Watson A2847 - associated with *X. campestris* pv. *vesicatoria*.
7730 b *Lycopersicon esculentum* Mill. - tomato - stem, leaf. NZ 1982. From R.G. Clark AF3060 - agglutinates with antiserum from ICMP 2843.
9315 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-2 - parent strain - produces coronatine - LOPAT la.
9316 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-20: I-1 - chlorosis defective - Tn5 mutant - LOPAT lb.
9317 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-21: 0-17 - chlorosis defective - Tn5 mutant - LOPAT la.
9318 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-22: F-19 - chlorosis defective - Tn5 mutant - LOPAT la.
9319 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-23: G-19 - chlorosis defective - Tn5 mutant - LOPAT la.
9320 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-24: S-5 - chlorosis defective - Tn5 mutant - LOPAT la.
9321 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-25: V-23 - chlorosis defective - Tn5 mutant - LOPAT la.
9322 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-26: W-3 - chlorosis defective - Tn5 mutant - LOPAT la.
9323 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-27: DD-20 - chlorosis defective - Tn5 mutant - LOPAT la.
9324 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-28: GG-2 - chlorosis defective - Tn5 mutant - LOPAT la.
9325 *Lycopersicon esculentum* Mill. - tomato. From C.L. Bender PT23-29: II-2 - chlorosis defective - Tn5 mutant - LOPAT la.
9499 a* *Lycopersicon esculentum* Mill. - tomato - necrosis, chlorosis of leaf. USA Jun 1983. From C.L. Bender PT23-2 ← W. Chun UCRDAL 0683-23 - Physiol. Molecular Plant Pathol. 30: 273-283 - toxigenic strain of *P. syringae* pv. *tomato* - contains pPT23A - resistant to rifampicin (50 ppm) - copper resistant - *tomato (Bender).
3435 b* *Solanum mauritianum* Scop. - woolly nightshade - small dark brown angular yellow bordered leafspot. Auckland, AK, NZ Sep 1972. From D.R.W. Watson B1336 - rec. as *Pseudomonas* sp. - LOPAT la - *peach, nightshade, tomato.
3443 b* *Solanum mauritianum* Scop. - woolly nightshade - small dark brown yellow bordered leafspot. Mt Albert, AK, NZ Oct 1972. From D.R.W. Watson A1373 - rec. as *Pseudomonas* sp. - non-fluorescent - LOPAT la - *tomato.
3449 b *Solanum mauritianum* Scop. - woolly nightshade - angular brown leafspot with yellow border. Auckland, AK, NZ Nov 1972. From D.R.W. Watson E1405 - rec. as *Pseudomonas* sp. - LOPAT la.
3455 b *Solanum mauritianum* Scop. - woolly nightshade - small dark brown angular leafspot with chlorotic halo. Auckland, AK, NZ Dec 1972. From D.R.W. Watson C1427 - rec. as *Pseudomonas* sp. - LOPAT la.
9305 b *Solanum mauritianum* Scop. - woolly nightshade - leafspot. Lake Kareta, AK, NZ Apr 1987. From D.R.W. Watson A3669 = PDD 45548 - *tomato.
9501 b *Solanum muricatum* Ait. - pepino cv. Suma - black leafspot with yellow halo. Waimauku, AK, NZ Aug 1987. From R.G. Clark A3674 - agglutinates with antiserum from ICMP 2843 - LOPAT 1a - *pepino cv. Suma, tomato.
863 From N.L. Baigent NC13 ← ICPB PT7 - LOPAT lb.
864 b Canada 1941. From N.L. Baigent NC14 ← ICPB PT8 ← W.A.F. Hagborg 1331 = NCPPB 966: NRRL B883 - LOPAT lb.
868 From N.L. Baigent PT26 ← ICPB PT26 - LOPAT lb.
9500 From C.L. Bender PT23-58 - non-toxicogenic - laboratory derived selection of PT23 that does not contain pPT23A.

Pseudomonas syringae* pv. *tremae Ogimi & Higuchi & Takikawa 1988

- 9151 a *Trema orientalis* Blume - urajiroenoki - galls on trunk, twig and petiole. Japan May 1979. From C. Ogimi TO1 = ATCC 43299: NCPPB 3465 - LOPAT lb - **Pathotype strain.**

Pseudomonas syringae* pv. *ulmi (Sutic & Tesic 1958) Young *et al.* 1978

- 3962 a *Ulmus* sp. - elm. Yugoslavia 1958. From D.W. Dye MU1 ← NCPPB 632 ← D. Sutic = ATCC 19883: CFBP 1407: LMG 2349 - LOPAT la - **Pathotype strain.**

Pseudomonas syringae* pv. *viburni (Thornberry & Anderson 1931) Young *et al.* 1978

- 3963 a *Viburnum* sp. USA. From D.W. Dye MV1 ← NCPPB 1921 ← H.H. Thornberry V1 = ATCC 13458: CFBP 1702: LMG 2351: NRRL B896: ICPB PV7 - LOPAT la - **Pathotype strain.**

Pseudomonas syringae* pv. *zizaniae Bowden & Percich 1983

- 8921 a* *Zizania aquatica* L. - wild rice - leaf streak. USA. From ATCC 35023 ← J.A. Percich PSZ2 = CFBP 11040: NCPPB 3690 – Phytopath. 73: 640-645, 1983 - *wild rice (Percich) - **Pathotype strain**.
- 8941 a* *Zizania aquatica* L. - wild rice - leaf streak. USA. From R.L. Bowden PSZ6 = ATCC 35024 - cotype strain - *rice (Percich).
- 8942 a* *Zizania aquatica* L. - wild rice - leaf streak. USA. From R.L. Bowden PSZ1363 = ATCC 35025 - cotype strain - *rice (Percich).
- 8944 a* *Zizania aquatica* L. - wild rice - leaf streak. USA. From R.L. Bowden PSZ1364 = ATCC 35026 - cotype strain - *rice (Percich).
- 8945 a* *Zizania aquatica* L. - wild rice - leaf streak. USA. From R.L. Bowden PSZ1457 = ATCC 35027 - cotype strain - *rice (Percich).
- 8959 a* *Zizania aquatica* L. - wild rice - leaf streak. USA 1984. From R.L. Bowden 1618 - cotype strain - LOPAT Ia - *rice (Percich).

Pseudomonas syzygii Roberts *et al.* 1990

- 10004 *Syzygium aromaticum* (L.) Merr. & L.M. Perry - clove. Indonesia 1983. From S.J. Eden-Green S442 (R002) = NCPPB 3445 - System. Appl. Microbiol. 13:34-43, 1990 - closely related to *Burkholderia/Ralstonia*.

Pseudomonas tolaasii Paine 1919

- 2283 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on cap. Manurewa, AK, NZ Jul 1968. From D.R.W. Watson A196 = NCPPB 2412 - LOPAT Va - *mushroom.
- 2290 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on caps. UK (England) 1965. From D.R.W. Watson 228 ← D.S. Gandy B26 = ATCC 33618: CFBP 2068: LMG 2342: NCPPB 2192 - Warning : mixed culture of *P. tolaasii* and *P. reactans* - LOPAT Va - *mushroom - **Type strain**.
- 2742 b* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK. From J.D. Taylor 21 ← E. Billing - LOPAT Va - white line reaction +ve with ICMP 6956 - *mushroom.
- 2838 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Netherlands 1951. From D.W. Dye ND5 ← NCPPB 741 ← H.C. Bels-Konig = THLMD E111-9-52-1 - LOPAT Va.
- 2839 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. UK 1961. From D.W. Dye ND6 ← NCPPB 1116 ← L.A.E. Baker P104 - LOPAT Va.
- 4227 b *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotches on cap. Takanini, AK, NZ May 1975. From J.M. Young 1972A1.
- 6551 a *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Italy 1969. From NCPPB 2325 ← G.L. Ercolani 117 - LOPAT Va - white line reaction +ve with ICMP 6956.
- 6553 a* *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Canada. From NCPPB 2194 ← D.S. Gandy B199 - LOPAT V - white line reaction +ve with ICMP 6956 - *mushroom.
- 6643 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Australia 1973. From P.C. Fahy DAR26893.
- 6644 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Australia 1971. From P.C. Fahy DAR26856.
- 6955 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on cap. Jun 1979. From J.M. Young 2587-7.
- 7065 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on cap. Waikato, WO, NZ Aug 1980. From J.M. Young 2774A.
- 12217 * *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on cap surface. UK May 1986. From S.P. Lincoln Pt53 - rec. as *P. fluorescens* - biovar II - *cultivated mushroom (Lincoln).
- 12218 * *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch of cap surface. UK Jan 1994. From S.P. Lincoln Pt61 - rec. as *P. fluorescens* - white line test + - produces secondary colony variant - biovar II - *cultivated mushroom (Lincoln).
- 12832 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - pileus. Iran Dec 1994. From H. Rahimian ab2 - *cultivated mushroom (Rahimian).
- 12833 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - brown blotch on cap. UK (England). From M.J. Fletcher ← ICMP 2290 ← D.S. Gandy B26 = NCPPB 2192 - re-isolation of ICMP 2290 - LOPAT Va - **Type strain**.
- 12216 * Mushroom bed casing layer for white button mushrooms. UK 1982. From S.P. Lincoln Pt1 - rec. as *P. fluorescens* - biovar II - *cultivated mushroom (Lincoln).

Pseudomonas viridiflava (Burkholder 1930) Dowson 1939

- 7107 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - elliptical brown lesion on pedicel. Te Puke, BP, NZ Nov 1980. From J.M. Young 2832A - LOPAT II - *kiwifruit.
- 8934 a* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Nov 1984. From R. Herd B3407 - LOPAT - - - - ; *kiwifruit.
- 9274 b* *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - dormant floral bud. NZ Aug 1985. From J.M. Young ← D.R.W. Watson 3551 - LOPAT II - *kiwifruit.
- 7637 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Oct 1981. From C.N. Hale 25B - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848 - *cucumber, onion, pea, tomato.
- 7704 b* *Allium cepa* L. - onion - bulb. Pukekohe, AK, NZ Oct 1981. From C.N. Hale 120A - LOPAT II - homologous with DNA of ICMP 2848 - *cucumber, onion, pea, tomato.
- 8131 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaves, bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale R19 - LOPAT II - homologous with DNA of ICMP 2848.
- 8132 b *Allium cepa* L. - onion cv. Pukekohe Longkeeper - soft rot of leaves & bulb. Pukekohe, AK, NZ Aug 1982. From C.N. Hale R20 - LOPAT II - homologous with DNA of ICMP 2848.
- 11300 * *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb soft rot. Pukekohe, AK, NZ Apr 1992. From P.J. Wright 92-2 - LOPAT II - *onion (Wright).
- 11306 * *Allium cepa* L. - onion cv. Pukekohe Longkeeper - bulb soft rot. Pukekohe, AK, NZ Feb 1992. From P.J. Wright 92-8 - LOPAT II - *onion (Wright).
- 5897 b *Anagallis arvensis* L. - scarlet pimpernel - leaf blotch. Massey, AK, NZ Dec 1977. From D.R.W. Watson A2364 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 5905 b *Anagallis arvensis* L. - scarlet pimpernel - leaf blotch. Massey, AK, NZ Jan 1978. From D.R.W. Watson B2373 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 6686 b *Apium graveolens* L. var. dulce (Mill.) Pers. - celery - restricted soft rot of centre of petiole. Auckland, AK, NZ May 1979. From D.R.W. Watson A2558 - rec. as *P. ?cichorii* - LOPAT II - not homologous with DNA of ICMP 2848.
- 7266 b *Apium graveolens* L. var. dulce (Mill.) Pers. - celery - stalk rot. Palmerston North, WI, NZ Jul 1980. From D.R.W. Watson A4621 ← C.F. Hill AS4621 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 2390 b *Brassica oleracea* L. var. botrytis L. - cauliflower - discoloured vein of rotting leaf. Hastings, HB, NZ Jun 1968. From D.R.W. Watson A217 ← J.P. Bodley - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 6529 b *Brassica oleracea* L. var. botrytis L. - cauliflower cv. Snowwhite - small dark leafspot. Bombay, AK, NZ Apr 1979. From D.R.W. Watson N2542 - associated with *X. campestris* pv. *campestris* - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 1653 b *Brassica oleracea* L. var. capitata L. - cabbage. USA 1964. From D.W. Dye PB10 ← C. Wehlburg 64-3 ← R.A. Lelliott = NCPPB 2727 - rec. as *P. maculicola* - LOPAT II.
- 1654 b *Brassica oleracea* L. var. capitata L. - cabbage. USA 1964. From D.W. Dye PB11 ← C. Wehlburg 64-4 - rec. as *P. syringae* pv. *maculicola* - LOPAT II.
- 1655 b *Brassica oleracea* L. var. capitata L. - cabbage. USA 1964. From D.W. Dye PB12 ← C. Wehlburg 64-6 - rec. as *P. syringae* pv. *maculicola* - LOPAT II.
- 3625 b *Brassica oleracea* L. var. capitata L. - cabbage cv. Savoy - small dark angular leaf lesion with yellow margin. Nelson, NN, NZ Apr 1970. From D.R.W. Watson V131 ← D.R.W. Watson E909 - associated with *X. campestris* pv. *campestris* - one of 2 colony forms - not same as 3635 - homologous with DNA of ICMP 2848.
- 3635 b *Brassica oleracea* L. var. capitata L. - cabbage cv. Savoy - dark angular yellow bordered leaf lesion. Nelson, NN, NZ Apr 1970. From D.R.W. Watson V233 ← D.R.W. Watson E909 - associated with *X. campestris* pv. *campestris* - one of 2 colony forms - not same as 3625 - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 11124 *Brassica rapa* L. - Chinese cabbage. China. From X.Z. Ren R4.
- 11125 *Brassica rapa* L. - Chinese cabbage. China. From X.Z. Ren R5.
- 11126 *Brassica rapa* L. - Chinese cabbage. China. From X.Z. Ren R7.

- 12362 * *Calendula officinalis* L. - pot marigold - leafspot & blight. Iran Dec 1993. From H. Rahimian HB4 - LOPAT (+)+++ (Rahimian) - *callendula (Rahimian).
- 3884 a* *Capsicum frutescens* L. - tabasco. Hungary 1957. From D.W. Dye P290 ← NCPPB 389 ← Z. Klement J201 - rec. as *P. syringae* var. *capsici* - LOPAT II - *bean, capsicum.
- 8819 *Citrus aurantium* L. - sour orange, Seville orange. USA Apr 1984. From R.E. Stall 36.
- 8824 *Citrus aurantium* L. - sour orange, Seville orange. USA Jun 1984. From R.E. Stall 66.
- 11051 a* *Citrus macrophylla* Wester - alemow - twigs, canker and black pits of fruits. Iran Dec 1986. From H. Rahimian A333 - *alemow, lemon, orange (Rahimian).
- 8821 *Citrus sinensis* (L.) Osbeck - orange cv. Valencia. USA May 1984. From R.E. Stall 50.
- 8822 *Citrus sinensis* (L.) Osbeck - orange cv. Valencia. USA May 1984. From R.E. Stall 51.
- 8823 *Citrus sinensis* (L.) Osbeck - orange cv. Valencia. USA Jun 1984. From R.E. Stall 62.
- 7287 b *Cucumis melo* L. - melon cv. Prince - leafspot. Matakana, AK, NZ Nov 1980. From D.R.W. Watson M2827 ← C.F. Hill AS5184 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 7085 b *Cucumis sativus* L. - cucumber - leaf. Japan 1976. From K. Nishiyama SN7647 - LOPAT II.
- 1855 b* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ Feb 1967. From D.W. Dye PG5 ← J.P. Bodley - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - LOPAT II - homologous with DNA of ICMP 2848 - *pumpkin.
- 1856 b* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ Feb 1967. From D.W. Dye PG6 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - *pumpkin.
- 1857 b* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ Feb 1967. From D.W. Dye PG7 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - *pumpkin.
- 2158 b *Cucurbita maxima* Duch. - pumpkin - brown leaf lesion. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson A89 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - LOPAT II.
- 2166 b* *Cucurbita maxima* Duch. - pumpkin - leaf lesion. NZ Jan 1968. From D.R.W. Watson A68 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - *pumpkin.
- 2180 b* *Cucurbita maxima* Duch. - pumpkin - leaf lesion. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson B108 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans* - *cucumber, pumpkin.
- 2302 *Cucurbita maxima* Duch. - pumpkin cv. Crown - cracked lesion on fruit. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson J85 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans*.
- 2303 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leaf. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson D106 - associated with *X. campestris* pv. *cucurbitae* - rec. as *P. lachrymans*.
- 3634 *Cucurbita maxima* Duch. - pumpkin cv. Crown - dark grey brown yellow bordered leaf lesion. Pukekohe, AK, NZ Feb 1969. From D.R.W. Watson V219 ← D.R.W. Watson A399.
- 3638 b *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit lesion. Pukekohe, AK, NZ Mar 1969. From D.R.W. Watson V241 ← D.R.W. Watson A472 - associated with *X. campestris* pv. *cucurbitae* - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 7427 b *Cyclamen persicum* Mill. - florist's cyclamen - corm rot. NZ Feb 1981. From D.R.W. Watson K2894 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 393 a* *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - leaf. Waitakere, AK, NZ Sep 1962. From N.L. Baigent PY1 ← N.L. Baigent PDY2 = NCPPB 1880: ICPB PD106 - rec. as *P. syringae* pv. *dysoxyl* - LOPAT II - homologous with DNA of ICMP 2848 - *kohekohe.
- 808 b *Dysoxylum spectabile* (Forst.f.) Hook.f. - kohekohe - leafspot. Auckland, AK, NZ Jan 1963. From N.L. Baigent P189 ← R.A. Lelliott = NCPPB 2735 - rec. as *P. syringae* - LOPAT II - homologous with DNA of ICMP 2848.
- 2312 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - dark leaf blotch. Auckland, AK, NZ May 1968. From D.R.W. Watson E203 - LOPAT II - weak homology with DNA of ICMP 2848.
- 11908 *Forsythia suspensa* (Thunb.) Vahl - golden-bells. France 1974. From CFBP 1589 ← J. Luisetti E4-1.
- 6456 b *Lactuca sativa* L. - lettuce cv. Toplake - leaf rot. Waimauku, AK, NZ Mar 1979. From D.R.W. Watson A2538 - associated with *X. campestris* pv. *vitians* - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 7257 b *Lactuca sativa* L. - lettuce cv. Triumph - leaf lesion. Patumahoe, AK, NZ Jun 1981. From D.R.W. Watson C2920 - associated with *X. campestris* pv. *vitians* - LOPAT II - homologous with DNA of ICMP 2848.
- 9260 *Lotus corniculatus* L. - birdsfoot trefoil. USA 1981. From F.L. Lukezic 670 - LOPAT II.
- 3199 a* *Lupinus angustifolius* L. - blue lupin. Levin, WN, NZ 1970. From J.D. Taylor 301B ← A.F. Rainbow 4275 - LOPAT II - *bean, cabbage, cucumber, lettuce, passionfruit, pea, peach, tomato.
- 411 *Lycopersicon esculentum* Mill. - tomato. NZ. From N.L. Baigent T68 ← D.W. Dye - rec. as *P. syringae* - non-fluorescent - LOPAT - - - - .
- 670 b* *Lycopersicon esculentum* Mill. - tomato - lateral. Riverhead, AK, NZ Feb 1963. From D.W. Dye PI38 ← N.L. Baigent PS643 - rec. as *P. syringae* - LOPAT II - homologous with DNA of ICMP 2848 - *peach.
- 2127 b *Lycopersicon esculentum* Mill. - tomato - necrotic cortex of wilted plant. Auckland, AK, NZ Nov 1967. From D.R.W. Watson G12 - rec. as *P. syringae* - LOPAT II - homologous with DNA of ICMP 2848.
- 2156 a* *Lycopersicon esculentum* Mill. - tomato - necrotic cortex of wilted plant. Levin, WN, NZ Feb 1968. From D.R.W. Watson A87 - rec. as *P. syringae* - LOPAT II - *bean, cabbage, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 5896 b *Lycopersicon esculentum* Mill. - tomato - discoloured vasculature of wilted plant stem. Auckland, AK, NZ Jan 1978. From D.R.W. Watson M2363 - associated with *Clavibacter michiganensis* subsp. *michiganensis* - rec. as *Pseudomonas* sp. - LOPAT II.
- 6412 b *Lycopersicon esculentum* Mill. - tomato cv. Potentate - stem lesion. NZ Nov 1978. From D.R.W. Watson D2461 - LOPAT II - homologous with DNA of ICMP 2848.
- 7086 b *Lycopersicon esculentum* Mill. - tomato - black spot of leaf, stem. Japan 1976. From K. Nishiyama 76B-1 - LOPAT II.
- 7087 *Lycopersicon esculentum* Mill. - tomato - black spot of leaf, stem. Japan 1976. From K. Nishiyama 76B-3.
- 7088 *Lycopersicon esculentum* Mill. - tomato - black spot of leaf, stem. Japan 1976. From K. Nishiyama 76B-4.
- 7089 *Lycopersicon esculentum* Mill. - tomato - black spot of leaf, stem. Japan 1976. From K. Nishiyama 76B-5.
- 8825 *Lycopersicon esculentum* Mill. - tomato. USA. From R.E. Stall 5782-2.
- 8826 *Lycopersicon esculentum* Mill. - tomato. USA. From R.E. Stall 5787-3.
- 9259 b *Medicago sativa* L. - lucerne, alfalfa. USA 1975. From F.L. Lukezic 531 - LOPAT II.
- 8404 b *Melastoma ramosa* (L.) N.E. Br. - fairy-bells - angular leafspot with brown necrotic centre, chlorotic margin. NZ Sep 1982. From J.M. Young 3097 ← C.F. Hill AS9737 - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 3879 b *Nicotiana rustica* L. - wild tobacco. Tanzania 1950. From D.W. Dye MG1 ← NCPPB 280 ← G.B. Wallace = ATCC 19868 - rec. as *P. syringae* pv. *mellea* - LOPAT II.
- 12363 * *Ocimum basilicum* L. - basil - leafspot and blight. Iran Jun 1993. From H. Rahimian RY27 - LOPAT (+)+++ (Rahimian) - *basil (Rahimian).
- 2876 a* *Papaver nudicaule* L. - Iceland poppy - petiole rot. Jun 1969. From J.P. Wilkie (nee Bodley) C499 - re-isolate after plant inoculation with ICMP 2420 - LOPAT II - *bean, cabbage, capsicum, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 2420 b *Papaver somniferum* L. - poppy cv. Daneborg - discoloured vein from basal stem soft rot. Mt Albert, AK, NZ Sep 1968. From D.R.W. Watson C258 - LOPAT - - (+) - - .
- 372 a* *Passiflora edulis* Sims - passionfruit - leaf. Mt Albert, AK, NZ Aug 1954. From M.H. Dye B5 ← D.W. Dye P157 = NCPPB 1904: ATCC 13394: ICPB PS136 - rec. as *P. syringae* - LOPAT II - homologous with DNA of ICMP 2848 - *bean, cabbage, capsicum, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 5781 *Passiflora edulis* Sims - passionfruit. NZ Aug 1954. From R.C. Luketina 372P1 ← ICMP 372 ← D.W. Dye P157 - LOPAT II.
- 2743 b *Phaseolus coccineus* L. - runner bean. UK 1967. From J.D. Taylor 37D - LOPAT II - homologous with DNA of ICMP 2848.
- 2849 a* *Phaseolus* sp. - bean. From D.W. Dye P14 ← NCPPB 636 ← W.H. Burkholder PV5 = ATCC 13222 - LOPAT II - *bean, cabbage, cucumber, kiwifruit, passionfruit, pea, peach, tomato.
- 2848 a* *Phaseolus vulgaris* L. - bean. Switzerland 1927. From D.W. Dye PI3 ← NCPPB 635 ← W.H. Burkholder PV6 = ATCC 13223: CFBP 2107: ICPB PV6: LMG 2352: NRRL B895 - LOPAT - - - - ; *bean, cabbage, capsicum, cucumber, lettuce, passionfruit, pea, peach, tomato - **Type**

- strain.**
- 2858 *Phaseolus vulgaris* L. - bean. UK 1967. From D.W. Dye P15 ← NCPPB 2013 ← L.A.E. Baker 82A.
- 3018 *Phaseolus vulgaris* L. - bean. UK 1933. From D.W. Dye P16 ← NCPPB 53 ← W.J. Dowson.
- 3544 b *Phaseolus vulgaris* L. - bean cv. Dwarf 800 - greasy pod lesion. Marlborough, MB, NZ Jan 1970. From D.R.W. Watson D793 - associated with *X. campestris* pv. *phaseoli* - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 3627 b *Phaseolus vulgaris* L. - bean cv. Double Dutch Princess - pod with dry red pin-prick depressed lesions. Marlborough, MB, NZ Feb 1970. From D.R.W. Watson V135 ← D.R.W. Watson C855 - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 5776 a *Phaseolus vulgaris* L. - bean. Iran 1967. From NCPPB 2012 ← J. Oxtoby B3 - LOPAT II - homologous with DNA of ICMP 2848.
- 3190 a* *Pisum sativum* L. - pea - leaf. Otara, AK, NZ 1970. From J.P. Wilkie (nee Bodley) P19 ← J.D. Taylor 255A ← D.R.W. Watson 969 - LOPAT II - homologous with DNA of ICMP 2848 - *bean, cabbage, capsicum, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 3191 a* *Pisum sativum* L. - pea - leaf. Otara, AK, NZ Jun 1970. From J.D. Taylor 260A ← D.R.W. Watson M972 - LOPAT II - homologous with DNA of ICMP 2848 - *bean, cabbage, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 3192 a* *Pisum sativum* L. - pea - leaf. Otara, AK, NZ 1970. From J.D. Taylor 248B - LOPAT - - - - ; homologous with DNA of ICMP 2848 - *bean, cabbage, cucumber, kiwifruit, lettuce, passionfruit, pea, peach, tomato.
- 4256 b* *Pisum sativum* L. - garden pea cv. Dark Skinned Perfection - wet brown leaf blotch with darker brown margin. Otara, AK, NZ May 1970. From D.R.W. Watson V253 ← D.R.W. Watson C929 - LOPAT II - homologous with DNA of ICMP 2848 - *pea.
- 6271 b* *Pisum sativum* L. - garden pea - pale brown leaf lesion. NZ. From J.P. Wilkie (nee Bodley) P111 ← J.D. Taylor 256b ← D.R.W. Watson 975 - LOPAT - - - - ; homologous with DNA of ICMP 2848 - *pea.
- 408 *Prunus armeniaca* L. - apricot. Earnsclough, CO, NZ Nov 1962. From N.L. Baigent PS504 - rec. as *P. syringae* - non-fluorescent - LOPAT - - - - ; not homologous with DNA of ICMP 2848.
- 515 b* *Prunus armeniaca* L. - apricot cv. Early Newcastle - stem canker. Havelock North, HB, NZ Dec 1962. From N.L. Baigent PS637 - rec. as *P. syringae* - LOPAT II - homologous with DNA of ICMP 2848 - *apricot.
- 8820 *Prunus persica* (L.) Batsch - peach. USA Apr 1984. From R.E. Stall 46.
- 5888 b *Pseudopanax* sp. - leafspot with halo. Auckland, AK, NZ Oct 1978. From D.R.W. Watson A2318 - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 11954 *Pyrus communis* L. - pear. France 1979. From CFBP 2555 ← L. Gardan M71-1.
- 401 b *Rosa* sp. - bud blast. Middlemore, AK, NZ Oct 1962. From N.L. Baigent PS615 ← R.A. Lelliott = NCPPB 2743 - rec. as *P. syringae* - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 7258 b *Vaccinium corymbosum* L. - highbush blueberry - shoot. Pukekohe, AK, NZ Oct 1980. From D.R.W. Watson M2809 ← H.J. Boesewinkel AS5079 - rec. as *P. syringae* - LOPAT - - - - ; homologous with DNA of ICMP 2848.
- 8408 b *Vaccinium corymbosum* L. - highbush blueberry. Taupiri, WO, NZ Aug 1983. From C.F. Hill AS2020 - LOPAT II - homologous with DNA of ICMP 2848.
- 8976 b *Vaccinium corymbosum* L. - highbush blueberry - lesion at node. Christchurch, MC, NZ Nov 1985. From J.M. Young 3458A - rec. as *Pseudomonas* sp. - LOPAT II - homologous with DNA of ICMP 2848.
- 3637 b* *Vitis vinifera* L. - grape cv. Albany Surprise - necrotic die-back of young fruit bunch. Henderson, AK, NZ Feb 1969. From D.R.W. Watson V238
← D.R.W. Watson G387 - LOPAT II - *peach.
- 797 From D.W. Dye P11 ← M. Kocur BS416.
- 1410 From D.W. Dye P166 ← H. Stolp 239 ← Z. Klement I201 = ICPB PS169 - rec. as *P. syringae* - LOPAT II.
- Pseudomonas viridiflava*-like**
- 12351 *Solanum nigrum* L. - black nightshade - leaf blight. Yugoslavia 1992. From M. Arsenijevic Po7 - rec. as *P. viridiflava*-like - LOPAT + - - - ; (Arsenijevic).
- Ralstonia solanacearum* (Smith 1896) Yabuuchi *et al.* 1996
see *Burkholderia solanacearum*.
- Rathayibacter iranicus* (ex Scharif 1961) Zgurskaya *et al.* 1993
see *Clavibacter iranicus*.
- Rathayibacter rathayi* (Smith 1913) Zgurskaya *et al.* 1993
see *Clavibacter rathayi*.
- Rathayibacter tritici* (ex Hutchinson 1917) Zgurskaya *et al.* 1993
see *Clavibacter tritici*.
- Rhizobacter dauci*** Goto & Kuwata 1988
- 9399 *Daucus carota* L. var. *sativus* Hoffm. - carrot - gall on roots. Japan 1985. From M. Goto H5 ← H. Kuwata H5.
- 9400 *Daucus carota* L. var. *sativus* Hoffm. - carrot - gall on roots. Japan 1985. From M. Goto H6 ← H. Kuwata H6 = ATCC 43778: LMG 9036 - Int. J. Syst. Bact. 38: 233-239, 1988 - **Type strain**.
- 9401 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - gall on roots. Japan 1985. From M. Goto H9 ← H. Kuwata H9 - Int. J. Syst. Bact. 38: 233-239, 1988.
- 9402 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - gall on roots. Japan 1985. From M. Goto N5 ← H. Kuwata N5 - Int. J. Syst. Bact. 38: 233-239, 1988.
- Rhizobium huakuii*** Chen *et al.* 1991
- 11067 *Astragalus sinicus* L. - Chinese milk vetch - nodule. China. From CCAU 2605 ← W.X. Chen B23-106-26.
- 11068 *Astragalus sinicus* L. - Chinese milk vetch - nodule. China. From CCAU 2606 ← W.X. Chen B19-40.
- 11069 a *Astragalus sinicus* L. - Chinese milk vetch - nodule. China. From CCAU 2609 ← W.X. Chen 103 - Int. J. Syst. Bact. 41: 275-280, 1991 - **Type strain**.
- Rhizobium japonicum* (Kirchner 1896) Buchanan 1926
see *Bradyrhizobium japonicum*.
- Rhizobium leguminosarum*** (Frank 1879) Frank 1889
see also *Rhizobium leguminosarum* (Frank 1879) Frank 1889 (biovar *viciae*).
- 6680 *Lathyrus* sp. - nodule. From R.M. Greenwood NZP5423.
- 2781 *Phaseolus coccineus* L. - runner bean - nodule. Tauranga, BP, NZ. From A. Hastings.
- 2672 *Phaseolus vulgaris* L. - bean - nodule. Mt Albert, AK, NZ Sep 1969. From A. Hastings.
- 6745 b *Phaseolus vulgaris* L. - bean - nodule. UK 1972. From R.C. Close ← RCR 3622 - Nod +ve; fix +ve (*P. vulgaris*).
- 1298 *Pisum sativum* L. - pea - nodule. Australia. From A. Hastings ← J.M. Vincent SU364.
- 1299 b *Pisum sativum* L. - pea - nodule. USA. From A. Hastings ← J.M. Vincent SU391 - Nod +ve; fix +ve (*Pisum sativum*, *Vicia sativa*).
- 1665 *Pisum sativum* L. - pea - nodule. NZ 1965. From A. Hastings AH35.
- 2671 *Pisum sativum* L. - pea - nodule. Epsom, AK, NZ Sep 1968. From A. Hastings.
- 3665 *Pisum sativum* L. - pea - nodule. Wanganui, WI, NZ Feb 1974. From A. Hastings.
- 3666 *Pisum sativum* L. - pea - nodule. Wanganui, WI, NZ Feb 1974. From A. Hastings.
- 3661 b *Pisum sativum* L. var. *arvense* (L.) Poir. - field pea - nodule. Australia 1958. From A. Hastings ← R.J. Roughley TA101 - Nod +ve; fix +ve (*Vicia* sp., *Pisum* sp.).
- 1297 *Trifolium hybridum* L. - Alsike clover - nodule. Te Anau, SL, NZ. From A. Hastings ← R.M. Greenwood P514.
- 2119 b *Trifolium hybridum* L. - Alsike clover - nodule. NZ. From A. Hastings P514 ← ICMP 1307 - Nod +ve; fix +ve.
- 3292 ? *Trifolium hybridum* L. - Alsike clover - nodule. Tara Hills, SC, NZ. From A. Hastings ← A. Nordmeyer F111 - probably no rhizobium in ampoule.
- 2639 *Trifolium pratense* L. - red clover - nodule. Manapouri, FD, NZ Nov 1968. From A. Hastings T223.
- 2940 *Trifolium pratense* L. - red clover - nodule. USA 1935. From A. Hastings ← D. Weber 3D1K5 = ATCC 10328.

- 2941 *Trifolium pratense* L. - red clover - nodule. USA 1964. From A. Hastings ← D. Weber 3D1K28.
- 3293 b *Trifolium pratense* L. - red clover - nodule. Switzerland. From A. Hastings ← A. Nordmeyer F112.
- 7129 b *Trifolium pratense* L. - red clover - nodule. USA. From C.N. Hale ← N. Nunez A22 = University of Wisconsin 210ACR - Nod +ve; fix +ve.
- 5068 b *Trifolium procumbens* L. - suckling clover - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish OM12 - Nod +ve; fix +ve.
- 1306 b *Trifolium repens* L. - white clover - nodule. Wairakei, TO, NZ. From A. Hastings ← R.M. Greenwood P1 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*, *T. pratense*).
- 1307 b *Trifolium repens* L. - white clover - nodule. Auckland, AK, NZ 1963. From A. Hastings P514 ← R.M. Greenwood - Nod +ve; fix +ve.
- 1316 b *Trifolium repens* L. - white clover - nodule. Wairakei, TO, NZ 1955. From A. Hastings NZ29 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*, *T. pratense*).
- 1347 b *Trifolium repens* L. - white clover - nodule. Te Atatu, AK, NZ 1964. From A. Hastings AH27 - Nod +ve; fix +ve.
- 1803 b *Trifolium repens* L. - white clover - nodule. NZ Feb 1967. From A. Hastings UNZ29 ← NZ29 - Nod +ve; fix +ve.
- 1820 *Trifolium repens* L. - white clover - nodule. Onewhero, WO, NZ Feb 1967. From A. Hastings AH37.
- 2118 b *Trifolium repens* L. - white clover - nodule. From A. Hastings TA1 ← ICMP 1295 - Nod +ve; fix +ve.
- 2122 b *Trifolium repens* L. - white clover - nodulated with ICMP 2121. NZ Sep 1967. From A. Hastings - Nod +ve; fix +ve.
- 2123 b *Trifolium repens* L. - white clover - nodule. Riverhead, AK, NZ Feb 1968. From A. Hastings.
- 2124 b *Trifolium repens* L. - white clover. Rukahura, WO, NZ Feb 1968. From A. Hastings ← J.N. Parle WH1 - Nod +ve; fix -ve.
- 2153 b *Trifolium repens* L. - white clover - nodule. Tara Hills, SC, NZ 1968. From A. Hastings TARA-H - Nod +ve; fix +ve.
- 2161 *Trifolium repens* L. - white clover - nodule. Australia 1966. From A. Hastings T69 ← J. Brockwell CC275A.
- 2162 *Trifolium repens* L. - white clover - nodule. Australia 1966. From A. Hastings T70 ← J. Brockwell CC275B.
- 2163 b *Trifolium repens* L. - white clover - nodule. Australia. From A. Hastings T71 ← J. Brockwell CC275E - Nod +ve; fix +ve.
- 2367 *Trifolium repens* L. - white clover - nodule. NZ Jul 1968. From A. Hastings T119.
- 2368 b *Trifolium repens* L. - white clover - nodule. NZ Jul 1968. From A. Hastings T116 - Nod +ve; fix -ve.
- 2641 b *Trifolium repens* L. - white clover - nodule. Rotorua, BP, NZ Jan 1969. From A. Hastings T258 - Nod +ve; fix +ve.
- 2642 b *Trifolium repens* L. - white clover - nodule. NZ Feb 1969. From A. Hastings T261 - Nod +ve; fix +ve.
- 2646 b *Trifolium repens* L. - white clover - nodule. NZ Feb 1968. From A. Hastings T63 - Nod +ve; fix +ve.
- 2647 b *Trifolium repens* L. - white clover - nodule. Blenheim, MB, NZ Nov 1969. From A. Hastings T187 - Nod +ve; fix +ve.
- 2666 b *Trifolium repens* L. - white clover - nodule. Berwick, DN, NZ Feb 1969. From A. Hastings T280 - Nod +ve; fix +ve.
- 2667 b *Trifolium repens* L. - white clover - nodule. Mt Burke, MK, NZ Feb 1969. From A. Hastings T281 - plant inoculated with ICMP 2153 - Nod +ve; fix +ve.
- 2668 b *Trifolium repens* L. - white clover - nodule. Mt Burke, MK, NZ Feb 1969. From A. Hastings T282 - plant inoculated with ICMP 2153 - Nod +ve; fix +ve.
- 2669 b *Trifolium repens* L. - white clover - nodule. Dannevirke, WA, NZ Feb 1969. From A. Hastings T283 - Nod +ve; fix +ve.
- 2677 b *Trifolium repens* L. - white clover - nodule. Gisborne, GB, NZ Aug 1968. From A. Hastings T148 - Nod +ve; fix +ve.
- 2678 *Trifolium repens* L. - white clover - nodule. Mt Albert, AK, NZ. From A. Hastings T294.
- 2942 *Trifolium repens* L. - white clover - nodule. USA. From A. Hastings ← D. Weber 3D1M28.
- 2943 *Trifolium repens* L. - white clover - nodule. USA 1952. From A. Hastings ← D. Weber 3D1M31A.
- 3165 *Trifolium repens* L. - white clover - nodule. Mt Albert, AK, NZ Nov 1970. From A. Hastings.
- 3250 *Trifolium repens* L. - white clover - nodule. Australia. From A. Hastings ← J. Brockwell CC275D.
- 3285 *Trifolium repens* L. - white clover - nodule. Malings Pass, MB, NZ. From A. Hastings ← A. Nordmeyer F100.
- 3286 *Trifolium repens* L. - white clover - nodule. Wards Pass, MB, NZ. From A. Hastings ← A. Nordmeyer F101.
- 3287 *Trifolium repens* L. - white clover - nodule. Branch Catchment, MB, NZ. From A. Hastings ← A. Nordmeyer F102.
- 3289 *Trifolium repens* L. - white clover - nodule. Homer Tunnel, FD, NZ. From A. Hastings ← A. Nordmeyer F106.
- 3290 *Trifolium repens* L. - white clover - nodule. Hamner, MB, NZ. From A. Hastings ← A. Nordmeyer F107.
- 3291 b *Trifolium repens* L. - white clover - nodule. NZ. From A. Hastings ← A. Nordmeyer.
- 4241 *Trifolium repens* L. - white clover - nodule. Pukekohe, AK, NZ Mar 1975. From A. Hastings.
- 4242 *Trifolium repens* L. - white clover - nodule. Inangahua, BR, NZ Apr 1975. From A. Hastings.
- 4304 *Trifolium repens* L. - white clover - nodule. NZ Jul 1975. From C.N. Hale 1A ← D.J. Mathers.
- 4337 b *Trifolium repens* L. - white clover - nodule. NZ Aug 1975. From D.J. Mathers 2A - Nod +ve; fix +ve.
- 4573 b *Trifolium repens* L. - white clover cv. Huia - nodule. Auckland, AK, NZ Dec 1975. From C.N. Hale - Nod +ve; fix -ve.
- 4644 b *Trifolium repens* L. - white clover - nodule. Jan 1976. From D.J. Mathers CSTR200 - laboratory derived streptomycin resistant selection of ICMP 2153 - Nod +ve; fix +ve.
- 4666 b *Trifolium repens* L. - white clover cv. Huia - nodule. Wairoa, GB, NZ Mar 1976. From D.J. Mathers - Nod +ve; fix +ve.
- 5064 b *Trifolium repens* L. - white clover cv. Huia - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish NLS4-1 - Nod +ve; fix +ve.
- 5065 b *Trifolium repens* L. - white clover cv. Huia - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish NLS32-3 - Nod +ve; fix +ve.
- 5066 b *Trifolium repens* L. - white clover cv. Huia - nodule. Okato, TK, NZ Sep 1976. From P.M. Bonish OKA3 - Nod +ve; fix +ve.
- 5067 b *Trifolium repens* L. - white clover - nodule. Okato, TK, NZ Sep 1976. From P.M. Bonish OKA8 - Nod +ve; fix +ve.
- 5069 b *Trifolium repens* L. - white clover cv. Huia - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish NLS33-1 - Nod +ve; fix +ve.
- 5070 b *Trifolium repens* L. - white clover cv. Huia - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish NLS34-1 - Nod +ve; fix +ve.
- 5071 b *Trifolium repens* L. - white clover cv. Huia - nodule. Northland, ND, NZ Jul 1976. From P.M. Bonish NLS4-7 - Nod +ve; fix +ve.
- 5095 *Trifolium repens* L. - white clover - nodule. Glorit, AK, NZ Aug 1976. From A. Hastings.
- 5342 *Trifolium repens* L. - white clover - nodule. Lochinvar Station Hill, NZ May 1977. From C.N. Hale T405.
- 5395 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T404.
- 5594 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T413 ← D.J. Winfield (nee Mathers) - Nod +ve.
- 5595 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T414 ← D.J. Winfield (nee Mathers) - Nod +ve.
- 5596 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T415 ← D.J. Winfield (nee Mathers) - Nod +ve.
- 5597 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T416 ← D.J. Winfield (nee Mathers) - Nod +ve.
- 5598 *Trifolium repens* L. - white clover - nodule. Taupo, TO, NZ May 1977. From C.N. Hale T417 ← D.J. Winfield (nee Mathers) - Nod +ve.
- 6545 *Trifolium repens* L. - white clover cv. Huia - nodule on trap plant. Jun 1979. From J.C. Shanks.
- 7377 *Trifolium repens* L. - white clover - nodule. Puhoi, AK, NZ Apr 1981. From J.C. Shanks 'Puhoi-A' - produces bacteriocin - Nod +ve; fix +ve.
- 1313 *Trifolium semipilosum* Fresen. - Kenya white clover - nodule. Australia. From A. Hastings AH16 ← D.O. Norris.
- 2173 *Trifolium semipilosum* Fresen. - Kenya white clover. Kenya. From A. Hastings ← R.M. Greenwood CB782 ← D.O. Norris.
- 4936 *Trifolium semipilosum* Fresen. - Kenya white clover - nodule. From C.N. Hale ← E.A. Schwinghamer CB782.
- 3170 b *Trifolium* sp. - clover - nodule. South Africa. From A. Hastings ← B.W. Strijdom SK4 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*).
- 3187 b *Trifolium* sp. - clover - nodule. South Africa. From A. Hastings ← B.W. Strijdom SY7 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*).
- 3188 b *Trifolium* sp. - clover - nodule. South Africa. From A. Hastings ← B.W. Strijdom SQ9 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*).
- 7165 *Trifolium* sp. - clover - nodule. USA. From C.N. Hale ← N. Nunez A45 = University of Wisconsin 220-ARC.
- 1295 b *Trifolium subterraneum* L. - subterranean clover - nodule. Australia (Tasmania) 1953. From A. Hastings ← J.M. Vincent ← D.F. Paton TA1 - Nod +ve; fix +ve (*Trifolium* spp.).
- 1309 b *Trifolium subterraneum* L. - subterranean clover - nodule. Hamilton, WO, NZ 1953. From A. Hastings NZ6 - Nod +ve; fix +ve (*T. repens*, *T. subterraneum*, *T. pratense*).
- 1814 b *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Riverhead, AK, NZ 1966. From A. Hastings P514-1 - Nod +ve; fix +ve (white clover).
- 1817 b *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Riverhead, AK, NZ 1966. From A. Hastings UNZ29-1 - Nod +ve; fix +ve.
- 2120 b *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Riverhead, AK, NZ Feb 1967. From A. Hastings P514-3 - Nod +ve; fix +ve.

- 2121 b *Trifolium subterraneum* L. - subterranean clover - nodule. Australia (Tasmania) 1953. From A. Hastings ← N. Gibbins ← D.F. Paton TA1 - Nod +ve; fix +ve (*Trifolium* spp.).
- 2174 b *Trifolium subterraneum* L. - subterranean clover - nodule. Australia 1964. From A. Hastings ← R.M. Greenwood WU290 - Nod +ve; fix +ve (*T. subterraneum*, *T. hirtum*, *T. incarnatum*).
- 2370 b *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. NZ Jul 1968. From A. Hastings T104 - Nod +ve; fix -ve.
- 2636 *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Blenheim, MB, NZ Oct 1968. From A. Hastings T178.
- 2637 *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Blenheim, MB, NZ Oct 1968. From A. Hastings T182.
- 2681 *Trifolium subterraneum* L. - subterranean clover cv. Woogenellup - nodule. Mt Albert, AK, NZ Apr 1969. From A. Hastings T288.
- 2712 b *Trifolium subterraneum* L. - subterranean clover - nodule. Australia 1954. From A. Hastings ← J. Brockwell CC242 - Nod +ve; fix +ve.
- 2939 *Trifolium subterraneum* L. - subterranean clover - nodule. USA. From A. Hastings ← D. Weber 3D1W6.
- 3169 *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Mt Albert, AK, NZ Feb 1971. From A. Hastings.
- 4240 *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Pukekohe, AK, NZ Mar 1975. From A. Hastings.
- 4676 b *Trifolium subterraneum* L. - subterranean clover cv. Mount Barker - nodule. Riverhead Forest, AK, NZ Feb 1976. From D.J. Mathers - Nod +ve; fix +ve.
- 5938 b *Trifolium subterraneum* L. - subterranean clover - nodule. Australia 1961. From R.M. Greenwood NZP545 ← C.A. Parker WU95 - Nod +ve; fix +ve.
- 7130 b *Trifolium subterraneum* L. - subterranean clover - nodule. USA. From C.N. Hale ← N. Nunez A43 = University of Wisconsin 212-ACR - Nod +ve; fix +ve.
- 2713 b *Trifolium subterraneum* L. subsp. *yannicum* Katzn. & Morley - subterranean clover - nodule. Greece 1965. From A. Hastings ← J. Brockwell CC2480A - Nod +ve; fix +ve (*T. cherleri*, *T. incarnatum*, *T. hirtum*, *T. subterraneum*).
- 5943 a *Vicia sativa* L. subsp. *nigra* (L.) Ehrh. - narrow-leaved vetch - nodule. Manawatu, WI, NZ 1964. From R.M. Greenwood NZP5225 - Nod +ve; fix +ve.
- 4071 Australia. From A. Hastings ← R.C. Close CC227 ← F. Hely - Nod +ve; fix +ve (*Trifolium ambiguum*).
- 4072 b Australia. From A. Hastings ← R.C. Close CC231A ← F. Hely - Nod +ve; fix +ve (*Trifolium ambiguum* diploid).
- 4073 b Australia. From A. Hastings ← R.C. Close CC283B ← F. Hely - Nod +ve; fix +ve (*Trifolium ambiguum* hexaploid).
- 4074 b Australia. From A. Hastings ← R.C. Close CC286a ← F. Hely - Nod +ve; fix +ve (*Trifolium ambiguum* tetraploid).
- 4136 b Rhizocote clover inoculant. NZ Dec 1974. From C.N. Hale ← J.M. Lloyd S1-81R2153 ← A. Hastings 'Tara-H'.
- 5384 May 1977. From D.J. Winfield (nee Mathers) 3291Str200 - laboratory derived streptomycin resistant selection of ICMP 3291.
- 5385 May 1977. From D.J. Winfield (nee Mathers) 2666Str200 - laboratory derived streptomycin resistant selection of ICMP 2666.
- 5386 May 1977. From D.J. Winfield (nee Mathers) 2121Str200 - laboratory derived streptomycin resistant selection of ICMP 2121.
- 5387 May 1977. From D.J. Winfield (nee Mathers) 2668Str200 - laboratory derived streptomycin resistant selection of ICMP 2668.
- 5550 b Frozen commercial inoculant. USA Aug 1977. From A. Hastings T409 - Nod +ve; fix +ve.
- 5551 b Frozen commercial inoculant. USA Aug 1977. From A. Hastings T410 - Nod +ve; fix +ve.
- 5552 b Frozen commercial inoculant. USA Aug 1977. From A. Hastings T411 - Nod +ve; fix +ve.
- 5553 b Frozen commercial inoculant. USA Aug 1977. From A. Hastings T412 - Nod +ve; fix +ve.
- 5818 From J.D. Taylor 960 ← RCR 3605.
- 5820 From J.D. Taylor 962 ← RCR 3644 - rec. as *R. phaseoli*.
- 8378 b clover inoculant - peat based. USA. From C.N. Hale B ← A. Stewart - Nod +ve; fix +ve (white clover, *T. medium*).
- 8379 b Legume inoculant - peat based. USA. From C.N. Hale C ← A. Stewart - inoculant for *T. repens*.

Rhizobium leguminosarum (Frank 1879) Frank 1889 **biovar trifolii** [of D.C. Jordan - in Bergey's Manual (1984)]

syn. *Rhizobium trifolii* Dangeard 1926

- 10697 *Trifolium africanum* Ser. South Africa. From NZP 563 - broad host range - rec. as *Rhizobium* sp.
- 10691 *Trifolium ambiguum* Bieb. - kura clover. Australia. From NZP 551 ← CC 227 - rec. as *Rhizobium* sp.
- 10692 *Trifolium ambiguum* Bieb. - kura clover. Australia. From NZP 553 ← CC 231a - rec. as *Rhizobium* sp.
- 10703 *Trifolium ambiguum* Bieb. - kura clover. Australia. From NZP 575 ← CC 286a - rec. as *Rhizobium* sp.
- 11734 *Trifolium ambiguum* Bieb. - kura clover. Australia. From NZP 576 ← CC 283b.
- 10702 *Trifolium ambiguum* Bieb. X *T. repens* L. - nodule. Palmerston North, WI, NZ. From NZP 572 - rec. as *Rhizobium* sp.
- 10714 *Trifolium beckwithii* Brewer. USA. From NZP 570 - rec. as *Rhizobium* sp.
- 10695 *Trifolium burchellianum* Ser. - burchell's clover. South Africa. From NZP 557 ← CB 727 - rec. as *Rhizobium* sp.
- 10704 *Trifolium burchellianum* Ser. - burchell's clover. South Africa. From NZP 577 ← CB 727 - throws non-nodulating variants - rec. as *Rhizobium* sp.
- 10700 *Trifolium carolinianum* Michx. USA. From NZP 569 - rec. as *Rhizobium* sp.
- 10585 *Trifolium dasyphyllum* Torr. & Gray. From NZP 538 ← CC 277a - rec. as *Rhizobium* sp.
- 10581 *Trifolium lupinaster* L. Japan. From NZP 504 - rec. as *Rhizobium* sp.
- 10582 *Trifolium lupinaster* L. Japan. From NZP 505 - rec. as *Rhizobium* sp.
- 10706 *Trifolium neglectum* C.A. Mey. From NZP 579 - rec. as *Rhizobium* sp.
- 10693 *Trifolium pallescens* Schreb. - nodule. Palmerston North, WI, NZ. From NZP 554 - rec. as *Rhizobium* sp.
- 10707 *Trifolium pallidum* Waldst. & Kit. From NZP 580 - rec. as *Rhizobium* sp.
- 10711 *Trifolium polymorphum* Poir. Uruguay. From NZP 592 = NU130 - rec. as *Rhizobium* sp.
- 10712 *Trifolium polymorphum* Poir. Uruguay. From NZP 594 - rec. as *Rhizobium* sp.
- 10713 *Trifolium polymorphum* Poir. Australia. From NZP 595 - rec. as *Rhizobium* sp.
- 10757 *Trifolium polymorphum* Poir. Uruguay. From NZP 588 - rec. as *Rhizobium* sp.
- 10758 *Trifolium polymorphum* Poir. Uruguay. From NZP 596 - rec. as *Rhizobium* sp.
- 12606 *Trifolium polymorphum* Poir. Uruguay. From NZP 593 - rec. as *Rhizobium* sp.
- 10705 *Trifolium pratense* L. - red clover. Australia. From NZP 578 = SU 202 - rec. as *Rhizobium* sp.
- 10578 *Trifolium repens* L. - white clover. Wairakei, TO, NZ. From NZP 1 - rec. as *Rhizobium* sp.
- 10579 *Trifolium repens* L. - white clover. From NZP 2 - suitable for acid soils - rec. as *Rhizobium* sp.
- 10580 *Trifolium repens* L. - white clover - nodule. From NZP 7 - rec. as *Rhizobium* sp.
- 10696 *Trifolium repens* L. - white clover. Australia. From NZP 561 ← CC 275e - rec. as *Rhizobium* sp.
- 10698 *Trifolium repens* L. - white clover. Palmerston North, WI, NZ. From NZP 566 ← WC 5 - rec. as *Rhizobium* sp.
- 10699 *Trifolium repens* L. - white clover. Palmerston North, WI, NZ. From NZP 567 ← WC 8.
- 10715 *Trifolium repens* L. X *T. ambiguum* L. - nodule. Palmerston North, WI, NZ. From NZP 573 - rec. as *Rhizobium* sp.
- 10584 *Trifolium rueppellianum* Fresen. Zambia. From NZP 516 - rec. as *Rhizobium* sp.
- 10708 *Trifolium rueppellianum* Fresen. Tanzania. From NZP 584 ← CB 774 - rec. as *Rhizobium* sp.
- 10701 *Trifolium rydbergii* Greene. USA. From NZP 571 - rec. as *Rhizobium* sp.
- 10583 *Trifolium subterraneum* L. - subterranean clover - nodule. Te Anau, SL, NZ. From NZP 514 - throws non-nodulator variants - rec. as *Rhizobium* sp.
- 10685 *Trifolium subterraneum* L. - subterranean clover - nodule. CO, NZ. From NZP 542 - rec. as *Rhizobium* sp.
- 10686 *Trifolium subterraneum* L. - subterranean clover. Australia. From NZP 544 - throws non-nodulator variants - rec. as *Rhizobium* sp.
- 10687 *Trifolium subterraneum* L. - subterranean clover. Australia. From NZP 547 - rec. as *Rhizobium* sp.
- 10688 *Trifolium subterraneum* L. - subterranean clover. Australia. From NZP 548 ← TA 2 - rec. as *Rhizobium* sp.
- 10694 *Trifolium subterraneum* L. - subterranean clover. NZ. From NZP 556 ← CC 240a - rec. as *Rhizobium* sp.
- 10761 *Trifolium subterraneum* L. - subterranean clover. Australia. From NZP 574 ← TA 1 - rec. as *Rhizobium* sp.
- 10710 *Trifolium tembense* Fresen. Tanzania. From NZP 587 ← CB 758 - colonies lyse readily - rec. as *Rhizobium* sp.
- 10689 *Trifolium uniflorum* L. - nodule. Palmerston North, WI, NZ. From NZP 549 - rec. as *Rhizobium* sp.
- 10709 *Trifolium usambarense* Taub ex Engl. Tanzania. From NZP 585 - rec. as *Rhizobium* sp.
- 10690 *Trifolium vesiculosum* Savi - arrowleaf clover. Palmerston North, WI, NZ. From NZP 550 - rec. as *Rhizobium* sp.

Rhizobium loti Jarvis, Pankhurst & Patel 1982

- 3155 b *Lotus angustissimus* L. - slender birdsfoot trefoil - nodule. Huka Falls, TO, NZ Aug 1966. From A. Hastings ← R.M. Greenwood NZP2243 - rec. as *R. lupini* - Nod +ve; fix +ve (*Serradella* spp., *Lupinus* spp.).
- 2172 a *Lotus corniculatus* L. - birdsfoot trefoil - nodule. Kaikohe, ND, NZ May 1968. From A. Hastings ← R.M. Greenwood NZP2034 - Int. J. Syst. Bact. 32: 378-380, 1982 - rec. as *R. lupini*.
- 3153 a *Lotus corniculatus* L. - birdsfoot trefoil - nodule. Eire. From A. Hastings ← R.M. Greenwood NZP2238 ← H.L. Jensen - Int. J. Syst. Bact. 32: 378-380, 1982 - rec. as *R. lupini* - mixed culture - ineffective against lupin - 9005 replaces this as recommended strain - Nod -ve.
- 4682 a *Lotus corniculatus* L. - birdsfoot trefoil - nodule. Palmerston North, WI, NZ. From A. Hastings ← R.M. Greenwood NZP2213 = ATCC 33669: NCIB 12079 - Int. J. Syst. Bact. 32: 378-380, 1982 - rec. as *R. lupini* - **Type strain**.
- 9005 *Lotus corniculatus* L. - birdsfoot trefoil - nodulated with ICMP 3153. From C.N. Hale C3153 ← ICMP 3153 ← H.L. Jensen - Nod +ve; fix +ve.
- 10716 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2010 - rec. as *Rhizobium* sp. - fast growth.
- 10717 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2014 - rec. as *Rhizobium* sp. - fast growth.
- 10763 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2024 - rec. as *Rhizobium* sp. - fast growth.
- 10764 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2034 - rec. as *Rhizobium* sp. - fast growth.
- 10767 *Lotus corniculatus* L. - birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2048 - rec. as *Rhizobium* sp. - fast growth.
- 10770 *Lotus corniculatus* L. - birdsfoot trefoil. Kaikohe, ND, NZ. From NZP 2077 - rec. as *Rhizobium* sp. - fast growth.
- 10771 *Lotus corniculatus* L. - birdsfoot trefoil. Kaikohe, ND, NZ. From NZP 2078 - rec. as *Rhizobium* sp. - fast growth.
- 10772 *Lotus corniculatus* L. - birdsfoot trefoil. Kaikohe, ND, NZ. From NZP 2079 - rec. as *Rhizobium* sp. - fast growth.
- 10777 *Lotus corniculatus* L. - birdsfoot trefoil. Kaikohe, ND, NZ. From NZP 2093 - rec. as *Rhizobium* sp. - fast growth.
- 10808 *Lotus corniculatus* L. - birdsfoot trefoil. From NZP 2196 ← SU 343 - rec. as *Rhizobium* sp. - fast growth.
- 10866 *Lotus corniculatus* L. - birdsfoot trefoil. USA. From NZP 2234 ← CC 811 - rec. as *Rhizobium* sp. - fast growth.
- 10867 *Lotus corniculatus* L. - birdsfoot trefoil. USA. From NZP 2235 ← CC 812a - rec. as *Rhizobium* sp. - fast growth.
- 10868 *Lotus corniculatus* L. - birdsfoot trefoil. Canada. From NZP 2297 - rec. as *Rhizobium* sp. - fast growth.
- 10891 *Lotus corniculatus* L. - birdsfoot trefoil. Canada. From NZP 2300 - rec. as *Rhizobium* sp. - fast growth.
- 10892 *Lotus corniculatus* L. - birdsfoot trefoil. Canada. From NZP 2296 - rec. as *Rhizobium* sp. - fast growth.
- 10893 *Lotus corniculatus* L. - birdsfoot trefoil. Canada. From NZP 2299 - rec. as *Rhizobium* sp. - fast growth.
- 1326 a *Lotus divaricatus* Boiss. - nodule. Palmerston North, WI, NZ Nov 1961. From A. Hastings ← R.M. Greenwood NZP2037 - Int. J. Syst. Bact. 32: 378-380, 1982 - rec. as *R. lupini* - Nod +ve; fix +ve.
- 10884 *Lotus maroccanus* Ball. Morocco. From NZP 2230 ← CC 809a - rec. as *Rhizobium* sp. - fast growth.
- 5376 *Lotus pedunculatus* Cav. - ineffective nodules. Oct 1966. From R.M. Greenwood NZP2141 - rec. as *R. lupini* - Nod +ve; fix +ve (*Lupinus polyphyllus*, *L. arboreus*, *Cytisus scoparius*).
- 10762 *Lotus pedunculatus* Cav. - lotus major. Australia. From NZP 2021 ← CC 829 - rec. as *Rhizobium* sp. - fast growth.
- 10765 *Lotus pedunculatus* Cav. - lotus major. Palmerston North, WI, NZ. From NZP 2042 - rec. as *Rhizobium* sp. - fast growth.
- 10766 *Lotus pedunculatus* Cav. - lotus major. Palmerston North, WI, NZ. From NZP 2047 - rec. as *Rhizobium* sp. - fast growth.
- 10773 *Lotus pedunculatus* Cav. - lotus major. Palmerston North, WI, NZ. From NZP 2085 - rec. as *Rhizobium* sp. - fast growth.
- 10774 *Lotus pedunculatus* Cav. - lotus major. Kaikohe, ND, NZ. From NZP 2087 - rec. as *Rhizobium* sp. - fast growth - contains special polysaccharide.
- 10902 *Lotus pedunculatus* Cav. - lotus major. Craigieburn, MC, NZ. From NZP 2304 - rec. as *Rhizobium* sp. - fast growth.
- 10783 *Lotus pedunculatus* Cav. X *L. corniculatus* L. Palmerston North, WI, NZ. From NZP 2171 - rec. as *Rhizobium* sp. - fast growth.
- 4771 b *Lotus suaveolens* Pers. - nodule. Kaikohe, ND, NZ. From A. Hastings 4771 ← R.M. Greenwood NZP2076 - rec. as *R. lupini* - (*Bradyrhizobium* sp.?) - Nod +ve; fix +ve (*Ornithopus* sp., *Lupinus* sp.).
- 10780 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Lincoln, MC, NZ. From NZP 2146 - rec. as *Rhizobium* sp. - fast growth.
- 10806 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2194 - rec. as *Rhizobium* sp. - fast growth.
- 10807 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2195 - rec. as *Rhizobium* sp. - fast growth.
- 10812 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2203 - rec. as *Rhizobium* sp. - fast growth.
- 10813 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2205 - rec. as *Rhizobium* sp. - fast growth - suitable for nodulation of *Ornithopus* sp. & *Lotus* sp.
- 10814 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil. Palmerston North, WI, NZ. From NZP 2207 - rec. as *Rhizobium* sp. - fast growth.
- 4140 b *Lupinus arboreus* Sims - tree lupin - nodule. Australia 1957. From J.R. Caradus NZA31 ← B.A. Pike TA30 - rec. as *R. lupini* - Nod +ve; fix +ve.
- 3663 a *Lupinus* sp. - lupin - nodule. Australia. From A. Hastings ← R.M. Greenwood NZP2196 = AIRCS SU343 - Int. J. Syst. Bact. 32: 378-380, 1982 - rec. as *R. lupini* - Nod +ve; fix +ve (*Lotus corniculatus* and hybrids).

Rhizobium lupini (Schroeter 1886) Eckhardt, Baldwin & Fred 1931

see *Rhizobium loti* and *Bradyrhizobium* sp.

Rhizobium melliloti Dangeard 1926

- 10875 *Medicago falcata* L. - yellow flowered alfalfa. Australia. From NZP 4019 ← CC 163 - rec. as *Rhizobium* sp. - suitable nodulating strain for hybrid *Medicago* sp. - Nod +ve; fix +ve (*Medicago* sp.).
- 10876 *Medicago falcata* L. - yellow flowered alfalfa. Australia. From NZP 4020 ← CC 164 - rec. as *Rhizobium* sp.
- 2753 a *Medicago laciniata* (L.) Mill. - cutleaf medic - nodule. Australia Jul 1959. From A. Hastings ← J. Brockwell CC2093 - Nod +ve; fix +ve.
- 10879 *Medicago laciniata* (L.) Mill. - cutleaf medic. Australia. From NZP 4023 ← CC 2093 - rec. as *Rhizobium* sp. - Nod -ve; fix -ve (lucerne).
- 4000 *Medicago rugosa* Desr. - nodule. Australia 1967. From C.N. Hale ← J. Brockwell W119.
- 4385 *Medicago rugosa* Desr. - lucerne, alfalfa - nodule. Australia. From C.N. Hale ← J. Brockwell W118.
- 12622 *Medicago rugosa* Desr. - lucerne cv. Paragosa. Australia. From NZP 4016 ← WU 118 - rec. as *Rhizobium* sp.
- 1300 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Uruguay 1963. From A. Hastings ← J.M. Vincent U45 - Nod +ve; fix +ve (*Medicago* spp., *Melilotus alba*).
- 1301 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia 1939. From A. Hastings ← J.M. Vincent SU47 - Nod +ve; fix +ve (*Medicago* spp.).
- 1320 *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia. From A. Hastings ← University of Sydney WA16-1.
- 1322 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Conroys Gully, CO, NZ 1927. From A. Hastings LUC-1 ← W.D. Reid - Nod +ve; fix +ve.
- 1323 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Uruguay 1963. From A. Hastings ← R.M. Greenwood U45 - Nod +ve; fix +ve (*Medicago* spp., *Melilotus alba*).
- 1325 *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia. From A. Hastings WA1.
- 1327 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia 1939. From A. Hastings ← R.M. Greenwood SU47 = NZP 4009 - Nod +ve; fix +ve (*Medicago* spp.).
- 1344 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Palmerston, DN, NZ Jul 1964. From A. Hastings AH22 - Nod +ve; fix +ve.
- 1345 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Palmerston, DN, NZ Jul 1964. From A. Hastings AH24 - Nod +ve; fix +ve.
- 1666 *Medicago sativa* L. - lucerne, alfalfa - nodule. USA. From A. Hastings AH31 ← I.D. Blair ← L.W. Erdman.
- 1667 *Medicago sativa* L. - lucerne, alfalfa - nodule. USA. From A. Hastings AH32 ← I.D. Blair ← L.W. Erdman.
- 1806 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Uruguay 1963. From A. Hastings U45 ← ICMP 1300 ← J.M. Vincent U45 - Nod +ve; fix +ve.
- 2748 *Medicago sativa* L. - lucerne, alfalfa - nodule. Zimbabwe. From A. Hastings ← D.O. Norris CB227.
- 2749 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Zimbabwe. From A. Hastings ← D.O. Norris CB1170 = Marandellas 308.
- 2750 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Zimbabwe. From A. Hastings ← D.O. Norris CB1171 = Lyngby H58 - Nod +ve; fix +ve.
- 2751 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Uruguay 1963. From A. Hastings ← D.O. Norris U45 - Nod +ve; fix +ve (*Medicago* spp., *Melilotus*).

- alba*).
- 2752 a *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia 1939. From A. Hastings ← D.O. Norris SU47 - Nod +ve; fix +ve (*Medicago* spp.).
- 2887 *Medicago sativa* L. - lucerne, alfalfa - nodule. South Africa. From A. Hastings ← B.W. Strijdom RF10.
- 2888 b *Medicago sativa* L. - lucerne, alfalfa - nodule. South Africa. From A. Hastings ← B.W. Strijdom RF20 - Nod +ve; fix +ve.
- 4133 *Medicago sativa* L. - lucerne, alfalfa - nodule. Taupo, TO, NZ Jan 1975. From C.N. Hale 1916.
- 4566 *Medicago sativa* L. - lucerne, alfalfa - nodule. NZ Nov 1975. From A. Hastings.
- 4567 *Medicago sativa* L. - lucerne, alfalfa - nodule. NZ Nov 1975. From A. Hastings.
- 4568 *Medicago sativa* L. - lucerne, alfalfa - nodule. NZ Nov 1975. From A. Hastings.
- 4664 b *Medicago sativa* L. - lucerne cv. Wairau - nodule. NZ Feb 1976. From D.J. Mathers - Nod +ve; fix +ve.
- 4665 b *Medicago sativa* L. - lucerne cv. Wairau - nodule. Riverhead Forest, AK, NZ Feb 1976. From D.J. Mathers - Nod +ve; fix +ve.
- 4669 b *Medicago sativa* L. - lucerne cv. Wairau - nodule. Riverhead Forest, AK, NZ. From D.J. Mathers - Nod +ve; fix +ve.
- 5374 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Auckland, AK, NZ Mar 1977. From A. Hastings - Nod +ve; fix +ve.
- 5375 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Auckland, AK, NZ Mar 1977. From A. Hastings - Nod +ve; fix +ve.
- 5593 *Medicago sativa* L. - lucerne, alfalfa - nodule. Canada. From C.N. Hale M5 ← R.M. Greenwood NZP 4022 ← L.M. Bordeleau - Nod +ve.
- 7166 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Argentina. From C.N. Hale ← N. Nunez B36 - Nod +ve; fix +ve.
- 7167 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Argentina. From C.N. Hale ← N. Nunez B251 - Nod +ve; fix +ve.
- 7168 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia. From C.N. Hale ← N. Nunez B310 = CC 8 - Nod +ve; fix +ve.
- 7169 b *Medicago sativa* L. - lucerne, alfalfa - nodule. Australia. From C.N. Hale ← N. Nunez B323 = CC 2068 - Nod +ve; fix +ve.
- 10869 *Medicago sativa* L. - lucerne, alfalfa. Australia. From NZP 4009 ← SU 47 - rec. as *Rhizobium* sp. - suitable strain for *Melilotus* sp. - Nod +ve; fix +ve (*Melilotus* sp.).
- 10870 *Medicago sativa* L. - lucerne, alfalfa. Uruguay. From NZP 4010 - rec. as *Rhizobium* sp.
- 10871 *Medicago sativa* L. - lucerne, alfalfa. USA. From NZP 4012 - rec. as *Rhizobium* sp.
- 10872 *Medicago sativa* L. - lucerne, alfalfa. Zimbabwe. From NZP 4013 ← CB 1170 - rec. as *Rhizobium* sp.
- 10873 *Medicago sativa* L. - lucerne, alfalfa. Sweden. From NZP 4014 ← CB 1171 - rec. as *Rhizobium* sp. - suitable strain for *Melilotus* sp. - Nod +ve; fix +ve (*Melilotus* sp.).
- 10878 *Medicago sativa* L. - lucerne, alfalfa. Canada. From NZP 4022 ← Balsac - rec. as *Rhizobium* sp. - tolerant of acid soils.
- 10894 *Medicago sativa* L. - lucerne, alfalfa. South Africa. From NZP 4015 - rec. as *Rhizobium* sp.
- 10895 *Medicago scutellata* (L.) Mill. - snail medic. Australia. From NZP 4018 ← CC 131 - rec. as *Rhizobium* sp.
- 7626 *Medicago* sp. - Paragosa medic - nodule. Australia. From C.N. Hale ← R.J. Roughley NA355 ← CC 169.
- 10877 *Medicago* sp. Australia. From NZP 4021 ← CC 2165 - rec. as *Rhizobium* sp. - does not nodulate lucerne - Nod -ve; fix -ve (lucerne).
- 10880 *Medicago* sp. Australia. From NZP 4024 - rec. as *Rhizobium* sp.
- 10881 *Medicago* sp. From NZP 4025 - rec. as *Rhizobium* sp.
- 10896 *Medicago* sp. From NZP 4026 - rec. as *Rhizobium* sp.
- 3261 *Melilotus alba* Desr. - white sweet clover - nodule. Canterbury, NZ Jun 1972. From A. Hastings.
- 2754 b *Trigonella suavissima* Lindl. - cooper clover - nodule. Australia Apr 1963. From A. Hastings ← J. Brockwell CC2156A - Nod +ve; fix +ve (*Trigonella* spp., *Medicago sativa*).
- 2755 b *Trigonella suavissima* Lindl. - cooper clover - nodule. Australia Sep 1967. From A. Hastings ← J. Brockwell CC2157 - Nod +ve; fix +ve (*Trigonella* spp., *Medicago sativa*).
- 4384 b Soil. Australia 1971. From C.N. Hale ← J. Brockwell CC2165 - Nod +ve; fix +ve (*Medicago tornata*).
- 5554 b Abbott Laboratories lucerne inoculant. USA Aug 1977. From A. Hastings M1 - Nod +ve; fix +ve.
- 5555 b Abbott Laboratories lucerne inoculant. USA Aug 1977. From A. Hastings M2 - Nod +ve; fix +ve.
- 5556 b Abbott Laboratories lucerne inoculant. USA Aug 1977. From A. Hastings M3 - Nod +ve; fix +ve.
- 5557 b Abbott Laboratories lucerne inoculant. USA Aug 1977. From A. Hastings M4 - Nod +ve; fix +ve.
- 5864 b Abbott Laboratories lucerne inoculant. USA Mar 1978. From A. Hastings L6 - Nod +ve; fix +ve.
- 5865 b Abbott Laboratories lucerne inoculant. USA Mar 1978. From A. Hastings L7 - Nod +ve; fix +ve.
- 6026 b May 1978. From D.J. Winfield (nee Mathers) 2751-200-6 - laboratory derived streptomycin resistant selection of ICMP 2751 - Nod +ve; fix +ve.
- 6028 b May 1978. From D.J. Winfield (nee Mathers) 2752-200-1 - laboratory derived streptomycin resistant selection of ICMP 2752 - Nod +ve; fix +ve.
- 12623 USA. From NZP 4027 ← ATCC 9930 ← N.R. Smith 3DOa2 - rec. as *Rhizobium* sp. - **Type strain**.

Rhizobium phaseoli Dangeard 1926

see *Rhizobium leguminosarum* biovar *phaseoli*.

Rhizobium sp.

- 12835 *Acacia dealbata* Link - silver wattle, mimosa. Palmerston North, WI, NZ. From NZP 5073.
- 12763 *Acacia koa* A. Gray. From NZP 5508 ← TAL 301.
- 12662 *Adesmia bicolor* DC. Uruguay. From NZP 5252 ← CB 1761.
- 12663 *Adesmia lotoides* Hook.f. Argentina. From NZP 5253 ← CB 753.
- 12789 *Aeschynomene falcata* (Poir.) DC. - jointvetch cv. Bargoo. From NZP 5545 - (*Bradyrhizobium* sp.?).
- 11717 *Albizia distachya* (Venten.) Macbr. - brush wattle. ND, NZ. From NZP 5094.
- 12627 *Albizia lophantha* (Willd.) Benth. - brush wattle. Rakaunui, WA, NZ. From NZP 5071.
- 11084 *Arachis hypogaea* L. - groundnut, peanut. USA (Hawaii). From NifTAL 1000.
- 12654 *Arachis hypogaea* L. - peanut. Argentina. From NZP 5233 ← CB 741 - (*Bradyrhizobium* sp.?).
- 12655 *Arachis hypogaea* L. - peanut. Argentina. From NZP 5234 ← CB 742 - (*Bradyrhizobium* sp.?).
- 12657 *Arachis hypogaea* L. - peanut. Argentina. From NZP 5236 ← CB 745.
- 12658 *Arachis hypogaea* L. - peanut. Argentina. From NZP 5238 ← CB 749.
- 12719 *Astragalus glycyphyllos* L. From NZP 5420.
- 12706 *Astragalus onobrychis* L. Pers. USA. From NZP 5399.
- 10440 *Astragalus sinicus* L. - Chinese milk vetch. From P. Bowers ← P.B. van Berkum - effective for Chinese milk vetch.
- 12664 *Astragalus sinicus* L. - Chinese milk vetch. From NZP 5255 ← CB 1176.
- 12759 *Cajanus cajan* (L.) Huth - pigeon pea. India. From NZP 5503 - (*Bradyrhizobium* sp.?).
- 11082 *Calopogonium caeruleum* Hemsl. Colombia. From NifTAL 727 ← CIAT 493.
- 3156 *Caragana arborescens* Lam. - nodule. USA. From A. Hastings ← R.M. Greenwood NZP5201 ← H.L. Jensen.
- 12786 *Caragana arborescens* Lam. Palmerston North, WI, NZ. From NZP 5542 - (*Bradyrhizobium* sp.?).
- 12787 *Caragana arborescens* Lam. Palmerston North, WI, NZ. From NZP 5543 - (*Bradyrhizobium* sp.?).
- 12788 *Caragana arborescens* Lam. Palmerston North, WI, NZ. From NZP 5544 - (*Bradyrhizobium* sp.?).
- 12728 *Caragana sinica* (Buc'hoz) Rehd. Indonesia. From NZP 5438.
- 12729 *Caragana sinica* (Buc'hoz) Rehd. Indonesia. From NZP 5439.
- 12643 *Carmichaelia aligera* Simpson. Ponui Is., AK, NZ. From NZP 5189.
- 12651 *Carmichaelia angustata* Kirk. FD, NZ. From NZP 5228.
- 12633 *Carmichaelia enysii* T. Kirk. Hakatere, SC, NZ. From NZP 5151 - ineffective strain.
- 12707 *Carmichaelia exsul* F. Muell. Lord Howe Is. From NZP 5401.
- 11540 *Carmichaelia flagelliformis* Col. ex Hook.f. Palmerston North, WI, NZ. From NZP 5102.
- 11710 *Carmichaelia flagelliformis* Col. ex Hook.f. Taupo, TO, NZ. From NZP 5061.
- 11727 *Carmichaelia flagelliformis* Col. ex Hook.f. Taupo, TO, NZ. From NZP 5065.
- 12645 *Carmichaelia flagelliformis* Col. ex Hook.f. Lady Alice Is., ND, NZ. From NZP 5208 - (*Bradyrhizobium* sp.?)
- 12670 *Carmichaelia flagelliformis* Col. ex Hook.f. Canterbury, NZ. From NZP 5273.
- 12675 *Carmichaelia flagelliformis* Col. ex Hook.f. Chatham Is., NZ. From NZP 5279.
- 12687 *Carmichaelia flagelliformis* Col. ex Hook.f. Mt Terako, MC, NZ. From NZP 533 - (*Bradyrhizobium* sp.?)

- 12688 *Carmichaelia flagelliformis* Col. ex Hook.f. Mt Terako, MC, NZ. From NZP 5339 - (*Bradyrhizobium* sp.?)
- 12694 *Carmichaelia flagelliformis* Col. ex Hook.f. Australia. From NZP 5370 - soil ex *Swainsona galegifolia* - (*Bradyrhizobium* sp.?).
- 12634 *Carmichaelia monroi* Hook.f. Hakatere, SC, NZ. From NZP 5152 - ineffective strain.
- 12677 *Carmichaelia odorata* Col. ex Hook.f. Mokaka Cliff, NZ. From NZP 5281.
- 12678 *Carmichaelia odorata* Col. ex Hook.f. Manawatu, WI, NZ. From NZP 5282.
- 11708 *Carmichaelia orbiculata* Col. Taupo, TO, NZ. From NZP 5128.
- 12648 *Carmichaelia ovata* Simpson. Canterbury, NZ. From NZP 5217.
- 12635 *Carmichaelia petriei* Kirk. Palmerston North, WI, NZ. From NZP 5154.
- 12649 *Carmichaelia petriei* Kirk. North Otago, NZ. From NZP 5220.
- 12639 *Carmichaelia* sp. Canterbury, NZ. From NZP 5169 ← CB 2035-1 - (*Bradyrhizobium* sp.?)
- 12676 *Carmichaelia* sp. Chatham Is., NZ. From NZP 5280.
- 12647 *Carmichaelia violacea* Kirk. Canterbury, NZ. From NZP 5216.
- 12760 *Centrosema* sp. Australia. From NZP 5504 - (*Bradyrhizobium* sp.?).
- 10759 *Chamaecytisus palmensis* (Christ) Bisby & Nicholls - tree lucerne, tagasaste. Palmerston North, WI, NZ. From NZP 5035 - source of Nod –ve variants.
- 6681 *Cicer arietinum* L. - chickpea - nodule. USA. From R.M. Greenwood NZP5266 ← D.O. Norris CB1189 ← USDA 3HOAI - (*Bradyrhizobium* sp.?).
- 6682 *Cicer arietinum* L. - chickpea - nodule. Israel. From R.M. Greenwood 'Revadim'.
- 6683 *Cicer arietinum* L. - chickpea - nodule. USA. From R.M. Greenwood NZP5498 ← R. Date 27A5 ← Nitragin Co. USA.
- 12720 *Clianthus formosus* (G. Don) Ford & Vickery - desert pea, glory pea. Australia. From NZP 5426 - (*Bradyrhizobium* sp.?).
- 10898 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Palmerston North, WI, NZ. From NZP 5039.
- 11541 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Rahanui, NZ. From NZP 5106.
- 11542 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Waikaremoana, GB, NZ. From NZP 5117.
- 11720 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Waikaremoana, GB, NZ. From NZP 5125.
- 11721 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Waikaremoana, GB, NZ. From NZP 5127.
- 11726 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Waikaremoana, GB, NZ. From NZP 5126.
- 12642 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Hinemaiaia, TO, NZ. From NZP 5186 - Nod +ve; fix +ve (*Clianthus flagelliformis*, NZP).
- 12680 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Canterbury, NZ. From NZP 5289.
- 12695 *Clianthus puniceus* (G. Don) Sol. ex Lindl. - kaka beak. Australia. From NZP 5372 - soil ex *Swainsona galegifolia*.
- 12731 *Colutea arborescens* L. - bladder senna. From NZP 5442.
- 11712 *Corallospartium crassicaule* (Hook.f.) J.B. Armst. - nodule. Palmerston North, WI, NZ. From NZP 5159.
- 11723 *Corallospartium crassicaule* (Hook.f.) J.B. Armst. - nodule. Palmerston North, WI, NZ. From NZP 5160.
- 2779 *Coronilla varia* L. - crown vetch - nodule. Auckland, AK, NZ. From A. Hastings.
- 5944 b *Coronilla varia* L. - crown vetch - nodule. NZ. From R.M. Greenwood NZP5357-1 - Nod +ve; fix +ve (*Coronilla varia*, *Onobrychis viciifolia*).
- 5953 *Coronilla varia* L. - crown vetch - nodule. USA. From R.M. Greenwood NZP5462 ← J.A. Thompson NA725 - Nod +ve; fix +ve.
- 12625 *Coronilla varia* L. - crown vetch. USA. From NZP 5059.
- 12837 *Coronilla varia* L. - crown vetch. Taupo, TO, NZ. From NZP 5357.
- 12841 *Coronilla varia* L. - crown vetch. Australia. From NZP 5462 ← CC 401.
- 11083 *Crotalaria juncea* L. - sunn hemp. Colombia. From NifTAL 734 ← CIAT 276.
- 12624 *Cytisus scoparius* (L.) Link - broom. Palmerston North, WI, NZ. From NZP 5032.
- 5389 *Desmodium uncinatum* (Jacq.) DC. - nodule. Cook Is. Jul 1977. From A. Hastings C2.
- 11537 *Galega officinalis* L. - goat's rue. Palmerston North, WI, NZ. From NZP 5067.
- 12626 *Galega officinalis* L. - goat's rue. Palmerston North, WI, NZ. From NZP 5068.
- 9302 *Galega orientalis* Lam. - nodule. Finland Feb 1983. From M.V. Skellerup Hambi 1174 ← HAMB1 540 ← K. Lindstrom - Hambi 1174 is a mutant derived from Hambi 540 - rec. as *R. galega* - Nod +ve; (Skellerup).
- 1736 *Glycine max* (L.) Merr. - soybean - nodule. USA. From A. Hastings 128C45-2 ← C. Priest - rec. as *Rhizobium japonicum* - fast-growing acid producer.
- 2882 b *Glycine max* (L.) Merr. - soybean - nodule. South Africa. From A. Hastings ← B.W. Strijdom WB61 - rec. as *Rhizobium japonicum* - Nod +ve; fix +ve.
- 12711 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5411 ← USDA 117.
- 12712 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5412 ← USDA 138.
- 12713 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5413 ← Nitragin 61A72.
- 12714 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5414 ← Nitragin 61A76.
- 12768 *Glycine max* (L.) Merr. - soybean. China. From NZP 5521 - (*Bradyrhizobium* sp.?).
- 12769 *Glycine max* (L.) Merr. - soybean. China. From NZP 5522 - (*Bradyrhizobium* sp.?).
- 12770 *Glycine max* (L.) Merr. - soybean. China. From NZP 5523 - (*Bradyrhizobium* sp.?).
- 12771 *Glycine max* (L.) Merr. - soybean. China. From NZP 5524 - (*Bradyrhizobium* sp.?).
- 12772 *Glycine max* (L.) Merr. - soybean. China. From NZP 5525 - (*Bradyrhizobium* sp.?).
- 12773 *Glycine max* (L.) Merr. - soybean. China. From NZP 5526 - (*Bradyrhizobium* sp.?).
- 12774 *Glycine max* (L.) Merr. - soybean. China. From NZP 5527 - (*Bradyrhizobium* sp.?).
- 12775 *Glycine max* (L.) Merr. - soybean. China. From NZP 5528 - (*Bradyrhizobium* sp.?).
- 12777 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5532 - (*Bradyrhizobium* sp.?).
- 12778 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5533 - (*Bradyrhizobium* sp.?).
- 12779 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5534 - (*Bradyrhizobium* sp.?).
- 12781 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5536 - (*Bradyrhizobium* sp.?).
- 12782 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5537 ← USDA 110 - (*Bradyrhizobium* sp.?).
- 12783 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5538 ← CB 1809 - (*Bradyrhizobium* sp.?).
- 12784 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5539.
- 12785 *Glycine max* (L.) Merr. - soybean. USA. From NZP 5540 - (*Bradyrhizobium* sp.?).
- 12679 *Goodia lotifolia* Salisbury - golden tips. NZ. From NZP 5288 - (*Bradyrhizobium* sp.?).
- 12665 *Hedysarum boreale* Nutt. From NZP 5257 ← CB 551.
- 6932 b *Hedysarum coronarium* L. - sulla, French honeysuckle - nodule. Italy. From A. Hastings 6932 ← B. Scott NZP5410 ← T. Castelli - Nod +ve; fix +ve (sulla).
- 10149 *Hedysarum coronarium* L. - sulla, French honeysuckle - root. From H. Krishna.
- 12710 *Hedysarum coronarium* L. - sulla. Italy. From NZP 5409.
- 12612 [*Hosackia* sp.] Australia. From NZP 2237 ← CC 1005.
- 12748 *Lathyrus japonicus* Willd. - beach pea, heath pea, seaside pea. Palmerston North, WI, NZ. From NZP 5470.
- 12838 *Lathyrus japonicus* Willd. - beach pea, heath pea, seaside pea. From NZP 5421.
- 12605 *Lathyrus latifolius* L. - everlasting pea. From NZP 426.
- 12747 *Lathyrus sativa* L. - chickling vetch. Palmerston North, WI, NZ. From NZP 5469.
- 1328 *Leucaena glauca* (L.) Benth. - white popinac - nodule. Australia 1959. From A. Hastings ← J.M. Vincent CB81.
- 12725 *Leucaena glauca* (L.) Benth. - white popinac. Indonesia. From NZP 5435.
- 12744 *Leucaena insularum* (Guillaumin) Daniker. Cook Is. From NZP 5460.
- 12745 *Leucaena insularum* (Guillaumin) Daniker. Cook Is. From NZP 5461.
- 12666 *Leucaena leucocephala* (Lam.) deWit. Malaysia. From NZP 5259 ← CB 1274.
- 12746 *Leucaena leucocephala* (Lam.) de Wit. Cook Is. From NZP 5468.
- 10885 *Lotus angustissimus* L. - slender birdsfoot trefoil. Taupo, TO, NZ. From NZP 2240.

- 12610 *Lotus angustissimus* L. Ninety Mile Beach, ND, NZ. From NZP 2222 - (*Bradyrhizobium* sp.?).
- 12613 *Lotus corniculatus* L. - birdsfoot trefoil. Ireland. From NZP 2238.
- 12619 *Lotus corniculatus* L. - birdsfoot trefoil. Canada. From NZP 2298.
- 12621 *Lotus corniculatus* L. - birdsfoot trefoil. From NZP 2313.
- 12834 *Lotus corniculatus* L. - birdsfoot trefoil. Taupo, TO, NZ. From NZP 2257.
- 12608 *Lotus* hybrid. Kaikohe, ND, NZ. From NZP 2189 (*Bradyrhizobium* sp.?)
- 12607 *Lotus pedunculatus* Cav. Kaikohe, ND, NZ. From NZP 2182.
- 12614 *Lotus pedunculatus* Cav. Gore, SL, NZ. From NZP 2241.
- 12616 *Lotus pedunculatus* Cav. Gore, SL, NZ. From NZP 2249.
- 12620 *Lotus* sp. Palmerston North, WI, NZ. From NZP 2305.
- 12615 *Lotus* sp. (as *L. hispidus* Desf.). Taupo, TO, NZ. From NZP 2245.
- 12617 *Lotus* sp. (as *L. hispidus* Desf.). Rangitaitu, NZ. From NZP 2276.
- 12618 *Lotus* sp. (as *L. hispidus* Desf.) Palmerston North, WI, NZ. From NZP 2282.
- 12646 *Lupinus angustifolius* L. - blue lupin. Palmerston North, WI, NZ. From NZP 5214 - Nod +ve; fix +ve (lupin, NZP).
- 12661 *Lupinus angustifolius* L. - blue lupin. From NZP 5251 - (*Bradyrhizobium* sp.?).
- 12671 *Lupinus angustifolius* L. - blue lupin. Taupo, TO, NZ. From NZP 5274 - (*Bradyrhizobium* sp.?).
- 12698 *Lupinus angustifolius* L. - blue lupin. From NZP 5383.
- 12736 *Lupinus angustifolius* L. - blue lupin. From NZP 5447 - (*Bradyrhizobium* sp.?).
- 12836 *Lupinus arboreus* Sims - tree lupin. Taupo, TO, NZ. From NZP 5271.
- 12644 *Lupinus densiflorus* Benth. Denmark. From NZP 5198.
- 12737 *Lupinus densiflorus* Benth. From NZP 5448 - (*Bradyrhizobium* sp.?).
- 12738 *Lupinus densiflorus* Benth. From NZP 5449.
- 12739 *Lupinus luteus* L. - yellow lupin. From NZP 5450 - (*Bradyrhizobium* sp.?).
- 12715 *Lupinus nanus* Dougl. From NZP 5416.
- 12716 *Lupinus nanus* Dougl. From NZP 5417.
- 12717 *Lupinus vallicola* A. Heller. From NZP 5418.
- 12718 *Lupinus vallicola* A. Heller. From NZP 5419.
- 12700 *Macrotyloma uniflorum* (Lam.) Verdc. India. From NZP 5390 ← CB 1024.
- 12724 *Mimosa invisa* C. Mart. - giant sensitive plant. Indonesia. From NZP 5434.
- 1304 b *Mucuna deeringiana* (Bort) Merr. - velvet bean - nodule. Australia. From A. Hastings ← J.M. Vincent QA638 - Nod +ve; fix +ve (cowpea group).
- 12669 *Neptunia gracilis* Benth. - native sensitive plant. Australia. From NZP 5270 ← CB 2002.
- 5954 b *Onobrychis viciifolia* Scop. - sainfoin - nodulated with ICMP 1292. USA. From R.M. Greenwood NZP5463 ← J.A. Thompson NA807 = CC 1108 - Nod +ve; fix +ve.
- 12696 *Onobrychis viciifolia* Scop. - sainfoin. Australia. From NZP 5374.
- 12740 *Onobrychis viciifolia* Scop. - sainfoin. From NZP 5451.
- 12742 *Onobrychis viciifolia* Scop. - sainfoin. USA. From NZP 5454.
- 12765 *Onobrychis viciifolia* Scop. - sainfoin. Belgium. From NZP 5510.
- 12842 *Onobrychis viciifolia* Scop. - sainfoin. From NZP 5463 ← CC 1108.
- 11714 *Ornithopus perpusillus* L. Taupo, TO, NZ. From NZP 5114.
- 11724 *Ornithopus perpusillus* L. Taupo, TO, NZ. From NZP 5112.
- 11733 *Ornithopus perpusillus* L. Taupo, TO, NZ. From NZP 5113.
- 11718 *Ornithopus pinnatus* (Miller) Druce - slender serradella. Ninety Mile Beach, ND, NZ. From NZP 5110.
- 10906 *Ornithopus sativus* Brot. - serradella. Palmerston North, WI, NZ. From NZP 5030.
- 12629 *Ornithopus sativus* Brot. - serradella. Ninety Mile Beach, ND, NZ. From NZP 5108.
- 11081 *Pachyrhizus erosus* (L.) Urb. - yam bean. Malaysia. From NifTAL 657 ← University of Malaya UMKL81.
- 12683 *Parochetus communis* Buch. - Ham. ex D. Don - shamrock pea, blue oxalis - nodules contain black pigments. Franz Josef, WD, NZ. From NZP 5299 - (*Bradyrhizobium* sp.?).
- 12693 *Parochetus communis* Buch. - Ham. ex D. Don - shamrock pea, blue oxalis. Manawatu, WI, NZ. From NZP 5362 - (*Bradyrhizobium* sp.?).
- 12757 *Phaseolus acutifolius* A. Gray. Canada. From NZP 5493 - (*Bradyrhizobium* sp.?).
- 12743 *Phaseolus vulgaris* L. - bean. Lincoln, MC, NZ. From NZP 5459.
- 12756 *Phaseolus vulgaris* L. - broad bean. Brazil. From NZP 5492.
- 12767 *Phaseolus vulgaris* L. - bean. Columbia?. From NZP 5519 ← CIAT 255.
- 12790 *Phaseolus vulgaris* L. - bean. UK (England). From NZP 5547 ← Rothamsted 3644.
- 12752 *Pisum hortense* Aschers. & Graebn. Canada. From NZP 5483.
- 12652 *Pisum sativum* L. - garden pea. Australia. From NZP 5230 ← TA 101 - Nod +ve; fix +ve (peas, lentils, vetches, NZP).
- 12653 *Pisum sativum* L. - garden pea. Australia. From NZP 5231 ← SU 391.
- 12754 *Pisum sativum* L. - garden pea. Brazil. From NZP 5487.
- 12755 *Pisum sativum* L. - garden pea. Brazil. From NZP 5488.
- 12761 *Prosopis chilensis* (Mol.) Stuntz. USA (Hawaii). From NZP 5506 ← TAL 601.
- 12762 *Prosopis chilensis* (Mol.) Stuntz. USA (Hawaii). From NZP 5507 ← TAL 603.
- 5396 *Psophocarpus tetragonolobus* (L.) DC. - winged bean - nodule. Jul 1977. From A. Hastings C3.
- 11539 *Psoralea pinnata* L. - scurfy pea. ND, NZ. From NZP 5093.
- 12638 *Psoralea pinnata* L. Palmerston North, WI, NZ. From NZP 5168 - (*Bradyrhizobium* sp.?)
- 12692 *Robinia pseudoacacia* L. - black locust, false acacia. Taupo, TO, NZ. From NZP 5355.
- 12730 *Robinia pseudoacacia* L. - black locust, false acacia. Indonesia. From NZP 5441.
- 5377 b *Sophora angustifolia* Sieb. & Zucc. - nodule. Japan. From R.M. Greenwood NZP5440 ← S. Ishizawa J2061 - Nod +ve; fix +ve (*S. microphylla*).
- 12840 *Sophora angustifolia* Sieb. & Zucc. Indonesia. From NZP 5440.
- 12734 *Sophora formosa* Kearney & Peebles. From NZP 5445.
- 12735 *Sophora formosa* Kearney & Peebles. From NZP 5446.
- 12709 *Sophora howinsula* (W.R.B. Oliver) P.S. Green. Lord Howe Is. From NZP 5406.
- 6193 *Sophora microphylla* Ait. - kowhai - nodule. NZ. From R.J. Hill ← R.M. Greenwood C5275 - (*Bradyrhizobium* sp.?)
- 12637 *Sophora microphylla* Ait. - kowhai. Lake Ohau, MK, NZ. From NZP 5166 - (*Bradyrhizobium* sp.?)
- 12672 *Sophora microphylla* Ait. - kowhai. Chatham Is., NZ. From NZP 5275 - Nod +ve; fix +ve (kowhai, NZP).
- 12640 *Sophora prostrata* Buchanan - prostrate kowhai. Australia. From NZP 5170 ← CB 2042-1 - (*Bradyrhizobium* sp.?)
- 12732 *Sophora secundiflora* (Ort.) Lag. ex DC. - mescal bean, frijolito. From NZP 5443.
- 12733 *Sophora secundiflora* (Ort.) Lag. ex DC. - mescal bean, frijolito. From NZP 5444.
- 11719 *Sophora tetraptera* Mill. - kowhai. Waikaremoana, GB, NZ. From NZP 5124 - Nod+, fix+ (kowhai).
- 12641 *Sophora tomentosa* L. - silverbush. Australia. From NZP 5171 ← CB 562 - (*Bradyrhizobium* sp.?)
- 12697 *Spartium junceum* L. - Spanish broom, weavers' broom. Dannevirke, WA, NZ. From NZP 5381 - (*Bradyrhizobium* sp.?).
- 12699 *Stylosanthes guianensis* Aubl. - Brazilian lucerne, stylo. Costa Rica. From NZP 5387 ← CB 2248 - (*Bradyrhizobium* sp.?).
- 12702 *Stylosanthes guianensis* Aubl. - Brazilian lucerne, stylo. Costa Rica. From NZP 5394 ← CB 2364 - (*Bradyrhizobium* sp.?).
- 12727 *Styphnolobium japonicum* Schott. Indonesia. From NZP 5437 - (*Bradyrhizobium* sp.?).
- 12650 *Sutherlandia frutescens* (L.) R.Br. Havelock North, HB, NZ. From NZP 5226 - (*Bradyrhizobium* sp.?).
- 12681 *Sutherlandia frutescens* (L.) R.Br. Auckland, AK, NZ. From NZP 5291.
- 12721 *Swainsona canescens* (Benth.) F.Muell. - grey swainsona. Australia. From NZP 5428 - (*Bradyrhizobium* sp.?).
- 12722 *Swainsona canescens* (Benth.) F.Muell. - grey swainsona. Australia. From NZP 5429.
- 12839 *Swainsona canescens* (Benth.) F.Muell. - grey swainsona. Australia. From NZP 5427 - (*Bradyrhizobium* sp.?).

- 12703 *Swainsona galegifolia* (Andr.) R.Br. - swan flower, winter sweet pea, darling pea. Australia. From NZP 5396 - (*Bradyrhizobium* sp.?).
- 12704 *Swainsona galegifolia* (Andr.) R.Br. - swan flower, winter sweet pea, darling pea. Palmerston North, WI, NZ. From NZP 5397.
- 12684 *Swainsona novae-zelandiae* Hook.f. Mt Terako, MC, NZ. From NZP 5320.
- 12685 *Swainsona novae-zelandiae* Hook.f. Mt Terako, MC, NZ. From NZP 5324.
- 12689 *Swainsona novae-zelandiae* Hook.f. Mt Terako, MC, NZ. From NZP 5341.
- 12690 *Swainsona novae-zelandiae* Hook.f. Mt Terako, MC, NZ. From NZP 5342.
- 12701 *Teramnus uncinatus* Sw. Costa Rica. From NZP 5393 - altitude 2700ft - effective in acid soils (NZP).
- 11730 *Trigonella suavissima* Lindl. - cooper clover. Australia. From NZP 4017 ← CC 2017.
- 11715 *Ulex europaeus* L. - gorse. Taupo, TO, NZ. From NZP 5042 - Nod +, fix + (gorse).
- 12673 *Ulex europaeus* L. - gorse. Taupo, TO, NZ. From NZP 5277 - (*Bradyrhizobium* sp.?).
- 12674 *Ulex europaeus* L. - gorse. Taupo, TO, NZ. From NZP 5278.
- 12682 *Ulex europaeus* L. - gorse. Greymouth, BR, NZ. From NZP 5295.
- 12749 *Vicia faba* L. - broad bean. Canada. From NZP 5471.
- 12750 *Vicia faba* L. - broad bean. Canada. From NZP 5472.
- 12751 *Vicia faba* L. - broad bean. Canada. From NZP 5474.
- 12753 *Vicia faba* L. - broad bean. From NZP 5486.
- 5388 *Vigna radiata* (L.) R. Wilcz. - mung bean - nodulated with commercial inoculant from Australia. Jul 1977. From A. Hastings ← C1.
- 12758 *Vigna radiata* (L.) R. Wilcz. - mung bean, green gram, golden gram. Canada. From NZP 5494.
- 8467 b *Vigna* sp. - nodule. Australia. From R.J. Roughley CB756 - Nod +ve; fix +ve (cowpea group).
- 3157 Nitragin inoculant. From A. Hastings ← R.M. Greenwood NZP5301 - Nod +ve; fix +ve (*Onobrychis vicifolia*).
- 4764 b Australia. From A. Hastings ← R.C. Close NA725-1 = CSIRO CC401 - Nod +ve; fix +ve (*Coronilla* sp.).
- 5805 b NZ. From A. Hastings L2 ← R.M. Greenwood NZP5462 - Nod +ve; fix +ve (*Coronilla* sp.).
- 5859 b NZ. From A. Hastings L3 ← R.M. Greenwood NZP5463 - Nod +ve; fix +ve (*Onobrychis vicifolia*).
- 6931 Rhizocote Laboratories clover inoculant. May 1980. From A. Hastings.
- 6937 b Nodule. Australia. From A. Hastings ← D. Goulden CB2855 = CC 1102: CB 2855 - Nod +ve; fix +ve (*Cicer arletinum*).
- 9376 Peat culture. Hawaii (USA) May 1986. From R.A. Fullerton ← R.G. Clark - nodulates *Acacia mangium*.
- 11538 From NZP 5092.
- 11709 From NZP 5146.
- 11716 From NZP 5087.
- 11722 From NZP 5147.
- 12609 From NZP 2198.
- 12611 From NZP 2236w.
- 12628 From NZP 5092.
- 12630 From NZP 5119.
- 12631 From NZP 5146.
- 12632 From NZP 5147.
- 12636 From NZP 5162.
- 12656 From NZP 5235.
- 12659 From NZP 5240.
- 12660 From NZP 5246.
- 12667 From NZP 5260.
- 12668 From NZP 5268.
- 12686 From NZP 5332.
- 12691 From NZP 5349.
- 12705 From NZP 5398.
- 12708 From NZP 5403.
- 12723 From NZP 5433.
- 12726 From NZP 5436.
- 12741 From NZP 5453.
- 12764 From NZP 5509.
- 12766 From NZP 5517.
- 12776 From NZP 5529.
- 12780 From NZP 5535.

Rhizobium trifolii Dangeard 1926

see *Rhizobium leguminosarum* biovar *trifolii*.

Rhodococcus fascians (Tilford 1936) Goodfellow 1984

syn. *Corynebacterium fascians* (Tilford 1936) Dowson 1942

- 7113 a* *Begonia* sp. - begonia - affects stem and causes tumours on roots. Netherlands Dec 1977. From CBS 397 ← H.A. van Hoof - *sweet pea.
- 11937 *Brassica oleracea* L. France 1982. From CFBP 2143 ← B. Digat CFC1.
- 7112 a* *Brodiaea laxa* L. - causes leafy gall. Netherlands 1978. From PD 237 ← H.J. Miller 857 - *sweet pea.
- 6788 b* *Carica pubescens* Lenne & C. Koch - mountain pawpaw - bud proliferation. Auckland, AK, NZ Jan 1980. From D.R.W. Watson A2681 - rec. as *Corynebacterium* sp. - *sweet pea.
- 6792 b* *Carica X heilbornii* Badillo nm. *pentagona* (Heilborn) Badillo - babaco - below ground proliferation of cuttings. Mt Albert, AK, NZ Feb 1980. From D.R.W. Watson A2710 - rec. as *Corynebacterium* sp. - *sweet pea.
- 7706 b* *Carica X heilbornii* Badillo nm. *pentagona* (Heilborn) Badillo - babaco - floral bud proliferation. NZ Aug 1981. From R.G. Clark AC2958 ← D.R.W. Watson - *sweet pea.
- 2600 a *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum. UK 1964. From D.W. Dye Cl6 ← NCPPB 1675 ← G.E. Jones C433.
- 7114 a* *Dahlia* sp. - stem base. Netherlands Mar 1978. From CBS 442 ← H.A. van Hoof - *sweet pea.
- 11914 *Dahlia* sp. France 1978. From CFBP 1875 ← B. Digat CFD1.
- 2596 a* *Fragaria X ananassa* Duch. - cultivated strawberry. UK 1957. From D.W. Dye Cl1 ← NCPPB 469 ← R.A. Lelliott - *sweet pea.
- 2597 a* *Fragaria X ananassa* Duch. - cultivated strawberry - symptomless plant. UK 1951. From D.W. Dye Cl2 ← NCPPB 764 ← J.E. Crosse N4 - *sweet pea.
- 2598 a *Fragaria X ananassa* Duch. - cultivated strawberry - symptomless plant. UK 1951. From D.W. Dye Cl3 ← NCPPB 766 ← J.E. Crosse N6.
- 2599 a *Fragaria X ananassa* Duch. - cultivated strawberry - symptomless plant. UK 1951. From D.W. Dye Cl4 ← NCPPB 765 ← J.E. Crosse N11.
- 7109 a *Gladiolus* sp. - causes leafy gall. Netherlands 1978. From PD 84 ← H.J. Miller 105A.
- 11948 *Gladiolus* sp. - gladiolus cv. Eurovision. France 1983. From CFBP 2296 ← B. Digat 11-1.
- 2601 a *Justicia brandegeana* Wassh. & L.B. Sm. - shrimp plant. UK 1965. From D.W. Dye Cl7 ← NCPPB 1733 ← J. Oxtoby CF2.
- 2604 a* *Lathyrus odoratus* L. - sweet pea - fasciation. USA. From D.W. Dye Cl10 ← ICPB CF19 ← P.E. Tilford E = ATCC 12975 - *sweet pea.
- 5339 b* *Lathyrus odoratus* L. - sweet pea - shoot. UK 1963. From J.D. Taylor 814 ← R.A. Lelliott = NCPPB 1488: ICPB CF115 - *sweet pea.
- 5340 b* *Lathyrus odoratus* L. - sweet pea - shoot. UK 1975. From J.D. Taylor 888A - *sweet pea.
- 9961 *Pelargonium sonata* - pelargonium cv. Orange Ricard. UK 1983. From NCPPB 3263 ← J.E. Sellwood A1834.
- 12003 * *Pelargonium X hortorum* L.H. Bailey - geranium - leafy galls. Iran 1991. From H. Rahimian R1h2 - *geranium, petunia (Rahimian).
- 11934 *Pelargonium X peltatum* Ait. France 1981. From CFBP 2100 ← B. Digat CFL1.
- 9962 *Pelargonium zonale* (L.) L'Her. ex Ait. UK 1983. From NCPPB 3267 ← K. Hubbard 71 Aii.
- 12364 * *Petunia X hybrid* Hort. Vilm.-Andr. - petunia cv. Feri - crown proliferation, fasciation. Iran Aug 1994. From H. Rahimian AT9 - *petunia, geranium,

fodder beet (Rahimian).

- 7108 a* *Verbascum nigrum* L. - causes leafy gall. Netherlands 1978. From PD 22 ← H.J. Miller 1499 - *sweet pea.
 2602 a USA. From D.W. Dye C18 ← ICPB CF1 ← E.M. Hildebrand R.
 2603 a Canada. From D.W. Dye C19 ← ICPB CF15 ← A. Davey B1.
 2605 a USA 1944. From D.W. Dye C11 ← ICPB CF21 ← P.E. Tilford = A.J. Riker 2C52.
 2606 a USA. From D.W. Dye C12 ← ICPB CF101 ← S. Domdroff P2(smooth).
 4147 * USA. From D.W. Dye ← ATCC 14887 = NCIB 10027 - *sweet pea.
 5833 a* From ATCC 12974 ← W.H. Burkholder CF17 ← P.E. Tilford = CFBP 2401: LMG 3623: NCPPB 3067 - *sweet pea - **Type strain**.

Salmonella sp. serotype Lille

- 7616 Denmark. From NHI 375 ← F. Kauffmann = ISC 504: NCTC 9885.

Salmonella sp. serotype Potsdam

- 7615 Denmark. From DRI 75 ← F. Kauffmann 43 = NCTC 5744.

Serratia entomophila Grimont *et al.* 1988

- 8756 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. NZ Sep 1983. From G. Stucki A1 = ATCC 43705 - Int. J. Syst. Bact 38: 1-6, 1988 - rec. as *S. marinorubra* - biotype 1 - *grass grub (Stucki) - **Type strain**.
 8757 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Fairton, MC, NZ Sep 1983. From G. Stucki A2 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 1 - *grass grub (Stucki).
 8758 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Alford Forest, MC, NZ Sep 1983. From G. Stucki A3 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 1 - *grass grub (Stucki).
 8759 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Carew, MC, NZ Sep 1983. From G. Stucki A4 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 1 - *grass grub (Stucki).
 8760 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Carew, MC, NZ Sep 1983. From G. Stucki A5 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 1 - *grass grub (Stucki).
 8761 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Carew, MC, NZ Sep 1983. From G. Stucki A6 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8762 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Ealing, MC, NZ Sep 1983. From G. Stucki A8 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8764 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of healthy grub. Ealing, MC, NZ Sep 1983. From G. Stucki A10 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8765 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Methven, MC, NZ Sep 1983. From G. Stucki A11 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8766 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Wakanui, MC, NZ Sep 1983. From G. Stucki A12 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8767 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of healthy grub. Wakanui, MC, NZ Sep 1983. From G. Stucki A13 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - *grass grub (Stucki).
 8768 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Montalto, MC, NZ Sep 1983. From G. Stucki A14 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 2 - *grass grub (Stucki).
 8769 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Montalto, MC, NZ Sep 1983. From G. Stucki A15 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. marinorubra* - biotype 2 - *grass grub (Stucki).
 8770 a *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of healthy grub. Tihoi, TO, NZ Sep 1983. From G. Stucki A20 - N. Z. J. Sci. 27: 255-260, 1984 - biotype 1 - avirulent to grass grub.

Serratia marcescens Bizio 1823

- 12195 *Allium cepa* L. - onion. Brazil 1992. From IBSBF 980 ← L.O.S. Berian - associated with decay of stored onion bulbs.
 6933 *Medicago sativa* L. - lucerne, alfalfa cv. Buffalo. USA 1971. From F.L. Lukezic E2 = NCPPB 2642 - non-pigmented strain.
 6935 *Medicago sativa* L. - lucerne, alfalfa cv. Cherokee - roots, crown. USA Jun 1971. From F.L. Lukezic E3 = ICPB EA217 - Biotype A4a.
 6936 *Medicago sativa* L. - lucerne, alfalfa cv. Buffalo. USA 1971. From F.L. Lukezic E6 = NCPPB 2643.
 7617 a Pond water. Czechoslovakia. From NHI 1188 ← NCTC 10211 ← M. Kocur = ATCC 13880: NCIB 9155: CCM303 - **Type strain**.

Serratia proteamaculans (Paine & Stansfield 1919) Grimont *et al.* 1978

- 8771 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Tihoi, TO, NZ Sep 1983. From G. Stucki L1 - N.Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8772 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Tihoi, TO, NZ Sep 1983. From G. Stucki L2 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8773 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Methven, MC, NZ Sep 1983. From G. Stucki L3 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. proteamaculans* subsp. *quinovora* - Biotype RQ - *grass grub (Stucki).
 8774 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Punawai, MC, NZ Sep 1983. From G. Stucki L4 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8775 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Waimate, SC, NZ Sep 1983. From G. Stucki L5 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8776 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of healthy grub. Wendonside, SL, NZ Sep 1983. From G. Stucki L6 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8777 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Wendonside, SL, NZ Sep 1983. From G. Stucki L7 - N. Z. J. Sci. 27: 255-260, 1984 - rec. as *S. liquefaciens* - *grass grub (Stucki).
 8779 a *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Methven, MC, NZ Sep 1983. From G. Stucki L11 - N. Z. J. Sci. 27: 255-260, 1984 - avirulent to grass grub.
 1724 a *Protea cynaroides* L. - king protea. From D.W. Dye ZL1 ← NCPPB 245 ← S.G. Paine = NCTC 394: ATCC 19323 - **Type strain**.

Serratia sp.

- 8763 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Ealing, MC, NZ Sep 1983. From G. Stucki A9 - N. Z. J. Sci. 27: 255-260, 1984 - *grass grub (Stucki).
 8778 a *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of healthy grub. Carew, MC, NZ Sep 1983. From G. Stucki L10 - N. Z. J. Sci. 27: 255-260, 1984 - avirulent to grass grub.
 8866 a* *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub - gut of honey-diseased grub. Ealing, MC, NZ Sep 1983. From G. Stucki A7 - N. Z. J. Sci. 27: 255-260, 1984 - *grass grub (Stucki).

Shigella flexneri Castellani & Chalmers 1919

- 7618 Human faeces. UK 1951. From NHI 977 ← NCTC 8523 ← K.P. Carpenter = DRL 245-51.

Sinorhizobium fredii Chen *et al.* 1988

- 11139 a *Glycine max* (L.) Merr. - soybean. China. From ATCC 35423 ← H.H. Keyser USDA 205 ← S.N. May - **Type strain**.

Sinorhizobium xinjiangensis Chen *et al.* 1988

- 11070 *Glycine max* (L.) Merr. - soybean - nodule. China. From CCBAU 107 ← S.S. Yang RX31.
 11141 *Glycine max* (L.) Merr. - soybean - nodule. China. From CCBAU 110 ← S.S. Yang Rx42 - Int. J. Syst. Bact. 38: 392-397, 1988 - **Type strain**.

Staphylococcus epidermidis (Winslow & Winslow 1908) Evans 1916

- 12988 Nose. From NZRM 2205 ← ATCC 14990 ← R. Deibel = NCTC 11407 - **Type strain**.

- Staphylococcus aureus*** Rosenbach 1884
 5926 From ATCC 6538P ← FDA 209P = NCTC 7447: NRRL B313.
 10553 Australia 1948. From G.C. Fletcher ← NHITCC 3022 ← E.V. Keogh = NCTC 7428 - Produces pure beta toxins - camp reaction for *Streptococcus agalactiae*.
- Stenotrophomonas maltophilia*** (Hugh 1980) Paleroni & Bradbury 1993
 12844 *Malus X domestica* Borkh. - apple cv. Golden Delicious. Canterbury, NZ 1987. From L. Kearns 1071 - rec. as *Pseudomonas maltophilia*.
- Streptococcus faecium*** Orla-Jensen 1919
 9613 Animal feed (SF Plus). Jun 1988. From R.G. Clark - re-isolate of NCIB 11181 from SF Plus animal feed.
- Streptomyces achromogenes*** Okami & Umezawa 1953
 489 a From T.R. Vernon N79 ← ATCC 12767 - produces achromoviromycin and sarcidin - **Type strain**.
- Streptomyces acidiscabies*** Lamberet & Loria 1989
 12536 a *Solanum tuberosum* L. - potato cv. FL657. USA. From ATCC 49003 ← D. Lambert RL110 ← R. Loria RL110 = JCM 7913 - produces cutinase - **Type strain**.
- Streptomyces albogriseolus*** Benedict *et al.* 1954
 485 a From T.R. Vernon N34 ← USDA = NRRL B1305: ATCC 23875 - **Type strain**.
- Streptomyces alboniger*** Porter *et al.* 1952
 322 a Soil. USA. From T.R. Vernon N55 ← I.B. Routien 18273 = ATCC 12461 - **Type strain**.
- Streptomyces albosporeus*** (Krainsky 1914) Waksman & Henrici 1948
 320 a USA. From T.R. Vernon N51 ← I.B. Routien 5111 = ATCC 15394 - rarely forms aerial hyphae - **Type strain**.
 951 From T.R. Vernon N112 ← NRRL B2035 - produces vinacetin.
- Streptomyces albus*** (Rossi-Doria 1891) Waksman & Henrici 1943
 486 From T.R. Vernon N61 ← Research Dept, Boots Ltd, Nottingham, England = NCTC 6124.
 487 From T.R. Vernon N62 ← USDA = NRRL B1333.
- Streptomyces antibioticus*** (Waksman & Woodruff 1941) Waksman & Henrici 1948
 161 UK (England). From T.R. Vernon N2 ← Research Dept, Boots Ltd, Nottingham, England.
 739 From T.R. Vernon N1 ← USDA = ATCC 10382: NRRL B546.
 929 Soil (Waiareka silt loam). NZ Nov 1960. From T.R. Vernon M34-3.
 952 From T.R. Vernon N113 ← NRRL B2032 - produces phagocidin.
- Streptomyces arenae*** Pridham *et al.* 1958
 950 a From T.R. Vernon N109 ← NRRL 2377 = ATCC 25428 - produces anti-acid-fast antibiotic - **Type strain**.
- Streptomyces argenteolus*** Tresner *et al.* 1961
 953 a From T.R. Vernon N114 ← NRRL B1086 - produces butanol-soluble antibiotic - **Type strain**.
- Streptomyces aureofaciens*** Duggar 1948
 499 a From T.R. Vernon N95 ← Commonwealth Serum Laboratory, Melbourne, Australia = ATCC 10762: LMG 5968: NRRL 2209 - **Type strain**.
- Streptomyces bellus*** Margalith & Beretta 1960
 954 a From T.R. Vernon N115 ← NRRL B2575 = ATCC 14925 - **Type strain**.
- Streptomyces bikiniensis*** Johnstone & Waksman 1947
 234 From T.R. Vernon N3 ← NRRL B1049.
 472 a From T.R. Vernon N74 ← ATCC 11062 - **Type strain**.
- Streptomyces cacaoi*** (Waksman 1932) Waksman & Henrici 1948
 643 From T.R. Vernon N4 ← NRRL B1220.
- Streptomyces californicus*** (Waksman & Curtis 1916) Waksman & Henrici 1948
 232 From T.R. Vernon N5 = NRRL B1221.
- Streptomyces calvus*** Backus, Tresner & Campbell 1957
 5336 a USA 1957. From M. Benn ← K.E. Sanderson SA1740 ← H. Tresner T3018 = ATCC 13382 - produces nucleocidin - **Type strain**.
- Streptomyces candidus*** (ex Krasil'nikov 1941) Sveshnikova 1986
 12538 a Soil. From ATCC 19891 ← E.S. Kuddrina INA5855/54 = CBS 677.68: IFO 12846 - **Type strain**.
- Streptomyces canus*** Heinemann *et al.* 1953
 502 From T.R. Vernon N100 ← B. Heineman.
- Streptomyces cellulosa*** (Krainsky 1914) Waksman & Henrici 1948
 647 From T.R. Vernon N86 ← CSIRO = ATCC 3313.
 740 From T.R. Vernon N6 ← USDA = NRRL B1222.
- Streptomyces chartreusis*** Leach *et al.* 1953
 154 a USA. From T.R. Vernon N38 ← C.W. Hesseltine = NRRL 2287: ATCC 14922 - **Type strain**.
- Streptomyces chrysomallus*** Lindenbein 1952
 164 a From T.R. Vernon N35 ← C.W. Hesseltine = NRRL 2250: ATCC 11523 - **Type strain**.
- Streptomyces coelicolor*** (Muller 1908) Waksman & Henrici 1948
 473 From T.R. Vernon N8 ← USDA = NRRL B1257.
- Streptomyces collinus*** Lindenbein 1952
 12539 a Soil. Germany. From ATCC 19743 ← E.B. Shirling ISP 5129 ← P. Wilde Ist301 = CBS 482.68: IFO 12759: KCC S-0351 - **Type strain**.
- Streptomyces diastaticus*** (Krainsky 1914) Waksman & Henrici 1948
 323 USA. From T.R. Vernon N57 ← I.B. Routien 17439 = NRRL 2650.
 500 From T.R. Vernon N97 ← CSIRO = ATCC 3315.
- Streptomyces echinatus*** Corbaz *et al.* 1957
 159 a From T.R. Vernon N40 ← R. Hutter ETH8331 = ATCC 19748 - **Type strain**.
- Streptomyces exfoliatus*** (Waksman & Curtis 1916) Waksman & Henrici 1948
 1008 a May 1963. From T.R. Vernon N9 ← USDA = NRRL B1237: ATCC 12627 - **Type strain**.
- Streptomyces flaveolus*** (Waksman 1923) Waksman & Henrici 1948
 392 a USA. From T.R. Vernon N59 ← I.B. Routien 5115 = ATCC 3319 - **Type strain**.
 741 From T.R. Vernon N10 ← USDA = NRRL B1334.
 955 From T.R. Vernon N116 ← NRRL B2688.

- Streptomyces flavidovirens*** (Kudrina 1957) Pridham, Hesselstine & Benedict 1958
479 From T.R. Vernon N11 ← USDA = NRRL B1329.
- Streptomyces fradiae*** (Waksman & Curtis 1916) Waksman & Henrici 1948
650 a 1952. From T.R. Vernon N96 ← Commonwealth Serum Laboratory, Melbourne, Australia - **Type strain.**
- Streptomyces fulvissimus*** (Jensen 1930) Waksman & Henrici 1948
155 a From T.R. Vernon N33 ← C.W. Hesselstine = NRRL B1453: ATCC 27431 - **Type strain.**
- Streptomyces galilaeus*** Ettliger, Corbaz & Hutter 1958
142 a From T.R. Vernon N41 ← R. Hutter ETH18822 = ATCC 14969: NRRL B2772 - **Type strain.**
- Streptomyces griseoflavus*** (Krainsky 1914) Waksman & Henrici 1948
653 From T.R. Vernon N105 ← CBS.
927 NZ Oct 1960. From T.R. Vernon M32-3.
944 Soil (Ahuriri). NZ Jul 1960. From T.R. Vernon M9-4SS.
945 Soil (Atua). NZ Sep 1960. From T.R. Vernon M21-2SS.
946 Soil (Timaru silt loam). NZ. From T.R. Vernon M44-7SS.
947 Soil (Barrhill). NZ May 1961. From T.R. Vernon M46-14SS.
948 Soil (Papakauri). NZ Jun 1961. From T.R. Vernon M50-7SS.
949 Soil (Waimatenui). NZ Jun 1961. From T.R. Vernon M51-2SS.
- Streptomyces griseoruber*** Yamaguchi & Saburi 1955
652 From T.R. Vernon N104 ← IAMT 0110.
- Streptomyces griseus*** (Krainsky 1914) Waksman & Henrici 1948
163 UK (England). From T.R. Vernon N14 ← Research Dept, Boots Ltd, Nottingham, England.
474 From T.R. Vernon N15 ← USDA = NRRL B150.
4008 Soil. Australia 1972. From C.N. Hale SG1 ← P.R. Merriman 2A24.
- Streptomyces halstedii*** (Waksman & Curtis 1916) Waksman & Henrici 1948
480 From T.R. Vernon N16 ← USDA = NRRL B1238.
- Streptomyces hygrosopicus*** (Jensen 1931) Waksman & Henrici 1948
496 From T.R. Vernon N87 ← CSIRO = ATCC 10976.
- Streptomyces ipomoeae*** (Person & Martin 1940) Waksman & Henrici 1948
141 From T.R. Vernon N17 ← NRRL B1345.
- Streptomyces lavendulae*** (Waksman & Curtis 1916) Waksman & Henrici 1948
231 UK (England). From T.R. Vernon N19.
481 From T.R. Vernon N18 ← USDA = NRRL B547.
916 Soil (Egmont black loam). NZ Jan 1961. From T.R. Vernon M41-6A.
917 Soil (Egmont black loam). NZ. From T.R. Vernon M41-6.
- Streptomyces lipmanii*** (Waksman & Curtis 1916) Waksman & Henrici 1948
324 From T.R. Vernon N58 ← I.B. Routien 10304.
488 a From T.R. Vernon N92 ← Prairie Reg. Lab., Saskatoon, Canada X33 = ATCC 3331: R. Hutter ETH20199: ISP 5070 - **Type strain.**
- Streptomyces matensis*** Margalith, Beretta & Timbal 1959
501 Italy. From T.R. Vernon N99 ← P. Sensi S171.
- Streptomyces michiganensis*** Corbaz *et al.* 1957
131 a Switzerland 1961. From T.R. Vernon N44 ← R. Hutter ETH9001 = ATCC 14970 - **Type strain.**
- Streptomyces microflavus*** (Krainsky 1914) Waksman & Henrici 1948
482 From T.R. Vernon N20 ← USDA = NRRL B1223.
- Streptomyces naganishii*** Yamaguchi & Saburi 1955
651 From T.R. Vernon N103 ← IAMT 0050.
- Streptomyces narbonensis*** Corbaz *et al.* 1955
654 From T.R. Vernon N106 ← CBS.
- Streptomyces nitrosporeus*** Okami 1952
491 a From T.R. Vernon N78 ← ATCC 12769 - **Type strain.**
- Streptomyces niveus*** Smith *et al.* 1956
658 From T.R. Vernon N108 ← Upjohn Co.
- Streptomyces olivaceus*** (Waksman 1923) Waksman & Henrici 1948
169 From T.R. Vernon N22 ← C.W. Hesselstine = ATCC 11626: NRRL B1125.
325 USA. From T.R. Vernon N60 ← I.B. Routien 10301.
468 From T.R. Vernon N66 ← Research Dept, Boots Ltd, Nottingham, England = ATCC 11626: NRRL B1125.
498 From T.R. Vernon N94 ← Commonwealth Serum Laboratory, Melbourne, Australia = ATCC 11626: NRRL B1125.
1010 From T.R. Vernon N117 ← NRRL B3009.
- Streptomyces parvullus*** Waksman & Gregory 1954
156 From T.R. Vernon N36 ← C.W. Hesselstine = NRRL B1628: ATCC 12434.
12845 Soil. From ATCC 12434 ← S.A. Waksman 3677 = CBS 548.68: IFO 13193: ISP 5048: NRRL B1628 - **Type strain.**
- Streptomyces phaeochromogenes*** (Conn 1917) Waksman 1957
483 From T.R. Vernon N23 ← USDA = NRRL B1266.
- Streptomyces pilosus*** Ettliger, Corbaz & Hutter 1958
145 a Switzerland. From T.R. Vernon N46 ← R. Hutter ETH11686 = ATCC 19797 - **Type strain.**
- Streptomyces prasinopilosus*** Ettliger *et al.* 1958
134 a Switzerland. From T.R. Vernon N47 ← R. Hutter 13765 = ATCC 19799 - **Type strain.**
- Streptomyces prasinus*** Ettliger *et al.* 1958
144 a From T.R. Vernon N48 ← R. Hutter ETH13815 = ATCC 19800 - **Type strain.**
- Streptomyces purpeofuscus*** Yamaguchi & Saburi 1955
656 From T.R. Vernon N101 ← IAMT.
- Streptomyces purpurascens*** Lindenbein 1952
157 From T.R. Vernon N30 ← C.W. Hesselstine = NRRL B1480.
- Streptomyces ramulosus*** Ettliger *et al.* 1958
143 a Switzerland. From T.R. Vernon N49 ← R. Hutter ETH17653 = ATCC 19802 - **Type strain.**

- Streptomyces reticuli*** (Waksman & Curtis 1916) Waksman & Henrici 1948
 162 From T.R. Vernon N39 ← C.W. Hesseltine = NRRL B1819.
 644 From T.R. Vernon N69 ← Research Dept, Boots Ltd, Nottingham, England = NRRL B253.
- Streptomyces rimosus*** Sobin *et al.* 1953
 919 a From T.R. Vernon N82 ← ATCC 10970 = LMG 5984: NRRL 2234: CBS 939.68: ISP 5260 - produces oxytetracycline - **Type strain.**
- Streptomyces rochei*** Berger *et al.* 1953
 490 a From T.R. Vernon N80 ← ATCC 10739 = NRRL B1559 - **Type strain.**
- Streptomyces roseochromogenus*** (Jensen 1931) Waksman & Henrici 1948
 495 From T.R. Vernon N85 = IMRU 1958.
- Streptomyces scabies*** (ex Thaxter 1892) Lambert & Loria 1989
 12542 a *Solanum tuberosum* L. - potato cv. Katahdin. USA. From ATCC 49173 ← D.H. Lambert RL34 ← R. Loria = JCM 7914 - **Type strain.**
 493 Canada. From T.R. Vernon N83.
- Streptomyces setonii*** (Millard & Burr 1926) Waksman 1953
 12543 a *Solanum tuberosum* L. - potato - scab. From ATCC 25497 ← E.B. Shirling ISP 5397 ← S.A. Waksman IMRU 3375 = CBS 105.27: IFO 13085: KCC S-0516 - **Type strain.**
- Streptomyces* sp.**
- 11514 *Solanum tuberosum* L. - potato - netted scab on tuber. Pukekohe, AK, NZ Oct 1992. From P.G. Broadhurst Act3.
 11515 *Solanum tuberosum* L. - potato - netted scab on tuber. Pukekohe, AK, NZ Oct 1992. From P.G. Broadhurst Act5.
 11516 *Solanum tuberosum* L. - potato - netted scab on tuber. Pukekohe, AK, NZ Oct 1992. From P.G. Broadhurst Act7.
 11517 *Solanum tuberosum* L. - potato - netted scab on tuber. Pukekohe, AK, NZ Oct 1992. From P.G. Broadhurst Act10.
 11518 *Solanum tuberosum* L. - potato - netted scab on tuber. Pukekohe, AK, NZ Oct 1992. From P.G. Broadhurst Act11.
 43 Soil (Conroy's). NZ Sep 1960. From T.R. Vernon M19-3.
 44 Soil (Taitapu). NZ Sep 1960. From T.R. Vernon M24-4.
 45 Soil (black loam). Mt Egmont, TK, NZ Jan 1961. From T.R. Vernon M41-5.
 46 Soil (Waikare). NZ Jun 1961. From T.R. Vernon M50-2.
 47 Soil (Papakauri). NZ Jun 1961. From T.R. Vernon M50-3.
 158 From T.R. Vernon N29 ← C.W. Hesseltine = NRRL B1484.
 160 a Switzerland. From T.R. Vernon N43 ← R. Hutter ETH7534 = ATCC 19783.
 233 From T.R. Vernon N7 ← NRRL B1264 - rec. as *S. citreus*.
 469 From T.R. Vernon N67 ← Research Dept, Boots Ltd, Nottingham, England = NRRL B2558: NCIB 8792: ATCC 27495 - rec. as *S. ostreogriseus*.
 470 From T.R. Vernon N71 ← Research Dept, Boots Ltd, Nottingham, England = NRRL B1268 - rec. as *S. ruber*.
 497 a From T.R. Vernon N90 ← Prairie Reg. Lab., Saskatoon, Canada X40 = ATCC 3372: CBS 369.66: ISP 5396, 5454 - rec. as type strain of *S. viridis*.
 503 Soil (Tokomaru silt loam). Palmerston North, WI, NZ. From T.R. Vernon 265J.
 648 From T.R. Vernon N102 ← IAMT 0205 - rec. as *S. purpeochromogenes*.
 657 From T.R. Vernon N107 ← CBS - rec. as *S. galterii*.
 733 From T.R. Vernon N13 ← USDA - rec. as *S. griseocameus*.
 742 From T.R. Vernon N24 ← USDA = NRRL B1228 - rec. as *S. purpeochromogenes*.
 908 Soil (Matapiro). Hatuma, HB, NZ Jul 1960. From T.R. Vernon M3-4 - Lavender series.
 909 Soil (Conroy's). NZ Sep 1960. From T.R. Vernon M19-11 - Lavender series.
 910 Soil (Steward stony loam). NZ Jan 1961. From T.R. Vernon M39-8 - Lavender series.
 911 Soil (Belmont). NZ Sep 1960. From T.R. Vernon M13-4 - Lavender series.
 912 Soil (Waiareka clay loam). NZ Feb 1961. From T.R. Vernon M44-2 - Lavender series.
 914 Soil (Steward stony loam). NZ Apr 1962. From T.R. Vernon M54-5 - Lavender series.
 931 Soil (Egmont black loam). NZ. From T.R. Vernon M41-2.
 932 Soil (Waiareka clay loam). NZ Jan 1961. From T.R. Vernon M42-1.
 961 Peat *Rhizobium* culture. NZ Oct 1963. From T.R. Vernon G30-1.
 999 From T.R. Vernon S136-2 ← J.F. Burton.
 1000 From T.R. Vernon G27-1 ← J.F. Burton S136-2.
 1011 Soil (Matapiro). NZ Jul 1960. From T.R. Vernon M1-4.
 1012 Soil (Ahuriri). NZ Jul 1960. From T.R. Vernon M8-4.
 1013 Soil (Judgeford). NZ Sep 1960. From T.R. Vernon M14-5.
 1014 Soil (Paremata). NZ Sep 1960. From T.R. Vernon M15-3.
 1015 Soil (Ahuriri). NZ Oct 1963. From T.R. Vernon M9-4.
 1016 Soil (Lowburn). NZ Sep 1960. From T.R. Vernon M18-8.
 1020 Soil (Cluden). NZ Sep 1960. From T.R. Vernon M17-4.
 1029 Soil (Matapiro). NZ Jul 1960. From T.R. Vernon M3-1.
 1030 Soil (Ahuriri). NZ Jul 1960. From T.R. Vernon M9-5.
 1031 Soil (Mamakau). NZ Oct 1960. From T.R. Vernon M31-9.
 1032 Soil (Lismore silt loam). NZ Dec 1960. From T.R. Vernon M38-6.
 1033 Soil (Papakauri). NZ Jun 1961. From T.R. Vernon M50-11.
 1034 Soil (Waimatenui). NZ Jun 1961. From T.R. Vernon M51-8.
 1349 From T.R. Vernon ← E.B. Shirling 5109.
 1350 From T.R. Vernon ← E.B. Shirling 5126.
 1351 From T.R. Vernon ← E.B. Shirling 5127.
 1352 From T.R. Vernon ← E.B. Shirling 5128.
 1353 From T.R. Vernon ← E.B. Shirling 5174.
 1354 From T.R. Vernon ← E.B. Shirling 5175.
 1356 From T.R. Vernon ← E.B. Shirling 5176.
 1357 From T.R. Vernon ← E.B. Shirling 5177.
 1358 From T.R. Vernon ← E.B. Shirling 5182.
 1592 From T.R. Vernon ← E.B. Shirling 5210.
 1593 From T.R. Vernon ← E.B. Shirling 5243.
 1594 From T.R. Vernon ← E.B. Shirling 5283.
 1595 From T.R. Vernon ← E.B. Shirling 5285.
 1596 From T.R. Vernon ← E.B. Shirling 5216.
 1597 From T.R. Vernon ← E.B. Shirling 5123.
 1598 From T.R. Vernon ← E.B. Shirling 5274.
 1599 From T.R. Vernon ← E.B. Shirling 5217.
 1600 From T.R. Vernon ← E.B. Shirling 5218.
 1601 From T.R. Vernon ← E.B. Shirling 5292.
 1602 Turnip seed baits. Mt Albert, AK, NZ Jan 1965. From A.G. Watson AGS1.

- 1633 Soil (methyl bromide fumigated). NZ. From A.G. Watson.
- Streptomyces tendae** Ettliger *et al.* 1958
132 a Switzerland 1961. From T.R. Vernon N50 ← R. Hutter ETH11313 = ATCC 19812 - **Type strain.**
- Streptomyces venezuelae** Ehrlich *et al.* 1948
467 UK (England). From T.R. Vernon N27 ← Research Dept, Boots Ltd, Nottingham, England.
484 From T.R. Vernon N26 ← USDA = NRRL B902: ATCC 10595.
928 Soil (Waikakahi silt loam). NZ Nov 1960. From T.R. Vernon M33-9.
- Streptomyces violaceoniger** (Waksman & Curtis 1916) Pridham *et al.* 1958
734 a From T.R. Vernon N31 ← USDA = NRRL B1476 - **Type strain.**
- Streptomyces violascens** (Preobrazhenskaya & Sveshnikova 1957) Pridham *et al.* 1958
956 From T.R. Vernon N118 ← NRRL B2573.
- Streptomyces viridochromogenes** (Krainsky 1914) Waksman & Henrici 1948
153 From T.R. Vernon N37 ← C.W. Hesseltine = NRRL B1227: ATCC 3356.
930 Soil (Lismore silt loam). NZ Dec 1960. From T.R. Vernon M38-3.
- Streptomyces wedmorensis** (Millard & Burr 1926) Preobrazhenskaya 1986
12544 a From ATCC 21239 ← Merck and Co. Inc. MA3269 = NRRL 3426 - US patent - **Type strain.**
- Streptoverticillium** sp.
9496 Soil. From ATCC 25607 ← T.G. Pridham NRRL B1484 - rec. as *Streptoverticillium reticulum* - fungus resistance testing of vinyl-containing materials.
- Unknown bacterium**
12495 Oil contaminated soil. USA 1987. From J. Aislabie PyrD - utilises pyridine as sole source of carbon & nitrogen.
12554 River sediment. Heathcote River, MC, NZ 1991. From J. Aislabie MacB - Metabolises dibenzothiophene (DBT) - possibly a member of Comamonadaceae (Aislabie).
- Unknown bacterium** - rec. as *Pseudomonas* (Erwinia) toxica
6017 *Cucumis sativus* L. - cucumber - fruit. USSR 1967. From I.V. Voronkevitch 8418.
6016 From I.V. Voronkevitch 8695.
- Unknown bacterium** - rec. as *Pseudomonas panici*
6001 *Panicum miliaceum* L. - broomcorn millet. From I.V. Voronkevitch 7963.
- Unknown bacterium** - rec. as *Pseudomonas seminum*
3959 b From D.W. Dye MR1 ← NCPPB 964 ← F. Mariat 'Magrou23-2' = ICPB PS117: ATCC 19878 - Gram +ve.
- Unknown bacterium** - rec. as *Pseudomonas* sp.
2440 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - mummy symptom. USA Nov 1968. From E.M. Sigel 42 = NCPPB 2208: ATCC 25415 - possibly *Enterobacter cloacae* - avirulent to mushroom.
- Unknown bacterium** - rec. as *Pseudomonas strelitziae*
7443 *Strelitzia reginae* Ait. - bird-of-paradise. USA. From J.W. Miller ← FTCC 070-1305-1.
- Unknown bacterium** - rec. as *Pseudomonas viridilivida*
805 From N.L. Baigent PJ1 ← M. Kocur BS419.
- Unknown bacterium** - rec. as *Xanthomonas arsenoxydans-quattor*
631 Cattle dip. Australia. From D.W. Dye XY1 ← NCIB 8688 ← A.N. Turner - non-pigmented.
632 Cattle dip. Australia. From D.W. Dye XY2 ← NCIB 8688 ← A.N. Turner - non-pigmented.
672 Cattle dip. Australia. From D.W. Dye XY3 ← NCIB 8688 ← A.N. Turner - non-pigmented.
- Unknown bacterium** - rec. as *Xanthomonas campestris* pv. *celebensis*
662 From D.W. Dye XC1 ← ICPB XC113 = ATCC 10710: CBS B.
664 From D.W. Dye XC3 ← ICPB XC114 = ATCC 10711: CBS B3.
- Unknown bacterium** - rec. as *Xanthomonas cyamopsidis*
76 *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean - leafspot. India. From D.W. Dye XS1 ← G. Rangaswami.
- Unknown bacterium** - rec. as *Xanthomonas eleusineae*
78 *Eleusine coracana* (L.) Gaertn. - finger millet - leafspot. India. From D.W. Dye XO1 ← G. Rangaswami 1.
- Unknown bacterium** - rec. as *Xanthomonas panici*
7128 *Nicotiana tabacum* L. - tobacco - stalk lesion. Spain. From A. Izquierdo Tamayo.
623 India. From D.W. Dye XR2 ← J.V. Bhatt = ATCC 23381: NCPPB 1835.
- Unknown bacterium** - rec. as *Xanthomonas strelitziae*
7444 *Strelitzia reginae* Ait. - bird-of-paradise. USA. From J.W. Miller ← FTCC 070-1305.
- Unknown bacterium** from *Phytolacca octandra*
7261 * *Phytolacca octandra* L. - inkweed - bud proliferation. Pukekawa, WO, NZ Nov 1980. From D.R.W. Watson B2811 - *sweet pea.
- Unknown bacterium** from *Strelitzia reginae*
6695 *Strelitzia reginae* Ait. - bird-of-paradise - dark brown leaf stripe. Auckland, AK, NZ Jul 1979. From D.R.W. Watson A2589 - rec. as ?*Pseudomonas* sp. - non-fluorescent - gram -ve - HR -ve.
- Xanthomonas** Dowson 1939
In a recent revision, Vauterin *et al.* 1995 have proposed the allocation of many of the pathovars at present in *X. campestris* to 20 species established on the basis of DNA-DNA hybridization data. Because this revision is incomplete, and because we have no reliable way of allocating strains to these species (which are perhaps better considered as genomovars), we propose to leave strains as previously allocated.
- Xanthomonas albilineans** (Ashby 1929) Dowson 1943
1590 a *Paspalum dilatatum* Poir. - dallisgrass, paspalum. Mauritius 1947. From D.W. Dye ZA9 ← ICPB XA134 ← G. Orian PC5 = NCPPB 208 - rec. as *X. albilineans* var. *paspali*.
196 a *Saccharum officinarum* L. - sugarcane - leaf. Fiji Nov 1961. From D.W. Dye ZA6 = NCPPB 2969: ATCC 33915: CFBP 2523: LMG 494 - **Type strain.**
197 a *Saccharum officinarum* L. - sugarcane - leaf. Fiji Nov 1961. From D.W. Dye ZA7.
8675 b *Saccharum officinarum* L. - sugarcane. Mauritius 1960. From LMG 482 ← NCPPB 887 ← A.C. Hayward B315.
8677 b *Saccharum officinarum* L. - sugarcane. Sri Lanka 1962. From LMG 488 ← NCPPB 1244 ← A.C. Hayward B1021.
8678 b *Saccharum officinarum* L. - sugarcane. Zimbabwe 1965. From LMG 489 ← NCPPB 1737 ← R.A. Lelliott.
8679 b *Saccharum officinarum* L. - sugarcane. Malawi 1967. From LMG 490 ← NCPPB 2247 ← J.F. Bradbury B3596.
8680 b *Saccharum officinarum* L. - sugarcane. Barbados 1968. From LMG 491 ← NCPPB 2249 ← J.F. Bradbury B3891.
9528 * *Saccharum officinarum* L. - sugarcane - leaf scald and stunted shoot. India Jan 1984. From D.G. Hapase 1 ← A.S. Patil - *sugarcane (Patil).

- 10040 *Saccharum officinarum* L. - sugarcane. Martinique. From P. Rott MTQ58A.
 10041 *Saccharum officinarum* L. - sugarcane. Guadeloupe. From P. Rott GLP55A.
 8676 b *Saccharum* sp. Guyana. From LMG 487 ← NCPPB 1050 ← S. Bisessar.

Xanthomonas ampelina Panagopoulos 1969
 see *Xylophilus ampelinus*.

Xanthomonas axonopodis Starr & Garces 1950

- 50 a *Axonopus scoparius* Kuhl. - Imperial pasturegrass. Colombia 1949. From D.W. Dye ZB1 ← NCPPB 457 ← M.P. Starr XA103 = ICPB XA103: ATCC 19312: LMG 538 - **Type strain**.
 74 *Axonopus scoparius* Kuhl. - Imperial pasturegrass. India. From D.W. Dye ZB3 ← J.V. Bhatt.
 698 ? *Axonopus scoparius* Kuhl. - Imperial pasturegrass - bacterial gummosis. Colombia 1949. From D.W. Dye ZB2 ← ICPB XA113 ← M.P. Starr = NCPPB 2375.
 8681 *Axonopus scoparius* Kuhl. - Imperial pasturegrass. Colombia 1949. From LMG 540 ← NCPPB 2376 ← M.P. Starr XA115.
 4697 b Colombia Apr 1976. From J.C. Lozano 1115.
 4698 b Colombia Apr 1976. From J.C. Lozano 1116.

Xanthomonas bromi Vauterin *et al.* 1995

- 12545 *Bromus fonkii* Philippi - Chilean brome. France 1980. From CFBP 1976 ← R. Sampson 1601-1 = LMG 947 - **Type strain**.

Xanthomonas campestris* pv. *aberrans (Knosel 1961) Dye 1978

- 4807 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leaf. Australia Jun 1975. From M.L. Moffett 0425 - *cabbage, cauliflower.
 4808 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leaf. Australia Aug 1975. From M.L. Moffett 0443 - *cabbage, cauliflower.
 4809 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower. Germany 1958. From NCPPB 875 ← D. Knosel - *cabbage, cauliflower.
 4805 a* *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf. Australia May 1975. From M.L. Moffett 0406 = LMG 9037: NCPPB 2986 - *cabbage, cauliflower - **Pathotype strain**.
 4806 * *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf. Australia May 1975. From M.L. Moffett 0408 - *cabbage, cauliflower.

Xanthomonas campestris* pv. *alangii (Padhya & Patel 1962) Dye 1978

syn. *Xanthomonas axonopodis* pv. *alangii* (Padhya & Patel 1962) Vauterin *et al.* 1995

- 583 a *Alangium salviifolium* (L.f.) Wanger. - ankola. India. From D.W. Dye WA1 ← M.K. Patel.
 5717 a *Alangium salviifolium* (L.f.) Wanger. - ankola. India 1960. From NCPPB 1336 ← M.K. Patel ← A.C. Padhya = LMG 470 - **Pathotype strain**.

Xanthomonas campestris* pv. *alfalfae (Riker *et al.* 1935) Dye 1978

syn. *Xanthomonas axonopodis* pv. *alfalfae* (Riker *et al.* 1935) Vauterin *et al.* 1995

- 330 a *Medicago sativa* L. - lucerne, alfalfa. India. From D.W. Dye ZU1 ← ITCC B37 ← M.K. Desai = NCPPB 480.
 3376 a *Medicago sativa* L. - lucerne, alfalfa - leafspot. Australia Feb 1972. From D.W. Dye ZU2 ← M.L. Moffett 0169.
 4765 *Medicago sativa* L. - lucerne, alfalfa - leafspot. Australia Jan 1973. From M.L. Moffett 0238.
 5718 a *Medicago sativa* L. - lucerne, alfalfa. Sudan. From NCPPB 2062 ← K.A. Sabet alf1 = LMG 497 - **Pathotype strain**.
 9115 *Medicago sativa* L. - lucerne, alfalfa. USA 1965. From L.E. Claffin 401 ← D.L. Shuteville KX-1.

Xanthomonas campestris* pv. *amaranthicola (Patel *et al.* 1952) Dye 1978

- 441 a *Amaranthus viridis* L. - green amaranth. India. From D.W. Dye YO1 ← ICPB XA120 ← M.K. Patel 16 = ATCC 11645: LMG 498: NCPPB 570 - **Pathotype strain**.
 3383 a *Amaranthus viridis* L. - green amaranth - leaf. India Sep 1972. From D.W. Dye YO2 ← S.V. Hegde XAM1.

Xanthomonas campestris* pv. *amorphophalli (Jindal *et al.* 1972) Dye 1978

- 3033 a *Amorphophallus campanulatus* (Roxb.) Blume ex Decne. India 1968. From D.W. Dye VG1 ← P.N. Patel XA1 ← J.K. Jindal = ICPB XA142: LMG 499: NCPPB 2371 - **Pathotype strain**.

Xanthomonas campestris* pv. *aracearum (Berniac 1974) Dye 1978

- 9292 * *Colocasia esculenta* (L.) Schott - taro - leaf. Papua New Guinea Mar 1983. From D.L. Tomlinson PNG11779 = IMI B10449 - **Xanthosoma* sp. (Tomlinson).
 5381 a *Xanthosoma sagittifolium* (L.) Schott - tannia. Guadeloupe 1972. From W.J. Kemp VU1 ← NCPPB 2832 ← M. Berniac = LMG 532 - **Pathotype strain**.

Xanthomonas campestris* pv. *arecae (Rao & Mohan 1970) Dye 1978

- 4068 a *Areca catechu* L. - betel-nut - leaf stripe. India 1970. From D.W. Dye VL1 ← S.K. Mohan.
 5719 a *Areca catechu* L. - betel-nut. India 1974. From NCPPB 2649 ← S.K. Mohan = LMG 533 - **Pathotype strain**.

Xanthomonas campestris* pv. *argemones (Srinivasan *et al.* 1961) Dye 1978

- 1617 a *Argemone mexicana* L. - Mexican poppy. India. From D.W. Dye WT2 ← ICPB XA133 ← M.C. Srinivasan = LMG 534: NCPPB 1593 - **Pathotype strain**.
 9964 *Argemone mexicana* L. - Mexican poppy. India 1974. From NCPPB 2936 ← J.F. Bradbury B6149 ← P.S. Shekhawat XA1.

Xanthomonas campestris* pv. *armoraciae (McCulloch 1929) Dye 1978

- 19 a *Armoracia rusticana* P. Gaertn., B. Mey. & Schreb. - horse-radish - leaf. USA 1939. From D.W. Dye Q25 ← W.H. Burkholder XC4 ← W.H. Burkholder H1 = NCPPB 1930.
 7 a *Iberis* sp. - candytuft. Tanzania 1954. From D.W. Dye Q10 ← W.J. Dowson 347 ← G.B. Wallace = LMG 535: NCPPB 347 - **Pathotype strain**.

Xanthomonas campestris* pv. *arracaciae (Pereira *et al.* 1971) Dye 1978

- 3158 a *Arracacia xanthorrhiza* E.N. Bancr. Brazil 1969. From D.W. Dye VM1 ← A.L.G. Pereira SBF913 = LMG 536: NCPPB 2436 - **Pathotype strain**.
 12184 *Arracacia xanthorrhiza* E.N. Bancr. Brazil 1992. From IBSBF 946 ← V.A. Malavolta Jr.

Xanthomonas campestris* pv. *arrhenatheri Egli & Schmidt 1982

syn. *Xanthomonas translucens* pv. *arrhenatheri* (Egli & Schmidt 1982) Vauterin *et al.* 1995

- 7727 a* *Arrhenatherum elatius* (L.) Beauv. ex J. & C. Presl - tall oatgrass - leaf stripe. Switzerland 1978. From NCPPB 3229 ← T. Egli XG719 ← J. Herzog XG102 = ATCC 33803: CFBP 2056: LMG 727 - *tall oatgrass (Egli) - **Pathotype strain**.
 11959 *Arrhenatherum* sp. 1986. From CFBP 2605 ← V.H. Paul.

Xanthomonas campestris* pv. *asclepiadis Flynn & Vidaver 1995

- 10007 a* *Asclepias syriaca* L. - milkweed - chlorosis and necrosis of leaves, roots & stems. USA. From A.K. Vidaver 006 ← P. Heise - Pl. Dis 79: 1176-1180, 1995 - **A. erosa*, *A. hybrid*, *A. tuberosa*, *A. spiciosa*, *A. syriaca* (Vidaver) - **Pathotype strain**.
 10194 a* *Asclepias syriaca* L. - milkweed - chlorosis and necrosis of leaves, roots & stems. USA. From A.K. Vidaver M9 ← P. Heise - Pl. dis. 79: 1176-1180, 1995 - **A. erosa*, *A. hybrid*, *A. tuberosa*, *A. spiciosa*, *A. syriaca* (Vidaver).
 10195 a* *Asclepias syriaca* L. - milkweed - chlorosis and necrosis of leaves, roots & stems. USA. From A.K. Vidaver M89-1 ← P. Heise - Pl. dis. 79: 1176-1180, 1995 - **A. erosa*, *A. hybrid*, *A. tuberosa*, *A. spiciosa*, *A. syriaca* (Vidaver).
 10196 a* *Asclepias syriaca* L. - milkweed - chlorosis and necrosis of leaves, roots & stems. USA. From A.K. Vidaver P-fl ← P. Heise - Pl. dis. 79: 1176-1180, 1995 - **A. erosa*, *A. hybrid*, *A. tuberosa*, *A. spiciosa*, *A. syriaca* (Vidaver).
 10197 a* *Asclepias syriaca* L. - milkweed - chlorosis & necrosis of leaves, roots & stems. USA. From A.K. Vidaver SB-K ← P. Heise - Pl. dis 79: 1176-1180, 1995 - **A. erosa*, *A. hybrid*, *A. tuberosa*, *A. spiciosa*, *A. syriaca* (Vidaver).

Xanthomonas campestris pv. *aurantifolii* Gabriel *et al.* 1989 (invalid name)
 see *X. campestris* pv. *citri* (Groups B, C, and D).

Xanthomonas campestris pv. **azadirachtae** (Desai *et al.* 1966) Dye 1978

- 3102 a *Azadirachta indica* A. Juss. - neem - leaf. India Jun 1971. From D.W. Dye NR1 ← P.N. Patel PA ← J.K. Jindal = LMG 543: NCPPB 2388 - rec. as *P. azadirachtae* - **Pathotype strain**.
3388 a *Azadirachta indica* A. Juss. - neem - leafspot and shotholes. India Feb 1972. From D.W. Dye NR2 ← S.V. Hegde PAZ1 - rec. as *P. azadirachtae*.

Xanthomonas campestris pv. **badrii** (Patel *et al.* 1950) Dye 1978

- 571 a *Xanthium strumarium* L. - cocklebur. India 1948. From D.W. Dye XB1 ← ICPB XB103 ← M.K. Patel 4 = NCPPB 571: ATCC 11672: LMG 546 - **Pathotype strain**.

Xanthomonas campestris pv. **barbareae** (Burkholder 1941) Dye 1978

- 437 ? *Barbarea vulgaris* R. Br. - winter cress. USA 1939. From D.W. Dye YP2 ← ICPB XB2 ← W.H. Burkholder = ATCC 13460: NCPPB 983 - atypical strain - not same as 438.
438 a *Barbarea vulgaris* R. Br. - winter cress. USA 1939. From D.W. Dye YP4 ← ICPB XB2 ← W.H. Burkholder = ATCC 13460: LMG 547: NCPPB 983 - **Pathotype strain**.
636 *Barbarea vulgaris* R. Br. - winter cress. USA 1939. From D.W. Dye YP1 ← W.H. Burkholder XB1 = ICPB XB1: NCPPB 942 - non-mucoid colony form.

Xanthomonas campestris pv. **bauhiniae** (Padhya *et al.* 1965) Dye 1978

syn. *Xanthomonas axonopodis* pv. *bauhiniae* (Padhya *et al.* 1965)

- 1610 a *Bauhinia racemosa* Lam. - leafspot. India Nov 1961. From D.W. Dye W11 ← ICPB XB112 ← A.C. Padhya = NCPPB 1629.
5720 a *Bauhinia racemosa* Lam. India 1961. From NCPPB 1335 ← M.K. Patel ← A.C. Padhya = LMG 548 - **Pathotype strain**.

Xanthomonas campestris pv. **begoniae** (Takimoto 1934) Dye 1978

syn. *Xanthomonas axonopodis* pv. *begoniae* (Takimoto 1934) Vauterin *et al.* 1995

- 191 a *Begonia* sp. - begonia. UK (England) 1937. From D.W. Dye Z1 ← NCPPB 109 ← W.J. Dowson 109.
192 a *Begonia* sp. - begonia. USA. From D.W. Dye Z2 ← NCPPB 241 ← W.J. Dowson = NCTC 6875.
193 a *Begonia* sp. - begonia. USA 1946. From D.W. Dye Z3 ← W.H. Burkholder XB9 = ICPB XB9: ATCC 11725: NCPPB 1924.
195 a *Begonia* sp. - begonia - leafspot. Auckland, AK, NZ Feb 1962. From D.W. Dye Z5.
9587 *Begonia* sp. - begonia - leaf. USA (Hawaii) Jun 1987. From A.R. Chase X278.
4650 *Begonia X hiemalis* Fotsch - rieger begonia cv. Elatior - watersoaked leaf lesions 0.5mm dia. Mt Wellington, AK, NZ Feb 1976. From C.F. Hill AS6873.
6652 *Begonia X hiemalis* Fotsch - rieger begonia cv. Elatior. Australia Dec 1978. From P.C. Fahy DAR33339.
11938 *Begonia X hiemalis* Fotsch - rieger begonia. France 1982. From CFBP 2142 ← B. Digat XB.
12298 *Begonia X hiemalis* Fotsch - rieger begonia, winter-flowering begonia - margins of old leaves. Christchurch, MC, NZ Jan 1995. From K. Knight 197.
9588 * *Begonia X rex-cultorum* L.H. Bailey - rex begonia - leaf blight. USA (Hawaii) Jun 1987. From A.R. Chase X293 - *angel-wing begonia (Chase).
194 a *Begonia X tuberhybrida* Voss - tuberous begonia. Mt Albert, AK, NZ Jan 1962. From D.W. Dye Z4 = ATCC 49082: CFBP 2524: ICPB XB110: LMG 7303: NCPPB 1926 - **Pathotype strain**.
1335 a *Begonia X tuberhybrida* Voss - tuberous begonia. Mt Albert, AK, NZ Jan 1962. From D.W. Dye Z4SMR = ICPB XB110smr - laboratory derived streptomycin resistant selection of ICMP 194.

Xanthomonas campestris pv. **betae** Robbs, Kimura & Ribeiro 1981

- 8917 a *Beta vulgaris* L. var. *hortensis* Hort. - garden beet - leafspot. Brazil 1973. From NCPPB 2592 ← C.F. Robbs ENA 2078 = LMG 9040 - Fitopatologia Brasileira 6: 387-394, 1981 - **Pathotype strain**.

Xanthomonas campestris pv. **betlicola** (Patel *et al.* 1951) Dye 1978

syn. *Xanthomonas axonopodis* pv. *betlicola* (Patel *et al.* 1951) Vauterin *et al.* 1995

- 312 a *Piper betle* L. - betel pepper. India 1953. From D.W. Dye YC1 ← ICPB XB104 ← M.K. Patel 11 = ATCC 11677, 19047: NCPPB 485, 2972: LMG 555: ICPB XB109 - **Pathotype strain**.
331 a *Piper betle* L. - betel pepper. India 1953. From D.W. Dye YC2 ← ITCC B45 ← M.K. Patel 11 = NCPPB 485, 2972: ICPB XB109: ATCC 11677, 19047.
1425 a *Piper betle* L. - betel pepper. India 1953. From D.W. Dye YC2SMR ← ITCC B45 ← M.K. Patel 11 - laboratory derived streptomycin resistant selection of ICMP 331.

Xanthomonas campestris pv. **bilvae** Chakravarti *et al.* 1984

- 8918 a *Aegle marmelos* (L.) Correa. - Indian bael - watersoaked leafspots, turning brown. India 1980. From NCPPB 3213 ← J.F. Bradbury B8600 ← B.P. Chakravarti B1P - Curr. Sci. 53: 488-489, 1984 - **Pathotype strain**.

Xanthomonas campestris pv. **biophyti** (Patel *et al.* 1969) Dye 1978

syn. *Xanthomonas axonopodis* pv. *biophyti* (Patel *et al.* 1969) Vauterin *et al.* 1995

- 2780 a *Biophytum sensitivum* (L.) DC. - leafspot. India 1967. From D.W. Dye VD1 ← A.M. Patel = NCPPB 2228: LMG 556: ICPB XB117 - **Pathotype strain**.

Xanthomonas campestris pv. **blepharidis** (Srinivasan & Patel 1956) Dye 1978

- 5722 a *Blepharis boerhaaviaefolia* Pers. India 1955. From NCPPB 1757 ← M.J. Thirumalachar HACC182 = ATCC 17995: LMG 557 - **Pathotype strain**.
1615 a *Blepharis molluginifolia* Pers. India. From D.W. Dye WR1 ← M.J. Thirumalachar.

Xanthomonas campestris pv. **boerhaaviae** (Mathur *et al.* 1964) Bradbury 1986

- 9423 a *Boerhaavia repens* L. India 1964. From NCPPB 1612 ← A.C. Hayward B2175 = LMG 9041 - **Pathotype strain**.

Xanthomonas campestris pv. **brunneivaginae** Luo *et al.* 1988

- 9991 * *Oryza sativa* L. - rice - browning of sheath. China. From K. Luo 03-2 - *rice (Luo) - **Pathotype strain**.

Xanthomonas campestris pv. **cajani** (Kulkarni *et al.* 1950) Dye 1978

syn. *Xanthomonas axonopodis* pv. *cajani* (Kulkarni *et al.* 1950) Vauterin *et al.* 1995

- 444 a *Cajanus cajan* (L.) Huth - pigeon pea. India 1950. From D.W. Dye YR1 ← ICPB XC111 ← M.K. Patel 5 = NCPPB 573: ATCC 11639: LMG 558 - **Pathotype strain**.
1625 a *Cajanus cajan* (L.) Huth - pigeon pea. India. From D.W. Dye YR2 ← M.J. Thirumalachar.
5849 a *Cajanus cajan* (L.) Huth - pigeon pea. Sudan 1966. From NCPPB 2063 ← K.A. Sabet CAJ1.
7170 *Cajanus cajan* (L.) Huth - pigeon pea - angular leafspot. Fiji Mar 1980. From D.R.W. Watson A2730.
9000 b* *Cajanus cajan* (L.) Huth - pigeon pea. Fiji Jul 1985. From R.G. Clark 3439 - *pigeon pea.

Xanthomonas campestris pv. **campestris** (Pammel 1895) Dowson 1939

- 1639 a *Brassica juncea* (L.) Czern. - wild mustard, Indian mustard. USA. From D.W. Dye Q30 ← C. Wehlburg 65-1.
3 a *Brassica napus* L. - rape. UK (England). From D.W. Dye Q5 ← W.J. Dowson 45 = NCPPB 45.
5 a *Brassica napus* L. - rape. UK (England) 1941. From D.W. Dye Q7 ← W.J. Dowson 240 = NCPPB 240.
12188 *Brassica napus* L. - canola. Brazil 1992. From IBSBF 959 ← V.A. Malavolta Jr.
2 a *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede - leaf. Te Awamutu, WO, NZ 1953. From D.W. Dye Q2 = NCPPB 404.
14 a *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leafspot. Otara, AK, NZ 1957. From D.W. Dye Q20.
2385 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - discoloured vein of chlorotic leaf. Ohakune, RI, NZ Jan 1968. From D.R.W. Watson A76.
2387 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - discoloured vein of chlorotic leaf. Palmerston North, WI, NZ Feb 1968. From D.R.W. Watson A113.
4784 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower - leaf rot. Tonga 1976. From D.R.W. Watson A2170 ← C. Crawford G - *cauliflower.

- 6497 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower cv. Y43 - leopard spot, small leaf lesion. Pukekohe, AK, NZ Apr 1979. From D.R.W. Watson A2544 - *cauliflower.
- 6498 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower cv. Snowwhite - small pale brown leaf scab. Bombay, AK, NZ Apr 1979. From D.R.W. Watson Y2542 - *cabbage, cauliflower.
- 6533 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower cv. Snowwhite - small dark leafspot, leaf yellowing. Bombay, AK, NZ Apr 1979. From D.R.W. Watson R2542 - *cabbage, cauliflower.
- 6541 b* *Brassica oleracea* L. var. *botrytis* L. - cauliflower cv. Y43 - leaf. NZ Jun 1978. From W.J. Kemp B - *cauliflower.
- 11053 * *Brassica oleracea* L. var. *botrytis* L. - cauliflower - yellowing of foliage, vascular browning, stunting. Iran Jun 1991. From H. Rahimian C330 - *cabbage, cauliflower (Rahimian).
- 11162 *Brassica oleracea* L. var. *botrytis* L. - broccoli - leafspots on seedlings. Pukekohe, AK, NZ. From P.G. Broadhurst ← J.M. Young.
- 11929 *Brassica oleracea* L. var. *botrytis* L. - cauliflower. France 1975. From CFBP 1710 ← A. Trigalet XC1.
- 4 a *Brassica oleracea* L. var. *capitata* L. - cabbage. Mauritius. From D.W. Dye Q6 ← W.J. Dowson 196 ← G. Orian = NCPPB 196.
- 6 a *Brassica oleracea* L. var. *capitata* L. - cabbage. Malawi. From D.W. Dye Q9 ← W.J. Dowson 279 ← P.O. Wiehe = NCPPB 279.
- 8 a* *Brassica oleracea* L. var. *capitata* L. - cabbage cv. Savoy - leafspot. Levin, WN, NZ 1957. From D.W. Dye Q12 - *cabbage.
- 9 a *Brassica oleracea* L. var. *capitata* L. - cabbage cv. Savoy - leafspot. Levin, WN, NZ 1957. From D.W. Dye Q15.
- 10 a *Brassica oleracea* L. var. *capitata* L. - cabbage cv. Savoy - leafspot. Levin, WN, NZ 1957. From D.W. Dye Q16.
- 11 a *Brassica oleracea* L. var. *capitata* L. - cabbage cv. Savoy - leafspot. Levin, WN, NZ 1957. From D.W. Dye Q17.
- 1394 a *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf. USA Nov 1963. From D.W. Dye Q28 = ICPB XC154.
- 1638 a *Brassica oleracea* L. var. *capitata* L. - cabbage. USA. From D.W. Dye Q29 ← C. Wehlburg 60-1.
- 3984 b* *Brassica oleracea* L. var. *capitata* L. - cabbage - discoloured vein of chlorotic leaf. Cook Is. Jul 1974. From C.N. Hale 1807 - *cabbage.
- 4013 b* *Brassica oleracea* L. var. *capitata* L. - cabbage - discoloured vein of chlorotic leaf. Pukekohe, AK, NZ Jul 1974. From C.N. Hale 1823 - *cabbage.
- 4446 *Brassica oleracea* L. var. *capitata* L. - cabbage - darkening in petiolar veins. Western Samoa Nov 1975. From J.M. Young 2059A.
- 4578 *Brassica oleracea* L. var. *capitata* L. - cabbage - dark stained vasculature of leaf lamina associated with extensive yellowing. Western Samoa Dec 1975. From D.R.W. Watson A2069.
- 4582 *Brassica oleracea* L. var. *capitata* L. - cabbage - dark stained veins from yellowed leaf margin of seedling. Western Samoa Dec 1975. From D.R.W. Watson C2072.
- 4781 *Brassica oleracea* L. var. *capitata* L. - cabbage - discoloured leaf vein. Tonga Jun 1976. From D.R.W. Watson A2167.
- 6512 *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf rot. Palmerston North, WI, NZ Apr 1979. From D.R.W. Watson A2556.
- 6536 b* *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf rot. Bombay, AK, NZ Apr 1979. From D.R.W. Watson C2543 - *cabbage, cauliflower.
- 7193 *Brassica oleracea* L. var. *capitata* L. - cabbage - leopard spot of leaf. Fiji Aug 1980. From D.R.W. Watson AB2776.
- 9069 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Hungary 1982. From J. Nemeth KAP4.
- 9070 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Hungary 1982. From J. Nemeth KAP5.
- 9072 *Brassica oleracea* L. var. *capitata* L. - cabbage cv. Savoy - leafspot. Hungary 1982. From J. Nemeth KEL4.
- 10446 *Brassica oleracea* L. var. *capitata* L. - cabbage - stump. Ukraine 1947. From V.A. Muras 8166 ← K.I. Beltyukova 8166.
- 10574 * *Brassica oleracea* L. var. *capitata* L. - cabbage - leaves. Yugoslavia 1989. From M. Arsenijevic Ku11 - *cabbage (Arsenijevic).
- 10575 * *Brassica oleracea* L. var. *capitata* L. - cabbage - leaves. Yugoslavia 1989. From M. Arsenijevic Ku14 - *cabbage (Arsenijevic).
- 11910 *Brassica oleracea* L. var. *capitata* L. - cabbage. France 1975. From CFBP 1712 ← A. Trigalet XC3.
- 13 a *Brassica oleracea* L. var. *gemmifera* Zenk. - brussels sprout - stem. UK 1957. From D.W. Dye Q19 ← E. Billing P25 = ATCC 33913: CFBP 2350: LMG 568: NCPPB 528 - **Type strain**.
- 1336 a *Brassica oleracea* L. var. *gemmifera* Zenk. - brussels sprout - stem. UK 1957. From D.W. Dye Q19smr ← D.W. Dye Q19 ← E. Billing P25 - laboratory derived streptomycin resistant selection of ICMP 13.
- 4725 b* *Brassica oleracea* L. var. *gemmifera* Zenk. - brussels sprout - yellow leaf blotch with dark vascular discoloration. NZ Apr 1976. From D.R.W. Watson D2158 - *cabbage.
- 9071 *Brassica oleracea* L. var. *gongylodes* L. - kohlrabi - leafspot. Hungary 1982. From J. Nemeth KAR5.
- 1 a* *Brassica oleracea* L. var. *ramosa* Alef. - chou-moellier - stem. NZ 1952. From D.W. Dye Q1 = NCPPB 403 - *chou-moellier.
- 4583 b* *Brassica rapa* L. - Chinese cabbage - dark stained veins from yellowed leaf margin of seedling. Western Samoa Dec 1975. From D.R.W. Watson A2073 - *cabbage.
- 15 a* *Brassica rapa* L. subsp. *rapa* L. - turnip - leaf chlorosis. Mt Albert, AK, NZ 1959. From D.W. Dye Q21 - *turnip.
- 582 a* *Brassica rapa* L. subsp. *sylvestris* (L.) Janchen - wild turnip - leaf vein. Auckland, AK, NZ Jul 1962. From D.W. Dye Q26 ← D.A. Shackleton WT1 - *chou-moellier.
- 593 a* *Brassica rapa* L. subsp. *sylvestris* (L.) Janchen - wild turnip - leaf vein. Auckland, AK, NZ Jul 1962. From D.W. Dye Q27 ← D.A. Shackleton WT4 - *chou-moellier.
- 16 a *Raphanus sativus* L. - radish cv. White Delicious - leafspot, stem spot and seed head infection. Mt Albert, AK, NZ 1959. From D.W. Dye Q22.
- 17 a *Raphanus sativus* L. - radish cv. White Delicious - leafspot, stem spot and seed head infection. Mt Albert, AK, NZ 1959. From D.W. Dye Q23.
- 18 a *Raphanus sativus* L. - radish cv. White Delicious - leafspot, stem spot and seed head infection. Mt Albert, AK, NZ 1959. From D.W. Dye Q24.
- 1683 a* *Raphanus sativus* L. - radish cv. Red Turnip - seed. Auckland, AK, NZ 1963. From D.W. Dye Q31 ← D.A. Shackleton RT1 - *radish.
- 1684 a *Raphanus sativus* L. - radish cv. Red Turnip - seed. Auckland, AK, NZ 1963. From D.W. Dye Q32 ← D.A. Shackleton RT2.
- 1685 a *Raphanus sativus* L. - radish cv. White Turnip - seed. Auckland, AK, NZ 1963. From D.W. Dye Q33 ← D.A. Shackleton WTR1.
- 1686 a *Raphanus sativus* L. - radish cv. White Turnip - seed. Auckland, AK, NZ May 1965. From D.W. Dye Q34 ← D.A. Shackleton WTR2.
- 12 a India 1954. From D.W. Dye Q18 ← ITCC B47 ← M.K. Patel = ICPB XC122: NCPPB 1929.

Xanthomonas campestris pv. *cannabis* Severin 1978

- 6569 *Cannabis sativa* L. - Indian hemp. From V. Severin 7 = NCPPB 2876.
- 6570 a *Cannabis sativa* L. - Indian hemp. From V. Severin 8 = LMG 9042: NCPPB 2877 - **Pathotype strain**.
- 6571 *Cannabis sativa* L. - Indian hemp. From V. Severin 9 = NCPPB 2878.
- 6572 *Cannabis sativa* L. - Indian hemp. From V. Severin 12 = NCPPB 2879.
- 9856 *Cannabis sativa* L. - Indian hemp - leafspot. Japan Aug 1982. From Y. Takikawa XCN8201 (546).
- 9857 *Cannabis sativa* L. - Indian hemp - leafspot. Japan. From Y. Takikawa XCN8203 (548).

Xanthomonas campestris pv. *cannae* Easwaramurthy *et al.* 1984

- 8306 a* *Canna X generalis* L.H. Bailey - ornamental canna - leafspot, blight. India Nov 1981. From R. Easwaramurthy 1 = LMG 9043 - *Curr. Sci.* 53: 708-709, 1984 - *canna (Easwaramurthy) - **Pathotype strain**.
- 8409 * *Canna X generalis* L.H. Bailey - ornamental canna - leafspot & blight. India Nov 1981. From R. Easwaramurthy 2 - *Curr. Sci.* 53: 708-709, 1984 - cotype strain - *canna (Easwaramurthy).
- 8410 * *Canna X generalis* L.H. Bailey - ornamental canna - leafspot, blight. India Nov 1981. From R. Easwaramurthy 3 - *Curr. Sci.* 53: 708-709, 1984 - cotype strain - *canna (Easwaramurthy).
- 8411 * *Canna X generalis* L.H. Bailey - ornamental canna - leafspot, blight. India Nov 1981. From R. Easwaramurthy 4 - *Curr. Sci.* 53: 708-709, 1984 - cotype strain - *canna (Easwaramurthy).
- 8412 * *Canna X generalis* L.H. Bailey - ornamental canna - leafspot, blight. India Nov 1981. From R. Easwaramurthy 5 - *Curr. Sci.* 53: 708-709, 1984 - cotype strain - *canna (Easwaramurthy).

Xanthomonas campestris pv. *carissae* (Moniz *et al.* 1964) Dye 1978

- 2101 a *Carissa carandas* L. - karanda. India Jan 1968. From D.W. Dye VA1 ← M.J. Thirumalachar.
- 3034 a *Carissa carandas* L. - karanda. India 1968. From D.W. Dye VA2 ← P.N. Patel XC1 ← J.K. Jindal = LMG 699: NCPPB 2373 - **Pathotype strain**.
- 3035 a *Carissa carandas* L. - karanda. India 1968. From D.W. Dye VA3 ← P.N. Patel XC2 ← J.K. Jindal = NCPPB 2374.

Xanthomonas campestris pv. *carotae* (Kendrick 1934) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *carotae* (Kendrick 1934) Vauterin *et al.* 1995

- 205 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - scab. USA 1939. From D.W. Dye ZC3 ← ICPB XC11 ← P.A. Ark = ATCC 10547.
- 1407 a *Daucus carota* L. var. *sativus* Hoffm. - carrot - root. USA 1948. From D.W. Dye ZC5 ← ICPB XC103 ← P.G. Smith A - non-mucoid yellow colony form.
- 5723 a? *Daucus carota* L. var. *sativus* Hoffm. - carrot. Hungary 1956. From NCPPB 1422 ← Z. Klement NO66 = LMG 8646 - atypical strain (probably *Erwinia herbicola*) - **Pathotype strain**.
- 7497 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Brazil 1980. From IBSBF 366 ← A. Takatsu UB45.
- 7498 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Brazil 1980. From IBSBF 367 ← A. Takatsu UB47.
- 7499 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Brazil 1980. From IBSBF 368 ← A. Takatsu UB46.
- 199 a From D.W. Dye ZC1 ← T.M.B. Paine = NCPPB 425.
- 200 a USA. From D.W. Dye ZC2 ← NCPPB 230 ← M.P. Starr.
- Xanthomonas campestris* pv. *cassavae*** (Wiehe & Dowson 1953) Maraite & Weyns 1979
syn. *Xanthomonas cassavae* (ex Weihe & Dowson 1953) Vauterin *et al.* 1995
- 204 a *Manihot esculenta* Crantz - cassava. Malawi 1951. From D.W. Dye ZD1 ← NCPPB 101 ← P.O. Wiehe = LMG 673 - **Pathotype strain**.
- 8666 *Manihot* sp. - cassava. Rwanda 1977. From LMG 672 ← H. Maraite 38 = NCPPB 3062.
- 8667 *Manihot* sp. - cassava. Kenya 1979. From LMG 5246 ← H. Maraite 179.
- 8668 *Manihot* sp. - cassava. Rwanda 1977. From LMG 5266 ← H. Maraite 42.
- 8669 *Manihot* sp. - cassava. Rwanda 1978. From LMG 5268 ← H. Maraite 45.
- 8816 From LMG 671t1 ← H. Maraite 29.
- 8817 From LMG 671t2 ← H. Maraite 29.
- 8818 From LMG 674 ← H. Maraite 59.
- Xanthomonas campestris* pv. *cassiae*** (Kulkarni *et al.* 1951) Dye 1978
syn. *Xanthomonas axonopodis* pv. *cassiae* (Kulkarni *et al.* 1951) Vauterin *et al.* 1995
- 313 a *Cassia tora* L. India 1956. From D.W. Dye YD1 ← ITCC B35 ← M.K. Desai = NCPPB 478.
- 358 a *Cassia tora* L. From D.W. Dye YD2 ← W.H. Burkholder XC18 ← M.K. Patel 6 = ATCC 11638: ICPB XC112: CFBP 2973: NCPPB 2973 - Pathotype strain.
- 11961 Reunion 1986. From CFBP 2626 ← J.C. Girard A21.
- Xanthomonas campestris* pv. *celebensis*** (Gaumann 1923) Dye 1978
syn. *Xanthomonas arboricola* pv. *celebensis* (Gaumann 1923) Vauterin *et al.* 1995
- 1484 ? *Musa acuminata* Colla - banana cv. Dwarf Cavendish - leafspot. Auckland, AK, NZ Feb 1960. From D.W. Dye ZZ1 = NCPPB 1630: ICPB XC143 - rec. as *Xanthomonas* sp.
- 1486 ? *Musa acuminata* Colla - banana cv. Dwarf Cavendish - leafspot. Auckland, AK, NZ Feb 1960. From D.W. Dye ZZ4 - rec. as *Xanthomonas* sp.
- 1487 ? *Musa acuminata* Colla - banana cv. Dwarf Cavendish - leafspot. NZ Feb 1960. From D.W. Dye ZZ3 = ATCC 19046: ICPB XC144 - rec. as *Xanthomonas* sp.
- 1488 a *Musa acuminata* Colla - banana cv. Dwarf Cavendish - leafspot. Auckland, AK, NZ Feb 1960. From D.W. Dye ZZ5 = NCPPB 1832: ICPB XC145: ATCC 19045: LMG 677 - **Pathotype strain**.
- Xanthomonas campestris* pv. *centellae*** Basnyat & Kulkarni 1979
6746 a *Centella asiatica* (L.) Urb. - Asiatic pennywort - leafspot. India. From ITCC P32 ← S.R. Basnyat = LMG 9044: NCPPB 3245 - **Pathotype strain**.
- Xanthomonas campestris* pv. *cerealis*** (Hagborg 1942) Dye 1978
syn. *Xanthomonas translucens* pv. *cerealis* (Hagborg 1942) Vauterin *et al.* 1995
- 1409 a* *Bromus inermis* Leyss. - smooth bromegrass. USA 1941. From D.W. Dye ZQ22 ← ICPB XT15 ← J.R. Wallin 60-1 = CFBP 2541: LMG 679: NCPPB 1944 - rec. as *X. translucens* - *barley, *Bromus* sp., fantail, oats, quackgrass, rye, wheat - **Pathotype strain**.
- 7717 a *Bromus inermis* Leyss. - smooth bromegrass - leaf. Japan 1979. From K. Miyajima HK901.
- 9965 *Triticum aestivum* L. - wheat. Brazil 1980. From NCPPB 3212 ← J.F. Bradbury B8597.
- 11055 a* *Triticum aestivum* L. - wheat cv. Tabasi - translucent leaf streaks. Iran Mar 1983. From H. Rahimian G32 - EPPO Bull. 19: 113-117, 1989 - *wheat, barley, *Bromus* sp. (Rahimian).
- 11056 a* *Triticum aestivum* L. - wheat cv. Tabasi - translucent leaf streaks. Iran Apr 1983. From H. Rahimian G321 - EEPO Bull. 19: 113-117, 1989 - *wheat, barley, phalaris, *Bromus* sp. (Rahimian).
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (strains not allocated to Groups)
syn. *Xanthomonas axonopodis* pv. *citri* (Hasse 1915) Vauterin *et al.* 1978
- 5575 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime - leaf scab. Fiji Mar 1977. From D.R.W. Watson A2287.
- 5809 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Jan 1976. From IBSBF 160 ← F.R.F. Villegas.
- 7494 *Citrus aurantiifolia* (Christm.) Swingle - Persian lime cv. Tahiti. Brazil 1981. From IBSBF 348 ← J.R. Neto.
- 8433 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Nov 1981. From IBSBF 382 ← J.R. Neto.
- 11054 * *Citrus aurantiifolia* (Christm.) Swingle - key lime - raised spots and canker of leaves, twigs and fruits. Iran May 1989. From H. Rahimian L151 - *lime, troyer citrange (Rahimian).
- 11997 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime - citrus canker on leaf. Thursday Is. From DAR 65870 ← L. Diatloff DPI1847 ← D. Jones.
- 12000 *Citrus aurantiifolia* (Christm.) Swingle - lime - citrus canker of leaves. Australia Jun 1993. From DAR 65977 ← P.C. Fahy ← D. Barnes.
- 2401 *Citrus limon* (L.) Burm.f. - lemon - leaf lesion with reddish-brown margin. Inglewood, TK, NZ Sep 1968. From D.R.W. Watson B259.
- 2447 *Citrus limon* (L.) Burm.f. - lemon - leaf scab with dark greasy border. New Plymouth, TK, NZ Oct 1968. From D.R.W. Watson D278.
- 11073 *Citrus maxima* (Burm.) Merr. - late white pomelo - leaf. China (Taiwan). From CCRC 13127 ← NCHUPP XW106.
- 11995 *Citrus maxima* (Burm.) Merr. - pommelo cv. Termat - canker of leaf and twig. Australia Apr 1991. From DAR 65862 ← P.C. Fahy.
- 10016 *Citrus sinensis* (L.) Osbeck - sweet orange. USA. From E.L. Civerolo F54 ← J.W. Miller - Phytopath. 79: 793-9, 1989.
- 11996 *Citrus sinensis* (L.) Osbeck - sweet orange - citrus canker of leaf. Thursday Is. May 1984. From DAR 65869 ← L. Diatloff DPI1484 ← D. Jones.
- 21 a* *Citrus* sp. - New Zealand grapefruit. Palmerston North, WI, NZ Aug 1956. From D.W. Dye R2 = NCPPB 406 - *grapefruit.
- 22 a* *Citrus* sp. - citrus - leaf. New Plymouth, TK, NZ Aug 1956. From D.W. Dye R3 = NCPPB 407 - *citrus.
- 26 a *Citrus* sp. - citrus. India. From D.W. Dye R8 ← W.J. Dowson 211 ← M.K. Patel = NCPPB 211.
- 27 a *Citrus* sp. - citrus. NZ. From D.W. Dye R9 ← W.J. Dowson 226 ← W.D. Reid = NCPPB 226.
- 29 a *Citrus* sp. - citrus - leaf. New Plymouth, TK, NZ Dec 1958. From D.W. Dye R11 ← W.J. Kemp.
- 607 a* *Citrus* sp. - fruit. Japan Dec 1962. From D.W. Dye R17 ← D.A. Shackleton - *citronelle.
- 4621 b* *Citrus* sp. - ?lemon - brown greasy raised circular leaf lesions. Fiji Jan 1976. From D.R.W. Watson A2091 - *rough lemon.
- 11998 *Citrus X paradisi* Macfadyen - grapefruit - citrus canker of leaves. Australia. From DAR 65973a ← P.C. Fahy ← D. Barnes.
- 11999 *Citrus X paradisi* Macfadyen - grapefruit - citrus canker of leaves. Australia Jun 1993. From DAR 65973b ← P.C. Fahy ← D. Barnes.
- 28 a India. From D.W. Dye R10 ← ITCC B31 ← M.K. Hingorani.
- 32 a Japan. From D.W. Dye R14 ← N. Okabe.
- 33 a Japan. From D.W. Dye R15 ← N. Okabe.
- 1422 a Japan 1958. From D.W. Dye R15smr ← N. Okabe - laboratory derived streptomycin resistant selection of ICMP 33.
- 10034 China. From J.M. Young Ci.
- 11071 Sunki - leaf. China (Taiwan). From CCRC 13123 ← NCHUPP XW98.
- 11072 Touyu - leaf. China (Taiwan). From CCRC 13124 ← NCHUPP XW102.
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (Group A)
- 5810 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Jan 1976. From IBSBF 164 ← J.R. Neto.
- 7490 b *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil 1981. From IBSBF 339 ← J.R. Neto.
- 7495 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil 1981. From IBSBF 349 ← J.R. Neto.

- 8436 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Feb 1983. From IBSBF 491 ← J.R. Neto.
- 24 a* *Citrus limon* (L.) Burm.f. - lemon - leafspot. New Plymouth, TK, NZ Sep 1956. From D.W. Dye R5 = CFBP 2525: LMG 682: NCPPB 409 - *citronelle - **Pathotype strain**.
- 31 a *Citrus limon* (L.) Burm.f. - lemon cv. Standard - leaf. New Plymouth, TK, NZ 1958. From D.W. Dye R13 ← W.J. Kemp.
- 23 a* *Citrus reticulata* Blanco - Clementine mandarin - leafspot. New Plymouth, TK, NZ Aug 1956. From D.W. Dye R4 = NCPPB 408 - *mandarin.
- 25 a* *Citrus sinensis* (L.) Osbeck - sweet orange - leafspot. New Plymouth, TK, NZ Sep 1956. From D.W. Dye R6 = NCPPB 410 - *citronelle.
- 7489 *Citrus sinensis* (L.) Osbeck - sweet orange. Brazil 1981. From IBSBF 338 ← J.R. Neto.
- 7491 *Citrus sinensis* (L.) Osbeck - sweet orange. Brazil 1981. From IBSBF 340 ← J.R. Neto.
- 7493 b *Citrus sinensis* (L.) Osbeck - sweet orange. Brazil 1981. From IBSBF 347 ← J.R. Neto.
- 10022 *Citrus aurantiifolia* (Christm.) Swingle - lime. USA. From E.L. Civerolo F198 ← J.W. Miller - Phytopath.79: 793-799, 1989 - rec. as *Xanthomonas* sp. - group A.
- 10024 *Citrus paradisi* Macfadyen - grapefruit - fruit. USA. From E.L. Civerolo F202 - rec. as *X. campestris* - group A.
- 10025 *Citrus reticulata* Blanco - mandarin. Japan. From E.L. Civerolo Xc62 ← M. Koizumi - Phytopath. 79: 793-9, 1989 - group A.
- 10026 *Citrus reticulata* Blanco - mandarin. Japan. From E.L. Civerolo Xc63 ← M. Koizumi - Phytopath. 79: 793-9, 1989 - group A.
- 10020 *Citrus sinensis* (L.) Osbeck - sweet orange. USA. From E.L. Civerolo F132 ← J.W. Miller - group A.
- 20 a* *Citrus* sp. - citrus - leaf. New Plymouth, TK, NZ Aug 1956. From D.W. Dye R1 = NCPPB 405 - *citrus.
- 30 a *Citrus* sp. - New Zealand grapefruit - leaf. Waitara, TK, NZ 1957. From D.W. Dye R12 ← W.J. Kemp.
- 594 a* *Citrus* sp. - fruit. Japan Dec 1962. From D.W. Dye R16 ← D.A. Shackleton - *citronelle.
- 10023 *Citrus X paradisi* Macfadyen - grapefruit - leaf. USA. From E.L. Civerolo F199 - rec. as *X. campestris* - group A.
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (Group B)
- 10027 *Citrus limon* (L.) Burm.f. - lemon. Argentina. From E.L. Civerolo Xc64 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - group B.
- 10028 *Citrus limon* (L.) Burm.f. - lemon. Argentina. From E.L. Civerolo Xc69 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - group B.
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (Group C)
- 8432 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Nov 1981. From IBSBF 381 ← J.R. Neto.
- 8434 b *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Jul 1982. From IBSBF 417 ← J.R. Neto - rec as group B.
- 8435 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime. Brazil Sep 1982. From IBSBF 434 ← J.R. Neto.
- 10029 *Citrus aurantiifolia* (Christm.) Swingle - mandarin. Brazil. From E.L. Civerolo Xc70 ← V. Rosetti - Phytopath. 79: 793-9, 1989 - group C.
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (Group D)
- 10030 *Citrus aurantiifolia* (Christm.) Swingle - mandarin. Mexico. From E.L. Civerolo Xc90 - Phytopath. 79: 793-9, 1989 - group D.
- Xanthomonas campestris* pv. *citri*** (Hasse 1915) Dye 1978 (Group E)
- 10021 *Citrus sinensis* (L.) Osbeck - sweet orange. USA. From E.L. Civerolo F197 ← J.W. Miller - rec. as *X. campestris* - group E.
- 10011 *Citrus* sp. USA. From E.L. Civerolo F5 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10010 *Citrus X paradisi* Macfadyen - grapefruit. USA. From E.L. Civerolo F3 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10012 *Citrus X paradisi* Macfadyen - grapefruit - leaf. USA. From E.L. Civerolo F6 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10013 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F30 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10014 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F31 ← J.W. Miller - rec. as *X. campestris* - group E.
- 10015 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F51 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* - group E.
- 10017 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F96 ← J.W. Miller - Phytopath. 77: 282-5, 1987 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10018 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F98 ← J.W. Miller - Phytopath. 77: 282-5, 1987 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10019 *Poncirus trifoliata* (L.) Raf. X *Citrus paradisi* Macfadyen - citrumelo. USA. From E.L. Civerolo F99 ← J.W. Miller - Phytopath. 77: 282-5, 1987 - rec. as *X. campestris* pv. *citrumelo* - group E.
- 10009 *Poncirus trifoliata* (L.) Raf. X *C. sinensis* (L.) Osbeck - citrange, carrizo - leaf. USA. From E.L. Civerolo F1 ← J.W. Miller - Phytopath. 79: 793-9, 1989 - rec. as *X. campestris* pv. *citrumelo* - group E.
- Xanthomonas campestris* pv. *citrumelo* Gabriel *et al.* 1989 (invalid name)
see *X. campestris* pv. *citri* (Group E).
- Xanthomonas campestris* pv. *clerodendri*** (Patel *et al.* 1952) Dye 1978
- 445 a *Clerodendron phlomooides* L.f. India 1953. From D.W. Dye YS1 ← ICPB XC121 ← M.K. Patel 10 = ATCC 11676: LMG 684: NCPPB 575 - **Pathotype strain**.
- 3374 a *Clerodendron phlomooides* L.f. - leaf. India Sep 1972. From D.W. Dye YS3 ← S.V. Hegde XCL1.
- 3375 a *Clerodendron phlomooides* L.f. - leaf. India Oct 1972. From D.W. Dye YS4 ← S.V. Hegde XCL2.
- Xanthomonas campestris* pv. *clitoriae*** Pandit & Kulkarni 1979
syn. *Xanthomonas axonopodis* pv. *clitoriae* (Pandit & Kulkarni 1979) Vauterin 1995
- 6574 a *Clitoria biflora* Dalz. - leafspot. India Aug 1974. From IMI B7090 ← ITCC 2237 = NCPPB 3092: LMG 9045 - **Pathotype strain**.
- Xanthomonas campestris* pv. *convolvuli*** (Nagarkoti *et al.* 1973) Dye 1978
- 5380 a *Convolvulus arvensis* L. - wild morning glory. India 1972. From W.J. Kemp VT1 ← NCPPB 2498 ← J.F. Bradbury B5081 = LMG 685 - **Pathotype strain**.
- Xanthomonas campestris* pv. *coracanae*** (Desai *et al.* 1965) Dye 1978
syn. *Xanthomonas axonopodis* pv. *coracanae* (Desai *et al.* 1965) Vauterin *et al.* 1995
- 2103 a *Eleusine coracana* (L.) Gaertn. - African millet. India. From D.W. Dye VC1 ← M.J. Thirumalachar.
- 5724 a *Eleusine coracana* (L.) Gaertn. - African millet. India 1965. From NCPPB 1786 ← M.K. Patel ← S.G. Desai = LMG 686 - **Pathotype strain**.
- 9966 *Eleusine coracana* (L.) Gaertn. Uganda 1977. From NCPPB 3173 ← J.F. Bradbury B7343.
- Xanthomonas campestris* pv. *coriandri*** (Srinivasan *et al.* 1961) Dye 1978
- 5725 a *Coriandrum sativum* L. - coriander. India 1960. From NCPPB 1758 ← M.J. Thirumalachar HACC183 = ATCC 17996: LMG 687 - **Pathotype strain**.
- 5850 *Coriandrum sativum* L. - coriander. India 1956. From NCPPB 1457 ← M.K. Patel ← M.C. Srinivasan.
- 584 a India. From D.W. Dye WB1 ← M.K. Patel.
- Xanthomonas campestris* pv. *corylina*** (Miller *et al.* 1940) Dye 1978
syn. *Xanthomonas arboricola* pv. *corylina* (Miller *et al.* 1940) Vauterin *et al.* 1995
- 449 a *Corylus avellana* L. - hazel, European filbert. USA. From D.W. Dye YQ2 ← ICPB XC5 ← P.W. Miller.
- 7080 a *Corylus avellana* L. - hazel, European filbert - twig die-back and canker. UK 1976. From NCPPB 2898 ← P. Roberts A724a.
- 7081 a *Corylus avellana* L. - hazel, European filbert - leafspot and bud death. UK 1978. From NCPPB 3037 ← D. Barnes 69-8.
- 9967 *Corylus avellana* L. - hazel. France 1984. From NCPPB 3339 ← D.E. Stead.
- 11930 *Corylus avellana* L. - hazel, European filbert. France. From CFBP 1846 ← L. Gardan G97.

- 11956 *Corylus avellana* L. - hazel. France 1985. From CFBP 2565 ← L. Gardan 427-7.
 448 a *Corylus maxima* Mill. - giant filbert. From D.W. Dye YQ1 ← W.H. Burkholder XC8 ← S. Brombroff 5402.
 5726 a *Corylus maxima* Mill. - giant filbert. USA 1939. From NCPPB 935 ← ICPB XC12 ← P.W. Miller 5262 = ATCC 19313: CFBP 1159: LMG 689 - **Pathotype strain.**

Xanthomonas campestris* pv. *cucurbitae (Bryan 1926) Dye 1978

- syn. *Xanthomonas curcurbitae* (ex Bryan 1926) Vauterin *et al.* 1926
 203 a *Cucumis sativus* L. - cucumber. USA Apr 1933. From D.W. Dye ZE2 ← ICPB XC6-46 ← M.K. Bryan 46 = ATCC 23378: NCPPB 2567.
 1858 a* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ Apr 1967. From D.W. Dye ZE3 - *pumpkin.
 1859 a* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ Apr 1967. From D.W. Dye ZE4 - *pumpkin.
 2149 *Cucurbita maxima* Duch. - pumpkin - leafspot. Pukekohe, AK, NZ Jan 1968. From D.R.W. Watson A58.
 2167 b* *Cucurbita maxima* Duch. - pumpkin - leafspot. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson B68 - *cucumber, pumpkin.
 2179 b* *Cucurbita maxima* Duch. - pumpkin - leafspot. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson A108 - *cucumber, pumpkin.
 2296 *Cucurbita maxima* Duch. - pumpkin cv. Crown - angular buff leaf lesion. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson L89 - associated with *P. viridiflava*.
 2297 *Cucurbita maxima* Duch. - squash - angular cracked fruit lesions. Pukekohe, AK, NZ May 1968. From D.R.W. Watson C178.
 2299 a* *Cucurbita maxima* Duch. - pumpkin cv. Crown - greasy leaf lesion. Pukekohe, AK, NZ Jan 1968. From D.R.W. Watson E78 = CFBP 2542: LMG 690: NCPPB 2597 - *cucumber - **Pathotype strain.**
 2300 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leafspot. Mt Albert, AK, NZ Feb 1968. From D.R.W. Watson A98.
 2306 *Cucurbita maxima* Duch. - pumpkin cv. Crown - small greasy lesion on young fruit. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson C85.
 2308 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leaf blotch. Pukekohe, AK, NZ Jan 1968. From D.R.W. Watson B67 - associated with *P. viridiflava*.
 2309 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leafspot. Pukekohe, AK, NZ Feb 1968. From D.R.W. Watson A106 - associated with *P. viridiflava*.
 2310 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leafspot with halo. Pukekohe, AK, NZ Jan 1968. From D.R.W. Watson D64 - associated with *Pseudomonas viridiflava*.
 2311 *Cucurbita maxima* Duch. - pumpkin cv. Crown - leafspot. Pukekohe, AK, NZ. From D.R.W. Watson C66 - associated with *P. viridiflava*.
 3916 *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit lesion. Pukekohe, AK, NZ Apr 1974. From C.N. Hale 1754.
 3917 b* *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit lesion. Pukekohe, AK, NZ Apr 1974. From C.N. Hale 1755 - *pumpkin.
 3937 *Cucurbita maxima* Duch. - pumpkin cv. Crown - fruit. Pukekohe, AK, NZ May 1974. From C.N. Hale 1778.
 4766 *Cucurbita maxima* Duch. - pumpkin. Australia Nov 1973. From M.L. Moffett 0265.
 4767 *Cucurbita maxima* Duch. - pumpkin. Australia May 1974. From M.L. Moffett 0281.
 4768 *Cucurbita maxima* Duch. - pumpkin. Australia Dec 1974. From M.L. Moffett 0335.
 4769 *Cucurbita maxima* Duch. - pumpkin. Australia Dec 1974. From M.L. Moffett 0336.
 202 a USA. From D.W. Dye ZE1 ← NCPPB 231 ← M.P. Starr.

Xanthomonas campestris* pv. *cyamopsidis (Patel *et al.* 1953) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *cyamopsidis* (Patel *et al.* 1953) Vauterin *et al.* 1995
 616 a *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean. India. From D.W. Dye XJ1 ← NCPPB 637 ← M.K. Patel = LMG 691: A.C. Hayward 76200 - rec. as *X. cyamophagus* - **Pathotype strain.**
 2105 a *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean. From D.W. Dye XS2 ← M.J. Thirumalachar.
 2106 a *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean. From D.W. Dye XJ3 ← M.J. Thirumalachar - rec. as *X. cyamophagus*.
 3380 a *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean - leaf. India Jun 1971. From D.W. Dye XS3 ← S.V. Hegde XCY2.
 9968 *Cyamopsis tetragonolobus* (L.) Taub. - guar, cluster bean. Sudan 1979. From NCPPB 3204 ← J.F. Bradbury B8327 ← R. Billington.

Xanthomonas campestris* pv. *datuarae (Jain *et al.* 1975) Bradbury 1986

- 12546 a *Datura metel* L. - downy thorn apple. India 1974. From NCPPB 2932 ← J.F. Bradbury B5450 ← B.S. Siradhana - **Pathotype strain.**

Xanthomonas campestris* pv. *desmodii (Patel 1949) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *desmodii* (Patel 1949) Vauterin *et al.* 1995
 315 a *Desmodium diffusum* DC. India. From D.W. Dye YE1 ← ITCC B39 ← M.K. Patel 1 = NCPPB 481: ICPB XD105: ATCC 11640: LMG 692 - **Pathotype strain.**

Xanthomonas campestris* pv. *desmodiigangetic (Patel & Moniz 1948) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *desmodiigangetic* (Patel & Moniz 1976) Vauterin *et al.* 1995
 577 a *Desmodium gangeticum* DC. India 1943. From D.W. Dye XE1 ← NCPPB 577 ← M.K. Patel 3 = ICPB XD106: ATCC 11671: LMG 693 - **Pathotype strain.**

Xanthomonas campestris* pv. *desmodiilaxiflori Pant & Kulkarni 1976

- syn. *Xanthomonas axonopodis* pv. *desmodiilaxiflori* (Pant & Kulkarni 1976) Vauterin *et al.* 1995
 6502 a *Desmodium laxiflorum* DC. - irregular leafspot with yellow halo. India Oct 1971. From ITCC 29 ← N.M. Pant = LMG 9046: NCPPB 3086 - **Pathotype strain.**

Xanthomonas campestris* pv. *desmodirotundifolii (Desai & Shah 1960) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *desmodirotundifolii* (Desai & Shah 1960) Vauterin *et al.* 1995
 168 a *Desmodium rotundifolium* DC. India. From D.W. Dye XL1 ← NCPPB 885 ← R.M. Patel = LMG 694: A.C. Hayward B401 - **Pathotype strain.**

Xanthomonas campestris* pv. *dieffenbachiae (McCulloch & Pirone 1939) Dye 1978

- syn. *Xanthomonas axonopodis* pv. *dieffenbachiae* (McCulloch & Pirone 1939) Vauterin *et al.* 1995
 9564 * *Anthurium andraeanum* Linden. - flamingo lily - leaf blight. USA Jun 1983. From A.R. Chase X13 ← A.R. Chase 83-100B - *anthurium, dieffenbachia, caladium, syngonium (Chase).
 9565 * *Anthurium scherzerianum* Schott. - pigtail anthurium - leaf blight. USA Jun 1983. From A.R. Chase X14 ← A.R. Chase 83-102 - *anthurium, dieffenbachia, caladium, syngonium (Chase).
 4656 a* *Anthurium* sp. Brazil Apr 1974. From D.W. Dye ← J.R. Neto 140 - *anthurium (Neto).
 5727 a *Anthurium* sp. Brazil 1965. From NCPPB 1833 ← ICPB XD109 ← C.F. Robbs ENA350 = LMG 695 - **Pathotype strain.**
 7461 *Anthurium* sp. Brazil 1979. From IBSBF 255 ← M.H. Sugimori CIA2836-1.
 9841 *Anthurium* sp. Tahiti Dec 1988. From J.M. Young ← C.F. Hill 3585.
 10042 *Anthurium* sp. Guadeloupe. From P. Rott X2G2.
 576 a *Dieffenbachia* sp. USA Oct 1950. From D.W. Dye XD1 ← ICPB XD103 ← P.A. Ark 'Cardona2' = NCPPB 986.
 9569 *Dieffenbachia* sp. - leafspot. USA 1986. From A.R. Chase X174 ← P. Randahawa 86-99A1.
 9570 *Epipremnum aureum* (Linden & Andre) Bunt. - pothos - leaf. USA 1986. From A.R. Chase X176 ← P. Randahawa 86-96A1.
 9566 *Philodendron scandens* C. Koch & H. Sello. subsp. *oxycardium* (Schott) Bunt. - heart-leaf philodendron - leaf margin. USA 1984. From A.R. Chase X101 ← A.R. Chase 84-75.
 9586 *Philodendron scandens* C. Koch & H. Sello. subsp. *oxycardium* (Schott) Bunt. - heart-leaf philodendron - leaf. USA Feb 1987. From A.R. Chase X265 ← A.R. Chase 87-85.
 9568 *Philodendron* sp. - velvet-leaf philodendron - leaf blight. USA 1986. From A.R. Chase X169.

Xanthomonas campestris* pv. *durantae (Srinivasan & Patel 1957) Dye 1978

- 585 a *Duranta repens* L. - golden dewdrop. India. From D.W. Dye WC1 ← M.K. Patel.
 5728 a *Duranta repens* L. - golden dewdrop. India 1956. From NCPPB 1456 ← M.K. Patel ← M.C. Srinivasan = LMG 696 - **Pathotype strain.**

Xanthomonas campestris* pv. *erythrinae (Patel *et al.* 1952) Dye 1978syn. *Xanthomonas axonopodis* pv. *erythrinae* (Patel *et al.* 1952) Vauterin *et al.* 19954561 *Erythrina* sp. - red-brown angular leaf lesion. Western Samoa Dec 1975. From D.R.W. Watson A2067.446 a *Erythrina variegata* L. - coral tree. India. From D.W. Dye YT1 ← ICPB XE101 ← M.K. Patel 17 = ATCC 11679: LMG 698: NCPPB 578 - **Pathotype strain.*****Xanthomonas campestris* pv. *esculenti*** (Rangaswami & Easwaran 1962) Dye 19785729 a *Abelmoschus esculentus* (L.) Moench - okra. Brazil 1968. From NCPPB 2190 ← C.F. Robbs ENA568 = LMG 699 - **Pathotype strain.*****Xanthomonas campestris* pv. *eucalypti*** (Truman 1974) Dye 19785382 a *Eucalyptus citriodora* Hook. - lemon-scented spotted gum. Australia 1963. From W.J. Kemp VS1 ← NCPPB 2337 ← R. Truman B63 = LMG 700: ICPB XE104 - **Pathotype strain.*****Xanthomonas campestris* pv. *euphorbiae*** (Sabet *et al.* 1969) Dye 19785730 a *Euphorbia acalyphoides* Hochst. ex Boiss. Sudan 1965. From NCPPB 1828 ← K.A. Sabet EUPH1 = LMG 863 - **Pathotype strain.*****Xanthomonas campestris* pv. *fascicularis*** (Patel & Kotasthane 1969) Dye 1978syn. *Xanthomonas axonopodis* pv. *fascicularis* (Patel & Kotasthane 1969) Vauterin *et al.* 19955731 a *Corchorus fascicularis* Lam. India 1967. From NCPPB 2230 ← A.M. Patel = LMG 9047: ICPB XN105 - **Pathotype strain.*****Xanthomonas campestris* pv. *fici*** (Cavara 1905) Dye 19789567 * *Ficus benjamina* L. - weeping fig - leafspot. USA 1985. From A.R. Chase X151 ← J.M. Miller DP1-P85-1128 - **Ficus* sp. (Chase).9575 * *Ficus benjamina* L. - weeping fig - leaf. USA 1985. From A.R. Chase X207 ← G.W. Simone 710-85-PDD - **Ficus* sp. (Chase).11060 a* *Ficus microcarpa* L.f. var. *hillii* Corner - angular leaf lesions. Australia Dec 1991. From J. Duff 19207 = DAR 64818 - Austr. Pl. Path. 20: 1-2, 1991 - **Ficus* sp. (Duff).11061 a* *Ficus microcarpa* L.f. var. *hillii* Corner - angular leafspots. Australia Oct 1991. From J. Duff 19208 = DAR 64818 - Austr. Pl. Path. 20: 1-2, 1991 - **Ficus* sp. (Duff).11059 a* [*Ficus oinkonowenensis*] - green island fig, green cushion fig - angular leafspots. Australia Oct 1991. From J. Duff 19206 = DAR 64819 - Austr. Pl. Path. 20: 1-2, 1991 - *fig (Duff).3036 a *Ficus religiosa* L. - peepul. India 1968. From D.W. Dye VH1 ← P.N. Patel XF1 ← J.K. Jindal = LMG 701: NCPPB 2372 - **Pathotype strain.*****Xanthomonas campestris* pv. *glycines*** (Nakano 1919) Dye 1978syn. *Xanthomonas axonopodis* pv. *glycines* (Nakano 1919) Vauterin *et al.* 199511907 *Glycine hispida* Maxim. France 1974. From CFBP 1559 ← B. Rat 116-2.244 a *Glycine max* (L.) Merr. - soybean. USA 1944. From D.W. Dye ZK8 ← W.H. Burkholder XP21 - rec. as *X. phaseoli* var. *sojense*.245 a *Glycine max* (L.) Merr. - soybean. USA 1944. From D.W. Dye ZK9 ← W.H. Burkholder XP29 - rec. as *X. phaseoli* var. *sojense*.246 a *Glycine max* (L.) Merr. - soybean. USA. From D.W. Dye ZK10 ← ICPB XP3 ← F. Hedges 11 - rec. as *X. phaseoli* var. *sojense*.2336 b *Glycine max* (L.) Merr. - soybean - pustular leaf lesion. NZ May 1968. From D.R.W. Watson F179 - rec. as *X. sojense*.3434 b *Glycine max* (L.) Merr. - soybean - pustular leaf lesion. Australia Feb 1972. From D.R.W. Watson C1519 - rec. as *X. sojense* - associated with *P. syringae* pv. *tabaci*.5732 a *Glycine max* (L.) Merr. - soybean. Sudan 1956. From NCPPB 554 ← K.A. Sabet SOY1 = ATCC 43911: CFBP 2526: LMG 712 - **Pathotype strain.*****Xanthomonas campestris* pv. *graminis*** (Egli *et al.* 1975) Dye 1978syn. *Xanthomonas translucens* pv. *graminis* (Egli *et al.* 1975) Vauterin *et al.* 19956436 b* *Bromus marginatus* Nees ex Steud. - mountain brome - leaf stripe. Palmerston North, WI, NZ Nov 1978. From D.R.W. Watson A2473 - rec. as *Xanthomonas* sp. - *prairiegrass.6078 *Bromus* sp. - bromegrass. Palmerston North, WI, NZ. From D.R.W. Watson B2432 ← G.C.M. Latch - rec. as *Xanthomonas* sp.6438 *Bromus willdenowii* Kunth - prairiegrass - leaf stripe, whiteheads. Palmerston North, WI, NZ Dec 1978. From D.R.W. Watson A2498 - rec. as *Xanthomonas* sp.6482 *Bromus willdenowii* Kunth - prairiegrass. NZ. From G.C.M. Latch PRGRQ - rec. as *Xanthomonas* sp.7419 *Bromus willdenowii* Kunth - prairiegrass - leaf stripe. Palmerston North, WI, NZ Mar 1981. From D.R.W. Watson A2897.3472 a *Dactylis glomerata* L. - cocksfoot - leaf stripe. Switzerland Nov 1971. From D.W. Dye VO1 ← T. Egli 702 = NCPPB 2696.5733 a *Dactylis glomerata* L. - cocksfoot. Switzerland 1973. From NCPPB 2700 ← T. Egli 706 = ATCC 29091: CFBP 2053: LMG 726 - **Pathotype strain.**1490 *Festuca arundinacea* Schreb. - tall fescue - leaf. Palmerston North, WI, NZ 1960. From D.W. Dye ZZ7 - rec. as *Xanthomonas* sp.1491 *Festuca arundinacea* Schreb. - tall fescue - leaf. Palmerston North, WI, NZ Mar 1960. From D.W. Dye ZZ8 - rec. as *Xanthomonas* sp.3473 a* *Lolium multiflorum* Lam. - Italian ryegrass - leaf. Switzerland Apr 1972. From D.W. Dye VO2 ← T. Egli 701 ← D. Schmidt = NCPPB 2695 - **Dactylis* sp., *Festuca* sp., *Lolium* sp.6082 *Lolium perenne* L. - perennial ryegrass. Palmerston North, WI, NZ. From D.R.W. Watson C2433 ← G.C.M. Latch - rec. as *Xanthomonas* sp.6431 b* *Lolium perenne* L. - perennial ryegrass - leaf blight, whiteheads. Palmerston North, WI, NZ Nov 1978. From D.R.W. Watson C2469 - rec. as *Xanthomonas* sp. - *ryegrass.6444 b* *Lolium perenne* L. - perennial ryegrass - leaf blight, whiteheads. Palmerston North, WI, NZ Dec 1978. From D.R.W. Watson A2500 - rec. as *Xanthomonas* sp. - *ryegrass.6483 *Lolium perenne* L. - perennial ryegrass cv. Nui. Palmerston North, WI, NZ. From G.C.M. Latch NUI2 - rec. as *Xanthomonas* sp.12029 *Lolium perenne* L. - perennial ryegrass. Norway 1978. From CFBP 1977 ← A. Sletten 37.11946 *Lolium* sp. France 1983. From CFBP 2259 ← R. Samson SC59-1.***Xanthomonas campestris* pv. *guizotiae*** (Yirgou 1964) Dye 19785734 a *Guizotia abyssinica* (L.f.) Cass. - Niger-seed. Ethiopia. From NCPPB 1932 ← ICPB XG102 ← D. Yirgou i1 = LMG 731 - **Pathotype strain.*****Xanthomonas campestris* pv. *gummisudans*** (McCulloch 1924) Dye 19785780 a *Gladiolus* sp. Netherlands 1965. From NCPPB 2182 ← G.J. Saaltink ← W. Kamerman S131-84 = LMG 732 - **Pathotype strain.*****Xanthomonas campestris* pv. *hederae*** (Arnaud 1920) Dye 1978syn. *Xanthomonas axonopodis* pv. *hederae* (Arnaud 1920) Vauterin *et al.* 19959510 a* *Brassaia actinophylla* Endl. - Australian umbrella tree - leaf. USA 1983. From A.R. Chase X37 ← J.W. Miller DP1-083-1335 - Pl. Path. 33: 439-440, 1984 - *schefflera, dwarf schefflera, ivy (Chase).9511 a* *Brassaia actinophylla* Endl. - Australian umbrella tree - leafspot. USA 1984. From A.R. Chase X200 ← G.W. Simone 2285-B-84 - Pl. Path. 33: 439-440, 1984 - **B. actinophylla*, *Hedera helix* (Chase).452 a *Hedera helix* L. - ivy. 1932. From D.W. Dye YV1 ← W.H. Burkholder XH1.453 a *Hedera helix* L. - ivy. USA 1943. From D.W. Dye YV2 ← W.H. Burkholder XH5 = ICPB XH5: NCPPB 939: LMG 733 - **Pathotype strain.**454 a *Hedera helix* L. - ivy. USA 1944. From D.W. Dye YV3 ← W.H. Burkholder XH6 = ATCC 9653: ICPB XH6: NCPPB 987.1406 a *Hedera helix* L. - ivy - leafspot. From D.W. Dye YV4 ← ICPB XH105 ← P.A. Ark.1661 a *Hedera helix* L. - ivy - leafspot. Auckland, AK, NZ Apr 1965. From D.W. Dye YV5.1662 a *Hedera helix* L. - ivy - leafspot. Auckland, AK, NZ Apr 1965. From D.W. Dye YV6.1663 a *Hedera helix* L. - ivy - leafspot. Auckland, AK, NZ Apr 1965. From D.W. Dye YV7.1664 a *Hedera helix* L. - ivy - leafspot. Auckland, AK, NZ Apr 1965. From D.W. Dye YV8.1743 a* *Hedera helix* L. - ivy - leafspot. Christchurch, MC, NZ Apr 1965. From D.W. Dye YV9 - *ivy.9508 a* *Schefflera arboricola* Hayata ex Kanehira - dwarf schefflera, miniature umbrella plant - leafspot. USA 1982. From A.R. Chase X24 ← D.D. Brunk

- 659-82 - Pl. Path. 33: 439-440, 1984 - *schefflera, dwarf schefflera, ivy (Chase).
- 9509 a* *Schefflera arboricola* Hayata ex Kanehira - dwarf schefflera, miniature umbrella plant - leafspot. USA 1982. From A.R. Chase X25 ← D.D. Brunk 659-82 - Pl. Path. 33: 439-440, 1984 - *schefflera, dwarf schefflera, ivy (Chase).
- 9580 * *X Fatschedera lizei* (Cochet) Guillaum. - tree ivy - leaf. USA 1985. From A.R. Chase X227 ← J.W. Miller DP1-P85-1501 - **Hedera helix*, *Brassaia actinophylla* (Chase).
- Xanthomonas campestris* pv. *heliotropii*** (Sabet *et al.* 1969) Dye 1978
- 3032 a *Heliotropium eichwaldi* Steud. India 1958. From D.W. Dye V11 ← P.N. Patel XH1 ← J.K. Jindal = NCPPB 2370: ICPB XH114.
- 5778 a *Heliotropium sudanicum* F.W. Andrews. Sudan 1966. From NCPPB 2057 ← K.A. Sabet Hel-1 = LMG 735 - **Pathotype strain**.
- Xanthomonas campestris* pv. *holcicola*** (Elliott 1930) Dye 1978
- syn. *Xanthomonas vasicola* pv. *holcicola* (Elliott 1930) Vauterin *et al.* 1995
- 451 a *Sorghum bicolor* (L.) Moench - sorghum - leaf. USA 1942. From D.W. Dye YW1 ← W.H. Burkholder XH3 = ICPB XH3: ATCC 13461: NCPPB 989.
- 587 a *Sorghum bicolor* (L.) Moench - sorghum. Ethiopia 1961. From D.W. Dye YW3 ← NCPPB 1060 ← A.C. Hayward B657.
- 3103 a* *Sorghum bicolor* (L.) Moench - sorghum - red-brown leaf stripe. Gisborne, GB, NZ Mar 1969. From D.R.W. Watson F465 = CFBP 2543: LMG 736: NCPPB 2417 - *sorghum - **Pathotype strain**.
- 9969 *Sorghum bicolor* (L.) Moench - sweet sorghum. Solomon Is. 1974. From NCPPB 2930 ← J.F. Bradbury B5806 ← G. Jackson PP223.
- 12004 * *Sorghum bicolor* (L.) Moench - sorghum cv. Speed Feed - leaf streaks. Iran 1991. From H. Rahimian Gh1 - *sorghum (Rahimian).
- 12010 * *Sorghum bicolor* (L.) Moench - sorghum cv. Speed Feed - leaf streaks. Iran 1991. From H. Rahimian Gh4 - *sorghum (Rahimian).
- 3490 b* *Sorghum* sp. - truangrass - blotchy reddish brown leaf stripe. Gisborne, GB, NZ Feb 1973. From D.R.W. Watson H1501 - *sorghum.
- 9116 *Sorghum* sp. - sorghum - grain. USA 1982. From L.E. Clafin 411.
- 9970 *Sorghum* sp. - leaf. India 1976. From NCPPB 3162 ← J.F. Bradbury B6892b.
- Xanthomonas campestris* pv. *hyacinthi*** (Wakker 1883) Dye 1978
- syn. *Xanthomonas hyacinthi* (ex Wakker 1883) Vauterin *et al.* (1995)
- 188 a* *Hyacinthus orientalis* L. - garden hyacinth. Netherlands Oct 1957. From D.W. Dye Y5 ← A.F.G. Slootweg 18A - *hyacinth.
- 189 a *Hyacinthus orientalis* L. - garden hyacinth. Netherlands Oct 1957. From D.W. Dye Y6 ← A.F.G. Slootweg 20A = NCPPB 599: ATCC 19314: CFBP 1156: LMG 739 - **Pathotype strain**.
- 190 a *Hyacinthus orientalis* L. - garden hyacinth - bulb. USA 1950. From D.W. Dye Y7 ← W.H. Burkholder XH8 = ATCC 12612.
- 1405 a *Hyacinthus orientalis* L. - garden hyacinth - bulb. USA 1950. From D.W. Dye Y7SMR ← W.H. Burkholder XH8 - laboratory derived streptomycin resistant selection of ICMP 190.
- 187 a* UK (Scotland). From D.W. Dye Y2 ← A.M. Paton C100 - *hyacinth.
- Xanthomonas campestris* pv. *incanae*** (Kendrick & Baker 1942) Dye 1978
- 573 a *Matthiola incana* (L.) R. Br. - flowering stock, hoary stock. USA Jul 1949. From D.W. Dye YX1 ← ICPB X1102 ← K.F. Baker.
- 574 a *Matthiola incana* (L.) R. Br. - stock. USA 1950. From D.W. Dye YX2 ← W.H. Burkholder X14 = NCPPB 937: ATCC 13462: CFBP 2527: LMG 7490: ICPB X14 - **Pathotype strain**.
- 6654 a *Matthiola incana* (L.) R. Br. - stock - vascular tissue. Australia Apr 1977. From P.C. Fahy DAR26838.
- 11259 *Matthiola incana* (L.) R. Br. - stock - necrosis in pith, watersoaking in outer cortex. NZ Apr 1992. From J.M. Young 3896B.
- 11260 *Matthiola incana* (L.) R. Br. - stock - necrosis in pith, watersoaking in outer cortex. NZ Apr 1992. From J.M. Young 3896D.
- 11835 *Matthiola incana* (L.) R. Br. - stock. France 1972. From CFBP 1371 ← P. Bonnet 185b.
- Xanthomonas campestris* pv. *ionidii*** (Padhya & Patel 1963) Dye 1978
- 1611 a *Ionidium heterophyllum* Vent. - leafspot. India Oct 1961. From D.W. Dye WJ1 ← ICPB X1107 ← A.C. Padhya.
- 3912 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC1 ← M.V. Nayudu 0401 - rec. as *Pseudomonas* sp.
- 3913 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC2 ← M.V. Nayudu 0405 - rec. as *Pseudomonas* sp.
- 3973 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC2K ← M.V. Nayudu 0405 - one of 2 colony forms - not same as 3974 - rec. as *Pseudomonas* sp.
- 3974 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC2N ← M.V. Nayudu 0405 - one of 2 colony forms - not same as 3973 - rec. as *Pseudomonas* sp.
- 3975 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC1K ← M.V. Nayudu 0401 - one of 2 colony forms - not same as 3982 - rec. as *Pseudomonas* sp.
- 3982 a *Ionidium heterophyllum* Vent. India 1974. From D.W. Dye MC1N ← M.V. Nayudu 0401 - one of 2 colony forms - not same as 3975 - rec. as *Pseudomonas* sp.
- 5736 a *Ionidium heterophyllum* Vent. India 1961. From NCPPB 1334 ← M.K. Patel ← A.C. Padhya = LMG 744 - **Pathotype strain**.
- 1612 a *Ionidium* sp. India. From D.W. Dye WJ2 ← M.J. Thirumalachar.
- Xanthomonas campestris* pv. *juglandis*** (Pierce 1901) Dye 1978
- syn. *Xanthomonas arboricola* pv. *juglandis* (Pierce 1901) Vauterin *et al.* 1995
- 34 a *Juglans regia* L. - walnut. UK (England) 1955. From D.W. Dye S2 ← W.J. Dowson 362 ← J. Rishbeth = NCPPB 362.
- 35 a* *Juglans regia* L. - walnut - twig. Mt Albert, AK, NZ 1956. From D.W. Dye S3 = ATCC 49083: CFBP 2528: LMG 747: NCPPB 411 - *walnut - **Pathotype strain**.
- 36 a *Juglans regia* L. - walnut - twig. Mt Albert, AK, NZ 1956. From D.W. Dye S5 ← W.J. Kemp.
- 37 a* *Juglans regia* L. - walnut - twig. Mt Albert, AK, NZ 1956. From D.W. Dye S6 ← W.J. Kemp = NCPPB 412 - *walnut.
- 38 a *Juglans regia* L. - walnut - twig. Auckland, AK, NZ 1956. From D.W. Dye S7 ← W.J. Kemp.
- 39 a* *Juglans regia* L. - walnut - fruit. Auckland, AK, NZ 1957. From D.W. Dye S8 ← F.J. Newhook ← W.J. Kemp = NCPPB 413 - *walnut.
- 40 a *Juglans regia* L. - walnut - fruit. Auckland, AK, NZ 1957. From D.W. Dye S9 ← F.J. Newhook ← W.J. Kemp.
- 41 a* *Juglans regia* L. - walnut - fruit. Auckland, AK, NZ 1957. From D.W. Dye S10 ← W.J. Kemp = NCPPB 414 - *walnut.
- 42 a* *Juglans regia* L. - walnut - fruit. Auckland, AK, NZ 1957. From D.W. Dye S11 ← W.J. Kemp - *walnut.
- 48 a* *Juglans regia* L. - walnut - fruit. Mt Albert, AK, NZ Mar 1957. From D.W. Dye S12 ← W.J. Kemp = NCPPB 415 - *walnut.
- 49 a *Juglans regia* L. - walnut - fruit spot. Mt Albert, AK, NZ 1957. From D.W. Dye S13 ← W.J. Kemp.
- 1428 a *Juglans regia* L. - walnut - fruit spot. Mt Albert, AK, NZ Mar 1957. From D.W. Dye S13smr ← W.J. Kemp = ICPB XJ127smr - laboratory derived streptomycin resistant selection of ICMP 49.
- 4574 *Juglans regia* L. - walnut - leaf lesion. Alexandra, CO, NZ Dec 1975. From J.M. Young 2089A.
- 6494 *Juglans regia* L. - walnut - dark sunken lesion on green fruit. Earnsclough, CO, NZ Mar 1979. From J.M. Young 2534.
- 8785 *Juglans regia* L. - walnut - leafspot. Tauranga, BP, NZ Nov 1984. From J.M. Young 3410.
- 10865 * *Juglans regia* L. - walnut cv. Hartley - leafspot. Spain 1988. From M.M. Lopez 884-4 - *walnut (Lopez).
- 11829 *Juglans regia* L. - walnut. France 1967. From CFBP 1022 ← J. Luisetti N13-9.
- 11955 *Juglans regia* L. - walnut. Italy. From CFBP 2564 ← L. Gardan U27-4.
- 11963 *Juglans regia* L. - walnut. Spain 1984. From CFBP 2632 ← L. Gardan T18-2.
- 12791 *Juglans regia* L. - walnut - fruit. Harewood, MC, NZ Jan 1996. From J.P. Wilkie 21A.
- 12792 *Juglans regia* L. - walnut - leaves. Harewood, MC, NZ Jan 1996. From J.P. Wilkie 21B.
- 12793 *Juglans regia* L. - walnut - fruit. Blenheim, MB, NZ Jan 1996. From J.P. Wilkie 22A.
- 12794 *Juglans regia* L. - walnut - leaves. Blenheim, MB, NZ Jan 1996. From J.P. Wilkie 22B.
- Xanthomonas campestris* pv. *khayae*** (Sabet 1959) Dye 1978
- syn. *Xanthomonas axonopodis* pv. *khayae* (Sabet 1959) Vauterin *et al.* 1995
- 618 a *Khaya senegalensis* (Desr.) A. Juss. - mahogany. Sudan 1957. From D.W. Dye XK2 ← NCPPB 646 ← K.A. Sabet KH2.
- 671 a *Khaya senegalensis* (Desr.) A. Juss. - mahogany. Sudan 1957. From D.W. Dye XK1 ← NCPPB 536 ← K.A. Sabet KH1 = LMG 753 - **Pathotype strain**.

- Xanthomonas campestris* pv. *lantanae*** (Srinivasan & Patel 1957) Dye 1978
 589 a *Lantana camara* L. - lantana cv. Aculeata. India. From D.W. Dye WD1 ← M.K. Patel.
 1609 a *Lantana camara* L. - lantana cv. Aculeata. India. From D.W. Dye WD2 ← M.J. Thirumalachar.
 5737 a *Lantana camara* L. - lantana cv. Aculeata. India 1956. From NCPPB 1455 ← M.K. Patel ← M.C. Srinivasan = LMG 754 - **Pathotype strain**.
- Xanthomonas campestris* pv. *laureliae*** (Dye 1963) Dye 1978
 84 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Coromandel, CL, NZ Jan 1961. From D.W. Dye XZ6 = NCPPB 1155: ICPB XL164: LMG 1155 - *pukatea - **Pathotype strain**.
 88 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Te Puke, BP, NZ Jan 1960. From D.W. Dye XZ1 - *pukatea.
 674 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Te Puke, BP, NZ Jan 1960. From D.W. Dye XZ2 - *pukatea.
 675 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Te Puke, BP, NZ Jan 1960. From D.W. Dye XZ3 - *pukatea.
 676 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Te Puke, BP, NZ Jan 1960. From D.W. Dye XZ4 - *pukatea.
 677 a* *Laurelia novae-zelandiae* A. Cunn. - pukatea - leafspot. Te Puke, BP, NZ Jan 1960. From D.W. Dye XZ5 - *pukatea.
- Xanthomonas campestris* pv. *lawsoniae*** (Patel *et al.* 1951) Dye 1978
 2108 a *Ammania multiflora* Roxb. From D.W. Dye YN2 ← M.J. Thirumalachar.
 319 a *Lawsonia inermis* L. India. From D.W. Dye YN1 ← ICPB XL103 ← M.K. Patel 8 = ATCC 11674: LMG 756: NCPPB 579 - **Pathotype strain**.
- Xanthomonas campestris* pv. *leeana*** (Patel & Kotasthane 1969) Dye 1978
 2759 a *Leea edgeworthii* Sant. - leaf. India 1967. From D.W. Dye VE1 ← A.M. Patel.
 5738 a *Leea edgeworthii* Sant. India 1967. From NCPPB 2229 ← A.M. Patel = LMG 9048: ICPB XL107 - **Pathotype strain**.
- Xanthomonas campestris* pv. *leersiae*** (ex Fang *et al.* 1957) Young *et al.* 1991
 8788 *Leersia hexandra* Swartz - leaf streak. China 1980. From Z. Fang G2 - rec. as *Xanthomonas* sp. - **Pathotype strain**.
 8789 *Leersia hexandra* Swartz - leaf streak. China 1980. From Z. Fang LS53 - rec. as *Xanthomonas* sp.
 12321 * *Leersia hexandra* Swartz - leafspot. China 1984. From Y. Zhao 00195 ← Plant Quarantine Institute, Beijing 5-1-112-2 - **Leersia hexandra* (Zhao).
- Xanthomonas campestris* pv. *lespedezae*** (Ayers *et al.* 1939) Dye 1978
 syn. *Xanthomonas axonopodis* pv. *lespedezae* (Ayers *et al.* 1939) Vauterin *et al.* 1995
 439 a *Lespedeza* sp. - bush clover. USA 1944. From D.W. Dye YL1 ← W.H. Burkholder XL1 ← C.L. Lefebvre 1668 = ATCC 13463: ICPB XL1: LMG 757: NCPPB 993 - **Pathotype strain**.
 1429 a *Lespedeza* sp. - bush clover. USA 1944. From D.W. Dye YL1SMR ← W.H. Burkholder XL1 ← C.L. Lefebvre - laboratory derived streptomycin resistant selection of ICMP 439.
- Xanthomonas campestris* pv. *maculifoliigardeniae*** (Ark & Barrett 1946) Dye 1978
 syn. *Xanthomonas axonopodis* pv. *maculifoliigardeniae* (Ark & Barrett 1946) Vauterin *et al.* 1995
 318 a *Gardenia* sp. USA. From D.W. Dye YM1 ← W.H. Burkholder XM15 ← P.A. Ark 1 = CFBP 1155: ICPB XM15: LMG 758: NCPPB 971 - **Pathotype strain**.
 354 a *Gardenia* sp. USA 1945. From D.W. Dye YM2 ← W.H. Burkholder XM16 ← P.A. Ark 2 = ICPB XM16: NCPPB 972.
 6918 *Ixora coccinea* L. USA 1969. From NCPPB 2352 ← J.W. Miller 069-3050.
- Xanthomonas campestris* pv. *mallotii*** Goto 1993
 11536 a* *Mallotus japonicus* (Thunb.) Muell.-Arg. - akame-gashiwa - dark brown leafspot. Japan. From M. Goto Ma2 = ATCC 51262 - Ann. Phytopath. Soc. Jpn 59: 678-680, 1993 - **Mallotus japonicus* (Goto) - **Pathotype strain**.
- Xanthomonas campestris* pv. *malvacearum*** (Smith 1901) Dye 1978
 syn. *Xanthomonas axonopodis* pv. *malvacearum* (Smith 1901) Vauterin *et al.* 1995
 9280 *Gossypium hirsutum* L. - upland cotton. Brasil 1985. From IBSBF 555 ← Fito CIA 4750 ← E.J. Chiavegato SA 119.
 9281 *Gossypium hirsutum* L. - upland cotton. Brasil 1985. From IBSBF 556 ← Fito CIA 4751 ← E.J. Chiavegato SA 120.
 9282 *Gossypium hirsutum* L. - upland cotton. Brasil 1985. From IBSBF 559 ← Fito CIA 4733 ← E.J. Chiavegato SA 109.
 9283 *Gossypium hirsutum* L. - upland cotton. Brasil 1985. From IBSBF 560 ← Fito CIA 4771 ← E.J. Chiavegato SA 108.
 206 a *Gossypium* sp. - cotton. India 1948. From D.W. Dye ZG1 ← NCPPB 210 ← M.K. Patel.
 207 a *Gossypium* sp. - cotton. Sudan 1947. From D.W. Dye ZG2 ← W.J. Dowson 200 ← R.L. Knight = NCPPB 200.
 208 a *Gossypium* sp. - cotton. Sudan 1952. From D.W. Dye ZG3 ← NCPPB 315 ← G.M. Wickens XS52-5.
 209 a *Gossypium* sp. - cotton. South Africa 1951. From D.W. Dye ZG4 ← W.J. Dowson 293 ← R.A. Lelliott = NCPPB 293.
 210 a *Gossypium* sp. - cotton. Sudan 1952. From D.W. Dye ZG5 ← NCPPB 314 ← G.M. Wickens XS52-12.
 211 a *Gossypium* sp. - cotton - leaf. Sudan 1957. From D.W. Dye ZG6 ← Empire Cotton Growing Corp. Research Laboratory, Khartoum.
 212 a *Gossypium* sp. - cotton - leaf. Sudan 1957. From D.W. Dye ZG7 ← Empire Cotton Growing Corp. Research Laboratory, Khartoum.
 216 a *Gossypium* sp. - cotton. India. From D.W. Dye ZG11 ← ITCC B32 ← M.K. Desai.
 217 a *Gossypium* sp. - cotton. USA 1944. From D.W. Dye ZG12 ← W.H. Burkholder XM13 ← R. Weindling = ATCC 9924.
 218 a *Gossypium* sp. - cotton. USA 1944. From D.W. Dye ZG13 ← W.H. Burkholder XM14.
 1423 a *Gossypium* sp. - cotton. India. From D.W. Dye ZG11smr ← ITCC B32 ← M.K. Desai - laboratory derived streptomycin resistant selection of ICMP 216.
 3382 a *Gossypium* sp. - cotton - leaf. India Sep 1972. From D.W. Dye ZG15 ← S.V. Hegde XMA1.
 5739 a *Gossypium* sp. - cotton. Sudan 1958. From NCPPB 633 ← D. Snow 222m ← F.T. Last M2519 = CFBP 2530: LMG 761 - **Pathotype strain**.
 6650 b *Gossypium* sp. - cotton. Australia May 1977. From P.C. Fahy DAR26904 - Race 1.
 6651 b *Gossypium* sp. - cotton. Australia Apr 1974. From P.C. Fahy DAR26912 ← M.L. Moffett - Race 18.
 9563 a* *Hibiscus rosa-sinensis* L. - Chinese hibiscus - leaf blight. USA Jun 1983. From A.R. Chase X10 ← A.R. Chase 83-82 - Pl. dis 70: 334-336, 1986 - *hibiscus, cotton (Chase).
 2110 a *Thespesia populnea* (L.) Sol. ex Corr. From D.W. Dye ZG14 ← M.J. Thirumalachar.
- Xanthomonas campestris* pv. *mangiferaeindicae*** (Patel *et al.* 1948) Robbs *et al.* 1974
 3101 a *Mangifera indica* L. - mango. India Jun 1970. From D.W. Dye NQ1 ← P.N. Patel PM ← G.S. Shekhawat = NCPPB 2387 - one of 2 colony forms - not same as 3111.
 3111 a *Mangifera indica* L. - mango. India Jun 1970. From D.W. Dye NQ6 ← P.N. Patel PM ← G.S. Shekhawat = NCPPB 2387 - one of 2 colony forms - not same as 3101.
 4087 b *Mangifera indica* L. - mango. Brazil. From C.F. Robbs ENA428 - non-pigmented strain.
 4088 b *Mangifera indica* L. - mango. Brazil. From C.F. Robbs ENA923 - non-pigmented strain.
 4089 a *Mangifera indica* L. - mango. Brazil. From C.F. Robbs ENA2097 = NCPPB 3034 - non-pigmented strain.
 4090 b *Mangifera indica* L. - mango. Brazil. From C.F. Robbs ENA503 - yellow strain.
 5740 a *Mangifera indica* L. - mango. India. From NCPPB 490 ← ITCC B50 ← M.K. Patel 18 = ATCC 11637: CFBP 1716: LMG 941: ICPB PM114 - **Pathotype strain**.
 6657 *Mangifera indica* L. - mango - leaf. Australia Jul 1978. From P.C. Fahy DAR26760B.
 6658 *Mangifera indica* L. - mango. Australia Oct 1978. From P.C. Fahy DAR30544.
 9098 *Mangifera indica* L. - mango. Australia Jun 1978. From M.L. Moffett 0823.
 9099 *Mangifera indica* L. - mango. Australia Jun 1978. From M.L. Moffett 0836.
 9100 *Mangifera indica* L. - mango. Australia Jun 1978. From M.L. Moffett 0839.
 9101 *Mangifera indica* L. - mango. Australia Nov 1984. From M.L. Moffett 1552.
 9102 *Mangifera indica* L. - mango. Australia Dec 1984. From M.L. Moffett 1556.

- 9165 b* *Mangifera indica* L. - mango - leaf lesion. Pukekohe, AK, NZ Jun 1986. From R.G. Clark H3525 - yellow pigment on GYCA - *mango.
 9166 b* *Mangifera indica* L. - mango - stem exudate. Pukekohe, AK, NZ Jun 1986. From R.G. Clark J3525 - yellow pigment on GYCA - *mango.
 9972 *Mangifera indica* L. - mango. Reunion 1975. From NCPPB 2885 ← CNPB 1717 ← J.G. Luisetti G21-5.
 10193 *Mangifera indica* L. - mango. Brazil 1988. From IBSBF 655 ← J.R. Neto.
 11973 *Mangifera indica* L. - mango cv. Lise. Reunion 1986. From CFBP 2918 ← O. Pruvost A34.

Xanthomonas campestris* pv. *manihotis (Bondar 1915) Dye 1978syn. *Xanthomonas axonopodis* pv. *manihotis* (Bondar 1915) Vauterin *et al.* 1995

- 214 a *Manihot esculenta* Crantz - cassava. From D.W. Dye ZH1 ← NCPPB 348 ← M.P. Starr - avirulent to cassava (Lozano).
 4657 a* *Manihot esculenta* Crantz - cassava cv. Palma. Brazil Feb 1973. From D.W. Dye ← J.R. Neto 105 - non-pigmented strain - *cassava (Lozano).
 4658 a* *Manihot esculenta* Crantz - cassava cv. Branca da Santa Catarina. Brazil Feb 1973. From D.W. Dye ← J.R. Neto 107 - non-pigmented strain - *cassava (Lozano).
 4659 a* *Manihot esculenta* Crantz - cassava. Brazil Mar 1973. From D.W. Dye ← J.R. Neto 112 - non-pigmented strain - *cassava (Lozano).
 4660 a* *Manihot esculenta* Crantz - cassava cv. Branca da Santa Catarina. Brazil Jan 1976. From D.W. Dye ← J.R. Neto 165 - non-pigmented strain - *cassava (Lozano).
 5741 a* *Manihot esculenta* Crantz - cassava. 1965. From NCPPB 1834 ← ICPB XM125 ← C.F. Robbs ENA300 = ATCC 49073: CFBP 2603: LMG 773 - non-pigmented strain - **Manihot* sp. (Lozano) - **Pathotype strain**.
 6934 *Manihot esculenta* Crantz - cassava. USA 1941. From NCPPB 1159 ← ICPB XM4 ← W.H. Burkholder SM1 = ATCC 23380 - non-pigmented strain - avirulent to *Manihot* sp. (Lozano).
 8468 *Manihot esculenta* Crantz - cassava cv. Ojunkaiye. Nigeria Aug 1975. From UQM 1809 ← G.J. Persley (6545) N4 = IMI B6545.
 8469 *Manihot esculenta* Crantz - cassava cv. Ojunkaiye. Nigeria May 1979. From UQM 1810 ← G.J. Persley (6546) N5 = IMI B6456.
 8470 *Manihot esculenta* Crantz - cassava cv. Nwoga. Nigeria. From UQM 1811 ← G.J. Persley (6549) N10 = IMI B6549a.
 8471 *Manihot esculenta* Crantz - cassava cv. TMS 42015. Nigeria Oct 1975. From UQM 1812 ← G.J. Persley (6550) N18 = IMI B6550.
 8472 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Oct 1975. From UQM 1813 ← G.J. Persley 6551 (N20) = IMI B6551a.
 8473 *Manihot esculenta* Crantz - cassava cv. TMS 89 - leaf. Nigeria Oct 1975. From UQM 1814 ← G.J. Persley (6552) N22 = IMI B6552.
 8474 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Oct 1975. From UQM 1815 ← G.J. Persley (6554) N27 = IMI B6554a.
 8475 *Manihot esculenta* Crantz - cassava cv. TMS 99 - leaf. Nigeria Oct 1975. From UQM 1816 ← G.J. Persley (6555) N28 = IMI B6555.
 8476 *Manihot esculenta* Crantz - cassava cv. Mpelolonia - leaf. Zaire Sep 1975. From UQM 1817 ← G.J. Persley (6556) Z2 = IMI B6556.
 8477 *Manihot esculenta* Crantz - cassava cv. Mpelolonia - leaf. Zaire Sep 1975. From UQM 1818 ← G.J. Persley (6557) Z3 = IMI B6557.
 8478 *Manihot esculenta* Crantz - cassava. Sep 1975. From UQM 1819 ← G.J. Persley (6559) Z7 = IMI B6559.
 8479 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Jan 1976. From UQM 1820 ← G.J. Persley (6631) N47 = IMI B6631.
 8480 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Jan 1976. From UQM 1821 ← G.J. Persley (6635) N51 = IMI B6635.
 8481 *Manihot esculenta* Crantz - cassava cv. NAFPP - leaf. Nigeria Jan 1976. From UQM 1822 ← G.J. Persley (6637) N53 = IMI B6637.
 8482 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jan 1976. From UQM 1823 ← G.J. Persley (6638) C1 = IMI B6638.
 8483 *Manihot esculenta* Crantz - cassava - leaf. Ghana Jan 1976. From UQM 1824 ← G.J. Persley (6641) G1 = IMI B6641.
 8484 *Manihot esculenta* Crantz - cassava - leaf. Togo Jan 1976. From UQM 1825 ← G.J. Persley (6644) T2 = IMI B6644.
 8485 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Mar 1976. From UQM 1826 ← G.J. Persley (6717) Trial-1 B6717 = IMI B6717.
 8486 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1827 ← G.J. Persley (6811) C3 = IMI B6811.
 8487 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1828 ← G.J. Persley (6813) C8 = IMI B6813.
 8488 *Manihot esculenta* Crantz - cassava - leaf. Nigeria Jul 1976. From UQM 1829 ← G.J. Persley (6814) C8 = IMI B6814.
 8489 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1831 ← G.J. Persley (6816) C13 = IMI B6816.
 8490 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1832 ← G.J. Persley (6817) C14 = IMI B6817.
 8491 *Manihot esculenta* Crantz - cassava - leaf. Cameroon 1976. From UQM 1833 ← G.J. Persley (6818) C15 = IMI B6818.
 8492 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1834 ← G.J. Persley 6819 (C16) = IMI B6819.
 8493 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1835 ← G.J. Persley (6821) C18 = IMI B6821.
 8494 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1836 ← G.J. Persley (6822) C19 = IMI B6822.
 8495 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1837 ← G.J. Persley 6825 = IMI B6825.
 8496 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1838 ← G.J. Persley (6826) C23 = IMI B6816.
 8530 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1839 ← G.J. Persley (6827) C25 = IMI B6827.
 8531 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1840 ← G.J. Persley (6828) C27 = IMI B6828.
 8532 b *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1841 ← G.J. Persley (6829) C28 = IMI B6829.
 8533 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1842 ← G.J. Persley (6830) C30 = IMI B6830.
 8534 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1843 ← G.J. Persley (6831) C31 = IMI B6831.
 8535 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1844 ← G.J. Persley (6832) C32 = IMI B6832.
 8536 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1845 ← G.J. Persley (6834) C37 = IMI B6834.
 8537 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1846 ← G.J. Persley (6835) C38 = IMI B6835.
 8538 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1847 ← G.J. Persley (6836) C40 = IMI B6836.
 8539 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1848 ← G.J. Persley (6837) C41 = IMI B6837.
 8540 *Manihot esculenta* Crantz - cassava. Colombia. From UQM 1849 ← G.J. Persley ← J.C. Lozano S4M = NCPPB 2443.
 8541 *Manihot esculenta* Crantz - cassava. Mauritius 1946. From UQM 1865 ← NCPPB 1161 ← ICPB XM105.
 8542 *Manihot esculenta* Crantz - cassava cv. Aipin Valenca - leaf. Kenya. From UQM 1881 ← G.J. Persley K2.
 8543 *Manihot esculenta* Crantz - cassava - leaf. Kenya. From UQM 1882 ← G.J. Persley K4.
 8544 *Manihot esculenta* Crantz - cassava cv. CM1006 - leaf. Indonesia. From UQM 1883 ← G.J. Persley I8.
 8545 *Manihot esculenta* Crantz - cassava. Indonesia. From UQM 1884 ← G.J. Persley I10.
 8546 *Manihot esculenta* Crantz - cassava cv. Black Twig - leaf. Malaysia. From UQM 1885 ← G.J. Persley M7.
 8547 *Manihot esculenta* Crantz - cassava cv. Golden Yellow - leaf. Philippines Feb 1979. From UQM 1886 ← G.J. Persley P2.
 8548 *Manihot esculenta* Crantz - cassava cv. M460-3xCM180-4 - leaf. Philippines Feb 1979. From UQM 1887 ← G.J. Persley P8.
 8549 *Manihot esculenta* Crantz - cassava cv. Kunyut. Malaysia Oct 1978. From UQM 1888 ← G.J. Persley M4.
 8550 *Manihot esculenta* Crantz - cassava cv. Black Twig. Malaysia Oct 1978. From UQM 1889 ← G.J. Persley M2.
 8551 *Manihot esculenta* Crantz - cassava cv. Keriting - leaf. Malaysia Oct 1978. From UQM 1890 ← G.J. Persley M1.
 8552 *Manihot esculenta* Crantz - cassava cv. W1548 - leaf. Indonesia Oct 1978. From UQM 1891 ← G.J. Persley I1.
 8553 *Manihot esculenta* Crantz - cassava cv. Pandasi - leaf. Indonesia Oct 1978. From UQM 1892 ← G.J. Persley I5.
 8554 *Manihot esculenta* Crantz - cassava cv. W1548. Indonesia. From UQM 1923 ← G.J. Persley I1y.
 8555 *Manihot esculenta* Crantz - cassava cv. 11TA - leaf. Indonesia. From UQM 2208 ← G.J. Persley 81-1.
 8556 *Manihot esculenta* Crantz - cassava cv. 11TA2 - leaf. Indonesia Dec 1980. From UQM 2209 ← G.J. Persley 81-2.
 8557 *Manihot esculenta* Crantz - cassava. Malawi 1953. From UQM 1866 ← G.J. Persley B6287 ← P.O. Wiehe = IMI B6287 - yellow strain - isolated by Wiehe as *X. cassavae*.
 8637 *Manihot esculenta* Crantz - cassava - leaf. Cameroon Jul 1976. From UQM 1830 ← G.J. Persley (6815) C12 = IMI B6815.
 4699 b* *Manihot* sp. Brazil Aug 1974. From J.C. Lozano 1120 - **Manihot* sp. (Lozano).
 4700 b* *Manihot* sp. Colombia Aug 1975. From J.C. Lozano 1124 - **Manihot* sp. (Lozano).
 4701 *Manihot* sp. Venezuela Jun 1975. From J.C. Lozano 1129 - avirulent to *Manihot* sp. (Lozano).
 4702 b* *Manihot* sp. China (Taiwan) Mar 1975. From J.C. Lozano 1136 - **Manihot* sp. (Lozano).
 222 ?* Brazil 1941. From D.W. Dye ZH3 ← W.H. Burkholder XM12 ← O. Hipolite = NCPPB 1160: ICPB XM12 - *cassava (Lozano).
 4693 b* Nigeria Jun 1973. From J.C. Lozano 1105 - **Manihot* sp. (Lozano).
 4695 b* Congo-Zaire Jun 1973. From J.C. Lozano 1109 - **Manihot* sp. (Lozano).
 4696 b* USA Jun 1973. From J.C. Lozano 1111 - **Manihot* sp. (Lozano).

- Xanthomonas campestris* pv. *martyiicola*** (Moniz & Patel 1958) Dye 1978
syn. *Xanthomonas axonopodis* pv. *martyiicola* (Moniz & Patel 1958) Vauterin *et al.* 1995
82 a *Martynia diandra* Gloxin - leafspot. India. From D.W. Dye XG1 ← D.P. Bhide = LMG 9049: NCPPB 1148 - **Pathotype strain.**
- Xanthomonas campestris* pv. *melhusii*** (Patel *et al.* 1952) Dye 1978
syn. *Xanthomonas axonopodis* pv. *melhusii* (Patel *et al.* 1952) Vauterin *et al.* 1995
619 a *Tectona grandis* L.f. - teak. India 1961. From D.W. Dye XM1 ← NCPPB 994 ← M.K. Patel 14 = ICPB XM107: ATCC 11644: LMG 9050 - **Pathotype strain.**
- Xanthomonas campestris* pv. *melonis*** Neto *et al.* 1984
syn. *Xanthomonas melonis* Vauterin *et al.* 1995
8682 a *Cucumis melo* L. - melon - fruit. Brazil Sep 1974. From IBSBF 68 ← J.R. Neto = LMG 8670: NCPPB 3434 - Summa Phytopath. 10: 217-233, 1984 - **Pathotype strain.**
8683 a *Cucumis melo* L. - melon - fruit. Brazil Aug 1977. From IBSBF 91 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8684 a *Cucumis melo* L. - melon - fruit. Brazil Aug 1977. From IBSBF 92 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8685 a *Cucumis melo* L. - melon - fruit. Brazil Feb 1979. From IBSBF 180 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8686 a *Cucumis melo* L. - melon - fruit. Brazil Feb 1979. From IBSBF 183 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8687 a *Cucumis melo* L. - melon - fruit. Brazil Feb 1979. From IBSBF 184 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8688 a *Cucumis melo* L. - melon - fruit. Brazil Jan 1980. From IBSBF 250 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
8689 a *Cucumis melo* L. - melon - fruit. Brazil Feb 1980. From IBSBF 301 ← J.R. Neto - Summa Phytopath. 10: 217-233, 1984 - cotype strain.
9284 *Cucumis melo* L. - melon - inner soft rot of fruit. Brasil 1985. From IBSBF 530 ← J.R. Neto.
9285 *Cucumis melo* L. - melon - inner soft rot of fruit. Brasil 1985. From IBSBF 531 ← J.R. Neto.
- Xanthomonas campestris* pv. *merremiae*** Pant & Kulkarni 1976
6747 a *Merremia gangetica* (L.) Cuf. - leafspot. India. From ITCC P30 ← N.M. Pant = LMG 9051: NCPPB 3114 - **Pathotype strain.**
- Xanthomonas campestris* pv. *mirabilis*** (Durgapal & Trivedi 1976) Young *et al.* 1991
8949 a *Mirabilis jalapa* L. - four o'clock, marvel of Peru - leafspot & blight. India. From ITCC ← J.C. Durgapal - Curr. Sci. 45: 111-112, 1976 - type strain of *X. mirabilis* - **Pathotype strain.**
- Xanthomonas campestris* pv. *musacearum*** (Yirgou & Bradbury 1968) Dye 1978
2870 a *Ensete ventricosum* (Welw.) E.E. Cheesm. - Abyssinian banana. Ethiopia 1966. From D.W. Dye VF1 ← J.F. Bradbury B3100 ← D. Yirgou = ATCC 49084: LMG 785: NCPPB 2005: ICPB XM130 - **Pathotype strain.**
- Xanthomonas campestris* pv. *nakataecorchori*** (Padhya & Patel 1963) Dye 1978
syn. *Xanthomonas axonopodis* pv. *nakataecorchori* (Padhya & Patel 1963) Vautein *et al.* 1995
1624 a *Corchorus acutangulus* Lam. India. From D.W. Dye YF3 ← M.J. Thirumalachar.
2109 a *Corchorus acutangulus* Lam. From D.W. Dye YF4 ← M.J. Thirumalachar.
5742 a *Corchorus acutangulus* Lam. India 1961. From NCPPB 1337 ← M.K. Patel ← A.C. Padhya = LMG 786 - **Pathotype strain.**
- Xanthomonas campestris* pv. *nigromaculans*** (Takimoto 1927) Dye 1978
9573 *Zinnia elegans* Jacq. - youth-and-old-age - leaf. USA 1986. From A.R. Chase X190 ← P. Randhawa B-98.
9574 *Zinnia elegans* Jacq. - youth-and-old-age - leaf. USA 1983. From A.R. Chase X197 ← G.W. Simone 1892A-83.
80 a Japan. From D.W. Dye ZT2 ← N. Okabe = ATCC 23390: LMG 787: NCPPB 1935: ICPB XN103 - **Pathotype strain.**
- Xanthomonas campestris* pv. *obscurae*** Chand & Singh 1994
12547 a *Ipomoea obscura* (L.) Ker-Gawl. - brown leafspot. India. From NCPPB 3759 - **Pathotype strain.**
- Xanthomonas campestris* pv. *olitorii*** (Sabet 1957) Dye 1978
317 *Corchorus olitorius* L. - jute. Sudan 1956. From D.W. Dye YF2 ← NCPPB 465 ← K.A. Sabet COR5.
359 a *Corchorus olitorius* L. - jute. Sudan 1956. From D.W. Dye YF1 ← NCPPB 464 ← K.A. Sabet COR9 = LMG 9052 - **Pathotype strain.**
- Xanthomonas campestris* pv. *oryzae* (Ishiyama 1922) Dye 1978
see *Xanthomonas oryzae* pv. *oryzae*.
- Xanthomonas campestris* pv. *oryzicola* (Fang *et al.* 1957) Dye 1978
see *Xanthomonas oryzae* pv. *oryzicola*.
- Xanthomonas campestris* pv. *papavericola*** (Bryan & McWhorter 1930) Dye 1978
219 a *Argemone* sp. - prickly poppy. Mauritius 1941. From D.W. Dye Z11 ← NCPPB 151 ← G. Orian.
220 a *Papaver rhoeas* L. - Shirley poppy, field poppy. USA 1932. From D.W. Dye Z12 ← ICPB XP5-47 ← M.K. Bryan 47 = ATCC 14179: LMG 809: NCPPB 2970 - **Pathotype strain.**
221 a *Papaver rhoeas* L. - Shirley poppy, field poppy. USA Jul 1943. From D.W. Dye Z13 ← ICPB XP17 ← W.H. Burkholder.
- Xanthomonas campestris* pv. *passiflorae*** (Pereira 1969) Dye 1978
8043 *Passiflora alata* Dryand. Brazil 1982. From IBSBF 428 ← J.R. Neto.
8045 *Passiflora alata* Dryand. Brazil 1982. From IBSBF 444 ← J.R. Neto.
8046 *Passiflora alata* Dryand. Brazil 1982. From IBSBF 445 ← J.R. Neto.
3151 a *Passiflora edulis* Sims - passionfruit cv. Purple Granadilla. Brazil 1967. From D.W. Dye VK1 ← A.L.G. Pereira SBF813 = LMG 810: NCPPB 2346 - **Pathotype strain.**
4661 b* *Passiflora edulis* Sims - passionfruit. Brazil 1967. From IBSBF 168 ← A.L.G. Pereira SBV813r - *passionfruit.
6104 *Passiflora edulis* Sims - passionfruit cv. Flavicarpa - grease spot on leaf. Brazil Feb 1978. From IBSBF 121 ← J.R. Neto.
6191 *Passiflora edulis* Sims - passionfruit cv. Flavicarpa - grease spot on leaf. Brazil Feb 1978. From IBSBF 120 ← J.R. Neto.
6455 b* *Passiflora edulis* Sims - passionfruit cv. Flavicarpa - leaf. Brazil Feb 1978. From D.R.W. Watson B6104 ← ICMP 6104 ← J.R. Neto 121 - *passionfruit.
12189 *Passiflora edulis* Sims - passionfruit cv. Flavicarpa. Brazil 1992. From IBSBF 960 ← I.M.G. Almeida - non-pigmented strain.
12197 *Passiflora edulis* Sims - passionfruit cv. Flavicarpa - systemic. Brazil 1993. From IBSBF 997 ← V.A. Malavolta Jr.
- Xanthomonas campestris* pv. *patelii*** (Desai & Shah 1959) Dye 1978
syn. *Xanthomonas axonopodis* pv. *patelii* (Desai & Shah 1959) Vauterin *et al.* 1995
166 a *Crotalaria juncea* L. - sunn hemp. India. From D.W. Dye XP2 ← NCPPB 884 ← R.M. Patel = A.C. Hayward B400.
167 a *Crotalaria juncea* L. - sunn hemp. India 1959. From D.W. Dye XP1 ← NCPPB 840 ← M.K. Desai = LMG 811 - **Pathotype strain.**
- Xanthomonas campestris* pv. *paullinae*** Robbs *et al.* 1982
8919 a *Paullinia cupana* Kunth var. *sorbilis* (Mart.) Ducke - guarana - leafspot. Brazil. From NCPPB 3079 ← C.F. Robbs ENA 2154 = LMG 9053 - Arq. Univ. Fed. Rur. Rio de J. 5: 195-201, 1982 - **Pathotype strain.**
9286 *Paullinia cupana* Kunth var. *sorbilis* (Mart.) Ducke - guarana. Brazil 1985. From IBSBF 507 ← J.R. Neto.
- Xanthomonas campestris* pv. *pedalii*** (Patel & Jindal 1972) Dye 1978
syn. *Xanthomonas axonopodis* pv. *pedalii* (Patel & Jindal 1972) Vauterin *et al.* 1995
3030 a *Pedalium murex* L. - bara gokhru. India 1967. From D.W. Dye VJ1 ← P.N. Patel XPE1 ← J.K. Jindal = NCPPB 2368: LMG 812: ICPB XP223 - non-pigmented strain - **Pathotype strain.**

Xanthomonas campestris pv. **pelargonii** (Brown 1923) Dye 1978syn. *Xanthomonas axonopodis* pv. *pelargonii* (Brown 1923) Vauterin *et al.* 1995

- 225 a *Geranium pratense* L. - meadow cranesbill. USA Jun 1936. From D.W. Dye ZJ3 ← ICPB XG6-89 ← W.H. Burkholder 89 = ATCC 11059.
 226 a *Geranium pratense* L. - meadow cranesbill. USA. From D.W. Dye ZJ4 ← ICPB XG1-G2 ← W.H. Burkholder G2 = ATCC 11056 - rec. as *X. geranii*.
 228 a *Geranium sanguineum* L. - bloody cranesbill. USA 1957. From D.W. Dye ZJ6 ← W.H. Burkholder XG13 - rec. as *X. geranii*.
 9143 *Geranium* sp. USA Sep 1985. From L.E. Claffin 486 ← University of Nebraska NE 1985.
 4319 a* *Pelargonium peltatum* (L.) L'Her. ex Ait. - pelargonium - leaf. Mt Albert, AK, NZ Nov 1974. From D.W. Dye ZJ10 - *pelargonium.
 4320 a *Pelargonium peltatum* (L.) L'Her. ex Ait. - pelargonium - leaf. Massey, AK, NZ Dec 1974. From D.W. Dye ZJ11.
 4321 a *Pelargonium peltatum* (L.) L'Her. ex Ait. - pelargonium cv. La France - leaf. Massey, AK, NZ Dec 1974. From D.W. Dye ZJ12 = CFBP 2533: LMG 7314: NCPPB 2985 - **Pathotype strain**.
 223 a *Pelargonium* sp. - stem. Denmark. From D.W. Dye ZJ1 ← E. Hellmers 70 = NCPPB 305.
 227 a *Pelargonium* sp. - stem. USA 1954. From D.W. Dye ZJ5 ← W.H. Burkholder XP36.
 229 a *Pelargonium* sp. - leaf. USA 1954. From D.W. Dye ZJ7 ← W.H. Burkholder XP35.
 230 a *Pelargonium* sp. Australia. From D.W. Dye ZJ8 ← R. Mushin.
 241 a *Pelargonium* sp. Australia 1960. From D.W. Dye ZJ9 ← R. Mushin.
 5907 b* *Pelargonium* sp. - pelargonium - dark girdling stem lesion. Auckland, AK, NZ Jan 1978. From D.R.W. Watson D2375 - *pelargonium.
 5915 *Pelargonium* sp. - pelargonium - brown shrunken petiole lesion. Auckland, AK, NZ Jan 1978. From D.R.W. Watson D2385.
 6755 *Pelargonium* sp. - leaf blight. Auckland, AK, NZ Sep 1979. From D.R.W. Watson A2611.
 6758 *Pelargonium* sp. - scabby leaf lesion. Auckland, AK, NZ Sep 1979. From D.R.W. Watson B2614.
 10576 a *Pelargonium* sp. Yugoslavia 1986. From M. Arsenijevic Mu7 - Zastita Bilja 39: 185, 1988.
 10577 a *Pelargonium* sp. Yugoslavia 1986. From M. Arsenijevic Mu10 - Zastita Bilja 39: 185, 1988.
 9572 *Pelargonium X hortorum* L.H. Bailey - geranium - leaf. USA 1986. From A.R. Chase X188 ← P. Randhawa B-81.
 9581 * *Pelargonium X hortorum* L.H. Bailey - geranium - leaf. USA 1986. From A.R. Chase X231 ← J.W. Miller DP1-P86-1727 - *geranium (Chase).
 9583 a *Pelargonium X hortorum* L.H. Bailey - geranium - leaf. USA 1986. From A.R. Chase X238 ← G.W. Simone 3410A-86.
 12005 * *Pelargonium X hortorum* L.H. Bailey - geranium - leafspot and stem rot. Iran 1990. From H. Rahimian SH1 - Iran. J. Pl. Path. 27: 1-4, 1991 - *geranium (Rahimian).
 224 a *Pelargonium zonale* (L.) L'Her. ex Ait. - leafspot. Denmark 1951. From D.W. Dye ZJ2 ← E. Hellmers 69 = NCPPB 400.
 9073 *Pelargonium zonale* (L.) L'Her. ex Ait. Hungary 1981. From J. Nemeth M21.
 9074 *Pelargonium zonale* (L.) L'Her. ex Ait. Hungary 1981. From J. Nemeth M61.
 9075 *Pelargonium zonale* (L.) L'Her. ex Ait. Hungary 1981. From J. Nemeth M141.

Xanthomonas campestris pv. **pennamericanum** Qhobela & Claffin 1988

- 9627 *Pennisetum americanum* (L.) K. Schum. - pearl millet. Nigeria 1984. From L.E. Claffin B6 = ATCC 49152 - Int. J. Syst. Bact. 38: 362-366, 1988 - **Pathotype strain**.

Xanthomonas campestris pv. **phaseoli** (Smith 1897) Dye 1978syn. *Xanthomonas axonopodis* pv. *phaseoli* (Smith 1897) Vauterin *et al.* 1995

- 237 a *Phaseolus* sp. - bean. Canada. From D.W. Dye ZK2 ← NCPPB 301.
 238 a *Phaseolus* sp. - bean. Canada. From D.W. Dye ZK3 ← NCPPB 302 ← H. Katznelson XP8.
 239 a *Phaseolus* sp. - bean. Canada 1957. From D.W. Dye ZK4 ← W.A.F. Hagborg 3649 = NCPPB 381: ATCC 19315 - rec. as *X. phaseoli* var. *fuscans* - fuscous strain.
 242 a *Phaseolus* sp. - bean. USA 1954. From D.W. Dye ZK6 ← W.H. Burkholder XP37 - rec. as *X. phaseoli* var. *fuscans* - fuscous strain.
 243 a *Phaseolus* sp. - bean. USA 1944. From D.W. Dye ZK7 ← W.H. Burkholder XP18 - rec. as *X. phaseoli* var. *fuscans* - fuscous strain.
 1427 a *Phaseolus* sp. - bean. Canada 1957. From D.W. Dye ZK4SMR ← W.A.F. Hagborg 3649 - fuscous strain - laboratory derived streptomycin resistant election of ICMP 239.
 9117 *Phaseolus* sp. - bean. USA May 1985. From L.E. Claffin 467.
 9118 *Phaseolus* sp. - bean - seed. USA Aug 1985. From L.E. Claffin 487.
 11912 *Phaseolus* sp. Greece 1978. From CFBP 1816 ← A. Trigalet lot4761.
 240 a *Phaseolus vulgaris* L. - bean. Hungary. From D.W. Dye ZK5 ← NCPPB 456 ← Z. Klement 0-029 - rec. as *X. phaseoli* var. *fuscans* - fuscous strain.
 2721 b* *Phaseolus vulgaris* L. - bean cv. Blue Lake - leaf blotch. NZ Jan 1970. From D.R.W. Watson H796 - fuscous strain - in seed crop from Tanzania ← Netherlands - *bean.
 2722 a *Phaseolus vulgaris* L. - dwarf bean cv. Yellowpod - pod blister. Blenheim, MB, NZ Feb 1970. From D.R.W. Watson F846 - fuscous strain - *bean.
 2723 *Phaseolus vulgaris* L. - bean cv. Dwarf 800 - necrotic wilted leaf blotch. Lincoln, MC, NZ Feb 1970. From D.R.W. Watson E857 - fuscous strain.
 2725 a* *Phaseolus vulgaris* L. - bean cv. Dwarf 800 - dry red-brown pod spot. Blenheim, MB, NZ Feb 1970. From D.R.W. Watson C835 - *bean.
 2729 a* *Phaseolus vulgaris* L. - haricot bean cv. Sanilac - leaf lesion. Marlborough, MB, NZ Feb 1970. From D.R.W. Watson E802 - *bean.
 3403 b* *Phaseolus vulgaris* L. - bean cv. Prince - wilted leaf with dark brown sheet lesion. Blenheim, MB, NZ Feb 1973. From D.R.W. Watson C1480 - fuscous strain - *bean.
 3430 b* *Phaseolus vulgaris* L. - bean cv. Prince - yellow crust on greasy pod lesion. Marlborough, MB, NZ Feb 1973. From D.R.W. Watson B1504 - *bean.
 3431 *Phaseolus vulgaris* L. - navy bean - leaves. Australia Feb 1972. From D.R.W. Watson G1518.
 3438 b* *Phaseolus vulgaris* L. - navy bean - necrotic leaf blotch. Australia Feb 1973. From D.R.W. Watson J1518 - fuscous strain - *bean, peach.
 3485 *Phaseolus vulgaris* L. - bean cv. Prince - patch of necrotic wilted tissue on leaf showing halo blight. Marlborough, MB, NZ Feb 1973. From D.R.W. Watson A1480 - fuscous strain.
 3529 *Phaseolus vulgaris* L. - bean cv. Prince - yellow crust on greasy pod lesion. Marlborough, MB, NZ Feb 1973. From D.R.W. Watson A1504 - fuscous strain.
 3534 a* *Phaseolus vulgaris* L. - bean cv. Double Dutch Princess - yellow exudate on greasy pod lesion. Marlborough, MB, NZ Feb 1970. From D.R.W. Watson C838 - *bean.
 5807 b *Phaseolus vulgaris* L. - bean cv. Regente - pod. Brazil Dec 1975. From IBSBF 158 ← J.R. Neto - rec. as *X. phaseoli* var. *fuscans* - fuscous strain.
 5808 *Phaseolus vulgaris* L. - bean cv. Regente - leaf. Brazil Dec 1975. From IBSBF 159 ← J.R. Neto - fuscous strain.
 5834 a *Phaseolus vulgaris* L. - bean - leaf. From ATCC 9563 ← W.H. Burkholder XP20 = ATCC 9563: CFBP 2534: LMG 7455: NCPPB 3035 - **Pathotype strain**.
 9076 *Phaseolus vulgaris* L. - bean cv. Budai Tarka - leafspot. Hungary 1981. From J. Nemeth BUT2.
 9077 *Phaseolus vulgaris* L. - bean cv. Erato - leafspot. Hungary 1981. From J. Nemeth ERA4 - fuscous strain.
 9078 *Phaseolus vulgaris* L. - bean cv. Nagykalloi - leafspot. Hungary 1981. From J. Nemeth NAK1.
 9079 *Phaseolus vulgaris* L. - bean cv. Nagykalloi - leafspot. Hungary 1981. From J. Nemeth NAK5 - fuscous strain.
 9080 *Phaseolus vulgaris* L. - bean cv. Nagykalloi - leafspot. Hungary 1981. From J. Nemeth NAK6 - fuscous strain.
 9081 *Phaseolus vulgaris* L. - bean cv. Tapioi Cirmos - leafspot. Hungary 1981. From J. Nemeth TAP3.
 12028 *Phaseolus vulgaris* L. - bean. France 1974. From CFBP 1557 ← B. Rat III2.
 12324 * *Phaseolus vulgaris* L. - bean cv. Cannellini - seeds. China Mar 1991. From Y. Zhao 00474 - Plant Quarantine 6 (3):184, 1992 - seeds from Italy - fuscous strain - *bean (Zhao).
 12325 * *Phaseolus vulgaris* L. - bean cv. Large - leafspot. China Aug 1991. From Y. Zhao 00493 - fuscous strain - *bean (Zhao).
 236 USA. From D.W. Dye ZK1 ← NCPPB 220 ← C. Elliott = NCTC 4331.

Xanthomonas campestris pv. **phlei** Egli & Schmidt 1982syn. *Xanthomonas translucens* pv. *phlei* (Egli & Schmidt 1982) Vauterin *et al.* 1995

- 7725 a* *Phleum pratense* L. - timothy - leaf stripe. Norway 1978. From NCPPB 3231 ← T. Egli XG729 ← D. Schmidt XG135 = ATCC 33805: CFBP 2062:

LMG 730 - *timothygrass (Eg) - **Pathotype strain.**

- Xanthomonas campestris** pv. **phlei**pratsensis (Wallin & Reddy 1945) Dye 1978
syn. *Xanthomonas translucens* pv. *phlei*pratsensis (Wallin & Reddy 1945) Vauterin et al. 1995
5744 a *Phleum pratense* L. - timothy. USA 1942. From NCPPB 1837 ← ICPB XT103 ← J.R. Wallin 3 = CFBP 2540: LMG 843 - **Pathotype strain.**
- Xanthomonas campestris** pv. **phormiicola** (Takimoto 1933) Dye 1978
4293 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaves, brown stripes with yellow haloes, brown decay, copious gum exudation. Japan Jun 1974. From M. Goto XP2 ← T. Makino.
4294 a *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaves, brown stripes with yellow haloes, brown decay, copious gum exudation. Japan Jun 1974. From M. Goto XP1 ← T. Makino = LMG 702: NCPPB 2983 - **Pathotype strain.**
4297 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaves, brown stripes with yellow haloes, brown decay, copious gum exudation. Japan Jun 1974. From M. Goto XP7 ← T. Makino.
- Xanthomonas campestris** pv. **phyllanthi** (Sabet et al. 1969) Dye 1978
syn. *Xanthomonas axonopodis* pv. *phyllanthi* (Sabet et al. 1969) Vauterin et al. 1995
5745 a *Phyllanthus niruri* L. - niruri. Sudan 1965. From NCPPB 2066 ← K.A. Sabet Phyl-1 = LMG 844 - **Pathotype strain.**
- Xanthomonas campestris** pv. **physalidicola** (Goto & Okabe 1958) Dye 1978
syn. *Xanthomonas axonopodis* pv. *physalidicola* (Goto & Okabe 1958) Vauterin et al. 1995
586 a *Physalis alkekengi* L. - Chinese lantern. Japan. From D.W. Dye YZ1 ← N. Okabe = ATCC 49077: LMG 845: NCPPB 761 - **Pathotype strain.**
- Xanthomonas campestris** pv. **physalidis** (Srinivasan et al. 1962) Dye 1978
1619 a *Physalis minima* L. India. From D.W. Dye WU2 ← ICPB XP191 ← M.C. Srinivasan = NCPPB 1595.
5746 a *Physalis minima* L. India 1961. From NCPPB 1756 ← M.J. Thirumalachar HACCC181 = ATCC 17994: LMG 846 - **Pathotype strain.**
1618 a *Physalis* sp. India. From D.W. Dye WU1 ← M.J. Thirumalachar.
- Xanthomonas campestris** pv. **pisi** (Goto & Okabe 1958) Dye 1978
syn. *Xanthomonas pisi* (ex Goto & Okabe 1958) Vauterin et al. 1995
570 a *Pisum sativum* L. - pea - leafspot. Japan 1957. From D.W. Dye XA1 ← N. Okabe = NCPPB 762: ATCC 35936: LMG 847 - **Pathotype strain.**
- Xanthomonas campestris** pv. **plantaginis** (Thornberry & Anderson 1937) Dye 1978
981 a *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain. Australia 1951. From D.W. Dye WQ1 ← ICPB ← P.A. Ark.
987 a *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain. Australia 1951. From D.W. Dye WQ2 ← ICPB ← P.A. Ark.
993 a *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain. Australia 1951. From D.W. Dye WQ3 ← ICPB ← P.A. Ark.
1025 a *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain. Australia 1951. From D.W. Dye WQ4 ← ICPB XP192 ← P.A. Ark PA = NCPPB 1938 - avirulent to ribgrass.
1028 a *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain. Ethiopia 1961. From D.W. Dye WQ7 ← ICPB XP195 ← A.C. Hayward B652 = NCPPB 1061: ATCC 23382: LMG 848 - avirulent to ribgrass - **Pathotype strain.**
- Xanthomonas campestris** pv. **poae** Egli & Schmidt 1982
7726 a* *Poa trivialis* L. - bluegrass, rough-stalked meadowgrass - leaf stripe. Switzerland, 1978. From NCPPB 3230 via T. Egli XG724 ex J. Herzog XG122 = ATCC 33804 - *bluegrass (Eg) - **Pathotype strain.**
- Xanthomonas campestris** pv. **poinsettiicola** (Patel et al. 1951) Dye 1978
syn. *Xanthomonas axonopodis* pv. *poinsettiicola* (Patel et al. 1951) Vauterin et al. 1995
includes *Xanthomonas codiae* Vauterin et al. 1995
9512 a* *Codiaeum variegatum* (L.) Blume var. *pictum* (C. & R. Lodd.) Mull.-Arg. - croton cv. Goldstar - leaf. USA 1984. From A.R. Chase 87 ← D.D. Brunk PDD-225-84 - Pl. Path. 34: 446-448, 1985 - strain of *X. codiae* Vauterin et al. 1995 - *poinsettia, croton (Chase).
9513 a* *Codiaeum variegatum* (L.) Blume var. *pictum* (C. & R. Lodd.) Mull.-Arg. - croton cv. Superstar - leaf. USA 1987. From A.R. Chase X259 (87-56A) = LMG 8678 - Pl. Path. 34: 446-448, 1985 - strain of *X. codiae* Vauterin et al. 1995 - *croton (Chase).
3278 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. Jul 1972. From D.W. Dye ZX3 ← C.F. Hill - re-isolate after plant inoculation.
3279 a* *Euphorbia pulcherrima* Willd. ex Klotsch - red poinsettia - leaf. Epsom, AK, NZ Jun 1972. From D.W. Dye ZX4 ← C.F. Hill - *poinsettia.
3280 a *Euphorbia pulcherrima* Willd. ex Klotsch - pink poinsettia - leaf. Epsom, AK, NZ Jun 1972. From D.W. Dye ZX5 ← C.F. Hill.
5779 a *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia. India 1950. From NCPPB 581 ← ICPB XP137 ← M.K. Patel 12 = ATCC 11643: LMG 849 - **Pathotype strain.**
6274 *Euphorbia pulcherrima* Willd. ex Klotsch - red poinsettia - leaf. Mt Albert, AK, NZ Jun 1972. From C.F. Hill.
7180 *Euphorbia pulcherrima* Willd. ex Klotsch - poinsettia - scabby leafspot. Mt Albert, AK, NZ Apr 1980. From D.R.W. Watson A2747.
332 a India. From D.W. Dye ZX1 ← ITCC B46.
- Xanthomonas campestris** pv. **populi** De Kam 1984
syn. *Xanthomonas arboricola* pv. *populi* (De Kam 1984) Vauterin et al. 1995
11965 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar cv. Alcide. France 1987. From CFBP 2668 ← M. Ridé 87-289.
9138 *Populus maximowiczii* Henry X *P. X berolinensis* Dipp. - poplar cv. Geneva. Netherlands Aug 1979. From M. de Kam Dsk130 = IPO 580.
8922 a *Populus* sp. - poplar - bark necrosis. Netherlands May 1979. From M. de Kam Dsk120 - Neth. J. Pl. Path. 90: 13-22, 1984.
8923 a *Populus X euramericana* (Dode) Guinier - poplar cv. Robusta - bark necrosis. Netherlands Aug 1979. From M. de Kam Dsk129 = LMG 12141 - Neth. J. Pl. Path. 90: 13-22, 1984 - **Pathotype strain.**
11974 *Populus X euramericana* (Dode) Guinier - poplar - necrosis. Italy 1989. From CFBP 2983 ← N. Anselmi p3.
9367 * *Populus X generosa* A. Henry - poplar - brown lesion affecting bud. NZ Mar 1986. From R.H. Haworth & A.G. Spiers 201 - **P. X generosa* (Haworth).
9368 * *Populus X generosa* A. Henry - poplar - brown lesion affecting bud. NZ Mar 1986. From R.H. Haworth & A.G. Spiers 206 - **P. X generosa* (Haworth).
9369 * *Populus X generosa* A. Henry - poplar - brown stem lesion. NZ Mar 1986. From R.H. Haworth & A.G. Spiers 207 - **P. deltoides* X *P. trichocarpa* (Haworth).
9370 * *Populus X generosa* A. Henry - poplar - brown stem lesion. NZ Mar 1986. From R.H. Haworth & A.G. Spiers 208 - rec. as *X. campestris* - **P. X generosa*.
9371 * *Populus X generosa* A. Henry - poplar - brown stem lesion. NZ Mar 1986. From R.H. Haworth & A.G. Spiers 215 - **P. X generosa*.
9139 *Populus X interamericana* Brockh. - poplar cv. Donk. Netherlands Apr 1980. From M. de Kam Dsk136.
11975 *Populus X interamericana* Brockh. - poplar. France 1989. From CFBP 3003 ← M. Menard XCM5.
2363 *Populus yunnanensis* Dode - Chinese poplar. From D.W. Dye ZZ18 - rec. as *Xanthomonas* sp.
2364 *Populus yunnanensis* Dode - Chinese poplar. From D.W. Dye ZZ19 - rec. as *Xanthomonas* sp.
9140 *Salix alba* L. - white willow - phyllosphere. Netherlands Aug 1980. From M. de Kam Dsk146.
- Xanthomonas campestris** pv. **pruni** (Smith 1903) Dye 1978
syn. *Xanthomonas arboricola* pv. *pruni* (Smith 1903) Vauterin et al. 1995
86 a *Prunus armeniaca* L. - apricot - leafspot. Mt Albert, AK, NZ Feb 1962. From D.W. Dye T17.
87 a *Prunus armeniaca* L. - apricot - leafspot. Hastings, HB, NZ Feb 1962. From D.W. Dye T18.
2319 *Prunus armeniaca* L. - apricot cv. Moorpark - dark sunken soft circular lesion on ripe fruit. Alexandra, CO, NZ Mar 1968. From D.R.W. Watson A129 - associated with *Pseudomonas syringae*.
4124 *Prunus armeniaca* L. - apricot cv. Divinity - angular red brown leaf lesion. Mt Albert, AK, NZ Jan 1975. From J.M. Young 1898A.
4283 *Prunus armeniaca* L. - apricot - fruit. Canada 1966. From B.N. Dhanvantari AF.

- 4287 b *Prunus armeniaca* L. - apricot cv. Divinity - fruit spot. Hawkes Bay, HB, NZ 1974. From B.N. Dhanvantari XP4.
 6677 *Prunus armeniaca* L. - apricot cv. Bulida - leaf. South Africa 1979. From H.J. du Plessis XP42.
 85 *Prunus avium* (L.) L. - cherry cv. Bing - leafspot. Mt Albert, AK, NZ Feb 1961. From D.W. Dye T16.
 608 a *Prunus avium* (L.) L. - cherry cv. Bing - canker. Mt Albert, AK, NZ Jul 1962. From D.W. Dye T19.
 609 a *Prunus avium* (L.) L. - cherry cv. Napoleon - canker. Mt Albert, AK, NZ Jul 1962. From D.W. Dye T20.
 610 a *Prunus avium* (L.) L. - cherry cv. Van - canker. Mt Albert, AK, NZ Jul 1962. From D.W. Dye T21.
 613 a *Prunus avium* (L.) L. - cherry cv. Sam - canker. Mt Albert, AK, NZ Jul 1962. From D.W. Dye T24.
 60 a *Prunus domestica* L. - European plum. Argentina. From D.W. Dye T13 ← W.J. Dowson 368 ← F. Valiela = NCPPB 368.
 3193 a* *Prunus dulcis* (Mill.) D.A. Webb - almond - fruit. Nelson, NN, NZ Feb 1972. From D.W. Dye T30 ← G.F. Laundon - *peach.
 4099 b *Prunus dulcis* (Mill.) D.A. Webb - almond cv. Nonpareil - angular watersoaked coalescing leaf lesions. Mt Albert, AK, NZ Dec 1974. From J.M. Young 1897A1.
 4100 a* *Prunus dulcis* (Mill.) D.A. Webb - almond cv. Nonpareil - angular watersoaked coalescing leaf lesions. Mt Albert, AK, NZ Dec 1974. From J.M. Young 1886A1 - *peach.
 4598 a* *Prunus dulcis* (Mill.) D.A. Webb - almond cv. Nonpareil - leafspot. Mt Albert, AK, NZ Jan 1975. From J.M. Young 1897 - *peach.
 53 a* *Prunus persica* (L.) Batsch - peach - leafspot. Auckland, AK, NZ 1956. From D.W. Dye T6 = NCPPB 418 - *peach.
 54 a* *Prunus persica* (L.) Batsch - peach - stem canker. Auckland, AK, NZ 1956. From D.W. Dye T7 = NCPPB 419 - *peach.
 55 a* *Prunus persica* (L.) Batsch - peach - twig die-back. Auckland, AK, NZ 1955. From D.W. Dye T8 = NCPPB 420 - *peach.
 62 a *Prunus persica* (L.) Batsch - peach - leaf. USA 1944. From D.W. Dye T15 ← W.H. Burkholder XP27 ← H.W. Anderson.
 614 a *Prunus persica* (L.) Batsch - peach cv. Paragon - young lesion on twig. Henderson, AK, NZ Aug 1962. From D.W. Dye T25.
 615 a *Prunus persica* (L.) Batsch - peach cv. Paragon - young lesion on twig. Henderson, AK, NZ Aug 1962. From D.W. Dye T26.
 1430 a *Prunus persica* (L.) Batsch - peach - leafspot. NZ 1956. From D.W. Dye T6 - laboratory derived streptomycin resistant selection of ICMP 53.
 2435 *Prunus persica* (L.) Batsch - peach cv. Million Dollar - brown stem lesion with watersoaked rim. Nelson, NN, NZ Dec 1968. From D.R.W. Watson A327.
 3428 b *Prunus persica* (L.) Batsch - peach cv. Paragon - cracked lesion on fruit. Hastings, HB, NZ Jan 1973. From J.M. Young 1467A1.
 4115 b *Prunus persica* (L.) Batsch - peach cv. Wyona - sunken brown lesion on fruit. Hastings, HB, NZ Jan 1973. From J.M. Young 1471A1.
 4119 b *Prunus persica* (L.) Batsch - peach cv. Golden Queen - brown sunken oozing lesion on fruit. Hastings, HB, NZ Jan 1973. From J.M. Young 1464A1.
 4120 b *Prunus persica* (L.) Batsch - peach cv. Fortuna - dark brown angular leaf lesion. Hastings, HB, NZ Jan 1973. From J.M. Young 1469A1.
 4284 b *Prunus persica* (L.) Batsch - peach - stem canker. Hawkes Bay, HB, NZ 1974. From B.N. Dhanvantari XP1.
 4288 *Prunus persica* (L.) Batsch - peach cv. Babygold 5 - leaf surface. Canada 1972. From B.N. Dhanvantari XP6.
 7492 *Prunus persica* (L.) Batsch - peach. Brazil 1981. From IBSBF 341 ← J.R. Neto.
 12475 *Prunus persica* (L.) Batsch - peach. From ATCC 10016 ← M.P. Starr ← H. Thornberry 2 - phage host.
 552 b* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit. Hastings, HB, NZ Dec 1962. From N.L. Baigent XP501 - *peach.
 639 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit lesion. Havelock North, HB, NZ Feb 1963. From D.W. Dye T28 - *nectarine.
 640 a* *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit lesions. Havelock North, HB, NZ Mar 1963. From D.W. Dye T29 - *nectarine.
 3427 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - sunken cracked fruit lesions. Hastings, HB, NZ Jan 1973. From J.M. Young 1463A1.
 4114 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold - brown sunken lesion on fruit. Hastings, HB, NZ Jan 1974. From J.M. Young 1684A1.
 4123 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Valiant - angular watersoaked leaf lesion. Hastings, HB, NZ Jan 1973. From J.M. Young 1475A.
 4125 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Redgold. Hastings, HB, NZ Dec 1972. From J.M. Young 1434A.
 4126 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Le Grand - leaf. Hastings, HB, NZ Jan 1973. From J.M. Young 1465B.
 4143 b *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Sunglo - leaf. Hastings, HB, NZ Jan 1973. From J.M. Young 1470B.
 51 a* *Prunus salicina* Lindl. - Japanese plum cv. Victory - fruit spot. Mt Albert, AK, NZ 1953. From D.W. Dye T1 = NCPPB 416: ATCC 19316: CFBP 2535: LMG 852 - *plum - **Pathotype strain**.
 52 a* *Prunus salicina* Lindl. - Japanese plum cv. Doris - fruit spot. Mt Albert, AK, NZ 1953. From D.W. Dye T2 = NCPPB 417 - *plum.
 56 a* *Prunus salicina* Lindl. - Japanese plum cv. George Wilson - fruit spot. Auckland, AK, NZ 1956. From D.W. Dye T9 = NCPPB 421 - *plum.
 551 b* *Prunus salicina* Lindl. - Japanese plum - leafspot. Kumeu, AK, NZ Nov 1962. From N.L. Baigent XP500 - *peach.
 2145 *Prunus salicina* Lindl. - Japanese plum - unripe fruit spot. Auckland, AK, NZ Dec 1967. From D.R.W. Watson A46.
 2151 *Prunus salicina* Lindl. - Japanese plum - lesion on young fruit. Alexandra, CO, NZ Jan 1968. From D.R.W. Watson A72.
 4285 *Prunus salicina* Lindl. - Japanese plum cv. Victory - stem canker. Hawkes Bay, HB, NZ 1974. From B.N. Dhanvantari XP2.
 4286 b *Prunus salicina* Lindl. - Japanese plum - leafspot. NZ 1974. From B.N. Dhanvantari XP3.
 6764 b* *Prunus salicina* Lindl. - Japanese plum cv. Doris. NZ 1978. From J.M. Young 52SR - laboratory derived streptomycin resistant selection of ICMP 52 - *peach.
 6765 b* *Prunus salicina* Lindl. - Japanese plum. NZ 1978. From J.M. Young 551SR - laboratory derived streptomycin resistant selection of ICMP 551 - *peach.
 8867 *Prunus salicina* Lindl. - Japanese plum cv. Victory - fruit spot. NZ. From ICMP 51 ← D.W. Dye T1 - re-isolate from ICMP 51 - rough colony form.
 7485 *Prunus* sp. - plum. Brazil 1981. From IBSBF 328 ← J.R. Neto.
 7486 *Prunus* sp. - plum. Brazil 1981. From IBSBF 329 ← J.R. Neto.
 7487 *Prunus* sp. - plum. Brazil 1981. From IBSBF 337 ← J.R. Neto.
 7488 *Prunus* sp. - plum. Brazil 1981. From IBSBF 335 ← J.R. Neto.
 57 a From D.W. Dye T10 ← A.M. Paton P7 ← W.J. Dowson.
 58 a USA. From D.W. Dye T11 ← W.J. Dowson 272 ← H.H. Thornberry 3 = ICPB 12: NCPPB 272.
 59 a UK. From D.W. Dye T12 ← W.J. Dowson 273 ← A.C. Brown B67 = ICPB 13: NCPPB 273.
 61 a USA 1941. From D.W. Dye T14 ← W.H. Burkholder XP13 ← N.A. Brown.

Xanthomonas campestris* pv. *punicae (Hingorani & Singh 1959) Dye 1978syn. *Xanthomonas axonopodis* pv. *punicae* (Hingorani & Singh 1959) Vauterin *et al.* 1995

- 360 a *Punica granatum* L. - pomegranate. India 1957. From D.W. Dye YG1 ← NCPPB 466 ← M.K. Hingorani = LMG 859 - **Pathotype strain**.
 361 a *Punica granatum* L. - pomegranate. India 1958. From D.W. Dye YG2 ← ITCC B26 ← M.K. Hingorani = NCPPB 473.
 3138 a* *Punica granatum* L. - pomegranate - leafspot, leaf & stem blight. India 1968. From D.W. Dye YG3 ← Y.P. Rao - *pomegranate (Rao).

Xanthomonas campestris* pv. *raphani (White 1930) Dye 1978

- 1404 a* *Raphanus sativus* L. - radish. USA 1940. From D.W. Dye X53 ← ICPB XV16 ← R. Lincoln L11 = ATCC 49079: LMG 860: NCPPB 1946 - *radish - **Pathotype strain**.
 1640 a* *Raphanus sativus* L. - radish. USA. From D.W. Dye X54 ← C. Wehlburg 112 ← R.H. Segall - rec. as *X. vesicatoria* var. *raphani* - *radish.
 1641 a* *Raphanus sativus* L. - radish. USA. From D.W. Dye X55 ← C. Wehlburg 59 - rec. as *X. vesicatoria* var. *raphani* - *cabbage, capsicum, tobacco, radish (Wehlburg).
 1645 * *Raphanus sativus* L. - radish. USA. From D.W. Dye X59 ← C. Wehlburg 36 - rec. as *X. vesicatoria* var. *raphani* - *radish.
 1646 a *Raphanus sativus* L. - radish. USA. From D.W. Dye X60 ← C. Wehlburg 37 - rec. as *X. vesicatoria* var. *raphani*.

Xanthomonas campestris* pv. *rhynchosiae (Sabet *et al.* 1969) Dye 1978syn. *Xanthomonas axonopodis* pv. *rhynchosiae* (Sabet *et al.* 1969) Vauterin *et al.* 1995

- 5748 a *Rhynchosia memnonia* DC. Sudan 1965. From NCPPB 1827 ← K.A. Sabet Rhyn1 = LMG 8021 - **Pathotype strain.**
 9974 *Rhynchosia phaseoloides* DC. Barbados 1972. From NCPPB 2914 ← J.F. Bradbury B5300 ← D. Norse 507.

Xanthomonas campestris* pv. *ricini (Yoshii & Takimoto 1928) Dye 1978syn. *Xanthomonas axonopodis* pv. *ricini* (Yoshii & Takimoto 1928) Vauterin *et al.* 1995

- 248 a *Ricinus communis* L. - castor. India. From D.W. Dye ZM2 ← ITCC B48 ← M.K. Patel = NCPPB 488: ICPB XR101: ATCC 11767 - yellow strain - rec. as *X. ricinicola*.
 1426 a *Ricinus communis* L. - castor. India. From D.W. Dye ZM3 ← NCPPB 488 ← M.K. Patel = ITCC B48: ICPB XR101: ATCC 11767 - laboratory derived streptomycin resistant selection of ICMP 249 - rec. as *X. ricinicola*.
 1744 a *Ricinus communis* L. - castor. India. From D.W. Dye WY1 ← M.V. Desai - rec. as *X. anandensis*.
 3031 a *Ricinus communis* L. - castor - leaf. India 1969. From D.W. Dye ZM5 ← P.N. Patel XR1 ← J.K. Jindal = NCPPB 2369 - non-pigmented strain - rec. as *X. ricinicola*.
 5747 a *Ricinus communis* L. - castor. Ethiopia 1961. From NCPPB 1063 ← A.C. Hayward B651 = ATCC 19317: LMG 861 - white strain - avirulent to castor - **Pathotype strain.**
 7462 *Ricinus communis* L. - castor. Brazil 1978. From IBSBF 159 ← J.R. Neto - non-pigmented strain.
 7463 *Ricinus communis* L. - castor. Brazil 1980. From IBSBF 318 ← O. Kimura ← A. Takatsu UB37.
 247 a Uganda 1938. From D.W. Dye ZM1 ← NCPPB 113 ← C.G. Hansford - yellow strain - rec. as *X. ricinicola* - avirulent to castor.
 250 a From D.W. Dye ZM4 ← W.H. Burkholder XR4 ← W.J. Dowson - rec. as *X. ricinicola*.

Xanthomonas campestris* pv. *secalis (Reddy *et al.* 1924) Dye 1978syn. *Xanthomonas translucens* pv. *secalis* (Reddy *et al.* 1924) Vauterin *et al.* 1995

- 293 a *Secale cereale* L. - rye. Canada Jan 1951. From D.W. Dye ZQ14 ← W.H. Burkholder XT18 ← Z.A. Patrick = NCPPB 974: ICPB XT18 - rec. as *X. translucens*.
 294 a *Secale cereale* L. - rye. Canada Oct 1951. From D.W. Dye ZQ15 ← W.H. Burkholder XT19 ← Z.A. Patrick = ICPB XT19 - rec. as *X. translucens*.
 5749 a *Secale cereale* L. - rye. Canada 1966. From NCPPB 2822 ← W.A.F. Hagborg 5558 = CFBP 2539: LMG 883 - **Pathotype strain.**

Xanthomonas campestris* pv. *sesami (Sabet & Dowson 1960) Dye 1978

- 621 a *Sesamum indicum* L. - sesame. Sudan 1958. From D.W. Dye XQ1 ← NCPPB 631 ← K.A. Sabet = LMG 865 - **Pathotype strain.**
 622 a *Sesamum indicum* L. - sesame. Sudan 1958. From D.W. Dye XQ2 ← NCPPB 647 ← K.A. Sabet SES9.
 3137 a *Sesamum indicum* L. - sesame cv. NP6 - leafspot, leaf and stem blight. India 1971. From D.W. Dye XQ3 ← Y.P. Rao.
 3384 a *Sesamum indicum* L. - sesame - leaf. India Sep 1972. From D.W. Dye XQ4 ← S.V. Hegde XSM1333 = ICPB XS110.
 3385 a *Sesamum indicum* L. - sesame cv. NP30. India Sep 1972. From D.W. Dye XQ5 ← S.V. Hegde XSM1334 = ICPB XS111.

Xanthomonas campestris* pv. *sesbaniae (Patel *et al.* 1952) Dye 1978syn. *Xanthomonas axonopodis* pv. *sesbaniae* (Patel *et al.* 1952) Vauterin *et al.* 1995

- 367 a *Sesbania sesban* (L.) Merr. From D.W. Dye YH2 ← W.H. Burkholder XS1 ← M.K. Patel 9 = ATCC 11675: LMG 867: NCPPB 582: ICPB XS102 - **Pathotype strain.**
 366 a *Sesbania* sp. From D.W. Dye YH1 ← NCPPB 483 = ITCC B43.

Xanthomonas campestris* pv. *spermococes (Srinivasan & Patel 1956) Dye 1978

- 591 a *Spermococe hispida* L. India. From D.W. Dye WE1 ← M.K. Patel.
 5751 a *Spermococe hispida* L. 1955. From NCPPB 1760 ← M.J. Thirumalachar HACC185 = ATCC 17998: LMG 868 - **Pathotype strain.**
 5853 *Spermococe hispida* L. India 1956. From NCPPB 1453 ← M.K. Patel ← M.C. Srinivasan.

Xanthomonas campestris* pv. *syngonii Dickey & Zumoff 1987

- 9152 a *Syngonium podophyllum* Schott. - nephthytis cv. Cream. USA Nov 1980. From R.S. Dickey LX103 = CUP 1694 - Phytopath. 77: 1257-1262, 1987 - cotype.
 9153 a *Syngonium podophyllum* Schott. - nephthytis cv. Cream. USA Nov 1980. From R.S. Dickey LX105 = CUP 1696 - Phytopath. 77: 1257-1262, 1987 - cotype.
 9154 a *Syngonium podophyllum* Schott. - nephthytis cv. White Butterfly. USA Jul 1984. From R.S. Dickey L212 = LMG 9055: NCPPB 3586: CUP 1806 - Phytopath. 77: 1257-1262, 1987 - **Pathotype strain.**
 9155 a *Syngonium podophyllum* Schott. - nephthytis cv. White Butterfly. USA Jul 1984. From R.S. Dickey L215 = CUP 1810 - Phytopath. 77: 1257-1262, 1987 - cotype.

Xanthomonas campestris* pv. *tamarindi (Patel *et al.* 1951) Dye 1978syn. *Xanthomonas axonopodis* pv. *tamarindi* (Patel *et al.* 1951) Vauterin *et al.* 1995

- 572 a *Tamarindus indica* L. - tamarind. India 1950. From D.W. Dye YY1 ← W.H. Burkholder XT20 ← M.K. Patel 7 = ATCC 11673: LMG 955: NCPPB 584: ICPB XT105 - **Pathotype strain.**

Xanthomonas campestris* pv. *taraxaci (Niederhauser 1943) Dye 1978syn. *Xanthomonas hortorum* pv. *taraxaci* (Niederhauser 1943) Vauterin *et al.* 1995

- 579 a *Taraxacum kok-saghyz* Rodin - Russian dandelion. USA 1942. From D.W. Dye XF1 ← ICPB XT11 ← J. Niederhauser XT6 = ATCC 19318: CFBP 410: LMG 870: NCPPB 940 - **Pathotype strain.**

Xanthomonas campestris* pv. *tardicrescens (McCulloch 1937) Dye 1978

- 4292 a *Iris tectorum* Maxim. - wall iris - leaves: watersoaked dark green lesions first, dark brown stripes killing leaves. Japan Jun 1974. From M. Goto I3 ← M. Goto XT3.
 4295 a *Iris tectorum* Maxim. - wall iris - leaves: watersoaked dark green lesions first, dark brown stripes killing leaves. Japan Jun 1974. From M. Goto I1 ← M. Goto XT1 = LMG 9056: NCPPB 2984 - **Pathotype strain.**
 4296 a *Iris tectorum* Maxim. - wall iris - leaves: watersoaked dark green lesions first, dark brown stripes killing leaves. Japan Jun 1974. From M. Goto I2 ← M. Goto XT2.

Xanthomonas campestris* pv. *theicola Uehara *et al.* 1980syn. *Xanthomonas theicola* (Uehara *et al.* 1980) Vauterin *et al.* 1995

- 6774 a *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC1 = LMG 8684 - **Pathotype strain.**
 7290 a *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC2.
 7291 a* *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC3 - *tea (Uehara).
 7292 a* *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC4 - *tea (Uehara).
 7293 a* *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC5 - *tea (Uehara).
 7294 a* *Camellia sinensis* (L.) O. Kuntze - tea - canker. Japan Jun 1974. From K. Uehara TC6 - *tea (Uehara).

Xanthomonas campestris* pv. *thespesiae Patil & Kulkarni 1981

- 7466 a *Thespesia populnea* (L.) Sol. ex Corr. - leafspot. India Sep 1978. From Y.S. Kulkarni = LMG 9057: ITCC P-33 - Curr. Sci. 50: 1040-1041, 1981 - **Pathotype strain.**

Xanthomonas campestris* pv. *thirumalacharii (Padhya & Patel 1964) Dye 1978

- 1613 a *Triumfetta pilosa* Roth - leafspot. India Oct 1961. From D.W. Dye WK1 ← ICPB XT111 ← A.C. Padhya - rec. as *X. triumfettae*.
 5852 a *Triumfetta pilosa* Roth. India 1961. From NCPPB 1452 ← M.K. Patel ← A.C. Padhya = ATCC 23577: LMG 872: NCPPB 2977 - **Pathotype strain.**

Xanthomonas campestris* pv. *translucens (Jones *et al.* 1917) Dye 1978syn. *Xanthomonas axonopodis* pv. *hordei* (Hagborg 1942) Vauterin *et al.* 1995syn. *Xanthomonas translucens* pv. *translucens* (Jones *et al.* 1917) Vauterin *et al.* 1995

- 295 a *Hordeum vulgare* L. - barley - leaf. Canada 1934. From D.W. Dye ZQ16 ← ICPB XT6 ← W.A.F. Hagborg 377 = ATCC 9000 - rec. as *X. translucens* f.sp. *hordei-avenae*.
- 1670 a* *Hordeum vulgare* L. - barley - leaf. Lincoln, MC, NZ 1963. From D.W. Dye ZQ20 - *barley.
- 1671 a* *Hordeum vulgare* L. - barley - leaf. Lincoln, MC, NZ 1963. From D.W. Dye ZQ21 - *barley.
- 3100 a *Hordeum vulgare* L. - barley. India Mar 1970. From D.W. Dye ZQ23 ← P.N. Patel XTH ← G.S. Shekhawat.
- 5735 a *Hordeum vulgare* L. - barley. India 1970. From NCPPB 2389 ← P.N. Patel B5 ← G.S. Shekhawat - Pathotype strain of *X. campestris* pv. *hordei*.
- 5752 a *Hordeum vulgare* L. - barley. USA 1933. From NCPPB 973 ← ICPB XT2 ← C.S. Reddy = ATCC 19319: CFBP 2054: LMG 876 - **Pathotype strain**.
- 9978 *Hordeum vulgare* L. - oat. Kenya 1977. From NCPPB 3176 ← J.F. Bradbury B7380.
- 12011 * *Hordeum vulgare* L. - barley cv. Val-Faire - leaf streaks. Iran 1987. From H. Rahimian S63 - Eppo. Bull. 19: 113-117, 1989 - *barley, *Phalaris* sp. (Rahimian).
- 9975 *Lolium multiflorum* Lam. - ryegrass. UK 1976. From NCPPB 2904 ← P. Roberts A736.
- 9977 *Triticum aestivum* L. - wheat. Iran 1982. From NCPPB 3170 ← J.F. Bradbury B7205.
- 9979 *Triticum aestivum* L. - wheat. Zambia 1980. From NCPPB 3215 ← J.F. Bradbury B8613 ← R. Raemakers 4.
- 9976 *Triticum turgidum* L. X *Secale cereale* L. - triticale. Mexico 1973. From NCPPB 2920 ← J.F. Bradbury B5562.
- 10038 China. From J.M. Young New01.

Xanthomonas campestris* pv. *tribuli (Srinivasan & Patel 1956) Dye 1978592 *Tribulus terrestris* L. - puncture vine. India. From D.W. Dye WF1 ← M.K. Patel.5753 a *Tribulus terrestris* L. - puncture vine. India 1956. From NCPPB 1454 ← M.K. Patel ← M.C. Srinivasan = LMG 873 - **Pathotype strain**.***Xanthomonas campestris* pv. *trichodesmae*** (Patel *et al.* 1952) Dye 1978365 a *Trichodesma zeylanicum* R. Br. India. From D.W. Dye Y11 ← NCPPB 477 ← M.K. Desai = ITCC B34.5754 a *Trichodesma zeylanicum* R. Br. India. From NCPPB 585 ← ICPB XT106 ← M.K. Patel 15 = ATCC 11678: LMG 874 - **Pathotype strain**.***Xanthomonas campestris* pv. *undulosa*** (Smith *et al.* 1919) Dye 1978syn. *Xanthomonas translucens* pv. *undulosa* (Smith *et al.* 1919) Vauterin *et al.* 1995

- 281 *Triticum aestivum* L. - wheat. Kenya 1946. From D.W. Dye ZQ1 ← W.J. Dowson 175 ← R.M. Nattrass = NCPPB 1942: ICPB XT107A - rec. as *X. translucens*.
- 282 * *Triticum aestivum* L. - wheat cv. Thatcher - leaf. Canada 1957. From D.W. Dye ZQ2 - re-isolate after plant inoculation with Hagborg 3068 - rec. as *X. translucens* - *wheat (Hagborg).
- 284 * *Triticum aestivum* L. - wheat cv. Thatcher - leaf. Canada 1957. From D.W. Dye ZQ4 - re-isolate after plant inoculation with Hagborg 3074 - rec. as *X. translucens* - *wheat.
- 286 *Triticum aestivum* L. - wheat cv. Thatcher - leaf. Canada 1957. From D.W. Dye ZQ6 - re-isolate after plant inoculation with Hagborg 349 - rec. as *X. translucens*.
- 288 *Triticum aestivum* L. - wheat cv. Thatcher - leaf. Canada 1957. From D.W. Dye ZQ8 - re-isolate after plant inoculation with Hagborg 4216 - rec. as *X. translucens*.
- 297 *Triticum aestivum* L. - wheat - leaf. Canada 1936. From D.W. Dye ZQ18 ← ICPB XT8 ← W.A.F. Hagborg 618 - rec. as *X. translucens* f.sp. *undulosa*.
- 5755 a *Triticum turgidum* L. - durum wheat. Canada 1966. From NCPPB 2821 ← W.A.F. Hagborg 5523 = ATCC 35935: CFBP 2055: LMG 892 - **Pathotype strain**.

Xanthomonas campestris* pv. *uppalii (Patel 1948) Dye 1978299 a *Ipomoea muricata* (L.) Jacq. India. From D.W. Dye ZR1 ← NCPPB 243 ← M.K. Patel = NCTC 7482.5756 a *Ipomoea muricata* (L.) Jacq. India 1947. From NCPPB 586 ← ICPB XU101 ← M.K. Patel 2 = ATCC 11641: LMG 893 - **Pathotype strain**.

300 a From D.W. Dye ZR2 ← ITCC B40 = NCPPB 482.

301 a From D.W. Dye ZR3 ← NCPPB 482 = ITCC B40.

1626 a India. From D.W. Dye ZR4 ← M.J. Thirumalachar.

Xanthomonas campestris* pv. *vasculorum (Cobb 1893) Dye 1978syn. *Xanthomonas axonopodis* pv. *vasculorum* (Cobb 1893) Vauterin *et al.* 1995

- 302 a *Roystonea regia* (Kunth) O.F. Cook - royal palm. Mauritius 1946. From D.W. Dye ZS1 ← W.J. Dowson 174.
- 303 a *Roystonea regia* (Kunth) O.F. Cook - royal palm. Mauritius 1946. From D.W. Dye ZS2 ← NCPPB 187 ← G. Orian.
- 253 a *Saccharum officinarum* L. - sugarcane. India. From D.W. Dye ZN3 ← ITCC B38 ← M.K. Hingorani - rec. as *X. rubrilineans*.
- 304 a *Saccharum officinarum* L. - sugarcane. Australia 1946. From D.W. Dye ZS3 ← NCPPB 181 ← M.P. Starr.
- 305 a *Saccharum officinarum* L. - sugarcane. Puerto Rico 1933. From D.W. Dye ZS4 ← NCPPB 182 ← M.T. Cook = ICPB XV1: ATCC 13901.
- 306 a *Saccharum officinarum* L. - sugarcane. Mauritius. From D.W. Dye ZS5 ← NCPPB 184 ← G. Orian = ATCC 13902: ICPB XV101.
- 314 a *Saccharum officinarum* L. - sugarcane. Puerto Rico 1933. From D.W. Dye ZS9 ← W.H. Burkholder XV1 ← M.T. Cook = NCPPB 182: ICPB XV1: ATCC 13901.
- 328 a *Saccharum officinarum* L. - sugarcane. South Africa Nov 1960. From D.W. Dye ZS11 ← A.C. Hayward B329.
- 329 a *Saccharum officinarum* L. - sugarcane. Mauritius Oct 1960. From D.W. Dye ZS13 ← A.C. Hayward B339.
- 362 a *Saccharum officinarum* L. - sugarcane. Reunion Oct 1960. From D.W. Dye ZS14 ← A.C. Hayward B386 = NCPPB 900.
- 5757 a *Saccharum officinarum* L. - sugarcane. Mauritius. From NCPPB 796 ← A.C. Hayward 80490 ← R. Antoine 2180-34 = ATCC 35938: CFBP 2602: LMG 901 - **Pathotype strain**.
- 307 a *Thysanolaena maxima* (Roxb.) O. Kuntze - tigergrass. Mauritius. From D.W. Dye ZS7 ← NCPPB 186 ← G. Orian.
- 327 a *Thysanolaena maxima* (Roxb.) O. Kuntze - tigergrass. Reunion Apr 1958. From D.W. Dye ZS10 ← A.C. Hayward B132.
- 356 a *Thysanolaena maxima* (Roxb.) O. Kuntze - tigergrass. Mauritius Oct 1960. From D.W. Dye ZS12 ← A.C. Hayward B337 = NCPPB 891.
- 326 a *Zea mays* L. - maize - wilt. South Africa. From D.W. Dye ZS8 ← NCPPB 206 ← W.J. Dowson.

Xanthomonas campestris* pv. *vernoniae (Patel *et al.* 1968) Dye 19785758 a *Vernonia cinerea* (L.) Less. India 1965. From NCPPB 1787 ← M.K. Patel = LMG 9058 - **Pathotype strain**.***Xanthomonas campestris* pv. *vesicatoria*** (Doidge 1920) Dye 1978syn. *Xanthomonas vesicatoria* Vauterin *et al.* 1995

- 97 a* *Capsicum annuum* L. - sweet pepper. USA 1939. From D.W. Dye X9 ← W.H. Burkholder XV14 - *capsicum.
- 98 a* *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X12 ← W.H. Burkholder XV25 = ATCC 11633: NCPPB 2968 - *capsicum.
- 101 a *Capsicum annuum* L. - sweet pepper. USA Oct 1939. From D.W. Dye X15 ← ICPB XV3 ← W.H. Burkholder XV3 = NCPPB 936.
- 102 a *Capsicum annuum* L. - sweet pepper. USA Oct 1939. From D.W. Dye X16 ← ICPB XV7 ← W.H. Burkholder XV7 = NCPPB 941.
- 105 a *Capsicum annuum* L. - sweet pepper. USA Sep 1937. From D.W. Dye X19 ← ICPB XV14 ← W.H. Burkholder XV14.
- 109 a *Capsicum annuum* L. - sweet pepper - leafspot. USA. From D.W. Dye X23 ← ICPB XV25 ← W.H. Burkholder XV25 = ATCC 11633.
- 171 *Capsicum annuum* L. - sweet pepper. Hungary 1957. From D.W. Dye X38 ← ICPB XV141 ← Z. Klement I596.
- 172 a* *Capsicum annuum* L. - sweet pepper. Hungary 1957. From D.W. Dye X39 ← ICPB XV142 ← Z. Klement I608 = NCPPB 1438 - *capsicum.
- 179 b* *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X45 ← ICPB XV150-106 ← P.L. Thayer 106 - *capsicum (Thayer).
- 180 * *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X46 ← ICPB XV150-107 ← P.L. Thayer 107 - *capsicum (Thayer).
- 181 * *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X47 ← ICPB XV150-108 ← P.L. Thayer 108 - *capsicum (Thayer).
- 182 b* *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X48 ← ICPB ← P.L. Thayer P39 - *capsicum (Thayer).
- 183 *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X49 ← ICPB ← P.L. Thayer P70.
- 184 *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X50 ← ICPB ← P.L. Thayer P74.

- 185 *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X51 ← ICPB ← P.L. Thayer P75.
- 1643 a* *Capsicum annuum* L. - sweet pepper. USA. From D.W. Dye X57 ← C. Wehlburg 8 - *capsicum.
- 3381 a *Capsicum annuum* L. - sweet pepper - leaf. India Jun 1971. From D.W. Dye X61 ← S.V. Hegde XVE2.
- 4776 b* *Capsicum annuum* L. - sweet pepper - leaf lesion. Tonga Jun 1976. From D.R.W. Watson A2165 - *capsicum, tomato.
- 4779 b* *Capsicum annuum* L. - sweet pepper - pustular leaf lesion. Tonga Jun 1976. From D.R.W. Watson A2166 - *capsicum.
- 5051 *Capsicum annuum* L. - sweet pepper - scabby leafspot. Kerikeri, ND, NZ Apr 1976. From D.R.W. Watson A2239 ← D.W. Dye.
- 6057 *Capsicum annuum* L. - sweet pepper cv. VR2 - leaf scab. Cook Is. Jun 1978. From D.R.W. Watson A2424.
- 6061 *Capsicum annuum* L. - sweet pepper cv. VR2 - leafspot. Cook Is. Jun 1978. From D.R.W. Watson E2425.
- 6063 *Capsicum annuum* L. - sweet pepper cv. VR2 - petiole scab. Cook Is. Jun 1978. From D.R.W. Watson B2426.
- 7183 *Capsicum annuum* L. - sweet pepper - scabby leafspot. Cook Is. May 1980. From D.R.W. Watson A2763.
- 7708 *Capsicum annuum* L. - sweet pepper - fruit spot. Hastings, HB, NZ Mar 1982. From R.G. Clark C3024 ← D.R.W. Watson.
- 7710 *Capsicum annuum* L. - sweet pepper - leafspot. Hastings, HB, NZ Mar 1982. From R.G. Clark Q3024 ← D.R.W. Watson.
- 8037 a *Capsicum annuum* L. - sweet pepper cv. Margareth. Brazil 1981. From IBSBF 345 ← J.R. Neto - Arq. Inst. Biol. Sao Paulo 51: 13-16, 1984.
- 8038 a *Capsicum annuum* L. - sweet pepper cv. Margareth. Brazil 1981. From IBSBF 346 ← J.R. Neto - Arq. Inst. Biol. Sao Paulo 51: 13-16, 1984.
- 9085 *Capsicum annuum* L. - sweet pepper cv. Feherozon - leafspot. Hungary 1982. From J. Nemeth NR13.
- 9086 *Capsicum annuum* L. - sweet pepper cv. Feherozon - leafspot. Hungary 1982. From J. Nemeth NR16.
- 9087 *Capsicum annuum* L. - sweet pepper - leafspot. Hungary 1982. From J. Nemeth PAP32.
- 9591 *Capsicum annuum* L. - sweet pepper cv. Early Cal Wonder. From M.C. Whalen 69-1 ← B.J. Staskawicz ← R.E. Stall - Mol. Pl.-Microbe Interact. 1: 5-9, 1988 - race 3.
- 9593 *Capsicum annuum* L. - sweet pepper cv. Early Cal Wonder. From M.C. Whalen 81-23 ← B.J. Staskawicz ← R.E. Stall - Mol. Pl.-Microbe Interact. 1: 5-9, 1988 - race 2.
- 9594 *Capsicum annuum* L. - sweet pepper cv. Early Cal Wonder. From M.C. Whalen 82-8 ← B.J. Staskawicz ← R.E. Stall - Molecular Plant-Microbe Interactions 1: 5-9, 1988 - race 1.
- 9624 a *Capsicum annuum* L. - sweet pepper cv. Early Cal Wonder. From M.C. Whalen 85-10 ← B.J. Staskawicz ← R.E. Stall - Mol. Pl.-Microbe Interact. 1: 5-9, 1988 - race 2.
- 12322 * *Capsicum annuum* L. - sweet pepper - leafspot. China 1990. From Y. Zhao 00466 - *tomato (Zhao).
- 12323 * *Capsicum annuum* L. - sweet pepper - leafspot. China 1990. From Y. Zhao 00480 - *tomato (Zhao).
- 12185 *Capsicum frutescens* L. - tabasco. Brazil 1992. From IBSBF 948 ← I.M.G. Almeida.
- 94 a *Capsicum* sp. - Mexican pepper, chilli. India. From D.W. Dye X8 ← ITCC B33 ← M.K. Desai = NCPPB 476 - avirulent to capsicum.
- 7724 b* *Capsicum* sp. USA 1962. From ICPB XV162 ← L.H. Person 180 - *pepper, tomato.
- 63 a* *Lycopersicon esculentum* Mill. - tomato - leafspot. Auckland, AK, NZ 1955. From D.W. Dye X1 = NCPPB 422: ATCC 35937: LMG 911 - *tomato - **Pathotype strain**.
- 64 a* *Lycopersicon esculentum* Mill. - tomato - leafspot. Auckland, AK, NZ 1955. From D.W. Dye X2 - *tomato.
- 65 a* *Lycopersicon esculentum* Mill. - tomato - leafspot. Auckland, AK, NZ 1955. From D.W. Dye X3 = NCPPB 423 - *tomato.
- 66 a* *Lycopersicon esculentum* Mill. - tomato - leafspot. Auckland, AK, NZ 1955. From D.W. Dye X4 = NCPPB 424 - *tomato.
- 96 a *Lycopersicon esculentum* Mill. - tomato. USA 1939. From D.W. Dye X10 ← W.H. Burkholder XV15.
- 99 a *Lycopersicon esculentum* Mill. - tomato - fruit spot. Henderson, AK, NZ Mar 1959. From D.W. Dye X13.
- 100 a *Lycopersicon esculentum* Mill. - tomato - stalk lesion. Henderson, AK, NZ Mar 1959. From D.W. Dye X14.
- 104 a *Lycopersicon esculentum* Mill. - tomato. USA. From D.W. Dye X18 ← ICPB XV13 ← R. Lincoln I6.
- 107 a *Lycopersicon esculentum* Mill. - tomato - fruit. USA Sep 1943. From D.W. Dye X21 ← ICPB XV21 ← W.H. Burkholder XV21.
- 108 a *Lycopersicon esculentum* Mill. - tomato - fruit. USA Aug 1943. From D.W. Dye X22 ← ICPB XV23 ← S. Diachun 884-17 = ATCC 11551.
- 110 a *Lycopersicon esculentum* Mill. - tomato. Nov 1955. From D.W. Dye X25 ← ICPB XV120 ← P.A. Ark.
- 111 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X26 ← ICPB XV128 ← Z. Klement S03.
- 112 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X27 ← ICPB XV129 ← Z. Klement S04 = NCPPB 1431.
- 113 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X28 ← ICPB XV131 ← Z. Klement S06.
- 114 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X29 ← ICPB XV132 ← Z. Klement S07 = NCPPB 1423.
- 115 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X30 ← ICPB XV133 ← Z. Klement S08.
- 116 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X31 ← ICPB XV134 ← Z. Klement S20 = NCPPB 1421.
- 117 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X32 ← ICPB XV135 ← Z. Klement S21.
- 118 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X33 ← ICPB XV136 ← Z. Klement S22.
- 119 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X34 ← ICPB XV137 ← Z. Klement S23.
- 120 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X35 ← ICPB XV138 ← Z. Klement S24.
- 121 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X36 ← ICPB XV139 ← Z. Klement S28.
- 122 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1960. From D.W. Dye X37 ← ICPB XV140p ← Z. Klement S29.
- 173 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X40 ← ICPB XV144 ← Z. Klement S10 = NCPPB 1426.
- 174 a *Lycopersicon esculentum* Mill. - tomato. Hungary 1957. From D.W. Dye X41 ← ICPB XV145 ← Z. Klement S18.
- 175 a* *Lycopersicon esculentum* Mill. - tomato. USA 1961. From D.W. Dye X42 ← ICPB XV149 ← R.E. Stall 61-1 - *tomato (Stall).
- 176 a* *Lycopersicon esculentum* Mill. - tomato. USA 1961. From D.W. Dye X43 ← ICPB XV149 ← R.E. Stall 61-3 - *tomato (Stall).
- 178 a* *Lycopersicon esculentum* Mill. - tomato. USA Dec 1961. From D.W. Dye X44 ← ICPB XV149 ← R.E. Stall 61-21 - *tomato (Stall).
- 638 b* *Lycopersicon esculentum* Mill. - tomato - fruit lesions. Hope, NN, NZ Feb 1963. From N.L. Baigent XV500 - *tomato.
- 696 a *Lycopersicon esculentum* Mill. - tomato - fruit. Hope, NN, NZ Feb 1963. From N.L. Baigent XV501 - *tomato.
- 1620 a *Lycopersicon esculentum* Mill. - tomato. Yugoslavia 1953. From D.W. Dye WV1 ← ICPB XG101 ← D. Sutic - rec. as *X. gardneri*.
- 1644 a *Lycopersicon esculentum* Mill. - tomato. USA. From D.W. Dye X58 ← C. Wehlburg 27.
- 7383 b* *Lycopersicon esculentum* Mill. - tomato - leafspot. Gisborne, GB, NZ Dec 1980. From D.R.W. Watson F2847 - associated with *P. syringae* pv. *tomato* - *tomato.
- 7393 *Lycopersicon esculentum* Mill. - tomato - leafspot. Fiji Jan 1981. From D.R.W. Watson A2857.
- 8035 a *Lycopersicon esculentum* Mill. - tomato. Brazil 1980. From IBSBF 208 ← J.R. Neto - Arq. Inst. Biol. Sao Paulo 51: 13-16, 1984.
- 8036 a *Lycopersicon esculentum* Mill. - tomato. Brazil 1980. From IBSBF 251 ← J.R. Neto - Arq. Inst. Biol. Sao Paulo 51: 13-16, 1984.
- 9082 *Lycopersicon esculentum* Mill. - tomato - leafspot. Hungary 1982. From J. Nemeth CMX9.
- 9083 *Lycopersicon esculentum* Mill. - tomato cv. Slager - leafspot. Hungary 1982. From J. Nemeth HEX72.
- 9084 *Lycopersicon esculentum* Mill. - tomato cv. Slager - leafspot. Hungary 1982. From J. Nemeth HEX73.
- 9592 *Lycopersicon esculentum* Mill. - tomato. From M.C. Whalen 75-3 ← B.J. Staskawicz ← R.E. Stall - Mol. Pl.-Microbe Interact. 1: 5-9, 1988 - race 1.
- 10447 *Lycopersicon esculentum* Mill. - tomato. Ukraine 1947. From V.A. Muras ← K.I. Belyukova 9.
- 12024 * *Lycopersicon esculentum* Mill. - tomato - leafspot. HB, NZ 1994. From R.G. Clark 53Aa - isolated in association with *P. syringae* pv. *tomato* - *tomato.
- 7464 *Nicotiana tabacum* L. - tobacco. Brazil 1980. From IBSBF 317 ← O. Kimura ENA2861.
- 1642 a *Solanum* sp. - nightshade. USA. From D.W. Dye X56 ← C. Wehlburg 55 - avirulent to capsicum.
- 67 a Israel 1947. From D.W. Dye X5 ← W.J. Dowson 195 ← Z. Volcani = NCPPB 195.
- 92 a* Italy. From D.W. Dye X7 ← A. Ciccarone - *tomato.
- 103 a USA Sep 1932. From D.W. Dye X17 ← ICPB XV12 ← M.K. Bryan 38.

***Xanthomonas campestris* pv. *viegasii* Robbs et al. 1989**

- 9261 *Pachystachys lutea* Nees. Brazil 1986. From IBSBF 575 ← J.R. Neto FC1 - **Type strain**.
- 9262 *Pachystachys lutea* Nees. Brazil 1986. From IBSBF 576 ← J.R. Neto FC2.

- Xanthomonas campestris* pv. *vignaeradiatae*** (Sabet *et al.* 1969) Dye 1978
syn. *Xanthomonas axonopodis* pv. *vignaeradiatae* (Sabet *et al.* 1969) Vauterin *et al.* 1995
5759 a *Vigna radiata* (L.) R. Wilcz. - mung bean. Sudan 1966. From NCPPB 2058 ← K.A. Sabet phas2 = LMG 936 - **Pathotype strain.**
- Xanthomonas campestris* pv. *vignicola*** (Burkholder 1944) Dye 1978
syn. *Xanthomonas axonopodis* pv. *vignicola* (Burkholder 1944) Vauterin *et al.* 1995
9980 *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean. Nigeria. From NCPPB 3169 ← J.F. Bradbury B7166.
333 a *Vigna unguiculata* (L.) Walp. - cowpea cv. China Red. USA 1942. From D.W. Dye ZY2 ← ICPB XV18 ← W.H. Burkholder XV18 = NCPPB 1838: ATCC 11648: LMG 8752 - **Pathotype strain.**
335 a *Vigna unguiculata* (L.) Walp. - cowpea. 1942. From D.W. Dye ZY5 ← W.H. Burkholder XV19 = ATCC 11649.
590 a* *Vigna unguiculata* (L.) Walp. - cowpea cv. China Red - stem. USA Sep 1942. From D.W. Dye WG1 ← ICPB XS1 ← W.H. Burkholder = NCPPB 1633 - rec. as *X. sinensis* - *bean, cowpea.
5855 *Vigna unguiculata* (L.) Walp. - cowpea. Zimbabwe. From NCPPB 638 ← A.C. Hayward 76537 ← A. Rothwell.
3389 a *Vigna unguiculata* (L.) Walp. subsp. *cylindrica* (L.) van Eselt. ex Verdc. - catjang - leaf blight. India Sep 1971. From D.W. Dye ZK21 ← S.V. Hegde XVG1.
3479 a* *Vigna unguiculata* (L.) Walp. subsp. *cylindrica* (L.) van Eselt. ex Verdc. - catjang - leaf blight. India Sep 1971. From D.W. Dye ZY6 ← S.V. Hegde XVG1 - *cowpea.
334 a India. From D.W. Dye ZY3 ← ICPB XV118 ← M.K. Patel.
- Xanthomonas campestris* pv. *vitians*** (Brown 1918) Dye 1978
syn. *Xanthomonas axonopodis* pv. *vitians* (Brown 1918) Vauterin *et al.* 1995
355 a *Lactuca sativa* L. - lettuce. USA. From D.W. Dye YA4 ← W.H. Burkholder XL6 = ICPB XL6: NCPPB 969 - rec. as *X. lactucae-scariolae*.
1408 a* *Lactuca sativa* L. - lettuce. USA. From D.W. Dye ZF2 ← ICPB XL5 ← W.H. Burkholder XL5 - rec. as *X. lactucae* - *lettuce (Burkholder).
4165 *Lactuca sativa* L. - lettuce - leaves. Pukekohe, AK, NZ Mar 1975. From H.J. Boesewinkel XVIT1.
5854 *Lactuca sativa* L. - lettuce. Brazil 1957. From NCPPB 1839 ← C.F. Robbs ENA250 ← A.P. Viegas = ICPB XV169.
6461 b* *Lactuca sativa* L. - lettuce cv. Toplake - leaf rot. Waimauku, AK, NZ Mar 1979. From D.R.W. Watson D2538 - *lettuce.
6655 *Lactuca sativa* L. - lettuce - leaf. Australia Jun 1978. From P.C. Fahy DAR30526.
6656 *Lactuca sativa* L. - lettuce cv. Yates Dale. Australia Oct 1978. From P.C. Fahy DAR30547 ← R. Fitzell.
6735 b* *Lactuca sativa* L. - lettuce - angular leafspot. Palmerston North, WI, NZ Jun 1979. From D.R.W. Watson B2578 - *lettuce.
6857 *Lactuca sativa* L. - lettuce. Pukekohe, AK, NZ Mar 1980. From C.F. Hill AS3997.
7423 b* *Lactuca sativa* L. - lettuce cv. Butterhead - leaf lesion. Patumahoe, AK, NZ Jun 1981. From D.R.W. Watson J2928 - *lettuce.
7465 *Lactuca sativa* L. - lettuce cv. White Boston. Brazil 1973. From IBSBF 325 ← C.F. Robbs ENA2008.
11269 *Lactuca sativa* L. - lettuce - brown necrotic leaf lesion. NZ Apr 1992. From J.M. Young 3897A.
336 a *Lactuca* sp. - lettuce. USA 1917. From D.W. Dye YA1 ← ICPB XV2 ← N.A. Brown 14 = ATCC 19320: CFBP 2538: LMG 937: NCPPB 976 - **Pathotype strain.**
337 a *Lactuca* sp. - wild lettuce. USA 1949. From D.W. Dye YA3 ← W.H. Burkholder XL3 ← H.W. Anderson = ICPB XL3: NCPPB 992: ATCC 11525 - rec. as *X. lactucae-scariolae*.
9584 *Lactuca* sp. - lettuce - leaf. USA (Hawaii). From A.R. Chase X251 ← A. Alvarez 10TB13.
9616 *Lactuca* sp. - lettuce - leaves. USA (Hawaii). From A.R. Chase X245 ← A. Alvarez D1-A674-2B.
201 a USA. From D.W. Dye ZF1 ← NCPPB 232 ← M.P. Starr.
- Xanthomonas campestris* pv. *viticola*** (Nayudu 1972) Dye 1978
3865 a *Vitis* sp. - grape - leaf. India. From D.W. Dye NU2 ← M.V. Nayudu 0302 = NCPPB 2614 - rec. as *P. viticola*.
3866 a *Vitis* sp. - grape - leaf. India. From D.W. Dye NU3 ← M.V. Nayudu 0305 = NCPPB 2615.
3867 a *Vitis* sp. - grape cv. Anab-e-shahi - leaf. India. From D.W. Dye NU4 ← M.V. Nayudu 0307 = LMG 965: NCPPB 2475 - rec. as *P. viticola* - **Pathotype strain.**
3868 a *Vitis* sp. - grape - leaf. India. From D.W. Dye NU5 ← M.V. Nayudu 0309 = NCPPB 2616 - rec. as *P. viticola*.
- Xanthomonas campestris* pv. *vitiscarnosae*** (Moniz & Patel 1958) Dye 1978
90 a *Vitis carnosae* Wall. India. From D.W. Dye XH1 ← D.P. Bhide = LMG 939: NCPPB 1149 - **Pathotype strain.**
- Xanthomonas campestris* pv. *vitistrifoliae*** (Padhya *et al.* 1965) Dye 1978
1614 a *Vitis trifolia* L. - leafspot. India Sep 1961. From D.W. Dye WL1 ← ICPB XV160 ← A.C. Padhya.
5761 a *Vitis trifolia* L. India 1961. From NCPPB 1451 ← M.K. Patel ← A.C. Padhya = LMG 940 - **Pathotype strain.**
- Xanthomonas campestris* pv. *vitiswoodrowii*** (Patel & Kulkarni 1951) Dye 1978
5847 a *Vitis vinifera* L. - grape. India 1970. From NCPPB 2490 ← J.F. Bradbury B4929 ← J. Subbaya - rec. as *P. vitiswoodrowii*.
3965 a *Vitis woodrowii* Stapf - girmul. India. From D.W. Dye MW1 ← NCPPB 1014 ← M.K. Patel 19 = ATCC 11636: LMG 954: NCPPB 1014: ICPB PV103 - rec. as *P. vitiswoodrowii* - **Pathotype strain.**
- Xanthomonas campestris* pv. *zantedeschiae*** (Joubert & Truter 1972) Dye 1978
2372 a *Zantedeschia aethiopica* (L.) Spreng. - arum lily - leafspot. South Africa 1967. From D.W. Dye VN1 ← J.J. Joubert 3 = LMG 9059: NCPPB 2978 - **Pathotype strain.**
- Xanthomonas campestris* pv. *zingibericola*** (Ren & Fang 1981) Bradbury 1986
11133 *Zingiber mioga* Rosc. China. From X.Z. Ren N1.
11134 *Zingiber mioga* Rosc. China. From X.Z. Ren N2.
11135 *Zingiber mioga* Rosc. China. From X.Z. Ren N3.
8787 b *Zingiber officinale* Rosc. - ginger - leaf. China 1980. From X.Z. Ren Zo2 = LMG 9060 - Acta Phytopathologica Sinica 11: 37-40, 1981 - **Pathotype strain.**
8883 b *Zingiber officinale* Rosc. - ginger. China. From X.Z. Ren N2.
8884 b *Zingiber officinale* Rosc. - ginger - leaf. China. From X.Z. Ren N3.
- Xanthomonas campestris* pv. *zinniae*** (Hopkins & Dowson 1949) Dye 1978
5762 a *Zinnia elegans* Jacq. - youth-and-old-age. Australia 1969. From NCPPB 2439 ← A.C. Hayward 0365 = LMG 8692 - **Pathotype strain.**
11058 * *Zinnia elegans* Jacq. - youth-and-old-age - brown leaf lesions with chlorotic halo. Iran Jul 1991. From H. Rahimian Z20 - *zinnia (Rahimian).
11095 a *Zinnia elegans* Jacq. - youth-and-old-age - angular black leafspots. Avondale, AK, NZ Feb 1992. From F. Wood LYN7261.
308 a *Zinnia* sp. Zimbabwe 1946. From D.W. Dye ZT1 ← NCPPB 189 ← G.R. Bates.
1623 *Zinnia* sp. Zimbabwe. From D.W. Dye WX1 ← ICPB XZ101 ← W.J. Dowson = NCPPB 1009.
6479 *Zinnia* sp. - leafspot. USA Mar 1979. From D.R.W. Watson M2540.
6484 * *Zinnia* sp. USA 1979. From D.L. Strider - rec. as *X. nigromaculans* f. sp. *zinniae* - *zinnia (Strider).
12312 *Zinnia* sp. - leaf. Mt Albert, AK, NZ Mar 1995. From J.P. Wilkie PW12A.
12313 *Zinnia* sp. - leaf. Mt Albert, AK, NZ Mar 1995. From J.P. Wilkie PW12B.
- Xanthomonas fragariae*** Kennedy & King 1962
11939 *Fragaria* sp. France 1974. From CFBP 1558 ← B. Rat 100-7.
11944 *Fragaria* sp. Spain. From CFBP 2510 ← M.M. Lopez 349-9.
3304 a *Fragaria X ananassa* Duch. - cultivated strawberry cv. Tioga - leaf. Albany, AK, NZ Jul 1972. From D.W. Dye WH6 ← J.P. Wilkie (nee Bodley) 1316.
4019 a* *Fragaria X ananassa* Duch. - cultivated strawberry cv. Sequoia - watersoaked angular leaf lesion. Mt Albert, AK, NZ Jul 1974. From D.R.W. Watson Q1801 - *strawberry.
5715 a *Fragaria X ananassa* Duch. - cultivated strawberry. USA 1960. From NCPPB 1469 ← B.W. Kennedy AO2 = ATCC 33239: CFBP 2157:

LMG 708 - Type strain.

- 5797 b* *Fragaria X ananassa* Duch. - cultivated strawberry - angular leafspot. Australia. From P.C. Fahy DAR26146 = NCPPB 2949 - *strawberry.
 5812 *Fragaria X ananassa* Duch. - cultivated strawberry cv. Campinas - leaf. Brazil Aug 1977. From IBSBF 84 ← J.R. Neto.
 5813 *Fragaria X ananassa* Duch. - cultivated strawberry cv. Monte Alegre. Brazil Aug 1977. From IBSBF 89 ← J.R. Neto.
 6269 a* *Fragaria X ananassa* Duch. - cultivated strawberry cv. Sequoia - angular leaf lesion. Albany, AK, NZ Dec 1971. From J.P. Wilkie (nee Bodley) A1221 = ICPB XF122 - *strawberry.
 6278 a *Fragaria X ananassa* Duch. - cultivated strawberry cv. Torrey - leaf. Drury, AK, NZ Jul 1972. From J.P. Wilkie (nee Bodley) 1314 = ICPB XF124.
 6646 *Fragaria X ananassa* Duch. - cultivated strawberry. Australia Oct 1975. From P.C. Fahy DAR26919 ← J. McGechan.
 6648 *Fragaria X ananassa* Duch. - cultivated strawberry. Australia 1975. From P.C. Fahy DAR26146 ← J. McGechan.
 659 a USA. From D.W. Dye WH1 ← T.H. King ← B.W. Kennedy A4.
 661 a USA. From D.W. Dye WH3 ← ICPB XF102 ← B.W. Kennedy EN2.

Xanthomonas oryzae* pv. *oryzae (Ishiyama 1922) Swings *et al.* 1990syn. *Xanthomonas campestris* pv. *oryzae* (Ishiyama 1922) Dye 1978

- 363 a *Oryza sativa* L. - rice. Philippines. From D.W. Dye YK2 ← F.T. Orillo 2 = NCPPB 1151.
 364 a *Oryza sativa* L. - rice. Philippines. From D.W. Dye YK1 ← F.T. Orillo 1 = NCPPB 1150.
 440 a *Oryza sativa* L. - rice. Japan. From D.W. Dye YK5 ← H. Mukoo = NCPPB 1154.
 442 a *Oryza sativa* L. - rice. Japan. From D.W. Dye YK4 ← H. Mukoo = NCPPB 1153.
 3123 a* *Oryza sativa* L. - rice cv. BR34 - leaf blight and wilt. India 1963. From D.W. Dye YK7 ← Y.P. Rao XO2 - *rice (Rao).
 3124 a* *Oryza sativa* L. - rice cv. Taichung native 1 - leaf blight, wilt. India 1965. From D.W. Dye YK8 ← Y.P. Rao XO6 - *rice (Rao).
 3125 a* *Oryza sativa* L. - rice - leaf blight and wilt. India 1965. From D.W. Dye YK9 ← Y.P. Rao XO8 = NCPPB 3002: ATCC 35933: CFBP 2532: LMG 5047 - *rice (Rao) - Pathotype strain.
 3126 a* *Oryza sativa* L. - rice cv. Taichung 65 - leaf blight, wilt. India 1966. From D.W. Dye YK10 ← Y.P. Rao XO10 - *rice (Rao).
 3127 a* *Oryza sativa* L. - rice cv. Taichung native 1 - leaf blight & wilt. India 1966. From D.W. Dye YK11 ← Y.P. Rao XO19 - *rice (Rao).
 3128 a* *Oryza sativa* L. - rice cv. Jaya - leaf blight, wilt. India 1970. From D.W. Dye YK12 ← Y.P. Rao XO28 - *rice (Rao).
 11128 *Oryza sativa* L. - rice. China. From X.Z. Ren KS8-4.
 11129 *Oryza sativa* L. - rice. China. From X.Z. Ren O294.
 11920 *Oryza sativa* L. - rice cv. IR20. Mali 1980. From CFBP 1951 ← J.L. Notteghem.
 12016 * *Oryza sativa* L. - rice - leaf. China 1983. From F.-P. Hu ← Y.H. Xia 83502-1-1 - *rice (Xia).
 12017 * *Oryza sativa* L. - rice - leaf. China 1985. From F.-P. Hu ← Y.H. Xia 85659-1-1 - *rice (Xia).
 12018 * *Oryza sativa* L. - rice - leaf. China 1983. From F.-P. Hu ← Y.H. Xia IV-506 - *rice (Xia).
 12021 *Oryza sativa* L. - rice. China. From Y.X. Zhang 00223.
 12022 *Oryza sativa* L. - rice. China. From Y.X. Zhang 00224.
 12023 *Oryza sativa* L. - rice. China. From Y.X. Zhang 00239.
 12326 * *Oryza sativa* L. - rice - leafspot. China 1983. From Y. Zhao 00235 ← Nanjing Agricultural University 5-1-69-22 - *rice (Zhao).
 12327 * *Oryza sativa* L. - rice - leafspot. China 1983. From Y. Zhao 00239 ← Nanjing Agricultural University 5-1-69-26 - *rice (Zhao).
 443 a Japan. From D.W. Dye YK3 ← N. Okabe = NCPPB 1152.
 634 India. From D.W. Dye YK6 ← G. Rangaswami.
 4646 China. From D.W. Dye ← T.C. Huang 604 = ATCC 35934.
 10037 China. From J.M. Young 76-25.

Xanthomonas oryzae* pv. *oryzicola (Fang *et al.* 1957) Swings *et al.* 1990syn. *Xanthomonas campestris* pv. *oryzicola* (Fang *et al.* 1957) Dye 1978

- 1621 a *Oryza sativa* L. - rice. Philippines 1963. From D.W. Dye WW1 ← ICPB XO104 ← M. Goto S3.
 1622 a *Oryza sativa* L. - rice. Philippines 1963. From D.W. Dye WW2 ← ICPB XO105 ← M. Goto S7.
 3129 a* *Oryza sativa* L. - rice cv. IR8 - leaf streak. India 1967. From D.W. Dye YK13 ← Y.P. Rao ST2 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3130 a* *Oryza sativa* L. - rice cv. Nagina 22 - leaf streak. India 1967. From D.W. Dye YK14 ← Y.P. Rao ST3 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3131 a* *Oryza sativa* L. - rice cv. IR8 - leaf streak. India 1967. From D.W. Dye YK15 ← Y.P. Rao ST5 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3132 a* *Oryza sativa* L. - rice cv. Taichung native 1 - leaf streak. India 1967. From D.W. Dye YK16 ← Y.P. Rao ST8 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3133 a* *Oryza sativa* L. - rice cv. Taichung 65 - leaf streak. India 1967. From D.W. Dye YK17 ← Y.P. Rao ST9 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3134 a* *Oryza sativa* L. - rice cv. Raipur 2 - leaf streak. India 1966. From D.W. Dye YK18 ← Y.P. Rao ST10 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3135 a* *Oryza sativa* L. - rice - leaf streak. India 1968. From D.W. Dye YK19 ← Y.P. Rao ST12 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 3136 a* *Oryza sativa* L. - rice cv. Trinan 3 - leaf streak. India 1968. From D.W. Dye YK20 ← Y.P. Rao ST15 ← G.S. Shekhawat - rec. as *X. translucens* f. sp. *oryzae* - *rice (Rao).
 4653 *Oryza sativa* L. - rice - leaf. Philippines Jan 1976. From S.H. Ou BLS92 ← T.W. Mew PXT1 = CCM 2759.
 4654 *Oryza sativa* L. - rice - leaf. Philippines Jan 1976. From S.H. Ou BLS93 ← T.W. Mew PXT2 = CCM 2760.
 5743 a *Oryza sativa* L. - rice - leaf streak. Malaysia 1964. From NCPPB 1585 ← A.C. Hayward B2115 = ATCC 49072: CFBP 2286: LMG 797: ICPB XO111 - Pathotype strain.
 11131 *Oryza sativa* L. - rice. China. From X.Z. Ren O372.
 11132 *Oryza sativa* L. - rice. China. From X.Z. Ren 1001.
 12013 * *Oryza sativa* L. - rice - leaf. China 1989. From F.-P. Hu ← Y.H. Xia 89771-1-1 - rec. as *X. oryzae* pv. *oryzicola* - *rice (Xia).
 12014 * *Oryza sativa* L. - rice - leaf. China 1989. From F.-P. Hu ← Y.H. Xia 8907-1-1 - rec. as *X. oryzae* pv. *oryzicola* - *rice (Xia).
 12015 * *Oryza sativa* L. - rice - leaf. China 1989. From F.-P. Hu ← Y.H. Xia 89770-1-1 - rec. as *X. oryzae* pv. *oryzicola* - *rice (Xia).
 12019 *Oryza sativa* L. - rice. China. From Y.X. Zhang 00360.
 12020 *Oryza sativa* L. - rice. China. From Y.X. Zhang 00359.
 12328 * *Oryza sativa* L. - rice - seed. China 1986. From Y. Zhao 00368 ← Plant Quarantine Institute, Beijing 5-1-101-3-13 - seeds from Philippines - rec. as *X. oryzae* pv. *oryzicola* - *rice (Zhao).
 12329 * *Oryza sativa* L. - rice - leafspot. China 1988. From Y. Zhao 00373 ← Plant Quarantine Institute, Beijing 5-1-101-3-18 - *rice (Zhao).
 12330 *Oryza sativa* L. - rice - leafspot. China 1989. From Y. Zhao 00383 ← Plant Quarantine Institute, Beijing 5-1-101-3-28.
 10035 China. From J.M. Young S4.

Xanthomonas populi (ex Ridé 1958) Ridé & Ridé 1992

- 7728 *Populus balsamifera* Duroi non L. - balsam poplar - canker. Netherlands May 1982. From M. de Kam 115-3 - rec. as *X. populi* subsp. *populi*.
 9893 *Populus koreana* Rehder X *P. trichocarpa* Torrey & A.Gray - poplar. UK (England). From NCPPB 2987 ← C.O. Jilbert ← D.A. Burdekin = ICPB XP237.
 5831 *Populus* sp. - hybrid poplar. Belgium 1965. From M. Ridé 65-101 ← M. Ridé S6-2b = CFBP 1820: NCPPB 2963: ICPB XP235: LMG 5745.
 7729 *Populus tremula* L. - European aspen poplar - canker. Netherlands Jun 1982. From M. de Kam 163 - rec. as *X. populi* subsp. *populi*.
 5836 *Populus tremula* L. X *P. tremuloides* Mich. - hybrid aspen poplar. Belgium 1963. From M. Ridé 63-100 ← M. Ridé TR-X-TA = CFBP 1819: NCPPB 2964: ICPB XP236 - Eur. J. For. Path. 8: 310-333, 1978.
 5816 a *Populus X euramericana* (Dode) Guinier - poplar cv. Regenerata. France 1957. From M. Ridé 57-98 ← M. Ridé REG = NCPPB 2959:

- CFBP 1817: ICPB XP231: ATCC 51165: LMG 5743 - **Type strain.**
- 5817 a *Populus X euramericana* (Dode) Guinier - poplar cv. Regenerata. Belgium 1975. From M. Ridé 75-107 ← M. Ridé M1j = NCPPB 2962: CFBP 1826: ICPB XP234: LMG 973 - Eur. J. For. Path. 8: 310-333, 1978.
- 5827 a *Populus X euramericana* (Dode) Guinier - poplar cv. Regenerata. France 1976. From M. Ridé 76-106 ← S. Ridé Spm 13 = NCPPB 2954: CFBP 1825: ICPB XP 229.
- 5829 *Populus X euramericana* (Dode) Guinier - poplar cv. Regenerata. France 1965. From M. Ridé 65-103 ← M. Ridé SM1 = NCPPB 2951: CFBP 1822: ICPB XP226.
- 5830 *Populus X euramericana* (Dode) Guinier - poplar cv. Grandis. France 1965. From M. Ridé 65-102 ← M. Ridé AS6 = CFBP 1821: NCPPB 2952: ICPB XP227.
- 9141 *Populus X interamericana* Brockh. - poplar cv. Rap. Netherlands Jun 1983. From M. de Kam Dsk178.
- 7999 a *Salix X dasyclados* Wimm. - willow - canker. Netherlands Sep 1976. From M. de Kam 90 = NCPPB 3426 - Eur. J. For. Path. 11: 25-29, 1978 - rec. as *X. populi* subsp. *salicis*.
- 8000 a *Salix X dasyclados* Wimm. - willow - canker. Netherlands Jun 1977. From M. de Kam 102 - Eur. J. For. Path. 11: 25-29, 1978 - rec. as *X. populi* subsp. *salicis*.
- 8882 a *Salix X dasyclados* Wimm. - willow - canker. Netherlands. From M. de Kam 89 - Eur. J. For. Path. 11: 25-29, 1978 - rec. as *X. populi* subsp. *salicis*.
- 9984 * *Salix X dasyclados* Wimm. - willow - branches, bark tissue. Netherlands May 1988. From M. de Kam Dsk32D (8821) - Eur. J. For. Path. 11: 25-29, 1981 - rec. as *X. populi* subsp. *salicis* - *willow (de Kam).
- 9985 * *Salix X dasyclados* Wimm. - willow - branches, bark tissue. Netherlands May 1988. From M. de Kam Dsk 328 (8822) - rec. as *X. populi* subsp. *salicis* - *willow (De Kam).
- 9986 * *Salix X dasyclados* Wimm. - willow - branches, bark tissue. Netherlands May 1988. From M. de Kam 329 (8823) - rec. as *X. populi* subsp. *salicis* - *willow (De Kam).
- 9987 * *Salix X dasyclados* Wimm. - willow - branches, bark tissue. Netherlands May 1988. From M. de Kam Dsk 330 ← M. de Kam 8824 - rec. as *X. populi* subsp. *salicis* - *willow (de Kam).
- 9988 * *Salix X dasyclados* Wimm. - willow - branches, bark tissue. Netherlands May 1988. From M. de Kam Dsk 332 (8826) - rec. as *X. populi* subsp. *salicis* - *willow (de Kam).

Xanthomonas sp.

- 11915 *Agropyron repens* (L.) Beauv. - couchgrass, twitch. Norway 1978. From CFBP 1979 ← A. Sletten 46 - rec. as *X. campestris*.
- 9278 *Allium cepa* L. - onion - leafspot. Brasil 1986. From IBSBF 594 ← J.R. Neto - rec. as *X. campestris*.
- 9279 *Allium cepa* L. - onion - leafspot. Brasil 1986. From IBSBF 595 ← J.R. Neto - rec. as *X. campestris*.
- 10141 *Allium cepa* L. - onion. From A. Alvarez A3288 - rec. as *X. campestris*.
- 10143 *Allium cepa* L. - onion. From A. Alvarez A3283 - rec. as *X. campestris*.
- 10144 *Allium cepa* L. - onion. From A. Alvarez A3284 - rec. as *X. campestris*.
- 10145 *Allium cepa* L. - onion. From A. Alvarez A3285 - rec. as *X. campestris*.
- 10146 *Allium cepa* L. - onion. From A. Alvarez A1886 - rec. as *X. campestris*.
- 10147 *Allium cepa* L. - onion. From A. Alvarez A3287 - rec. as *X. campestris*.
- 2374 *Aralia* sp. From D.W. Dye ZZ22 ← D.A. Shackleton 1.
- 2375 *Aralia* sp. From D.W. Dye ZZ23 ← D.A. Shackleton 2.
- 2376 *Aralia* sp. From D.W. Dye ZZ24 ← D.A. Shackleton 3.
- 11921 *Bromus carinatus* Hook. & Arn. - California brome. France 1980. From CFBP 1976 ← R. Samson 1601-1 - rec. as *X. campestris*.
- 9981 *Calendula officinalis* L. - pot marigold. UK 1974. From NCPPB 2933 ← J.F. Bradbury B6132.
- 11163 *Capsicum annuum* L. - sweet pepper - Angular black leafspots. Warkworth, AK, NZ Apr 1992. From C.F. Hill LYN7478 - rec. as *X. campestris*.
- 9982 *Cayratia carnosus* Gagnep. - amal-bel. India 1974. From NCPPB 2934 ← J.F. Bradbury B6141 ← P.S. Shekhawat XW1.
- 3281 *Cheiranthus cheiri* L. - wallflower - stem vascular tissue. UK (England) 1970. From D.W. Dye ← L.A.E. Baker.
- 9577 *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum - leaf. USA 1986. From A.R. Chase X213 ← J. Miller DP1-P86-5240 - rec. as *X. campestris*.
- 8561 a *Cissus japonica* Willd. - Japanese ivy - brown leafspot. Japan Aug 1974. From M. Goto PC1 = ATCC 33616: CFBP 2432: LMG 2167: NCPPB 2982 - Ann. Phytopath. Soc. Japan 43: 40-45, 1977 - rec. from M. Goto as replacement for ICMP 4289 - rec. as type strain of *Pseudomonas cissicola*.
- 9840 *Citrus* sp. Thailand Dec 1988. From C.F. Hill 88-3222 - probably *X. campestris* pv. *citri*.
- 8924 a *Cordia goeldiana* Huber. Brazil Nov 1981. From IBSBF 505 ← C.F. Robbs ENA 3045 - Fitopatologia Brasileira 8: 632, 1983 - rec. as pathotype strain of *X. campestris* pv. *cordiae* [invalid name].
- 8925 *Cordia goeldiana* Huber. Brazil May 1982. From IBSBF 506 ← C.F. Robbs ENA 3123 - Fitopatologia Brasileira 8: 632, 1983 - rec. as *X. campestris* pv. *cordiae* [invalid name].
- 12027 *Cynara scolymus* L. - globe artichoke. France 1957. From CFBP 18 ← M. Ridé Cs25 - rec. as *X. campestris*.
- 12031 *Cynara scolymus* L. - globe artichoke. France 1981. From CFBP 2044 ← L. Gardan P52 - rec. as *X. campestris*.
- 12007 *Dendranthema hypargyrum* (Diels) [Invertebrate] - yellow flower dendranthema. China. From X.Z. Ren GO2 - rec. as *X. campestris*.
- 9615 *Dianthus caryophyllus* L. - carnation - leaves. USA 1986. From A.R. Chase X235 ← J.W. Miller DP1-P86-1726 - rec. as *X. campestris*.
- 6759 b *Diospyros kaki* L.f. - Japanese persimmon cv. Hachiya - stem. Te Puke, BP, NZ Nov 1979. From J.M. Young 2648A - rec. as *X. campestris*.
- 6762 b *Diospyros kaki* L.f. - Japanese persimmon cv. Hachiya - angular leafspot. Te Puke, BP, NZ Dec 1979. From J.M. Young 2669A - rec. as *X. campestris*.
- 6777 b *Diospyros kaki* L.f. - Japanese persimmon cv. Gailey - darkening along leaf midrib. Te Puke, BP, NZ Dec 1979. From J.M. Young 2675B2 - rec. as *X. campestris*.
- 6778 b *Diospyros kaki* L.f. - Japanese persimmon cv. Gailey - angular leafspot. Te Puke, BP, NZ Dec 1979. From J.M. Young 2675B1 - rec. as *X. campestris*.
- 1921 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - leafspot. New Plymouth, TK, NZ Aug 1967. From D.W. Dye WZ1 - *eriostemon.
- 1925 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - leafspot. New Plymouth, TK, NZ Aug 1967. From D.W. Dye WZ2 - *eriostemon.
- 1926 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - stem lesion. New Plymouth, TK, NZ Aug 1967. From D.W. Dye WZ3 - *eriostemon.
- 1927 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - stem lesion. New Plymouth, TK, NZ Aug 1967. From D.W. Dye WZ4 - *eriostemon.
- 1981 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - stem lesion. NZ Aug 1967. From D.W. Dye WZ5 - *eriostemon.
- 2331 b* *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - dark lesion girdling young stem. Auckland, AK, NZ May 1968. From D.R.W. Watson A203 - *eriostemon.
- 2381 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - stem lesion. Auckland, AK, NZ Nov 1968. From D.R.W. Watson A305.
- 2436 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - small black and tan lesions on leaves. Palmerston North, WI, NZ Jan 1969. From D.R.W. Watson B343.
- 2445 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - tan-brown leaf lesions. Auckland, AK, NZ Dec 1968. From D.R.W. Watson A325.
- 8443 *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - twig blight. Auckland, AK, NZ Nov 1983. From D.R.W. Watson M3312 ← C.F. Hill AS22272 - rec. as *X. campestris*.
- 8444 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - twig blight - leaf lesion. Auckland, AK, NZ Nov 1983. From D.R.W. Watson A3313 - rec. as *X. campestris*.
- 8451 *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - twig blight. Auckland, AK, NZ Nov 1983. From D.R.W. Watson M3314 ← C.F. Hill AS22635 - rec. as *X. campestris*.
- 8466 b *Eriostemon myoporoides* DC. - eriostemon cv. Profusion - twig blight. Auckland, AK, NZ Nov 1983. From D.R.W. Watson M3318 ← C.F. Hill AS22733 - rec. as *X. campestris*.
- 6041 *Eucalyptus* sp. - gumtree - die-back of young shoot. Auckland, AK, NZ May 1978. From D.R.W. Watson C2419 - rec. as *Xanthomonas* sp.
- 9571 * *Fittonia verschaffeltii* (Lem.) Coem. - nerve plant - leaf blight. USA 1986. From A.R. Chase X180 ← D.D. Brunk PDD-910-86 - rec. as *X. campestris* - **Fittonia* sp., *Aphelanolia* sp. (Chase).

- 9585 * *Fittonia verschoffeltii* (Lem.) Coem. - nerve plant - leaf. USA Feb 1987. From A.R. Chase X257 ← A.R. Chase 87-38B - rec. as *X. campestris* - * *Fittonia* sp., *Aphelandra* sp. (Chase).
- 11262 *Hardenbergia* sp. - happy wanderer. Waitara, TK, NZ Apr 1992. From C.F. Hill 7408 - rec. as *X. campestris*.
- 9582 *Illicium* sp. - anise - leaf. USA 1986. From A.R. Chase X232 ← J.W. Miller DP1-P86-2554 - rec. as *X. campestris*.
- 9894 *Liquidambar* sp. - leafspot. New Plymouth, TK, NZ Mar 1989. From C.F. Hill 3886a - rec. as *X. campestris*.
- 9895 *Liquidambar* sp. - leafspot. New Plymouth, TK, NZ Mar 1989. From C.F. Hill 3886b - rec. as *X. campestris*.
- 8452 *Magnolia* sp. - leafspot. Mt Albert, AK, NZ Nov 1983. From D.R.W. Watson A3315 ← C.F. Hill AS22763X - rec. as *X. campestris*.
- 8462 *Magnolia* sp. - leafspot. Pukekohe, AK, NZ Nov 1983. From D.R.W. Watson A3317 ← C.F. Hill AS22760 - rec. as *X. campestris*.
- 8457 *Magnolia stellata* (Sieb. & Zucc.) Maxim. - star magnolia - leafspot. Mt Albert, AK, NZ Nov 1983. From D.R.W. Watson C3316 ← C.F. Hill AS22762X - rec. as *X. campestris*.
- 4939 *Mahonia lomariifolia* Takeda - black angular leaf lesion with chlorotic halo. Christchurch, MC, NZ Jun 1976. From J.M. Young 2183A - rec. as *X. campestris*.
- 9759 *Mangifera* sp. - mango. From K.H. Anahosur 1.
- 9826 *Mangifera* sp. - mango. From K.H. Anahosur 2.
- 9827 *Mangifera* sp. - mango. From K.H. Anahosur 10.
- 9973 *Maranta arundinacea* L. - arrowroot. Brazil 1964. From NCPPB 3005 ← ICPB XM126 ← C.F. Robbs IBSP XM1 = ICPB XM126 - rec. as *X. marantae*.
- 9971 *Matthiola incana* (L.) R. Br. - stock. Zimbabwe. From NCPPB 2922.
- 12167 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - angular leaf lesions (2-4mm) with dark non-discrete margin. Tauranga, BP, NZ Dec 1993. From J.M. Young OO24e - rec. as *X. campestris*.
- 12168 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - angular leaf lesions (2-4mm) with dark non-discrete margin. Tauranga, BP, NZ Dec 1993. From J.M. Young OO24f - rec. as *X. campestris*.
- 12169 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - angular leaf lesions (2-4mm) with dark non-discrete margin. Tauranga, BP, NZ Dec 1993. From J.M. Young OO24g - rec. as *X. campestris*.
- 5806 *Momordica charantia* L. - balsam pear. Brazil May 1976. From IBSBF 500 ← J.R. Neto X41.
- 9579 *Myrica* sp. - wax myrtle. USA 1986. From A.R. Chase X226 ← G.W. Simone 3493-C-86 - rec. as *X. campestris*.
- 186 *Nicandra physalodes* (L.) Gaertn. - apple of Peru - leafspot. Northcote, AK, NZ May 1962. From D.W. Dye X52 ← D.A. Shackleton - rec. as *X. campestris* - avirulent to capsicum.
- 9263 * *Parthenium hysterophorus* L. - parthenium weed. India. From K.P. Singh I - rec. as *X. campestris* - * *P. hysterophorus*, chrysanthemum, sunflower, zinnia, *Launea asplenifolia* (Singh).
- 9264 * *Parthenium hysterophorus* L. - parthenium weed. India. From K.P. Singh II - rec. as *X. campestris* - * *P. hysterophorus*, chrysanthemum, sunflower, zinnia, *Launea asplenifolia* (Singh).
- 9298 * *Parthenium hysterophorus* L. - parthenium weed. India. From K.P. Singh III - rec. as *X. campestris* - * *P. hysterophorus*, chrysanthemum, sunflower, zinnia *Launea asplenifolia* (Singh).
- 9299 * *Parthenium hysterophorus* L. - parthenium weed. India. From K.P. Singh IV - rec. as *X. campestris* - * *P. hysterophorus*, chrysanthemum, sunflower, zinnia, *Launea asplenifolia* (Singh).
- 9300 * *Parthenium hysterophorus* L. - parthenium weed. India. From K.P. Singh V - rec. as *X. campestris* - * *P. hysterophorus*, chrysanthemum, sunflower, zinnia, *Launea asplenifolia* (Singh).
- 9517 a* *Pellionia pulchra* N.E. Br. - rainbow vine, satin pellonia - leaf. USA 1978. From A.R. Chase X33 ← J.W. Miller DP1-078-2080 - Pl. Dis 70: 346-348, 1986 - rec. as *X. campestris* - * *Pellionia* sp., *Pilea* sp., *Strelitzia* sp., *Ficus* sp., *Fittonia* sp. (Chase).
- 9614 *Photinia glabra* (Thunb.) Maxim. - Japanese photinia - leaves. USA 1986. From A.R. Chase X215 ← J. Miller DP1-P86-3019 - rec. as *X. campestris*.
- 9385 a *Pilea cadierei* Gagnep. & Guillaum - aluminium plant - watersoaked leafspots that dry and develop into shotholes in silver areas of leaf. USA Sep 1983. From J.W. Miller P86-1471 - Pl. Dis. 70: 346-348, 1986 - rec. as *X. campestris*.
- 9386 a *Pilea cadierei* Gagnep. & Guillaum - aluminium plant - watersoaked leafspots become shotholes in silver areas of leaf. USA Sep 1983. From J.W. Miller P86-2580 - Pl. Dis 70: 346-348, 1986 - rec. as *X. campestris*.
- 9387 a *Pilea cadierei* Gagnep. & Guillaum - aluminium plant - watersoaked leafspots/shotholes in silver areas of leaf. USA Sep 1983. From J.W. Miller P86-3420 - Pl. Dis 70: 346-348, 1986 - rec. as *X. campestris*.
- 9388 a *Pilea cadierei* Gagnep. & Guillaum - aluminium plant - watersoaked leafspots/shotholes in silver areas of leaf. USA Sep 1983. From J.W. Miller P83-4564 - Pl. Dis. 70: 346-348, 1986 - rec. as *X. campestris*.
- 9519 a* *Pilea cadierei* Gagnep. & Guillaum - aluminium plant - leaf. USA 1987. From A.R. Chase X264 (87-83A) - Pl. Dis. 70: 346-348, 1986 - rec. as *X. campestris* - * *Pilea* sp., *Pellonia* sp. (Chase).
- 9518 a* *Pilea spruceana* Wedd. - pilea - leaf blight. USA Jan 1987. From A.R. Chase X229 - Pl. Dis. 70: 346-348, 1986 - rec. as *X. campestris* - * *Pilea spruceana* (Chase).
- 9291 *Piper nigrum* L. - black pepper - leaf. Papua New Guinea Dec 1985. From D.L. Tomlinson PNG12623 - rec. as *X. campestris*.
- 12006 * *Primula vulgaris* Huds. - wild primrose - leaf. Iran 1991. From H. Rahimian Pc5 - rec. as *X. campestris* - * wild primrose.
- 9837 *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi. NZ 1990. From C.F. Hill 49 - rec. as *X. campestris*.
- 9838 *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi. NZ 1990. From C.F. Hill 50 - rec. as *X. campestris*.
- 9839 *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi. NZ 1990. From C.F. Hill 51 - rec. as *X. campestris*.
- 9578 * *Salvia* sp. - blue salvia - leaf. USA 1986. From A.R. Chase X218 ← G.W. Simone 3322F-86 - rec. as *X. campestris* - * *salvia* (Chase).
- 11945 *Spondias cytherea* Sonn. - ambarella. France 1985. From CFBP 2623 ← P. Frossard PC7 - rec. as *X. campestris* pv. *prunier*.
- 9514 a* *Strelitzia reginae* Ait. - bird-of-paradise - leaf, petiole. USA 1985. From A.R. Chase X144 (85-143) - Pl. Dis. 71: 845-847, 1987 - rec. as *X. campestris* - * *Strelitzia* sp., *Pilea* sp., *Ficus* sp. (Chase).
- 9515 a* *Strelitzia reginae* Ait. - bird-of-paradise - leaf. USA 1985. From A.R. Chase X154 - Pl. Dis. 71: 845-847, 1987 - rec. as *X. campestris* - pathogenic to *Strelitzia* sp., *Ficus* sp., *Pilea* sp. (Chase).
- 9516 a *Strelitzia reginae* Ait. - bird-of-paradise. USA 1985. From A.R. Chase X199 - Pl. Dis. 71: 845-847, 1987 - rec. as *X. campestris*.
- 9963 *Syzygium aromaticum* (L.) Merr. & L.M. Perry - clove. Indonesia. From NCPPB 3218.
- 1509 *Tripsacum laxum* Nash - Guatemala grass. Sri Lanka Dec 1960. From D.W. Dye ZZ9 ← D. Mulder H3 - possibly *X. vasculorum*.
- 4447 ? *Vigna* sp. - leafspot. Western Samoa Nov 1975. From J.M. Young 2054.
- 4586 * ? *Vigna* sp. - angular brown leaf lesion. Western Samoa Nov 1975. From D.R.W. Watson B2074 - *bean.
- 4618 ? *Vigna* sp. - angular brown leaf lesion. Western Samoa Dec 1975. From D.R.W. Watson A2085.
- 1616 India. From D.W. Dye WS1 ← M.J. Thirumalachar - rec. as *X. feroniae*.
- 8425 From ATCC 13951 ← NRRL B1459 ← W. Zoumeyer = ICPB XC153 - US Patent 3000790,3054689 - for industrial xanthan gum production - rec. as *X. campestris*.
- 9576 Fern. USA 1985. From A.R. Chase X210 ← G.W. Simone 2261A-85.
- 9595 From M.C. Whalen T55 ← B.J. Staskawicz ← R.E. Stall - Molecular Plant-Microbe Interactions 1: 5-9, 1988 - rec. as *X. campestris*.
- 12469 Hydrocarbon-contaminated soil. From J. Aislabie CB2 - rec. as *X. campestris*.

Xanthomonas zingibericola Ren & Fang 1981
see *Xanthomonas campestris* pv. *zingibericola*.

Xylella fastidiosa Wells et al. 1987

- 8745 *Ambrosia artemisiifolia* L. - ragweed. USA. From J.M. Wells RGW-R ← B.C. Raju = ATCC 35876.
- 8736 *Catharanthus roseus* (L.) G. Don - periwinkle. USA. From J.M. Wells PWT-100R ← L.W. Timmer.
- 8737 *Catharanthus roseus* (L.) G. Don - periwinkle. USA. From J.M. Wells PWT-22R ← L.W. Timmer.
- 8738 *Catharanthus roseus* (L.) G. Don - periwinkle. USA. From J.M. Wells PWT-17G ← L.W. Timmer.
- 8740 *Platanus occidentalis* L. - sycamore. USA. From J.M. Wells SYC-R ← J. Sherald.

- 6575 *Prunus dulcis* (Mill.) D.A. Webb - almond - almond leaf scorch. USA. From D.R.W. Watson M2616 ← M.J. Davis Ac1 = ATCC 29981.
 8739 *Prunus dulcis* (Mill.) D.A. Webb - almond. USA. From J.M. Wells ALS-G ← G. Nyland.
 8744 *Prunus persica* (L.) Batsch - peach. USA. From J.M. Wells PCH-83 ← B.C. Raju.
 8733 *Prunus salicina* Lindl. - Japanese plum. USA Sep 1983. From J.M. Wells PLM-RR.
 8734 *Prunus salicina* Lindl. - Japanese plum. USA Sep 1983. From J.M. Wells GRN-3.
 8735 *Prunus salicina* Lindl. - Japanese plum. USA Sep 1983. From J.M. Wells PLM-G83 = ATCC 228771.
 8743 *Prunus salicina* Lindl. - Japanese plum. USA Oct 1983. From J.M. Wells PLM8.
 8741 *Ulmus americana* L. - elm. USA. From J.M. Wells ELM-G ← S. Kastka.
 8742 *Ulmus americana* L. - elm. USA. From J.M. Wells ELM-R ← S. Kastka.
 6576 *Vitis vinifera* L. - grape - petiole sap of vine with Pierce's disease. USA. From D.R.W. Watson M2618 ← M.J. Davis VT1 = ATCC 29980.
 8693 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-GG = ATCC 35877.
 8694 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-GM2 ← B.C. Raju.
 8729 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-FL-GG ← B.C. Raju.
 8730 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-FLA-GC ← B.C. Raju.
 8731 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-R ← B.C. Raju.
 8732 *Vitis vinifera* L. - grape - vine. USA. From J.M. Wells PCE-RRR ← B.C. Raju.

Xylophilus ampelinus (Panagopoulos 1969) Willems *et al.* 1987syn. *Xanthomonas ampelinus* Panagopoulos 1969

- 4299 a* *Vitis vinifera* L. - grape cv. Sultana - canker. Crete Dec 1966. From C.G. Panagopoulos 96 = ICPB XA141: NCPPB 2220 - *grape (NCPPB).
 4300 a* *Vitis vinifera* L. - grape cv. Sultana - canker. Crete Jan 1969. From C.G. Panagopoulos 137 = NCPPB 2221 - *grape (NCPPB).
 8905 b *Vitis vinifera* L. - grape. South Africa 1972. From LMG 520 ← NCPPB 2590 ← F.N. Matthee.
 8920 a* *Vitis vinifera* L. - grape cv. Sultana - canker. Crete 1966. From NCPPB 2217 ← C.G. Panagopoulos 48 = ATCC 33914: CFBP 1192: LMG 5856: ICPB XA138 - *grape (NCPPB) - **Type strain**.
 9983 *Vitis vinifera* L. - grape. Spain 1981. From NCPPB 3241 ← M. Lopez 67-2a.
 11941 *Vitis vinifera* L. - grape cv. Maccabeu. Spain. From CFBP 1938 ← M. Lopez O677-1b = LMG510.
 11942 *Vitis vinifera* L. - grape cv. Italia/Rupestris du Lot - necrosis. France 1981. From CFBP 2059 ← M. Ridé V4 = LMG 511.
 11943 *Vitis vinifera* L. - grape cv. Ugni Blanc - necrosis. France 1983. From CFBP 2289 ← M. Ridé C23.

Zymomonas sp.

- 8195 *Prunus dulcis* (Mill.) D.A. Webb - almond - beer bark symptom. USA 1981. From M.N. Schroth 1 = NCPPB 1152.
 8196 *Prunus dulcis* (Mill.) D.A. Webb - almond - beer bark symptom. USA 1981. From M.N. Schroth 6 = NCPPB 1153.

FUNGI

Acremonium alternatum Link

- 11359 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - calyx end of fruit. Mt Albert, AK, NZ May 1992. From E.H.C. McKenzie - identified by W. Gams.

Acremonium coenophialum Morgan-Jones & W. Gams

- 10549 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Spain. From M.J. Christensen Tf5.
10550 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Italy. From M.J. Christensen Tf7.
10551 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Italy. From M.J. Christensen Tf9.
10552 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Italy. From M.J. Christensen Tf10.
10587 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Spain. From M.J. Christensen Tf16
10588 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Australia. From M.J. Christensen Tf25.
10589 *Festuca arundinacea* Schreb. - tall fescue cv. Kenhy Breeders - endophyte. USA. From M.J. Christensen Tf26.
10590 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Poland. From M.J. Christensen Tf27.
10591 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Portugal. From M.J. Christensen Tf28.
10592 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Palmerston North, WI, NZ. From M.J. Christensen Tf30.
10593 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Tindalls Beach, AK, NZ. From M.J. Christensen Tf31.

Acremonium lolii Latch, Christensen & Samuels

- 10594 *Lolium perenne* L. - perennial ryegrass - endophyte. Netherlands. From M.J. Christensen LP1.
10595 *Lolium perenne* L. - perennial ryegrass - endophyte. Southland, NZ. From M.J. Christensen LP2.
10596 *Lolium perenne* L. - perennial ryegrass - endophyte. Southland, NZ. From M.J. Christensen LP3 - TWS variant of LP2.
10597 *Lolium perenne* L. - perennial ryegrass - endophyte. Spain. From M.J. Christensen LP4.
10598 *Lolium perenne* L. - perennial ryegrass cv. Nui - endophyte. NZ. From M.J. Christensen LP5.
10599 *Lolium perenne* L. - perennial ryegrass - endophyte. NZ. From M.J. Christensen LP6.

Acremonium murorum (Corda) W. Gams

- 2028 *Solanum tuberosum* L. - potato - tuber. May 1967. From G.F. Laundon LEV 1401 ← J.H. Strickett.
5618 *Solanum tuberosum* L. - potato - tuber. Auckland, AK, NZ Jul 1965. From J.M. Dingley 65154.
5628 Auckland, AK, NZ 1972. From J.M. Dingley 72107 ← F.M. Rush-Munro 359.

***Acremonium* sp.**

see also *Nectria peziza*; *N. suffulta*.

- 11451 *Collosporum* sp. Albany, AK, NZ Dec 1992. From J.M. Young P14a.
1070 *Ctenochiton* sp. [Invertebrate] - scale insect on karaka leaf. Mar 1962. From F.J. Morton H121.
10600 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Spain. From M.J. Christensen Tf13.
10601 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Spain. From M.J. Christensen Tf15.
10602 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Algeria. From M.J. Christensen Tf20.
10603 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Algeria. From M.J. Christensen Tf21.
10604 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Algeria. From M.J. Christensen Tf23.
1093 *Hypoxylon* sp. - on dead wood. Auckland, AK, NZ Jul 1963. From F.J. Morton H183.
10605 *Lolium perenne* L. - perennial ryegrass - endophyte. France. From M.J. Christensen LP7.
10606 *Lolium perenne* L. - perennial ryegrass - endophyte. France. From M.J. Christensen LP8.
10607 *Lolium perenne* L. - perennial ryegrass - endophyte. France. From M.J. Christensen LP9.
10608 *Lolium perenne* L. - perennial ryegrass - endophyte. France. From M.J. Christensen LP10 - benomyl tolerant variant of ICMP 10607.
10609 *Lolium perenne* L. - perennial ryegrass - endophyte. France. From M.J. Christensen LP11.
10747 *Polygonum* sp. From G. Laundon 7983 - rec. as *Verticillium* sp./*Phialophora* sp.
10746 *Rheum* sp. From G. Laundon 6684 - rec. as *Verticillium* sp./*Phialophora* sp.
943 Concrete sewer pipe. Mangere, AK, NZ Sep 1963. From F.J. Morton H194.
1081 Wool. Jul 1962. From F.J. Morton H150 ← M.H. Dye.
10748 From G. Laundon 15640 - rec. as *Verticillium* sp./*Phialophora* sp.
11702 Lily. NZ. From E.H.C. McKenzie ← M. Braithwaite.

Acremonium uncinatum Gams, Petrini & Schmidt

- 10586 *Festuca arundinacea* Schreb. - tall fescue - endophyte. Spain. From M.J. Christensen Tf12.

Acroconidiella tropaeoli (Bond) Lindquist & Alippi

- 5608 *Tropaeolum majus* L. - garden nasturtium. Mt Eden, AK, NZ Feb 1967. From J.M. Dingley 6737.

***Actinostilbe* sp.**

see *Sphaerostilbe ochracea*.

Agaricus arvensis Schaeffer

- 11621 From A. Mitchell ← ATCC 34772 ← C.A. Raper Ax32-6.
11622 Grass. From A. Mitchell ← ATCC 34807 ← C.L. Fergus.
11623 Lawn. Lincoln, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
11624 Lawn. Lincoln, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
11625 Lawn. Lincoln, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
11626 Lawn. Lincoln, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
11627 Lawn. Lincoln, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
11628 Grass under nectarine trees. Lincoln, MC, NZ Apr 1990. From A. Mitchell.
11629 Grass under nectarine trees. Lincoln, MC, NZ Apr 1990. From A. Mitchell.
11630 Grass under nectarine trees. Lincoln, MC, NZ Apr 1990. From A. Mitchell.
11631 Lawn. Christchurch, MC, NZ Apr 1990. From A. Mitchell - isolated from single specimen.
11632 Lawn. Christchurch, MC, NZ Apr 1990. From A. Mitchell - isolated from single specimen.
11633 Lawn. Christchurch, MC, NZ Apr 1990. From A. Mitchell - isolated from single specimen.
11634 Lawn. Christchurch, MC, NZ Apr 1990. From A. Mitchell - isolated from single specimen.

Agaricus bernardii (Quelet) Saccardo

- 11646 From A. Mitchell ← ATCC 34741 ← R. Watling - J. Gen. Microbiol. 105: 135-151, 1978.
11647 From A. Mitchell ← ATCC 34751 ← R. Watling - J. Gen. Microbiol. 105: 135-151, 1978.
11648 Tussock grassland. Lake Ellesmere, MC, NZ. From A. Mitchell - basidiocarp isolated from single specimen in fairy ring.

Agaricus bisporus (Lange) Imbach

syn. *Agaricus brunnescens* Peck

- 3142 Cultivated mushroom - spawn. Takanini, AK, NZ. From R. de Vantier DAM ← F. Mitchell 3A.
3143 Cultivated mushroom - spawn. Takanini, AK, NZ. From R. de Vantier DW ← F. Mitchell 4A.
3146 Cultivated mushroom - pileus. Mt Albert, AK, NZ. From R.F. Elliott 3-68.
3147 Cultivated mushroom - spawn. 1968. From R.F. Elliott 12-68.

- 3148 Cultivated mushroom - spawn. 1969. From R.F. Elliott 10-69.
 3150 Cultivated mushroom - spawn. UK. From R.F. Elliott L-I ← F.T. Last.
 11635 USA. From A. Mitchell ← D.J. Royse 28SS-502 - Experimental Mycol. 6: 283-292.
 11636 USA. From A. Mitchell ← D.J. Royse B90SS-8 - Experimental Mycol. 6: 283-292.
 11637 USA. From A. Mitchell ← D.J. Royse TBSS-237 - Experimental Mycol. 6: 283-292.
 11638 USA. From A. Mitchell ← D.J. Royse 232SS-57 - Experimental Mycol. 6: 283-292.
 11639 USA. From A. Mitchell ← D.J. Royse D26SS-110 - Experimental Mycol. 6: 283-292.
 11640 USA. From A. Mitchell ← D.J. Royse L81WBSS-503 - Experimental Mycol. 6: 283-292.
 11641 From A. Mitchell ← ATCC 24663 ← C.A. Raper N1-unk-A1.
 11642 Prebbleton, MC, NZ. From A. Mitchell ← S. Hauser A5-2.
 11643 NZ. From A. Mitchell ← S. Hauser X20.
 11644 Tussock grassland. Lake Ellesmere, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen in a fairy ring.
 11645 Goat shelter area. Ohoka, MC, NZ Apr 1990. From A. Mitchell - basidiocarp isolated from single specimen.
 12049 China. From X.Z. Ren Ag23 ← Y.X. Chen.
- Agaricus bitorquis** (Quelet) Saccardo
 11649 Driveway. From A. Mitchell ← ATCC 34725 ← W. Robbins - J. Gen Microbiol. 105: 135-151, 1978.
 11650 From A. Mitchell ← ATCC 34737 ← H. Visscher.
 11651 From A. Mitchell ← ATCC 34780 ← H. Visscher.
 11652 From A. Mitchell ← ATCC 34782 ← H. Visscher.
 11653 Springton, MC, NZ. From A. Mitchell ← Morton Mushrooms Ltd K46.
 11654 Amberly, MC, NZ Apr 1990. From A. Mitchell - Basidiocarp isolated from single specimen.
- Agaricus brunnescens* Peck
 see *Agaricus bisporus*.
- Agaricus campestris** Linnaeus
 11655 Cow paddock. Halswell, MC, NZ. From A. Mitchell Halls1-1 - Basidiocarp isolated from single specimen in a fairy ring.
 11656 Cow paddock. Halswell, MC, NZ. From A. Mitchell Halls1-2 - Basidiocarp isolated from single specimen in a fairy ring.
 11657 Cow paddock. Halswell, MC, NZ. From A. Mitchell Halls1-4 - Basidiocarp is from a single specimen in a fairy ring.
 11658 Cow paddock. Halswell, MC, NZ. From A. Mitchell Halls1-5 - Basidiocarp was isolated from a single specimen in a fairy ring.
 11659 Sheep paddock. MC, NZ Apr 1990. From A. Mitchell Halls2 - Basidiocarp was isolated from a single specimen.
 11660 Grassed track. Lincoln University, MC, NZ Apr 1990. From A. Mitchell.
- Agaricus cupreobrunneus** (Jul. Schaffer Steer ex Moller) Pilat
 11661 Christchurch, MC, NZ. From A. Mitchell - Basidiocarp isolated from single specimen in a fairy ring.
- Agaricus lanipes** (Moller et Jul. Schaffer) Singer
 11664 Bark mulch. Mona Vale, MC, NZ Apr 1990. From A. Mitchell - Basidiocarp isolated from a single specimen.
- Agaricus porphyrocephalus** Moller
 11662 Whangarei, ND, NZ May 1992. From A. Mitchell - Basidiocarp isolated from single specimen in a fairy ring in paspalum grass.
- Agaricus semotus** Fries
 11663 Humus under Kanuka. Pukenui, ND, NZ May 1992. From A. Mitchell - Basidiocarp isolated from single specimen.
- Agaricus** sp.
 11665 Lawn beneath monkey puzzle tree. Christchurch, MC, NZ Apr 1990. From A. Mitchell oldman.
 11666 Soil under Populus nigra shelter belt. Lincoln University, MC, NZ Apr 1990. From A. Mitchell poprap.
- Agaricus tabularis** Peck
 12047 China. From X.Z. Ren Ag1 ← Y.X. Chen.
 12048 China. From X.Z. Ren Ag2 ← Y.X. Chen.
- Agrocybe parasitica** Stevenson
 11668 *Plagianthus* sp. Christchurch, MC, NZ. From A. Mitchell.
- Allophylaria** sp.
 anam. *Triscelophorus* sp.
 9725 *Dicksonia squarrosa* (Forst.f.) Swartz - wheki, tree fern - dead frond. Russell State Forest, ND, NZ Aug 1980. From P.R. Johnston D267.
- Alternaria alternantherae** Holcomb & Antonopoulos
 7831 *Alternanthera phylloxeroides* (Mart.) Griseb. - alligator weed - leaf. Helensville, AK, NZ Sep 1982. From G.J. Samuels 82-260.
- Alternaria alternata** (Fries) Keissler
 syn. *Alternaria tenuis* C.G. Nees
 1115 *Abelmoschus esculentus* (L.) Moench - okra. Pukekohe, AK, NZ Apr 1962. From F.J. Morton A52.
 1102 *Arthropodium cirrhatum* (Forst.f.) R. Br. - rock lily, renga renga. Mt Albert, AK, NZ Feb 1962. From F.J. Morton A8.
 1107 *Arthropodium cirrhatum* (Forst.f.) R. Br. - rock lily, renga renga. Mt Albert, AK, NZ Mar 1962. From F.J. Morton A28.
 1140 *Arthropodium cirrhatum* (Forst.f.) R. Br. - rock lily, renga renga. NZ May 1963. From F.J. Morton A150.
 11035 *Brassica napus* L. - canola cv. Bounty - seed. Canada Apr 1991. From C.A. Jasalavich AA7 ← G.A. Petrie.
 1112 *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede - leaf. Pukekohe, AK, NZ Apr 1962. From F.J. Morton A45.
 11036 *Brassica rapa* L. - canola cv. Tobin - seed. Canada Apr 1991. From C.A. Jasalavich AA16 ← G.A. Petrie.
 1104 *Cucumis melo* L. - rock melon. Hobsonville, AK, NZ Feb 1962. From F.J. Morton A17.
 1109 *Cucumis melo* L. - rock melon - fruit. Hobsonville, AK, NZ Mar 1962. From F.J. Morton A31.
 1116 *Cucumis melo* L. - rock melon. Pukekohe, AK, NZ Apr 1962. From F.J. Morton A53.
 1117 *Daucus carota* L. var. *sativus* Hoffm. - carrot - root. Pukekohe, AK, NZ Apr 1962. From F.J. Morton A54.
 4201 *Glycine max* (L.) Merr. - soybean - leaf spot on senescent leaf. Mt Albert, AK, NZ Apr 1975. From G.J. Samuels 75-11 = PDD 36012.
 1099 *Lolium perenne* L. - perennial ryegrass - dead grass. Mt Albert, AK, NZ Feb 1962. From F.J. Morton A4.
 2935 *Lolium perenne* L. - perennial ryegrass - leaf debris. Palmerston North, WI, NZ May 1969. From E.H.C. McKenzie 19C.
 1105 *Lycopersicon esculentum* Mill. - tomato - fruit. Auckland, AK, NZ Mar 1962. From F.J. Morton A22 ← J. Reid.
 11682 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless leaf midrib. Kumeu, AK, NZ. From P.R. Johnston 1A-1.
 4198 *Phaseolus vulgaris* L. - bean - leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-13 = PDD 36020.
 4199 *Phaseolus vulgaris* L. - bean - leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-12.
 4200 *Phaseolus vulgaris* L. - bean cv. Blue Lake - leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-19 = PDD 36018.
 4202 *Phaseolus vulgaris* L. - bean - greasy leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-14 = PDD 36051.
 4203 *Phaseolus vulgaris* L. - bean - pod spot. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-10 = PDD 36048.
 4204 *Phaseolus vulgaris* L. - bean - leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-7.
 4205 *Phaseolus vulgaris* L. - bean cv. Blue Lake - leaf spot on senescent leaf. Marlborough, MB, NZ Apr 1975. From G.J. Samuels 75-18 = PDD 36019.
 10255 *Pseudopanax* sp. - leafspot. New Plymouth, TK, NZ Mar 1978. From G.F. Laundon 13060.
 1100 *Solanum nigrum* L. - black nightshade. Mt Albert, AK, NZ Feb 1962. From F.J. Morton A5.
 8151 Cream cheese. NZ Jun 1983. From G.J. Samuels ← Dr Chan.

- Alternaria attenuata*** (Fries) Keissler
 2088 Paper. Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67154.
 2091 Paper. Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67157.
- Alternaria brassicae*** (Berkeley) Saccardo
 11487 * *Brassica napus* L. - canola - siliques and seeds. Canada Apr 1992. From G. Seguin-Swatz SBL16 - *canola (Seguin-Swatz).
 11037 * *Brassica rapa* L. - canola cv. Tobin - seed. Canada Apr 1991. From C.A. Jasalavich AB42 ← G.A. Petrie - **B. nigra*, *B. campestris* ssp. *trilocularis*, *B. oleracea* ssp. *capitata*, radish (Jasalavich).
 11038 * *Brassica rapa* L. - canola cv. Eclipse - seed. Canada Apr 1991. From C.A. Jasalavich AB26 ← G.A. Petrie - **B. nigra*, *B. campestris* ssp. *trilocularis*, *B. oleracea* ssp. *capitata*, radish (Jasalavich).
- Alternaria brassicicola*** (Schweinitz) Wiltshire
 10121 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - curd spots. Levin, WN, NZ May 1978. From G.F. Laundon 13218.
 1120 *Brassica oleracea* L. var. *capitata* L. - cabbage - leaf. Auckland, AK, NZ Jul 1962. From F.J. Morton A72.
 1103 *Brassica oleracea* L. var. *ramosa* Alef. - chou-moellier. Mt Albert, AK, NZ Feb 1962. From F.J. Morton A-9 ← R.M. Brien 552.
 1128 *Brassica oleracea* L. var. *ramosa* Alef. - chou-moellier - seed. Palmerston North, WI, NZ Oct 1962. From F.J. Morton A95 ← D. Matthews.
- Alternaria cheiranthi*** (Libert) Bolle
 5605 *Cheiranthus cheiri* L. - wallflower - seed. Palmerston North, WI, NZ 1965. From J.M. Dingley 6691.
- Alternaria cinerariae*** Hori & Enjoji
 8246 *Legularia* sp. Auckland, AK, NZ Aug 1983. From C.F. Hill AS 21060.
 10235 *Senecio cruentus* (Masson) de Candolle - cineraria - leafspot. Levin, WN, NZ Apr 1977. From G.F. Laundon 11827.
- Alternaria citri*** Ellis & Pierce
 1111 *Citrus sinensis* (L.) Osbeck - sweet orange - fruit. Mt Albert, AK, NZ Apr 1962. From F.J. Morton A40.
 1146 *Citrus sinensis* (L.) Osbeck - sweet orange - fruit. Auckland, AK, NZ Dec 1963. From F.J. Morton A206.
 1101 *Citrus* sp. - grapefruit - leaf. Mt Albert, AK, NZ Feb 1962. From F.J. Morton A7.
 1143 *Citrus* sp. - citronelle (rough lemon) - leaf. Auckland, AK, NZ Dec 1963. From F.J. Morton A203.
 2015 *Citrus* sp. - fruit. Jun 1966. From G.F. Laundon LEV 779 ← A.F. Rainbow.
 11017 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Kerikeri, ND, NZ Jun 1990. From P.G. Broadhurst RAF9001.
 11018 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Kerikeri, ND, NZ Jun 1990. From P.G. Broadhurst RAF9002.
 11019 * *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Kerikeri, ND, NZ Jun 1991. From A. Harty ← P.G. Broadhurst - *tangelo (Broadhurst).
- Alternaria cucumerina*** (Ellis & Everhart) Elliott
 10236 *Cucumis melo* L. - melon - leafspot. Taupaki, AK, NZ Jan 1982. From G.F. Laundon 19179.
 1424 *Cucumis sativus* L. - cucumber - leaf. Canada. From F.J. Morton ← C.O. Gourley.
 1126 USA. From F.J. Morton A90 ← E.G. Simmons 7442 = QM 7442.
- Alternaria dauci*** (Kuhn) Groves & Skolko
 5632 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Pukekohe, AK, NZ Feb 1969. From J.M. Dingley 6919.
 10237 *Daucus carota* L. var. *sativus* Hoffm. - carrot - leaf blight. Ohakune, RI, NZ Mar 1981. From G.F. Laundon 17865.
- Alternaria dianthicola*** Neergaard
 2023 *Dianthus caryophyllus* L. - carnation. New Plymouth, TK, NZ May 1967. From G.F. Laundon LEV 1398A.
 2520 *Dianthus caryophyllus* L. - carnation. Auckland, AK, NZ Jun 1968. From J.M. Dingley 6893.
- Alternaria dichondrae*** Gambogi, Vannacci & Triolo
 6518 *Dichondra repens* J.R. & G. Forst. - dichondra - leaf spot. Levin, WN, NZ Apr 1979. From G.F. Laundon LEV 14681 ← A.F. Rainbow.
 10294 *Dichondra repens* J.R. & G. Forst. - dichondra - leafspots. Wellington, WN, NZ Apr 1977. From G. Laundon 11682.
 10295 *Dichondra repens* J.R. & G. Forst. - dichondra - leafspots. Levin, WN, NZ Mar 1979. From G. Laundon 14681a.
- Alternaria longipes*** (Ellis & Everhart) Mason
 5604 *Nicotiana tabacum* L. - tobacco. Nelson, NN, NZ Mar 1964. From J.M. Dingley 6421.
- Alternaria padwickii*** Ganguly) Ellis
 10296 *Oryza sativa* L. - rice - seed. Indonesia Jul 1977. From G. Laundon 11929a.
- Alternaria panax*** Whetzel
 7601 *Meryta sinclairii* (Hook.f.) Seem. - puka - leaf lesion. North Shore, AK, NZ Feb 1982. From R.E. Beever 46-47-48 = PDD 42070 - Tane 30: 77-92, 1984.
- Alternaria passiflorae*** Simmonds
 5641 *Passiflora edulis* Sims - passionfruit. NZ 1964. From J.M. Dingley A117.
 10239 *Passiflora* sp. - leaf spot. Sep 1979. From G.F. Laundon 15515 ← MAF, Plant Health Diagnostic Service, Auckland.
 10238 *Passiflora subpeltata* Ort. - granadina. Australia May 1979. From G.F. Laundon 15014.
- Alternaria petroselinii*** (Neergard) Simmons
 10122 *Petroselinum crispum* (Mill.) Nyman ex A.W. Hill - parsley. Auckland, NZ Dec 1981. From G. Laundon AK1281.
- Alternaria pluriseptata*** (P. Karsten & Hariot) Jorstad
 5622 *Cucumis sativus* L. - cucumber - leaf. Otaki, WN, NZ May 1972. From J.M. Dingley 7262.
- Alternaria porri*** (Ellis) Ciferri
 6517 *Allium porrum* L. - leek - leaf spot. Hastings, HB, NZ Apr 1979. From G.F. Laundon LEV 14732 ← G.J. Wood.
 5639 *Solanum tuberosum* L. - potato. NZ 1964. From J.M. Dingley A176.
 5656 *Solanum tuberosum* L. - potato. NZ 1964. From J.M. Dingley A46.
- Alternaria radicina*** Meier, Drechsler & Eddy
 5619 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Ohakune, RI, NZ Feb 1969. From J.M. Dingley 6920.
 10123 *Daucus carota* L. var. *sativus* Hoffm. - carrot - seed. Australia Aug 1976. From G.F. Laundon 10902.
 10124 *Daucus carota* L. var. *sativus* Hoffm. - carrot - roots. Ohakune, RI, NZ Mar 1983. From G.F. Laundon 21202.
 5642 NZ 1964. From J.M. Dingley A150.
- Alternaria raphani*** Groves & Skolko
 11039 * *Brassica rapa* L. - canola - seed. Canada Apr 1991. From C.A. Jasalavich AR1 ← G.A. Petrie - **B. nigra*, *B. campestris* ssp. *trilocularis*, *B. oleracea* ssp. *capitata*, radish (Jasalavich).
 11040 * *Brassica rapa* L. - canola - seed. Canada Apr 1991. From C.A. Jasalavich AR6 - **B. nigra*, *B. campestris* ssp. *trilocularis*, *B. oleracea* ssp. *capitata*, radish (Jasalavich).
 1282 *Matthiola incana* (L.) R. Br. - stock - seed. Palmerston North, WI, NZ. From F.J. Morton A216 ← D. Matthews.
- Alternaria solani*** Sorauer
 10240 *Hordeum vulgare* L. - barley - seed. Palmerston North, WI, NZ Jul 1977. From G.F. Laundon 11966.
 6519 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Levin, WN, NZ Apr 1979. From G.F. Laundon LEV 14726.

- 10241 *Lycopersicon esculentum* Mill. - tomato - stem end fruit rot. Levin, WN, NZ Apr 1979. From G.F. Laundon 14726.
 10297 *Lycopersicon esculentum* Mill. - tomato - leafspot. Otaki, WN, NZ Sep 1979. From G. Laundon 15438.
 12262 *Solanum melongena* L. var. *esculentum* Nees - eggplant - leaves. Auckland, AK, NZ Dec 1994. From E.H.C. McKenzie ← M.H. Dance = MAF Lynfield 6272527.
 7742 *Solanum muricatum* Ait. - pepino - leaf. Mt Albert, AK, NZ Jul 1981. From G.I. Robertson P316.
 10243 *Solanum tuberosum* L. - potato - leafspots. Palmerston N., WI, NZ Jan 1980. From G.F. Laundon 16114.
 10242 *Vicia faba* L. - broad bean. NZ Jun 1979. From G.F. Laundon 15140 ← Plant Health Diagnostic Station, Lincoln.

Alternaria sonchi J.J. Davis

- 1121 *Sonchus oleraceus* L. - sow thistle. Mt Albert, AK, NZ Aug 1962. From F.J. Morton A78.

Alternaria sp.

- 11804 *Arthropodium cirrhatum* (Forst.f.) R. Br. - rock lily, renga renga - elliptical red leafspot (1-2mm). Ashburton, MC, NZ Dec 1992. From J.M. Young G25.
 11449 *Blechnum (capense)* sp. - kiokio - leafspot. Oratia, AK, NZ Nov 1991. From J.M. Young Or33a.
 11792 *Brachyglottis monroi* (Hook.f.) B. Nordenst. Motukarara, MC, NZ Nov 1992. From J.M. Young E1.
 11453 *Celmisia armstrongii* Petrie - leafspot. Motukarara, MC, NZ Nov 1991. From J.M. Young W9c.
 11793 *Celmisia semicordata* Petrie - dark leafspots (2mm diam.). Motukarara, MC, NZ Nov 1992. From J.M. Young E26.
 11413 *Coprosma robusta* Raoul - karamu - pale brown leaf lesion (6-8mm) with dark margin, lower surface same as above. Taupo, TO, NZ Nov 1991. From J.M. Young T6.
 11424 *Cordylone australis* (Forst.f.) Endl. - cabbage tree, ti kauka - brown leaf streaks (1-5cm). Taupo, TO, NZ Nov 1991. From J.M. Young T28.
 11447 *Dacrydium cupressinum* Sol. ex Lamb. - rimu - small (1mm) irregular red leaf blotch. Oratia, AK, NZ Dec 1991. From J.M. Young Or29a.
 2487 *Fragaria X ananassa* Duch. - cultivated strawberry. Levin, WN, NZ. From J.M. Dingley 68130.
 11436 *Griselinia littoralis* Raoul - papauma - round leaf lesion (2mm), pale brown with dark margin, and erumpent lower side. Taupo, TO, NZ Nov 1991. From J.M. Young T53.
 11785 *Griselinia littoralis* Raoul - papauma - round (1-3mm diam.) leafspot on underside. Albany, AK, NZ Nov 1992. From J.M. Young D76.
 11476 *Griselinia* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP27(3).
 11443 *Hebe elliptica* (Forst.f.) Pennell - circular leaf lesion (1cm dia.) uneven brown necrosis. Manapouri, FD, NZ Nov 1991. From J.M. Young M5a.
 10245 *Hordeum vulgare* L. - barley - seed. Palmerston North, WI, NZ Jun 1982. From G.F. Laundon 19688.
 10246 *Hordeum vulgare* L. - barley - seed. Palmerston North, WI, NZ Jul 1982. From G.F. Laundon 19729.
 10284 *Hordeum vulgare* L. - barley - seed. Palmerston North, WI, NZ Jun 1982. From G. Laundon 19689.
 10247 *Ligularia* sp. - leafspot. Auckland, AK, NZ Sep 1982. From G.F. Laundon 20114.
 2192 *Lycopersicon esculentum* Mill. - tomato - fruit spot. Remuera, AK, NZ. From J.M. Dingley 683.
 2193 *Lycopersicon esculentum* Mill. - tomato - fruit spot. Remuera, AK, NZ. From J.M. Dingley 684.
 11560 *Olearia chatamica* Kirk. Motukarara, MC, NZ Nov 1991. From J.M. Young W10a.
 12095 *Olearia furfuracea* (A. Rich.) Hook.f. - akepiro - round black leafspots developing pale grey centres. Taupo, TO, NZ Dec 1993. From J.M. Young TT3 - identified by E.H.C. McKenzie.
 12099 *Olearia traversii* (F. Muell.) Hook.f. - akeake - tan irregular leafspots. Harewood, MC, NZ Nov 1993. From J.M. Young WW2 - identified by E.H.C. McKenzie.
 2216 *Passiflora edulis* Sims - passionfruit - seedling. Te Puke, BP, NZ. From J.M. Dingley 6832.
 2217 *Passiflora edulis* Sims - passionfruit - seedling. NZ. From J.M. Dingley 6833.
 10244 *Phaseolus* sp. - leaves. Hamilton, WO, NZ Dec 1980. From G.F. Laundon 17437.
 11464 *Pittosporum* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP5a.
 11465 *Pittosporum* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP5d.
 11469 *Pittosporum* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP8(3).
 11468 *Pittosporum tennifolium* Sol. ex Gaertn. - kohukohu, black matipo - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP7b.
 3063 *Prunus* sp. NZ. From K.J. Anderson 3PR.
 3064 *Prunus* sp. NZ. From K.J. Anderson 6PR.
 11438 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - magenta leaf lesion (0.5-2mm) with nondiscrete margin. Taupo, TO, NZ Nov 1991. From J.M. Young T64.
 11445 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - round leaf lesion (2-3mm), brown necrosis, magenta margin. Manapouri, FD, NZ Nov 1991. From J.M. Young M26d.
 11472 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP21a.
 11473 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP21b.
 12096 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - circular (1-4mm) leaf lesions. Taupo, TO, NZ Dec 1993. From J.M. Young TT6 - identified by E.H.C. McKenzie.
 12098 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - round pale brown centred (1-2mm) leaf lesions with darker margin. Taupo, TO, NZ Dec 1993. From J.M. Young TT29 - identified by E.H.C. McKenzie.
 12112 *Pseudopanax arboreus* (Murray) Philipson - puahou, five-finger - round angular leaf lesions with pale centres. Taupo, TO, NZ Dec 1993. From J.M. Young TT43 - identified by E.H.C. McKenzie.
 11428 *Pseudopanax laetus* (Kirk) Philipson - leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T38.
 11411 *Pseudopanax* sp. - round dark red-brown sunken spots 1-2mm faint halo on leaf. Albany, AK, NZ Nov 1991. From J.M. Young P5.
 11415 *Pseudopanax* sp. - pale centre dark margin (not discrete) <3mm leaf lesion. Taupo, TO, NZ Nov 1991. From J.M. Young T7.
 11799 *Pseudopanax* sp. - round sunken (1-2mm diam.) magenta leafspot. Waiora, MC, NZ Nov 1992. From J.M. Young F26.
 10248 *Raphanus sativus* L. - radish - seed. Palmerston North, WI, NZ Apr 1983. From G.F. Laundon 21135a.
 1881 Palmerston North, WI, NZ. From J.M. Dingley 67104.
 8334 Mouldy wall-paper. Auckland, AK, NZ Sep 1983. From E.H.C. McKenzie.
 10249 From G.F. Laundon 22306.

Alternaria tenuis C.G. Nees
see *Alternaria alternata*.**Alternaria zinniae** M.B. Ellis

- 5633 *Passiflora edulis* Sims - passionfruit. Titirangi, AK, NZ Jun 1965. From J.M. Dingley 65105.

Amorphotheca resiniae Parbery**anam.** *Cladosporium resiniae* (Lindau) de Vries

- 2496 Plastic. Auckland, AK, NZ Aug 1968. From J.M. Dingley 68119.
 5612 Soil. Wellington, WN, NZ 1970. From J.M. Dingley 7016 ← J.E. Sheridan.
 10187 1980. From G.F. Laundon 17539 ← Victoria University.

Amylostereum sacratum (G.H. Cunningham) Burdsallsyn. *Peniophora sacrata* G.H. Cunningham

- 10158 *Malus X domestica* Borkh. - apple. Motueka, NN, NZ May 1977. From G.F. Laundon 11788.

Aphanocladium sp.

- 2495 *Vitis vinifera* L. - grape. Palmerston North, WI, NZ Aug 1968. From J.M. Dingley 68120.

Aphanomyces euteiches Drechsler

- 6477 *Pisum sativum* L. - garden pea cv. Canterbury 39 - root rot. Nelson, NN, NZ Mar 1979. From S.A. Menzies 919.
 6478 *Pisum sativum* L. - garden pea cv. Canterbury 39 - root rot. Nelson, NN, NZ Mar 1979. From S.A. Menzies 936.

- 12290 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Aug 1994. From M. Walter AE1 - - *pea (weak; Walter).
- 12291 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Aug 1994. From M. Walter AE2 - NZ pl. prot. conf. 1995 - *pea (Walter).
- 12292 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Aug 1994. From M. Walter AE3 - NZ pl. prot. conf. 1995 - *pea (Walter).
- 12293 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Sep 1994. From M. Walter AE4 - NZ pl. prot. conf. 1995 - *pea (Walter).
- 12294 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Sep 1994. From M. Walter AE5 - NZ pl. prot. conf. 1995 - *pea (weak; Walter).
- 12295 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Sep 1994. From M. Walter AE6 - NZ pl. prot. conf. 1995 - *pea (weak; Walter).
- 12296 * *Pisum sativum* L. - pea cv. Tere - root rot - watersoaked on lower stem & roots spreading over whole root system. Canterbury, NZ Sep 1994. From M. Walter AE7 - NZ pl. prot. conf. 1995 - *pea (Walter).

Apiognomonina veneta (Saccardo & Spegazzini) Hohnel

syn. *Gnomonia platani* Klebahn

anam. *Discula nervisequa* (Fuckel) Morelet

anam. *Gloeosporium platani* (Montagne) Oudemans

6201 *Platanus orientalis* L. - oriental plane. Christchurch, MC, NZ Mar 1978. From L. Hitchcock.

6202 *Platanus orientalis* L. - oriental plane. Christchurch, MC, NZ Mar 1978. From L. Hitchcock.

6203 *Platanus orientalis* L. - oriental plane. Christchurch, MC, NZ Mar 1978. From L. Hitchcock.

Apiospora montagnei Saccardo

anam. *Arthrinium* sp.

6967 *Bambusa* sp. - bamboo - culm. Waimate North, ND, NZ May 1980. From G.J. Samuels 80-67.

10298 *Prunus persica* (L.) Batsch - fruit. Levin, WN, NZ 1979. From G. Laundon 12390b.

Apiospora setosa Samuels, McKenzie & D.E. Buchanan

anam. *Arthrinium* sp.

anam. *Cordella johnstonii* M.B. Ellis

4207 *Bambusa oldhamii* Munro - culm. Pukekohe, AK, NZ Feb 1975. From E.H.C. McKenzie.

6888 *Bambusa* sp. - bamboo - dead culm. Kohimaramara, AK, NZ Nov 1979. From G.J. Samuels 79-147 - **ex Type specimen**.

6993 *Bambusa* sp. - bamboo - culm. Auckland, AK, NZ Nov 1979. From G.J. Samuels 79-136.

Apiospora tintinnabula Samuels, McKenzie & D.E. Buchanan

anam. *Arthrinium* sp.

anam. *Scyphospora phyllostachydis* Kantschaveli

6889 *Bambusa* sp. - bamboo - dead culm. Paeroa, CL, NZ Feb 1980. From G.J. Samuels 80-36 - **ex Type specimen**.

7019 *Bambusa* sp. - bamboo - dead culm. Western Springs, AK, NZ Jan 1980. From G.J. Samuels 80-8.

?**Armillaria** sp.

10186 *Ribes uva-crispa* L. - gooseberry. From G.F. Laundon 38.

Arthrinium phaeospermum (Corda) M.B. Ellis

902 *Bambusa* sp. - bamboo. Mt Albert, AK, NZ Jun 1963. From F.J. Morton H177.

6966 *Bambusa* sp. - bamboo - culm. Russell, ND, NZ May 1980. From G.J. Samuels 80-66.

10250 From G.F. Laundon 11798.

Arthrinium sp.

see *Apiospora montagnei*; *A. setosa*; *A. tintinnabula*.

Arthrobotrys oligospora Fresenius

10188 *Cucurbita maxima* Duch. - seed. Hastings, HB, NZ Nov 1982. From G.F. Laundon 20469.

10251 *Solanum tuberosum* L. - potato - tubers. Rata, RI, NZ. From G.F. Laundon 11568c.

10252 From G.F. Laundon 11754.

Arthrobotrys sp.

1075 *Zinnia elegans* Jacq. - youth-and-old-age. Remuera, AK, NZ Apr 1962. From F.J. Morton.

6248 Soil - nematodes present in soil. Auckland, AK, NZ Nov 1978. From P.R. Johnston.

Arthroderma uncinatum Dawson & Gentles

anam. *Trichophyton ajelloi* (Vanbreuseghem) Ajello

8161 *Lolium perenne* L. - perennial ryegrass - root. NZ May 1983. From E.H.C. McKenzie ← M.J. Christensen AB9-2.

Ascochyta caulina (P. Karsten) van der Aa & van Kesteren

6659 *Atriplex prostrata* DC. - halberdleaf orache. From P.K. Buchanan ← CBS 787.68.

7780 *Atriplex prostrata* DC. - halberdleaf orache - leaf. Netherlands Jul 1977. From P.K. Buchanan A540 ← CBS 246.79.

8590 *Atriplex* sp. Netherlands. From P.K. Buchanan ← G.H. Boerema 77-655.

8591 *Spinacia oleracea* L. - spinach. Netherlands. From P.K. Buchanan ← G.H. Boerema 83-RPv2.Ph01.

8592 *Spinacia oleracea* L. - spinach. Netherlands. From P.K. Buchanan ← G.H. Boerema 83-RPv2.Ph02.

8593 *Spinacia oleracea* L. - spinach. Netherlands. From P.K. Buchanan ← G.H. Boerema 83-RPv2.Ph03.

Ascochyta chrysanthemi F.L. Stevens

see *Mycosphaerella ligulicola*.

Ascochyta cucumis Fautrey & Roumeguere

see *Didymella bryoniae*.

Ascochyta fabae Spegazzini f. sp. **lentis** (Vassilievsky) Gozzen, Sheard, Beauchamp & Morrall

syn. *Aschochyta lentis* Vassilievsky

9051 * *Lens culinaris* Medic. - lentil cv. Titore - necrotic lesion of leaf, petiole and stem; discoloured seed. MC, NZ Feb 1986. From M.G. Cromey 86-9 - *lentil.

9052 * *Lens culinaris* Medic. - lentil cv. Invincible - necrotic lesion of leaf, petiole and stem, discoloured seed. Canterbury, NZ Feb 1986. From M.G. Cromey 86-11 - *lentil.

9053 * *Lens culinaris* Medic. - lentil cv. Titore - necrotic lesion of leaf, petiole and stem, discoloured seed. Canterbury, NZ Feb 1986. From M.G. Cromey 86-14 - *lentil.

Aschochyta lentis Vassilievsky

see *Ascochyta fabae* Spegazzini f. sp. **lentis** (Vassilievsky) Gozzen, Sheard, Beauchamp & Morrall

Ascochyta leptospora (Trail) K. Hara

10381 *Bromus willdenowii* Kunth - prairiegrass - leafspot. Levin, WN, NZ Aug 1980. From G. Laundon 16916.

Ascochyta obiones (Jaap) P.K. Buchanan6660 *Halimione portulacoides* (L.) Aellen. From P.K. Buchanan ← CBS 786.68.**Ascochyta paspali** (H. Sydow) Punithalingam

6264 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Auckland, AK, NZ 1978. From P.K. Buchanan.
 6265 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Auckland, AK, NZ 1978. From P.K. Buchanan.
 6266 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Argentina. From P.K. Buchanan = LPS 26319: ATCC 62010.
 7737 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Ruakura, WO, NZ Dec 1978. From P.K. Buchanan A240.
 7738 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Argentina 1981. From P.K. Buchanan A340 ← LPS 26319.
 7739 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Mt Albert, AK, NZ Dec 1980. From P.K. Buchanan I7 = ATCC 60906.
 7740 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Mt Albert, AK, NZ Mar 1981. From P.K. Buchanan.
 7741 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf stripe. Mt Albert, AK, NZ Mar 1981. From P.K. Buchanan.
 7760 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf. Tonga May 1979. From P.K. Buchanan A310 ← E.H.C. McKenzie.

Ascochyta pinodes Jonessee *Mycosphaerella pinodes*.**Ascochyta pisi** Libert

6892 *Pisum sativum* L. - garden pea - pod. Mt Albert, AK, NZ Dec 1979. From P.K. Buchanan A410.
 6893 *Pisum sativum* L. - garden pea. From P.K. Buchanan A420 ← G.H. Boerema PD 78-517.

Ascochyta rabei (Pass.) Labrouse10299 *Cicer arietinum* L. - chickpea - stem and pod spots. Kimihia, MC, NZ Feb 1980. From G. Laundon 16340.**Ascochyta sorghi** Saccardo

6812 *Dactylis glomerata* L. - cocksfoot - macerated leaf. Ruakura, WO, NZ Jan 1980. From E.H.C. McKenzie 87.
 6813 *Dactylis glomerata* L. - cocksfoot - macerated leaf. Ruakura, WO, NZ Jan 1980. From E.H.C. McKenzie 45.
 6804 *Lolium perenne* L. - perennial ryegrass - macerated leaf. Ruakura, WO, NZ Jan 1979. From E.H.C. McKenzie 57.
 6811 *Lolium perenne* L. - perennial ryegrass - macerated leaf. Ruakura, WO, NZ Jan 1980. From E.H.C. McKenzie 102.

Ascochyta sp.

11441 *Corokia* sp. - korokia - leafspot. Chrsitchurch, MC, NZ Nov 1991. From J.M. Young B3.
 6894 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - dead flower head. Pollen Is., AK, NZ Oct 1979. From P.K. Buchanan A460.

Ascochyta sp.

11854 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G156.
 11855 *Ulex europaeus* L. - gorse. Chatham Is., NZ Nov 1994. From P.R. Johnston G208.

Ascosphaera apis (Maassen ex Claussen) Olive & Spiltoir

10092 *Apis mellifera* L. [Invertebrate] - honey bee - larvae, chalkbrood. Western Samoa. From E.H.C. McKenzie.
 11043 *Apis mellifera* L. [Invertebrate] - honey bee - dead larva. Auckland, AK, NZ. From R.E. Falloon.

Aspergillus candidus Link

879 Wool. Auckland, AK, NZ Oct 1961. From F.J. Morton H20 ← M.H. Dye.

Aspergillus cervinus Massee10189 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1977. From G.F. Laundon 11924c.*Aspergillus chevalieri* (Mangin) Thom & Churchsee *Eurotium chevalieri*.*Aspergillus fischeri* Wehmersee *Neosartorya fischeri*.**Aspergillus flavus** Link

2044 *Arachis hypogaea* L. - groundnut, peanut - nut. USA Jul 1967. From G.F. Laundon LEV 1543 ← E. Ramsay.
 2521 *Myristica fragrans* Houtt. - nutmeg - seed. Jun 1968. From J.M. Dingley 6891 ← Health Department OFQ840.
 7604 *Vogtia* sp. [Invertebrate] - adult insect. NZ Mar 1982. From G.J. Samuels.
 1049 Wool. Dec 1961. From F.J. Morton H84 ← M.H. Dye.
 1057 High-nitrogen *Streptomyces* medium. Auckland, AK, NZ Feb 1962. From F.J. Morton H100.
 7590 Papua New Guinea. From R.A. Fullerton ← ATCC 9643 = IMI 91856: NRRL A5244.
 9464 Shoe sole. From ATCC 9643 ← W.H. Weston NDRCS-N3 = CBS 131.61: IMI 91856: IFO 6343: NRRL A-5244: QM 380.

Aspergillus fumigatus Fresenius

434 Wool. Dec 1961. From M.H. Dye F26.
 1046 Wool. NZ Dec 1961. From F.J. Morton H77 ← M.H. Dye.
 1061 Wool. Auckland, AK, NZ 1962. From F.J. Morton H105 ← M.H. Dye.

Aspergillus glaucus Link2522 *Myristica fragrans* Houtt. - nutmeg - seed. NZ Jun 1968. From J.M. Dingley 6890 ← Health Department OFQ84D.**Aspergillus micro-virido-citrinus** Costantin & Lucet

430 Wool. NZ Oct 1961. From M.H. Dye F21.
 892 Wool. Oct 1961. From F.J. Morton H40 ← M.H. Dye.

Aspergillus nidulans (Eidam) Wintersee *Emericella nidulans*.**Aspergillus niger** van Tieghem

1053 *Bambusa* sp. - bamboo. NZ Jan 1962. From F.J. Morton H96.
 10224 *Hyacinthus* sp. - bulbs. Richmond, NN, NZ Mar 1978. From G.F. Laundon 13054.
 2523 *Myristica fragrans* Houtt. - nutmeg - seed. Auckland, AK, NZ Jun 1968. From J.M. Dingley 6889.
 1043 *Solanum tuberosum* L. - potato. Katikati, BP, NZ 1962. From F.J. Morton H73.
 421 Air. Mar 1961. From M.H. Dye F6.
 1058 Auckland, AK, NZ 1962. From F.J. Morton H102.
 7591 Australia. From R.A. Fullerton ← ATCC 9642 = IMI 91855: NRRL A524.
 10288 Polyester butcher's twine. Auckland, AK, NZ Mar 1990. From E.H.C. McKenzie.

Aspergillus ochraceus Wilhelm

2043 *Caladium* sp. - caladium - rotting bulb. Jul 1967. From G.F. Laundon LEV 15456.
 939 Insect. Auckland, AK, NZ Mar 1963. From F.J. Morton H171.

Aspergillus oryzae (Ahlburg) Cohn

1281 Peanut butter. Auckland, AK, NZ 1964. From F.J. Morton H401.
 2633 From G. Strachan.
 2634 From G. Strachan.

Aspergillus restrictus G. Smith

5602 Air. Mt Albert, AK, NZ 1960. From J.M. Dingley 6032.

Aspergillus sp.

1045 *Solanum tuberosum* L. - potato. Katikati, BP, NZ Dec 1961. From F.J. Morton H75 ← S. Davison.
 885 Wool. NZ Oct 1961. From F.J. Morton H28 ← M.H. Dye.
 1036 Air. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H59.
 1038 Wool. Dec 1961. From F.J. Morton H63 ← M.H. Dye.
 1047 Air. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H80 ← J. Grigor.
 1048 Wool. Dec 1961. From F.J. Morton H83 ← M.H. Dye.
 1059 Air. Auckland, AK, NZ Feb 1962. From F.J. Morton H103.
 1060 Air. Auckland, AK, NZ Feb 1962. From F.J. Morton H104.
 1063 Air. Auckland, AK, NZ Feb 1962. From F.J. Morton H107.
 1064 Air. Auckland, AK, NZ Feb 1962. From F.J. Morton H108.
 1086 Air. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H163 ← A.G. Watson.
 1090 Cellulose sponge. Auckland, AK, NZ Jun 1963. From F.J. Morton H179.
 1091 Cellulose sponge. Auckland, AK, NZ Jun 1963. From F.J. Morton H180.
 1092 Cellulose sponge. Auckland, AK, NZ Jun 1963. From F.J. Morton H181.
 2238 Fowl feed. Henderson, AK, NZ. From J.M. Dingley 6843.
 6098 Refrigerator door PVC gasket. Papua New Guinea Jun 1978. From E.H.C. McKenzie.
 6100 Refrigerator door PVC gasket. Western Samoa Jun 1978. From E.H.C. McKenzie.

Aspergillus sulphureus (Fresenius) Thom & Church

1717 Lincoln, MC, NZ May 1965. From S. Davison 6586 ← P. Meredith.

Aspergillus sydowi (Bainier & Sartory) Thom & Church

419 Wool. Feb 1962. From M.H. Dye F4.
 478 Wool. Mt Albert, AK, NZ Sep 1961. From F.J. Morton H13 ← M.H. Dye.

Aspergillus tamarii Kita

9465 Rubber or plastic insulation. From ATCC 10836 ← A.E. Prince 26 = CBS 109.63: IMI 61268: NRRL 572.

Aspergillus terreus Thom

427 Wool (slipemaster). Jun 1961. From M.H. Dye F15.
 431 Wool. Jul 1961. From M.H. Dye F23.
 477 Wool. Mt Albert, AK, NZ Sep 1961. From F.J. Morton H12 ← M.H. Dye.
 1722 From J.M. Dingley 6590.

Aspergillus versicolor (Vuillemin) Tiraboschi

893 Wool. Auckland, AK, NZ Oct 1961. From F.J. Morton H41 ← M.H. Dye.
 1050 Wool. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H87 ← M.H. Dye.
 1056 High-nitrogen *Streptomyces* medium. Auckland, AK, NZ Feb 1962. From F.J. Morton H99.
 7592 India. From R.A. Fullerton ← ATCC 11730 = IMI 45554.

Aspergillus wentii Wehmer

896 Straw basket. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H45.

Athelia rolfsii (Curzi) Tu & Kimbroughsyn. *Corticium rolfsii* Curzianam. *Sclerotium rolfsii* Saccardo

11614 *Allium cepa* L. - shallot - basal bulb rot. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9311.
 11616 *Allium cepa* L. - onion - outer bulb scale rot. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9313.
 11617 *Allium cepa* L. - onion - outer bulb scales. Hastings, HB, NZ Feb 1993. From P.G. Broadhurst 9315.
 11618 *Allium cepa* L. - onion - outer bulb scales. Hastings, HB, NZ Feb 1993. From P.G. Broadhurst 9316.
 11613 *Amaranthus powellii* S. Wats. - red root - stem base of dying plant. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9310.
 10342 *Colocasia esculenta* (L.) Schott - taro - tuber rot. Tonga Jan 1977. From G. Laundon 11339.
 11615 *Cucurbita maxima* Duch. - squash cv. Buttercup Delica - fruit rot. Pukekohe, AK, NZ Mar 1993. From P.G. Broadhurst 9312 = PDD 60477.
 10925 *Cucurbita* sp. - squash. HB, NZ. From D. Manktelow.
 11675 *Daucus carota* L. var. *sativus* Hoffm. - carrot - root rot. Te Kohanga, WO, NZ Feb 1993. From P.G. Broadhurst 9318.
 11609 *Delphinium X cultorum* Voss - delphinium - basal rot. Tauranga, BP, NZ Jan 1993. From P.G. Broadhurst 9303.
 9047 *Iris* sp. - bulb. Hobsonville, AK, NZ May 1986. From G.I. Robertson P376.
 11610 *Leptinella dioica* Hook.f. - cotula - leaf blight. Warkworth, AK, NZ Jan 1993. From P.G. Broadhurst 9304.
 11681 *Nerine bowdenii* W. Wats. - nerine - bulb rot. Mangere, AK, NZ Apr 1993. From P.G. Broadhurst 9336.
 11676 *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain - basal stem rot. Mangere, AK, NZ Feb 1993. From P.G. Broadhurst 9319.
 11611 *Rumex obtusifolius* L. - broad-leaved dock - stem base of dying plant. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9308.
 11619 *Solanum tuberosum* L. - potato - basal stem rot. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9317.
 11612 *Spergula arvensis* L. - spurrey - stem base of dying plant. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9309.
 11692 *Zantedeschia elliptiana* (W.Wats) Engl. X *pentlandii* (Whyte ex Wats.) Wittm. - calla lily - basal stem rot. Mangere, AK, NZ Mar 1993. From P.G. Broadhurst 9323.

Aureobasidium pullulans (de Bary) Arnaudsyn. *Pullularia pullulans* (de Bary) Berkhout

3057 *Malus X domestica* Borkh. - apple - leaf. Mt Albert, AK, NZ Feb 1971. From K.J. Anderson 80AP.
 3060 *Malus X domestica* Borkh. - apple. Mt Albert, AK, NZ Feb 1971. From K.J. Anderson 73AP.
 10225 *Narcissus* sp. - leaf spots. Kimbolton, WI, NZ Nov 1977. From G.F. Laundon 12385b.

Aureobasidium pullulans (de Bary) Arnaud var. *melanigenum* Hermanides-Nijhof

9466 Painted wood. From ATCC 15233 ← B. Wiley QM279c = CBS 249.65: IMI 45533 - J. Infect. Dis. 101: 51-61, 1957; Mycopath. Mycol. Appl. 17: 26-27, 1962 - fungus resistance testing.
 9816 Wattle stained cedar weatherboards. Auckland, AK, NZ Feb 1989. From E.H.C. McKenzie.
 10356 Oil. Glenbrook, AK, NZ. From E.H.C. McKenzie.

Aureobasidium sp.

8332 Mouldy wall-paper. Auckland, AK, NZ Sep 1983. From E.H.C. McKenzie.

Aureobasidium zeae (Narita & Hiratsuka) Dingley ex Hermanides-Nijhofsyn. *Kabatiella zeae* Narita & Hiratsuka

3116 *Zea mays* L. - maize. Pairere, WO, NZ Mar 1971. From J.M. Dingley 7134.
 3117 *Zea mays* L. - maize. Pairere, WO, NZ Mar 1971. From J.M. Dingley 7135.
 3118 *Zea mays* L. - maize cv. PX610 - leaf eyespot. Pairere, WO, NZ Mar 1971. From J.M. Dingley 7136 ← J.D. Fletcher.
 3119 *Zea mays* L. - maize. Gisborne, GB, NZ Mar 1971. From J.M. Dingley 7128.

Auricularia cornea (Ehrenberg) Ehrenberg & Endlicher

12282 *Acacia koa* A. Gray. USA (Hawaii). From P.K. Buchanan 94-133 ← G. Wong GJW802-16 = ATCC 62519 - mating type A8B13.

Auricularia polytricha (Montagne) Saccardo

12281 *Aleurites moluccana* (L.) Willd. - candlenut tree. USA (Hawaii). From P.K. Buchanan 94-132 ← G. Wong GJW786-8 = ATCC 62518 - mating type A17B9.
12283 *Aleurites moluccana* (L.) Willd. - candlenut tree. USA (Hawaii). From P.K. Buchanan 94-134 ← G. Wong GJW786-2 = ATCC 62517 - mating type A16B8.

Beauveria bassiana (Balsamo-Crivelli) Vuillemin

6887 *Aenetus virescens* (Doubleday) [Invertebrate] - dead larva. Wainuiomata, WN, NZ 1980. From P.J. Cameron 80-5.
2080 *Declana floccosa* (Walker) [Invertebrate] - forest semi-looper. Dargaville, ND, NZ Sep 1967. From J.M. Dingley 67140.
5539 *Graphognathus leucoloma* (Boheman) [Invertebrate] - white fringed weevil. Mt Albert, AK, NZ Jun 1977. From D. Steven 10-14.
5540 *Graphognathus leucoloma* (Boheman) [Invertebrate] - white fringed weevil. Mt Albert, AK, NZ Jun 1977. From D. Steven 10-8.
5541 *Graphognathus leucoloma* (Boheman) [Invertebrate] - white fringed weevil. Mt Albert, AK, NZ Jun 1977. From D. Steven 5-5.
8701 *Hyperodes bonariensis* (Kuschel) [Invertebrate] - Argentine stem weevil. Wairakei, TO, NZ Feb 1984. From G.J. Samuels ← L.A. Malone 817.56.
8147 *Vespula germanica* (Fabricius) [Invertebrate] - German wasp. Kerikeri, ND, NZ Mar 1983. From G.J. Samuels ← S. Dhana.
9271 *Vespula germanica* (Fabricius) [Invertebrate] - German wasp - larva. Titirangi, AK, NZ Jul 1986. From E.H.C. McKenzie ← D.L. Anderson.

Beauveria brongniartii (Saccardo) Petch

2229 *Neocicindela tuberculata* (Fabricius) [Invertebrate] - tiger beetle larvae. Riverhead, AK, NZ Mar 1968. From J.M. Dingley 6840 = PDD 26212.

Beauveria rileyi (Farlow) Grosswald

see *Nomuraea rileyi*.

Beauveria sp.

11360 *Ochrocydus huttoni* ?? - dead insect. Pukenui Reserve, ND, NZ May 1992. From E.H.C. McKenzie.
10253 Insect. Huia, AK, NZ Apr 1982. From G.F. Laundon 19541.

Berkleasium sp.

3087 Pasture litter. Palmerston North, WI, NZ Mar 1969. From E.H.C. McKenzie 21.

Bimuria novae-zelandiae D. Hawksworth, Chea & Sheridan

7001 Soil. Aorangi, WN, NZ Jan 1980. From G.J. Samuels ← M.J. Christensen.
7002 Soil. Kaikohe, ND, NZ Jan 1980. From G.J. Samuels ← M.J. Christensen.
10254 Wellington, WN, NZ 1980. From G.F. Laundon 17540.

Bipolaris australiensis (M.B. Ellis) Tsuda & Ueyama

see *Cochliobolus australiensis*.

Bipolaris bicolor (Mitra) Shoemaker

see *Cochliobolus bicolor*.

Bipolaris brizae (Nisikado) Shoemaker

9940 *Briza maxima* L. - big quaking grass - leafspot. Sandringham, AK, NZ Jan 1989. From E.H.C. McKenzie = PDD 54905.
9938 *Briza minor* L. - little quaking grass - leafspot. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 14 = PDD 54774.

Bipolaris cynodontis (Marignoni) Shoemaker

see *Cochliobolus cynodontis*.

Bipolaris iridis (Oudemans) Dickinson

syn. *Drechslera iridis* (Oudemans) M.B. Ellis

6129 *Iris* sp. - leaf. Waimauku, AK, NZ Jul 1977. From E.H.C. McKenzie 420.
7306 *Iris* sp. - iris cv. Wedgwood - leaf spot. Kumeu, AK, NZ Jul 1977. From G.I. Robertson P242.

Bipolaris maydis (Nisikado) Shoemaker

see *Cochliobolus heterostrophus*.

Bipolaris nodulosa (Berkeley & Curtis)

see *Cochliobolus nodulosus*.

Bipolaris oryzae (Breda & Haan) Shoemaker

see *Cochliobolus miyabeanus*.

Bipolaris ravenelii (Curtis) Shoemaker

see *Cochliobolus ravenelii*.

Bipolaris sacchari (Butler) Shoemaker

syn. *Drechslera sacchari* (Butler) Subramanian & Jain

6229 *Axonopus affinis* Chase - narrow-leaved carpet grass. Waitakere Ranges, AK, NZ Jul 1975. From E.H.C. McKenzie 99.
6231 *Lolium multiflorum* Lam. - Italian ryegrass cv. Grasslands Paroa - seed. Palmerston North, WI, NZ. From E.H.C. McKenzie 6011.
6227 *Oplismenus imbecillus* (R. Br.) Roem. & Schult. Huia, AK, NZ May 1975. From E.H.C. McKenzie 91.
6230 *Paspalum dilatatum* Poir. - dallisgrass, paspalum. Huia, AK, NZ May 1975. From E.H.C. McKenzie 92.
6226 *Pennisetum clandestinum* Hochst. ex Chiov. - kikuyu. Mt Albert, AK, NZ Feb 1975. From E.H.C. McKenzie 11.
6228 *Setaria glauca* (auct. non L.) Beauv. - yellow bristlegrass. Pukekohe, AK, NZ Jul 1975. From E.H.C. McKenzie 115.
6225 Palmerston North, WI, NZ 1976. From E.H.C. McKenzie ← M.J. Christensen D20.

Bipolaris sorokiniana (Saccardo) Shoemaker

see *Cochliobolus sativus*.

Bipolaris sp.

3096 *Lolium perenne* L. - perennial ryegrass - leaf. Palmerston North, WI, NZ May 1970. From E.H.C. McKenzie 22.
9931 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Islands, NZ Sep 1988. From E.H.C. McKenzie 7 = PDD 54742.
9933 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Islands, NZ Sep 1988. From E.H.C. McKenzie 9 = PDD 54742.
10095 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 31.
10096 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 29.
10097 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leaf spot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 28.
10098 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 30.
10099 *Poa anceps* Forst.f. subsp. *polyphylla* (Hackel) Edgar - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 27.
9824 *Puccinellia fasciculata* (Torrey) Bicknell - saltgrass - leafspot. Island Bay, WN, NZ Jan 1989. From E.H.C. McKenzie = Herb. PDD 55148.

Bipolaris spicifera (Bainier) Subramanian

see *Cochliobolus spicifer*.

Bisporella discedens (Karsten) Carpenteranam. *Bloxamia* sp.

- 9772 *Rhopalostylis sapida* Wendl. & Drude - nikau - dead frond. Waitakere Ranges, AK, NZ Apr 1987. From P.R. Johnston D145 = PDD 45590 - Mycotaxon 31: 345-350, 1988.

Bloxamia sp.see *Bisporella discedens*.**Botryodiplodia theobromae** Patouillardsee *Lasiodiplodia theobromae*.**Botryosphaeria dothidea** (Mougeot ex Fries) Cesati & de Notaris

- 7697 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe spot on fruit. Te Puke, BP, NZ May 1982. From S.R. Pennycook 1028.
 7810 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7929 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1051-3.
 7930 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-F.
 7931 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-G.
 8011 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1051-1.
 8012 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1051-2.
 8013 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1051-4.
 8015 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-4.
 8016 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From R.E. Beever 72-4
 ← S.R. Pennycook 1054 - Mycotaxon 24: 445-458, 1985.
 8017 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ascocarp in bark of summer-pruned vine. Te Puke, BP, NZ May 1982. From G.J. Samuels 82-176.
 12043 *Cytisus scoparius* (L.) Link - broom. Hamner, MB, NZ Feb 1992. From P.R. Johnston B99 = herb. PDD 59749.
 10431 *Diospyros kaki* L.f. - Japanese persimmon - stem canker. Kerikeri, ND, NZ. From P.G. Broadhurst SAM 9009.
 10300 *Hebe* sp. - leaves. Levin, WN, NZ Jul 1979. From G. Laundon 15189.
 9702 * *Persea americana* Mill. - avocado - stem end fruit rot. Katikati, BP, NZ Feb 1986. From W.F.T. Hartill 293 - *avocado (Hartill).
 10354 *Persea americana* Mill. - avocado cv. Hass. Te Puna, BP, NZ Jan 1986. From W.F.T. Hartill 27.
 8019 *Populus nigra* L. - Lombardy (black) poplar - ascocarp in bark of dead twig. Te Puke, BP, NZ Dec 1981. From G.J. Samuels 81-394.
 10083 *Ribes nigrum* L. - black currant - basal rot. Levin, WN, NZ Oct 1976. From G.F. Laundon 11034.
 2096 *Ribes uva-crispa* L. - gooseberry. Wanganui, WI, NZ Oct 1967. From G.F. Laundon LEV 1724.
 7007 *Vaccinium ashei* Reade - rabbit-eye blueberry - tip die-back. Lake Cameron, Rukuhia, WO, NZ Aug 1978. From P.R. Johnston B10.
 7010 *Vaccinium ashei* Reade - rabbit-eye blueberry - stained cambium with tip die-back. Lake Cameron, Rukuhia, WO, NZ Aug 1978. From P.R. Johnston B11.
 7006 *Vaccinium corymbosum* L. - highbush blueberry - tip die-back. Whakatane, BP, NZ Dec 1979. From P.R. Johnston B77.
 7009 *Vaccinium corymbosum* L. - highbush blueberry - rotting berry. Moanatuatua, WO, NZ Mar 1979. From P.R. Johnston B50.

Botryosphaeria obtusa (Schweinitz) Shoemakeranam. *Sphaeropsis malorum* Peck

- 9809 *Malus X domestica* Borkh. - apple cv. Gala - fruit. Hamilton, WO, NZ Jan 1989. From G.I. Robertson A349.
 9810 *Malus X domestica* Borkh. - apple cv. Braeburn - fruit. Riwaka, NN, NZ Mar 1989. From G.I. Robertson A379.
 10081 *Malus X domestica* Borkh. - apple. Nelson, NN, NZ Apr 1977. From G.F. Laundon 11672 - larger conidia than usual.
 10082 *Malus X domestica* Borkh. - apple. Upper Moutere, NN, NZ Nov 1976. From G.F. Laundon 11213.
 10080 *Prunus armeniaca* L. - apricot - canker. Motueka, NN, NZ Oct 1976. From G.F. Laundon 11112.

Botryosphaeria parva Pennycook & Samuelsanam. *Fusicoccum parvum* Pennycook & Samuels

- 7812 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7923 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-B.
 7924 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-C.
 7925 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-D.
 7933 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-A.
 7934 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - rot of fruit. Te Puke, BP, NZ Sep 1982. From R.E. Beever 72-5
 ← S.R. Pennycook 1054 - Mycotaxon 24: 445-458, 1985.
 7818 *Malus X domestica* Borkh. - apple cv. Granny Smith - ripe rot of fruit. Kumeu, AK, NZ Oct 1982. From S.R. Pennycook 1057.
 8847 *Persea americana* Mill. - avocado - fruit stalk lesion. Te Puna, BP, NZ Mar 1985. From M.A. Manning 1176-6.
 8848 *Persea americana* Mill. - avocado - fruit lesion. NZ Mar 1985. From M.A. Manning 1179-10.
 9806 *Persea americana* Mill. - avocado - fruit rot. Te Puke, BP, NZ. From W.F.T. Hartill - colony variance has a sculptured appearance when young.
 10314 *Persea americana* Mill. - avocado cv. Hass - pedicel lesion, ring neck. Maungawhai, AK, NZ Nov 1987. From W.F.T. Hartill 58 (289).
 10352 *Persea americana* Mill. - avocado cv. Hass - fruit rot. Katikati, BP, NZ Dec 1986. From W.F.T. Hartill 37 (253).
 10353 *Persea americana* Mill. - avocado cv. Hass - fruit rot. Bethlehem, BP, NZ Dec 1986. From W.F.T. Hartill 39 (255).
 8002 *Populus nigra* L. - Lombardy (black) poplar - ascocarp in bark of dead twig. Te Puke, BP, NZ Jul 1981. From G.J. Samuels 81-287.
 8003 *Populus nigra* L. - Lombardy (black) poplar - ascocarp in bark of dead twig. Te Puke, BP, NZ Dec 1981. From G.J. Samuels 81-393.
 9476 *Prunus armeniaca* L. - apricot cv. Sundrop - twig, stem dieback. Papa Aroha, CL, NZ Feb 1988. From P.G. Broadhurst.

Botryosphaeria sp.

- 11856 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G91.

Botryosphaeria stevensii Shoemakeranam. *Diplodia mutila* Fries

- 7811 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7932 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From R.E. Beever 72-7
 ← S.R. Pennycook 1054.
 6830 *Malus X domestica* Borkh. - apple - rotted calyx of fruit. Oratia, AK, NZ. From S.R. Pennycook.
 10079 *Malus X domestica* Borkh. - apple - canker. Upper Moutere, NN, NZ May 1977. From G.F. Laundon 11783.
 10302 *Pisum sativum* L. - pea - roots. Palmerston North, WI, NZ Dec 1977. From G. Laundon 12357c.
 7008 *Vaccinium ashei* Reade - rabbit-eye blueberry - dead branch. Lake Cameron, Rukuhia, WO, NZ Nov 1978. From P.R. Johnston B23.

Botryosphaeria xanthocephala (H. & P. Sydow & Butler) Theissenanam. *Fusicoccum cajani* (H. & P. Sydow & Butler) Samuels & B. Singh

- 9485 *Vigna unguiculata* (L.) Walp. subsp. *unguiculata* - black-eyed pea - seedling yellowing. Fiji. From E.H.C. McKenzie ← R. Goundar 14-88B.

Botryosporium pulchrum Corda

- 10227 *Diospyros* sp. Te Puke, BP, NZ May 1980. From G.F. Laundon 16641.

Botryotinia porri (Beyma) Whetzelsyn. *Sclerotinia porri* Beyma

- 10976 *Allium sativum* L. - garlic - bulb rot. Nelson, NN, NZ Dec 1977. From G. Laundon 12643.

Botryotinia squamosa Viennot-Bourginanam. *Botrytis squamosa* Walker9334 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Sep 1980. From J. Rees-George 147.**Botrytis allii** Munn1682 *Allium cepa* L. - onion. Tuakau, AK, NZ. From S. Davison 653.1715 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From S. Davison 6529.1716 *Allium cepa* L. - onion. Lincoln, MC, NZ Feb 1965. From S. Davison 6530 ← G. Wilson.1719 *Allium cepa* L. - onion. Lincoln, MC, NZ Feb 1965. From S. Davison 6538.10226 *Allium cepa* L. - onion - bulb rot. Auckland, AK, NZ Sep 1978. From G.F. Laundon 13705.**Botrytis byssoidea** Walker5601 *Allium cepa* L. - onion. Lincoln, MC, NZ Feb 1965. From J.M. Dingley 6532.**Botrytis cinerea** Persoon2241 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Henderson, AK, NZ Mar 1968. From J.M. Dingley 6846.2783 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - flower. Auckland, AK, NZ Apr 1969. From D.J. Beever A2 ← J.M. Dingley.7577 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - leaf. Riverhead, AK, NZ Jan 1982. From R.E. Beever 45-8 - N.Z. J. Agric. Res. 26: 391-400, 1983.7578 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - leaf. Riverhead, AK, NZ Jan 1982. From R.E. Beever 45-12 - N.Z. J. Agric. Res. 26: 391-400, 1983.7596 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Te Puke, BP, NZ Jul 1981. From R.E. Beever 28-2 ← S.R. Pennycook 964 = ATCC 48338 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 28: 289-292, 19 85.7597 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Te Puke, BP, NZ Jul 1981. From R.E. Beever 28-6 ← S.R. Pennycook 964 = ATCC 48341 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 28: 289-292, 19 85.8525 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - blossom. Riverhead, AK, NZ Dec 1983. From R.E. Beever 90-3.8571 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit rot. Riverhead, AK, NZ Jul 1983. From R.E. Beever 79-3 - N.Z. J. Agric. Res. 26: 391-400, 1983.10749 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 205 - resistant to dicarboximide, iprodione - *kiwifruit (Manning).10750 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 207 - sensitive to iprodione - *kiwifruit (Manning).10817 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 209 - resistant to dicarboximide, iprodione - kiwifruit - *kiwifruit (Manning).10818 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 212 - sensitive to iprodione - *kiwifruit (Manning).10819 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 215 - resistant to dicarboximide, iprodione - *kiwifruit (Manning).10820 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 216 - sensitive to iprodione - *kiwifruit (Manning).10821 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 235 - sensitive to iprodione - *kiwifruit (Manning).10822 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 238 - resistant to dicarboximide, iprodione - *kiwifruit (Manning).10823 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 245 - resistant to dicarboximide, iprodione - *kiwifruit (Manning).10824 * *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - fruit. Wanganui, WI, NZ Aug 1990. From M.A. Manning 248 - sensitive to iprodione - *kiwifruit (Manning).1718 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From S. Davison 6534.7588 *Begonia* sp. - begonia - leaf margin. Mt Wellington, AK, NZ Feb 1982. From R.E. Beever 58-1 - N.Z. J. Agric. Res. 26: 391-400, 1983.7589 *Begonia* sp. - begonia - leaf margin. Mt Wellington, AK, NZ Feb 1982. From R.E. Beever 58-2 - N.Z. J. Agric. Res. 26: 391-400, 1983.8569 *Begonia X hiemalis* Fotsch - rieger begonia - lamina. Ramarama, AK, NZ May 1983. From R.E. Beever 75-38.8570 *Begonia X hiemalis* Fotsch - rieger begonia - lamina. Ramarama, AK, NZ May 1983. From R.E. Beever 75-49.8577 *Begonia X hiemalis* Fotsch - rieger begonia - flower. Ramarama, AK, NZ May 1983. From R.E. Beever 75-34.7558 *Cucumis sativus* L. - cucumber - fruit. Ramarama, AK, NZ Dec 1981. From R.E. Beever 49-13 - N.Z. J. Agric. Res. 26: 391-400, 1983.7663 *Cucumis sativus* L. - cucumber - fruit. Kumeu, AK, NZ Dec 1981. From R.E. Beever 53-8c - N.Z. J. Agric. Res. 26: 391-400, 1983.7665 *Cucumis sativus* L. - cucumber - fruit rot. Massey, AK, NZ Dec 1981. From R.E. Beever 54-13c - N.Z. J. Agric. Res. 26: 391-400, 1983.7668 *Cucumis sativus* L. - cucumber - leaf. Riverhead, AK, NZ Nov 1981. From R.E. Beever 39-10 - N.Z. J. Agric. Res. 27: 107-111, 1984; Ibid. 28: 289-292, 19 85.7688 *Cucumis sativus* L. - cucumber - flower. Massey, AK, NZ Dec 1981. From R.E. Beever 54-4c - N.Z. J. Agric. Res. 26: 391-400, 1983.8526 *Cyclamen* sp. - petal. Mt Wellington, AK, NZ May 1983. From R.E. Beever 75-16.8567 *Cyclamen* sp. - petiole. Mt Wellington, AK, NZ May 1983. From R.E. Beever 75-6.2786 *Fragaria X ananassa* Duch. - cultivated strawberry - flower. Auckland, AK, NZ Aug 1969. From D.J. Beever A3.7562 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Albany, AK, NZ Jan 1982. From R.E. Beever 52-42 - N.Z. J. Agric. Res. 26: 391-400, 1983.7563 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Albany, AK, NZ Jan 1982. From R.E. Beever 52-45 - N.Z. J. Agric. Res. 26: 391-400, 1983.7564 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Albany, AK, NZ Jan 1982. From R.E. Beever 52-70 - N.Z. J. Agric. Res. 26: 391-400, 1983.7566 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Pukekohe, AK, NZ Jan 1982. From R.E. Beever 55-2 - N.Z. J. Agric. Res. 26: 391-400, 1983.7567 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Pukekohe, AK, NZ Jan 1982. From R.E. Beever 55-10 - N.Z. J. Agric. Res. 26: 391-400, 1983.7600 *Fragaria X ananassa* Duch. - cultivated strawberry - fruit. UK. From R.E. Beever TPRR - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 27: 107-111, 1984.7687 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - fruit. Albany, AK, NZ Jan 1982. From R.E. Beever 52-40 - N.Z. J. Agric. Res. 26: 391-400, 1983.12258 *Fragaria X ananassa* Duch. - strawberry cv. Pajaro - fruit. Waitakere, AK, NZ Jan 1994. From R.L.J. Howitt 105-19 - resistant to iprodione and carbendazim.12259 *Fragaria X ananassa* Duch. - strawberry cv. Pajaro - fruit. Massey, AK, NZ Jan 1994. From R.L.J. Howitt 106-10 - sensitive to iprodione and carbendazim.8565 *Fuchsia* sp. - flower. Mt Wellington, AK, NZ May 1983. From R.E. Beever 75-17.11041 *Gastrodia cunninghamii* Hook.f. Dun Mountain, NN, NZ Aug 1991. From R.E. Beever 612-2.2782 *Lycopersicon esculentum* Mill. - tomato - fruit. Auckland, AK, NZ Aug 1969. From D.J. Beever A1.7551 *Lycopersicon esculentum* Mill. - tomato - stem. Otara, AK, NZ Dec 1981. From R.E. Beever 42-6 - N.Z. J. Agric. Res. 26: 391-400, 1983.7553 *Lycopersicon esculentum* Mill. - tomato - stem. Otara, AK, NZ Dec 1981. From R.E. Beever 42-14 - N.Z. J. Agric. Res. 26: 391-400, 1983.7554 *Lycopersicon esculentum* Mill. - tomato - petiole. Otara, AK, NZ Dec 1981. From R.E. Beever 42-25 - N.Z. J. Agric. Res. 26: 391-400, 1983.7598 *Lycopersicon esculentum* Mill. - tomato - fruit. Kumeu, AK, NZ Jul 1981. From R.E. Beever 29-3 = ATCC 48342 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 28: 289-292, 19 85.

- 7599 *Lycopersicon esculentum* Mill. - tomato - stem. Manurewa, AK, NZ Sep 1981. From R.E. Beever 31-5 = ATCC 48343 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7834 *Lycopersicon esculentum* Mill. - tomato. Horotane Valley, MC, NZ Jun 1982. From R.E. Beever 65-2 - N.Z. J. Agric. Res. 28: 289-292, 1985.
- 7835 *Lycopersicon esculentum* Mill. - tomato. Horotane Valley, MC, NZ Jun 1982. From R.E. Beever 65-38 - N.Z. J. Agric. Res. 28: 289-292, 1985.
- 7869 *Lycopersicon esculentum* Mill. - tomato. Horotane Valley, MC, NZ Jun 1982. From R.E. Beever 65-42. - N.Z. J. Agric. Res. 28: 289-292, 1985.
- 10257 *Lycopersicon esculentum* Mill. - tomato. Nelson, NN, NZ Jul 1977. From G.F. Laundon 11902 - benomyl tolerant.
- 10258 *Lycopersicon esculentum* Mill. - tomato. Nelson, NN, NZ Jun 1979. From G.F. Laundon 15180 - benomyl (1000ppm) tolerant.
- 12256 *Lycopersicon esculentum* Mill. - tomato cv. Taupo - leaf. New Lynn, AK, NZ Jan 1994. From R.L.J. Howitt 100-19 - sensitive to iprodione and carbendazim.
- 12257 *Lycopersicon esculentum* Mill. - tomato cv. Taupo - stem. Pukekohe, AK, NZ Jan 1994. From R.L.J. Howitt 104-20 - resistant to iprodione and carbendazim.
- 7659 *Malus X domestica* Borkh. - apple cv. Cox's Orange - fruit, calyx rot. Nelson, NN, NZ Mar 1982. From R.E. Beever 62-1 ← S.R. Pennycook 1021 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 10825 *Paeonia lactiflora* Pall. - common garden peony. Raetihi, TO, NZ Nov 1990. From M.A. Manning 328.
- 7664 *Phaseolus vulgaris* L. - bean - leaf. Kumeu, AK, NZ Dec 1981. From R.E. Beever 53-26B - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7666 *Phaseolus vulgaris* L. - bean - pod. Massey, AK, NZ Dec 1981. From R.E. Beever 54-28B = ATCC 48345 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7638 *Prunus armeniaca* L. - apricot - fruit. Alexandra, CO, NZ Mar 1982. From R.E. Beever 60-4a - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 29: 299-304, 19 86.
- 8521 *Prunus armeniaca* L. - apricot - green fruit rot. Roxburgh, CO, NZ Nov 1983. From R.E. Beever 85-1 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8522 *Prunus armeniaca* L. - apricot - green fruit rot. Roxburgh, CO, NZ Nov 1983. From R.E. Beever 84-2 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8527 *Prunus armeniaca* L. - apricot - green fruit rot. Roxburgh, CO, NZ Nov 1983. From R.E. Beever 82-1 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8528 *Prunus armeniaca* L. - apricot - fruit. Central Otago, CO, NZ Jan 1984. From R.E. Beever 92-3 = PDD 44838 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8572 *Prunus armeniaca* L. - apricot - green fruit rot. Roxburgh, CO, NZ Nov 1983. From R.E. Beever 82-2 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8573 *Prunus armeniaca* L. - apricot - green fruit rot. Roxburgh, CO, NZ Nov 1983. From R.E. Beever 83-1 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8575 *Prunus armeniaca* L. - apricot - fruit. Central Otago, CO, NZ Jan 1984. From R.E. Beever 92-1 = PDD 44836 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 8576 *Prunus armeniaca* L. - apricot - fruit. Central Otago, CO, NZ Jan 1984. From R.E. Beever 92-2 = PDD 44837 - N.Z. J. Agric. Res. 29: 299-304, 1985.
- 8518 *Psidium littorale* Raddi var. *longipes* (O. Berg) Fosb. - red guava - fruit. Bethlehem, BP, NZ Aug 1982. From R.E. Beever 68-5.
- 8564 *Pyrus pyrifolia* (Burm.f.) Nakai - Asian pear, nashi - seedling, infection of cotyledon. Tauranga, BP, NZ Jul 1982. From R.E. Beever 67-1.
- 7581 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - fruit. Harewood, MC, NZ Feb 1982. From R.E. Beever 56-1 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7582 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - fruit. Harewood, MC, NZ Feb 1982. From R.E. Beever 56-3 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7583 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - fruit. Harewood, MC, NZ Feb 1982. From R.E. Beever 56-4 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7585 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - fruit. Harewood, MC, NZ Feb 1982. From R.E. Beever 57-1 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 1068 *Trifolium repens* L. - white clover. Mt Albert, AK, NZ Mar 1962. From F.J. Morton H118.
- 3347 *Vaccinium corymbosum* L. - highbush blueberry - fruit. Levin, WN, NZ Nov 1972. From G.F. Laundon LEV 6769.
- 7020 *Vaccinium corymbosum* L. - highbush blueberry - mummyberry on plant. Moanatuatua, WO, NZ May 1979. From P.R. Johnston B62.
- 8566 *Vaccinium corymbosum* L. - highbush blueberry - fruit. Jan 1984. From R.E. Beever 91-1.
- 7527 *Vitis vinifera* L. - grape cv. Gewurztraminer - leaf. Henderson, AK, NZ Nov 1981. From R.E. Beever 34-3 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 27: 107-111, 19 84.
- 7532 *Vitis vinifera* L. - grape cv. Palomino - leaf. Whenuapai, AK, NZ Nov 1981. From R.E. Beever 35-9 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 7542 *Vitis vinifera* L. - grape cv. Palomino - leaf. Mangatangi, AK, NZ Nov 1981. From R.E. Beever 38-5 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 8586 *Vitis vinifera* L. - grape cv. Muller-Thurgau - noble rot of berry. Te Kauwhata, WO, NZ. From R.E. Beever 93-9.
- 8589 *Vitis vinifera* L. - grape cv. Muller-Thurgau - noble rot of berry. Te Kauwhata, WO, NZ Mar 1984. From R.E. Beever 93-23.
- 8714 *Vitis vinifera* L. - grape cv. Muller-Thurgau - berry. Gisborne, GB, NZ Mar 1984. From R.E. Beever 106-1 ← K. Munro G11.
- 8715 *Vitis vinifera* L. - grape cv. Muller-Thurgau - berry. Gisborne, GB, NZ Mar 1984. From R.E. Beever 106-2 ← K. Munro G41.
- 12255 *Vitis vinifera* L. - grape cv. Sylvaner - fruit. Hastings, HB, NZ Mar 1985. From R.E. Beever 171-3 - sensitive to iprodione and carbendazim.
- 7516 *Vitis vinifera* L. X *V. labrusca* L. - grape cv. Siebel 5455 - leaf. Kumeu, AK, NZ Nov 1981. From R.E. Beever 36-1 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 27: 107-111, 19 84.
- 7517 *Vitis vinifera* L. X *V. labrusca* L. - grape cv. Siebel 5455. Kumeu, AK, NZ Nov 1981. From R.E. Beever 36-6 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 28: 289-292, 19 85.
- 7518 *Vitis vinifera* L. X *V. labrusca* L. - grape cv. Siebel 5455. Kumeu, AK, NZ Nov 1981. From R.E. Beever 36-8 = ATCC 48339 - N.Z. J. Agric. Res. 26: 391-400, 1983, Ibid. 27: 107-111, 19 84.
- 7667 *Vitis vinifera* L. X *V. labrusca* L. - grape cv. Siebel 5455 - leaf. Kumeu, AK, NZ Nov 1981. From R.E. Beever 36-2 = ATCC 48344 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 28: 289-292, 19 85.
- 7703 *Vitis vinifera* L. X *V. labrusca* L. - grape cv. Siebel 5455 - leaf. Huapai, AK, NZ Dec 1981. From R.E. Beever 50-8 - N.Z. J. Agric. Res. 26: 391-400, 1983; Ibid. 27: 107-111, 19 84.
- 7595 Laboratory derived strain. Dec 1980. From R.E. Beever 2-9 - N.Z. J. Agric. Res. 26: 391-400, 1983.
- 10256 Aerial contaminant. Apr 1977. From G.F. Laundon 11724.
- 10934 Laboratory cross. Italy. From R.E. Beever ← F. Faretra SAS56 - J. Gen Microbiol. 134: 2543-2550, 1988 - mating type 1-1 - MBC sensitive, dicarboximide/aromatic fungicide sensitive.
- 10935 Laboratory cross. Italy. From R.E. Beever ← F. Faretra SAS405 - Mating type 1-2 - MBC high level resistance, dicarboximide/ aromatic fungicide low level resistance.
- Botrytis elliptica** (Berkeley) Cooke
- 9807 *Lilium* sp. - lily. Nelson, NN, NZ. From M. Braithwaite 14 ← R.E. Beever 504-14 = herb. PDD 55138 - resistant to benzimidazoles.
- 9808 *Lilium* sp. - lily. Nelson, NN, NZ. From M. Braithwaite 39 ← R.E. Beever 504-39 = Herb. PDD 55138 - resistant to benzimidazoles.
- 11042 *Lilium* sp. - Asiatic lily. Clarkville, MC, NZ Feb 1992. From R.E. Beever 732 ← M. Braithwaite.
- Botrytis galanthina** (Berkeley & Broome) Saccardo
- 6314 *Lachenalia* sp. - cape cowslip. Mt Albert, AK, NZ Sep 1977. From G.I. Robertson P250 = ATCC 60844.
- Botrytis gladiolorum* Timmermans
see *Sclerotinia draytonii*.
- Botrytis rileyi* Farlow
see *Nomuraea rileyi*.
- Botrytis squamosa* Walker
see *Botryotinia squamosa*.
- Botrytis** sp.
- 10259 *Allium cepa* L. - onion - basal bulb rot. Palmerston North, WI, NZ Nov 1981. From G.F. Laundon 18798.

- 10301 *Allium cepa* L. - onion - bulb rot. Levin, WN, NZ Nov 1977. From G. Laundon 12477b.
- 11439 *Arthropodium cirrhatum* (Forst.f.) R. Br. - rock lily, renga renga - leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T65.
- 11848 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka - brown elliptical leaf lesions (0.5-2cm). Taupo, TO, NZ Dec 1992. From J.M. Young Q17.
- 11891 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka - wet grey-brown necrotic leaf lesion. Taupo, TO, NZ Dec 1992. From J.M. Young Q50.
- 10260 *Pelargonium* sp. - leaf blight. Australia Nov 1981. From G.F. Laundon 18801.
- 11433 *Podocarpus totara* Bennett ex D. Don - totara - dieback of tips, desiccated dead leaves with black dots on them. Taupo, TO, NZ Nov 1991. From J.M. Young T45.
- Bullera alba*** (Hanna) Derx
- 7045 *Malus X domestica* Borkh. - apple cv. Sturmer - leaf. Kumeu, AK, NZ Oct 1980. From S.R. Pennycook 898.
- 7046 *Malus X domestica* Borkh. - apple cv. Sturmer - leaf. Kumeu, AK, NZ Oct 1980. From S.R. Pennycook 899.
- Bullera pyricola*** Stadelmann
- 7043 *Malus X domestica* Borkh. - apple cv. Sturmer - leaf. Kumeu, AK, NZ Oct 1980. From S.R. Pennycook 896.
- 7044 *Malus X domestica* Borkh. - apple cv. Sturmer - leaf surface. Kumeu, AK, NZ Oct 1980. From S.R. Pennycook 897.
- Byssothecium circinans*** Fuckel
- syn. *Trematosphaeria circinans* (Saccardo) Winter
- 8340 *Medicago sativa* L. - lucerne cv. Wairau - roots. Ashburton, MC, NZ Oct 1983. From G.J. Samuels 83-416 ← J.R. Rees-George.
- Caldariomyces fumago*** Woronichin
- 5613 From J.M. Dingley 65130 ← IMI 89362.
- Calonectria kytensis*** Terashita
- anam. *Cylindrocladium scoparium* Morgan
- 4023 *Acca sellowiana* (O. Berg) Burret - feijoa - root and fruit. Auckland, AK, NZ Nov 1973. From H.J. Boesewinkel - Pl. Dis. Rep. 58: 705-707, 1974.
- 5606 *Acca sellowiana* (O. Berg) Burret - feijoa - fruit. Mt Albert, AK, NZ Jun 1966. From J.M. Dingley 6694.
- 10059 *Acca sellowiana* (O. Berg) Burret - feijoa - rot on fallen fruit. Kumeu, AK, NZ. From P.R. Johnston ← E.P. Laracy.
- 3989 *Eucalyptus erythrocorys* Muell. - illyarie - leaf. Ohau, WN, NZ Jul 1974. From G.F. Laundon LEV 8475a.
- 4024 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedlings. Kumeu, AK, NZ Feb 1972. From H.J. Boesewinkel - Pl. Dis. Rep. 58: 705-707, 1974.
- 4005 *Ribes sativum* (Rchb.) Syme - red currant - stem base. Levin, WN, NZ Feb 1974. From G.F. Laundon LEV 8064.
- 10378 From G. Laundon 11908.
- Catabotrys deciduum*** (Berkeley & Broome) Seaver & Waterston
- 5295 *Rhopalostylis sapida* Wendl. & Drude - nikau. Waitakere Ranges, AK, NZ May 1963. From J.M. Dingley 6368.
- 5401 *Rhopalostylis sapida* Wendl. & Drude - nikau. Poor Knights Is., ND, NZ Dec 1963. From J.M. Dingley 63142.
- Ceratocystis fimbriata*** Ellis & Halsted
- anam. *Chalara* sp.
- 7833 *Colocasia esculenta* (L.) Schott - taro - corm. Cook Is. 1982. From R.A. Fullerton 8208.
- 894 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H42 ← S. Davison.
- 1731 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - root. Auckland, AK, NZ Jul 1966. From J.M. Dingley 6696.
- 2085 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Ruawai, ND, NZ Oct 1967. From J.M. Dingley 67151.
- 8579 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - tuber rot. Papua New Guinea Mar 1984. From E.H.C. McKenzie ← F.M. Quin.
- 2070 *Lycopersicon esculentum* Mill. - tomato - fruit. Tonga Sep 1967. From G.F. Laundon LEV 1634.
- Ceratocystis paradoxa*** (Dade) C. Moreau
- anam. *Thielaviopsis paradoxa* (de Seynes) Hohnel
- 2036 *Musa X paradisiaca* L. - banana - fruit. Ecuador Jul 1966. From G.F. Laundon LEV 844.
- 5789 *Musa X paradisiaca* L. - banana - finger stalk. Auckland, AK, NZ May 1977. From T.W. Canter-Visscher 798.
- Ceratocystis* sp.
- 4069 *Eucalyptus ficifolia* Muell. - red (scarlet) gum - vascular system of trunk. Waitakere Ranges, AK, NZ Sep 1974. From H.J. Boesewinkel.
- Cercospora davisii*** Ellis & Everhart
- see *Mycosphaerella davisii*.
- Cercospora zebrina*** Passerini
- 2930 *Trifolium repens* L. - white clover - leaf. Palmerston North, WI, NZ Jul 1970. From E.H.C. McKenzie 66 - N.Z. J. Agric. Res. 14: 379-392, 1971.
- Cercosporella*** sp.
- 3097 *Sagina apetala* Ard. - pearlwort - root. Masterton, WA, NZ Apr 1971. From E.H.C. McKenzie.
- Cercosporidium graminis*** (Fuckel) Deighton
- 2929 *Dactylis glomerata* L. - cocksfoot - leaf. NZ Apr 1970. From E.H.C. McKenzie - N.Z. J. Agric. Res. 14: 379-392, 1971.
- Ceuthospora laurocerasi*** Grove
- 2197 *Prunus laurocerasus* L. - cherry-laurel. Mangere, AK, NZ Jan 1968. From J.M. Dingley 688.
- Ceuthospora*** sp.
- see also *Phacidium* sp.
- 10303 From G. Laundon 21610.
- Chaetomella*** sp.
- 12248 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Paihia, ND, NZ Aug 1994. From P.R. Johnston 12.
- 12250 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Paihia, ND, NZ Aug 1994. From P.R. Johnston 11.
- 12251 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Paihia, ND, NZ Aug 1994. From P.R. Johnston 13.
- Chaetomium*** sp.
- 10383 Plant (unidentified). South Africa Jun 1977. From G. Laundon 11899 - rec. as *C. funicola*.
- Chaetomium globosum*** Kunze
- 422 Rotting fabric. Jan 1944. From M.H. Dye F7 ← R.M. Brien 362.
- 5627 1944. From J.M. Dingley 65115 ← R.M. Brien.
- Chaetomium indicum*** Corda
- 10305 Soil. Motueka, NN, NZ Mar 1977. From G. Laundon 12347c.
- Chaetomium*** sp.
- 10304 Aerial contaminant. Wellington, WN, NZ Mar 1983. From G. Laundon 21064.

Chalara elegans Nag Raj & Kendrick
see *Trichocladium basicola*.

Chalara sp.
see *Ceratocystis fimbriata*.

Chalara thielavioides (Peyronel) Nag Raj & Kendrick
2116 *Ulmus* sp. - elm - root. Auckland, AK, NZ Dec 1967. From J.M. Dingley 67169.

Chondrostereum purpureum (Persoon) Pouzar
syn. *Stereum purpureum* (Persoon) Fries
10160 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Waimea West, NN, NZ Jan 1978. From G.F. Laundon 1772.
10162 *Leucodendron* sp. - leucodendron cv. Safari Sunset. Waitara, TK, NZ Aug 1982. From G.F. Laundon 20044.
10161 *Malus X domestica* Borkh. - apple. Nelson, NN, NZ Jun 1977. From G.F. Laundon 11834.
2881 * *Prunus persica* (L.) Batsch - peach - budded nursery stock. Hastings, HB, NZ. From M.H. Dye F62 - *peach.

Chrysosporium sp.
8342 *Trifolium repens* L. - white clover - roots. Palmerston North, WI, NZ Sep 1983. From M.J. Christensen 2.
8343 *Trifolium repens* L. - white clover - roots. Palmerston North, WI, NZ Sep 1983. From M.J. Christensen WC13.

Cladobotryum apiculatum (Tubaki) W. Gams & Hoozemans
5617 *Armillaria* sp. Birkenhead, AK, NZ Mar 1972. From J.M. Dingley 7237.

Cladobotryum dendroides (Bulliard) W. Gams & Hoozemans
see *Hypomyces rosellus*.

Cladobotryum varium Nees
see *Hypomyces aurantius*.

Cladorrhinum sp.
10836 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - rhizome. Waimauku, AK, NZ. From E.H.C. McKenzie ← G.I. Robertson.

Cladosporium carpophilum Thumen
see *Venturia carpophila*.

Cladosporium chlorocephalum (Fresenius) Mason & Ellis
10318 *Paeonia* sp. - leafspot. Levin, WN, NZ Nov 1982. From G. Laundon 20457.

Cladosporium cladosporioides (Fresenius) de Vries
5997 *Nicotiana tabacum* L. - tobacco cv. Kutsaga 51 - sooty mould growth on leaf. Riwaka, NN, NZ May 1978. From R.E. Beever REB26.
10106 *Ulex europaeus* L. - gorse - seeds. Whitford, AK, NZ. From E.H.C. McKenzie ← M.S. Hoddle.
10319 *Viola* sp. - roots. Palmerston North, WI, NZ Jul 1980. From G. Laundon 16825b.
6089 Refrigerator door PVC gasket. Vanuatu Jun 1978. From E.H.C. McKenzie.
6090 Refrigerator door PVC gasket. Hong Kong Jun 1978. From E.H.C. McKenzie.
6092 Refrigerator door PVC gasket. Fiji Jun 1978. From E.H.C. McKenzie.
6093 Refrigerator door PVC gasket. Hong Kong Jun 1978. From E.H.C. McKenzie.
6094 Refrigerator door PVC gasket. Malaysia Jun 1978. From E.H.C. McKenzie.
6103 Refrigerator door PVC gasket. Fiji Jun 1978. From E.H.C. McKenzie.

Cladosporium colocasiae Sawada
5406 *Colocasia esculenta* (L.) Schott - taro. Niue Jun 1975. From J.M. Dingley 7510 ← R.A. Fullerton 377.
9482 *Colocasia esculenta* (L.) Schott - taro - brown leafspot, ghost spot. Epsom, AK, NZ May 1988. From E.H.C. McKenzie.

Cladosporium fulvum Cooke
see *Fulvia fulva*.

Cladosporium herbarum (Persoon) Link
907 *Bambusa* sp. - bamboo. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H185.
10359 *Brassica* sp. - leaves. Ohakune, RI, NZ Mar 1983. From G. Laundon 21061.
906 *Citrus limon* (L.) Burm.f. - lemon - fruit. Gisborne, GB, NZ Jul 1963. From F.J. Morton H184.
1246 *Citrus limon* (L.) Burm.f. - lemon. Gisborne, GB, NZ 1962. From F.J. Morton H184.
1251 *Cucurbita maxima* Duch. - pumpkin. Mt Albert, AK, NZ Oct 1963. From F.J. Morton H202.
1243 *Lolium perenne* L. - perennial ryegrass. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H51.
2936 *Lolium perenne* L. - perennial ryegrass - leaf debris. Palmerston North, WI, NZ Dec 1968. From E.H.C. McKenzie 25B.
5996 *Nicotiana tabacum* L. - tobacco cv. Kutsaga 51 - sooty mould on leaf. Riwaka, NN, NZ May 1978. From R.E. Beever REB27.
886 Air. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H29.
1244 Air. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H78.
1253 Five-year-old sodium malonate solution. Mt Albert, AK, NZ 1964. From F.J. Morton H203.
2092 Paper. Camp Bunn, Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67158.
6083 Refrigerator door PVC gasket. Vanuatu Jun 1978. From E.H.C. McKenzie.
6084 Refrigerator door PVC gasket. Papua New Guinea Jun 1978. From E.H.C. McKenzie.
6085 Refrigerator door PVC gasket. Hong Kong Jun 1978. From E.H.C. McKenzie.

Cladosporium iridis (Fautrey & Roumeguere) de Vries
see *Mycosphaerella macrospora*.

Cladosporium macrocarpum Preuss
10360 *Malus X domestica* Borkh. - apple. Etrick, CO, NZ Nov 1979. From G. Laundon 15896.

Cladosporium resiniae (Lindau) de Vries
see *Amorphotheca resiniae*.

Cladosporium sp.
12088 *Coprosma australis* (A. Rich.) Robinson - kanono - tan leafspots with darker margin and chlorosis. Manapouri, FD, NZ Nov 1993. From J.M. Young MM31 - identified by E.H.C. McKenzie.
1711 *Cucumis sativus* L. - cucumber. Avondale, AK, NZ. From S. Davison 6519.
1712 *Cucumis sativus* L. - cucumber. Henderson, AK, NZ. From S. Davison 6520.
1713 *Cucumis sativus* L. - cucumber. Henderson, AK, NZ. From S. Davison 6521.
11409 *Hebe* sp. - leafspot. Christchurch, MC, NZ Nov 1991. From J.M. Young B1.
11795 *Hebe* sp. (cultivated) - small elliptical brown sunken leafspot. Waiora, MC, NZ Nov 1992. From J.M. Young F16.
1255 *Lycopersicon esculentum* Mill. - tomato - leaf. Mangere, AK, NZ Nov 1963. From F.J. Morton H209 - rec. as *Fulvia fulva*.
11803 *Pittosporum* sp. - irregular 2-3mm dark leaf lesions. Ashburton, MC, NZ Dec 1992. From J.M. Young G24.
933 Wood. Auckland, AK, NZ. From F.J. Morton H187.
934 Wood. Auckland, AK, NZ. From F.J. Morton H188.
935 Wood. Auckland, AK, NZ. From F.J. Morton H189.

- 2087 Paper. Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67153.
 6095 Refrigerator door PVC gasket. Western Samoa Jun 1978. From E.H.C. McKenzie.
 6096 Refrigerator door PVC gasket. Western Samoa Jun 1978. From E.H.C. McKenzie.
 6097 Refrigerator door PVC gasket. Hong Kong Jun 1978. From E.H.C. McKenzie.
 8335 Mouldy wall-paper. Auckland, AK, NZ Sep 1983. From E.H.C. McKenzie.

Cladosporium sphaerospermum Penzig

- 10320 *Viola* sp. - roots. Palmerston North, WI, NZ Jul 1980. From G. Laundon 16825a.
 5529 Air. Auckland, AK, NZ Jun 1977. From E.H.C. McKenzie.
 6086 Refrigerator door PVC gasket. Fiji Jun 1978. From E.H.C. McKenzie.
 6087 Refrigerator door PVC gasket. Western Samoa Jun 1978. From E.H.C. McKenzie.

Cladosporium tenuissimum Cooke

- 6609 Air. Auckland, AK, NZ Oct 1979. From G.J. Samuels.

Clethruidium corticola (Fuckel) Shoemaker & E. Muller

syn. *Griphosphaeria corticola* (Fuckel) Hohnel

anam. *Seimatosporium lichenicola* (Corda) Shoemaker & E. Muller

- 7063 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit mouldy core. Hawkes Bay, HB, NZ Mar 1981. From S.R. Pennycook 926-11.
 2488 *Rubus ursinus* Cham. & Schlecht. Roxburgh, CO, NZ Oct 1968. From J.M. Dingley 68129.

Coccomyces sp.

anam. *Leptostroma* sp.

- 7821 *Metrosideros* sp. - rata - leaf. Waitakere Ranges, AK, NZ Aug 1982. From P.R. Johnston R83 = PDD 43034.
 8242 *Weinmannia racemosa* L.f. - kamahi - fallen leaf. Mt Dunn Walkway, NN, NZ Apr 1983. From P.R. Johnston R206.

Cochliobolus australiensis (Tsuda & Ueyama) Alcorn

syn. *Pseudocochliobolus australiensis* Tsuda & Ueyama

anam. *Bipolaris australiensis* (M.B. Ellis) Tsuda & Ueyama

anam. *Drechslera australiensis* M.B. Ellis

- 6158 *Eragrostis simplex* Scribn. - leaf. Kaikohe, ND, NZ Dec 1976. From E.H.C. McKenzie 379.
 6157 *Lolium multiflorum* Lam. - Westerwolds ryegrass cv. Grasslands Tama. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 7377.

Cochliobolus bicolor Paul & Parbery

anam. *Bipolaris bicolor* (Mittra) Shoemaker

- 10361 *Oryza sativa* L. - rice - seed. 1974. From G. Laundon 12030 ← Victoria University 21.

Cochliobolus cynodontis Nelson

anam. *Bipolaris cynodontis* (Marignoni) Shoemaker

anam. *Drechslera cynodontis* (Marignoni) Subramanian & Jain

- 6123 *Axonopus affinis* Chase - narrow-leaved carpet grass - leaf. Whangaroa, ND, NZ Feb 1975. From E.H.C. McKenzie 32.
 6127 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - leaf. Mt Albert, AK, NZ Jun 1976. From E.H.C. McKenzie 260.
 6128 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - leaf. Mt Albert, AK, NZ Jul 1976. From E.H.C. McKenzie 270.
 6125 *Cynosurus cristatus* L. - crested dogstail - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5538.
 6122 *Dactylis glomerata* L. - cocksfoot. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5825.
 6173 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5323.
 10100 *Digitaria* sp. - leafspot. Raoul Is., Kermadec Is, NZ. From E.H.C. McKenzie 25.
 6126 *Lolium multiflorum* Lam. - Italian ryegrass cv. Grasslands Paroa. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5420.
 6124 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5819.
 9927 *Paspalum conjugatum* Berg. - T grass - leafspot. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 3 = PDD 54797.
 9929 *Paspalum conjugatum* Berg. - T grass - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 5 = PDD 54818.
 9930 *Paspalum conjugatum* Berg. - T grass - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 6 = PDD 54818.
 9934 *Paspalum conjugatum* Berg. - T grass. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 11 = PDD 54818.
 9936 *Paspalum conjugatum* Berg. - T grass - leafspot. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 12 = PDD 54797.
 9939 *Paspalum conjugatum* Berg. - T grass - leafspot. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 15 = PDD 54797.
 6209 NZ 1976. From E.H.C. McKenzie ← M.J. Christensen D18.
 6210 NZ 1976. From E.H.C. McKenzie ← M.J. Christensen D19.

Cochliobolus geniculatus Nelson

syn. *Pseudocochliobolus geniculatus* (Nelson) Tsuda, Ueyama & Nishihara

anam. *Curvularia geniculata* (Tracy & Earle) Boedijn

- 6259 *Citrus sinensis* (L.) Osbeck - sweet orange cv. Late Valencia - tip die-back. Fiji Mar 1977. From E.H.C. McKenzie ← R.A. Fullerton 7742.
 6140 *Passiflora edulis* Sims - passionfruit - soil surrounding plant. Niue 1977. From E.H.C. McKenzie 1.
 6177 *Passiflora edulis* Sims - passionfruit - soil surrounding plant. Niue 1977. From E.H.C. McKenzie 2.
 6178 *Passiflora edulis* Sims - passionfruit - soil surrounding plant. Niue 1977. From E.H.C. McKenzie 3.
 6179 *Passiflora edulis* Sims - passionfruit - soil surrounding plant. Niue 1977. From E.H.C. McKenzie 4.

Cochliobolus heterostrophus (Drechsler) Drechsler

anam. *Bipolaris maydis* (Nisikado) Shoemaker

anam. *Drechslera maydis* (Nisikado) Subramanian & Jain

anam. *Helminthosporium maydis* Nisikado

- 3265 *Zea mays* L. - maize - seed. Gisborne, GB, NZ Jul 1971. From A.F. Rainbow LEV 5480 ← D.J. Scott.
 3266 *Zea mays* L. - maize - seed. Australia Mar 1972. From A.F. Rainbow LEV 6366 ← J.L. Alcorn.
 3267 *Zea mays* L. - maize. Australia. From A.F. Rainbow LEV 6367 ← J.L. Alcorn.
 3268 *Zea mays* L. - maize cv. PX50 - seed. USA Jun 1971. From R.A. Fullerton 40 ← D.J. Scott.
 3270 *Zea mays* L. - maize cv. PX50 - seed. Gisborne, GB, NZ Aug 1971. From R.A. Fullerton 42 ← D.J. Scott.
 3271 *Zea mays* L. - maize - seed. Thailand Dec 1970. From R.A. Fullerton 43 ← D.J. Scott.
 3269 *Zea mays* L. var. *praecox* Bonaf. - popcorn - seed. USA Jan 1971. From R.A. Fullerton 41 ← D.J. Scott.

Cochliobolus intermedius Nelson

anam. *Curvularia intermedia* Boedijn

- 6260 *Citrus sinensis* (L.) Osbeck - sweet orange cv. Late Valencia. Fiji Mar 1977. From E.H.C. McKenzie ← R.A. Fullerton 7738.
 9935 *Digitaria* sp. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 10 = PDD 54924.
 9937 *Digitaria* sp. Raoul Is., Kermadec Is., NZ Sep 1988. From E.H.C. McKenzie 13 = PDD 54924.
 6141 *Lolium multiflorum* Lam. - Italian ryegrass cv. Grasslands Paroa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5994.
 6143 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5832.

Cochliobolus lunatus Nelson Haasis

syn. *Pseudocochliobolus lunatus* (Nelson & Haasis) Tsuda, Ueyama & Nishihara

anam. *Curvularia lunata* (Wakker) Boedijn

- 11024 *Canna* sp. Japan. From E.H.C. McKenzie ← M. Tsuda.

- 10261 *Capsicum* sp. - fruit. Fiji Aug 1977. From G.F. Laundon 12032.
 10289 *Curcuma domestica* Val. - turmeric - leaves. Solomon Is. Feb 1990. From E.H.C. McKenzie ← J. Saelea.
 5610 *Oryza sativa* L. - rice. Philippines Jun 1969. From J.M. Dingley 6954 ← C. Gerlach.
 6261 *Pandanus* sp. - leaf scorch. Fiji Mar 1977. From E.H.C. McKenzie ← R.A. Fullerton 7747.

Cochliobolus miyabeanus (Ito & Kuribayashi) Drechsler ex Dastur

- anam. *Bipolaris oryzae* (Breda & Haan) Shoemaker
 10262 *Oryza sativa* L. - rice - seed. Bali Jul 1977. From G. Laundon 11929.

Cochliobolus nodulosus Luttrell

- anam. *Bipolaris nodulosa* (Berkeley & Curtis) Shoemaker
 10306 *Eleusine* sp. - seed. Palmerston North, WI, NZ Oct 1976. From G. Laundon 11098.

Cochliobolus pallescens (Tsuda & Ueyama) Sivanesan

- 11023 *Oryza sativa* L. - rice - seed. India. From E.H.C. McKenzie ← M. Tsuda.
 11027 *Oryza sativa* L. - rice - seed. India. From E.H.C. McKenzie ← M. Tsuda.

Cochliobolus ravenelii Alcorn

- anam. *Bipolaris ravenelii* (Curtis) Shoemaker
 anam. *Drechslera ravenelii* (Curtis) Subramanian & Jain
 6224 *Sporobolus africanus* (Poir.) Robyns & Tournay - rats-tail. Mt Albert, AK, NZ Apr 1975. From E.H.C. McKenzie 81.
 10101 *Sporobolus africanus* (Poir.) Robyns & Tournay - rats-tail - flower head. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 20.
 9825 *Sporobolus* sp. - ratstail - inflorescence. Western Samoa Dec 1988. From E.H.C. McKenzie 1.
 9926 *Sporobolus* sp. - ratstail - inflorescence. Western Samoa Dec 1988. From E.H.C. McKenzie.
 9945 *Sporobolus* sp. - ratstail - inflorescence. Western Samoa Dec 1988. From E.H.C. McKenzie.

Cochliobolus sativus (Ito & Kuribayashi) Drechsler ex Dastur

- anam. *Bipolaris sorokiniana* (Saccardo) Shoemaker
 anam. *Drechslera sorokiniana* (Saccardo) Subramanian & Jain
 6249 *Bromus willdenowii* Kunth - prairiegrass cv. Grasslands Matua. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 72.
 6256 *Bromus willdenowii* Kunth - prairiegrass. Pukekohe, AK, NZ Feb 1975. From E.H.C. McKenzie 5-b.
 6257 *Bromus willdenowii* Kunth - prairiegrass. Pukekohe, AK, NZ Feb 1975. From E.H.C. McKenzie 5-2.
 9928 *Bromus willdenowii* Kunth - prairiegrass - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 4 = PDD 54741.
 9932 *Bromus willdenowii* Kunth - prairiegrass - leafspot. Raoul Is., Kermadec Islands, NZ Sep 1988. From E.H.C. McKenzie 8 = PDD 54741.
 10104 *Bromus willdenowii* Kunth - prairiegrass - leafspot. Raoul Is., Kermadec Is., NZ. From E.H.C. McKenzie 16.
 11701 *Cucurbita moschata* (Duch.) Poir - squash. NZ. From E.H.C. McKenzie ← M. Braithwaite 469.
 6246 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass. Cambridge, WO, NZ Mar 1975. From E.H.C. McKenzie 49.
 6236 *Cynosurus cristatus* L. - crested dogstail 'Grasslands selection 4N'. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 56.
 6240 *Eleusine indica* (L.) Gaertn. - crowfoot. Oratia, AK, NZ Feb 1975. From E.H.C. McKenzie 25.
 6245 *Festuca* sp. - fescue cv. 4710 (NZ). Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 44.
 6238 *Holcus lanatus* L. - Yorkshire fog, velvetgrass. Mt Albert, AK, NZ Apr 1976. From E.H.C. McKenzie 139-1.
 6239 *Holcus lanatus* L. - Yorkshire fog, velvetgrass. Mt Albert, AK, NZ Apr 1976. From E.H.C. McKenzie 139-2.
 6809 *Hordeum distichon* L. - two-rowed barley - leaf. NZ Jan 1980. From E.H.C. McKenzie 470.
 6247 *Hordeum murinum* L. - wall barley. Mt Albert, AK, NZ Apr 1976. From E.H.C. McKenzie 140-1.
 10307 *Hordeum vulgare* L. - barley. Gisborne, GB, NZ Jan 1977. From G. Laundon 11405a.
 10322 *Hordeum vulgare* L. - barley - seed. Jan 1980. From G. Laundon 16142.
 6237 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 55.
 6233 *Lolium perenne* L. - perennial ryegrass cv. Grasslands Ruanui. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 53.
 6242 *Lolium perenne* L. - perennial ryegrass cv. Grasslands Ruanui. Palmerston North, WI, NZ 1976. From E.H.C. McKenzie ← M.J. Christensen.
 6243 *Lolium perenne* L. - perennial ryegrass cv. Grasslands Ruanui. Palmerston North, WI, NZ 1976. From E.H.C. McKenzie.
 6251 *Lolium perenne* L. - perennial ryegrass cv. Grasslands Nui. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 249.
 6235 *Lolium* sp. - ryegrass. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 43.
 6252 *Lolium* sp. - ryegrass 'S23' (U.K.). Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 41-1.
 6253 *Lolium* sp. - ryegrass 'S23' (U.K.). Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 41-2.
 10362 *Ornithopus sativus* Brot. - serradella - pods. Palmerston North, WI, NZ Apr 1977. From G. Laundon 11729a.
 10321 *Zea mays* L. - maize - leaf lesions. Palmerston North, WI, NZ Mar 1977. From G. Laundon 11577.
 6234 NZ 1976. From E.H.C. McKenzie ← M.J. Christensen D11.
 6241 Palmerston North, WI, NZ 1976. From E.H.C. McKenzie D9 ← M.J. Christensen.

Cochliobolus spicifer Nelson

- syn. *Pseudocochliobolus spicifer* (Nelson) Tsuda, Ueyama & Nishihara
 anam. *Bipolaris spicifera* (Bainier) Subramanian
 anam. *Drechslera spicifera* (Bainier) Arx
 6137 *Bromus willdenowii* Kunth - prairiegrass - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5988.
 6138 *Cynodon dactylon* (L.) Pers. - Indian doab, Bermuda grass - leaf. Bethell's Beach, AK, NZ May 1975. From E.H.C. McKenzie 97.
 6132 *Cynosurus cristatus* L. - crested dogstail - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5538.
 6174 *Cynosurus cristatus* L. - crested dogstail - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5538.
 6134 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5323.
 6175 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5321.
 6176 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5355.
 6131 *Lolium multiflorum* Lam. - Italian ryegrass cv. Grasslands Paroa. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5420.
 6133 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5819.
 6136 *Lolium* sp. - annual ryegrass 4709 (NZ) - leaf. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 64.
 6135 *Microlaena stipoides* (Lab.) R. Br. - meadow ricegrass - leaf. Mt Albert, AK, NZ Apr 1975. From E.H.C. McKenzie 83.
 10263 *Oryza sativa* L. - rice - seed. 1974. From G. Laundon 12073 ← Victoria University 20.
 6130 *Phleum pratense* L. - timothy - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5905.

Cochliobolus verruculosus (Tsuda & Ueyama) Sivanesan

- anam. *Curvularia verruculosa* Tandon & Bilgrami ex Ellis
 11025 *Oryza sativa* L. - rice - seed. Burma. From E.H.C. McKenzie ← M. Tsuda.

Codinaea fertilis Hughes & Kendrick

- 2500 *Medicago sativa* L. - lucerne, alfalfa. Wairoa, GB, NZ Aug 1968. From J.M. Dingley 68113.
 6112 *Medicago sativa* L. - lucerne, alfalfa - root. Jul 1978. From P.R. Johnston ← J.R. Rees-George.
 2501 *Trifolium* sp. - clover. Frasertown, GB, NZ Aug 1968. From J.M. Dingley 68112.

Coelomycete - unidentified genus

- 12114 *Peraxilla tetrapetala* (L.f.) Tiegh. - mistletoe. Eglington Valley, FD, NZ Dec 1993. From P.R. Johnston E1iv-1 ← S. Parkes.

- 12115 *Peraxilla tetrapetala* (L.f.) Tiegh. - mistletoe. Eglington Valley, FD, NZ Dec 1993. From P.R. Johnston E1iv-7 ← S. Parkes.
- Coleophoma** sp.
5469 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - leaf. Jan 1970. From J.M. Dingley 7014 ← H.M. Dance.
- Colletotrichum acutatum** Simmonds
1766 *Acca sellowiana* (O. Berg) Burret - feijoa. Auckland, AK, NZ Jul 1965. From J.M. Dingley 6462 = PDD 25307.
2718 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Te Puke, BP, NZ Aug 1969. From J.M. Dingley 69101.
4908 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf spot. NZ Jul 1969. From J.M. Dingley 6958.
10269 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leafspot. NZ Jul 1969. From G. Laundon 17057 ← ICMP 4908 ← J.M. Dingley 6958.
10292 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Wanganui, WI, NZ Jan 1980. From G. Laundon 16120.
11500 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Te Puke, BP, NZ. From P.R. Johnston 84.
11501 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - bark. Te Puke, BP, NZ. From P.R. Johnston 83.
11502 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Te Puke, BP, NZ. From P.R. Johnston 82.
2507 *Banksia collina* R. Br. - banksia. Maunu, ND, NZ Jul 1968. From J.M. Dingley 68105.
2086 *Camellia japonica* L. - camellia. Auckland, AK, NZ Sep 1967. From J.M. Dingley 67152 = PDD 26066.
10273 *Camellia* sp. New Plymouth, TK, NZ Dec 1982. From G. Laundon 20495.
10384 *Camellia* sp. New Plymouth, TK, NZ Sep 1980. From G. Laundon 17096.
1698 *Capsicum frutescens* L. - tabasco - fruit. Whangarei, ND, NZ Mar 1964. From J.M. Dingley 6428 ← S. Davison = PDD 23240.
1772 *Capsicum frutescens* L. - tabasco. Gisborne, GB, NZ Mar 1965. From J.M. Dingley 6567 = PDD 24508.
1784 *Capsicum frutescens* L. - tabasco. Australia Sep 1965. From J.M. Dingley 65180 ← J.H. Simmonds 16633A.
1785 *Capsicum* sp. Australia Dec 1965. From J.M. Dingley 65181 ← J.H. Simmonds 11711A.
1674 *Carica papaya* L. - pawpaw, papaya. Australia Sep 1965. From J.M. Dingley 65179 ← J.H. Simmonds 16633G.
1783 *Carica papaya* L. - pawpaw, papaya. Australia Sep 1965. From J.M. Dingley 65178 ← J.H. Simmonds 1633D = IMI 117617: PDD 28725.
10309 *Carica papaya* L. - pawpaw, papaya. Australia Jan 1959. From G. Laundon 17052 ← Simmonds.
4836 *Cydonia oblonga* Mill. - quince. Auckland, AK, NZ Apr 1970. From J.M. Dingley 7031.
1767 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - fruit. Te Puke, BP, NZ Jun 1964. From J.M. Dingley 6464 = PDD 25306.
1931 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - fruit. Mt Albert, AK, NZ. From J.M. Dingley 67118.
4830 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - fruit. Te Puke, BP, NZ Jun 1964. From J.M. Dingley 6461.
12234 *Cytisus scoparius* (L.) Link - broom. Kawakawa, ND, NZ Sep 1991. From P.R. Johnston B19 ← S. Parkes.
12235 *Cytisus scoparius* (L.) Link - broom. Kaiangaroa, BP, NZ Jan 1992. From P.R. Johnston B89 ← S. Parkes.
12236 *Cytisus scoparius* (L.) Link - broom. Kaiangaroa, BP, NZ Jan 1992. From P.R. Johnston B90 ← S. Parkes.
5112 *Diospyros kaki* L.f. - Japanese persimmon - fruit. Te Puke, BP, NZ Jun 1965. From J.M. Dingley 65127 = PDD 30317.
10293 *Fragaria* sp. - fruit rot. Levin, WN, NZ Nov 1980. From G. Laundon 17339.
1701 *Fragaria x ananassa* Duch. - cultivated strawberry - root. Te Teko, BP, NZ Jan 1965. From J.M. Dingley 659.
2529 *Gardenia* sp. Maungatapere, ND, NZ May 1968. From J.M. Dingley 6883.
1769 *Jasminum mesnyi* Hance - jasmine. Whangarei, ND, NZ Aug 1964. From J.M. Dingley 6495 = PDD 25344.
2210 *Lathyrus odoratus* L. - sweet pea - pod. Auckland, AK, NZ Jan 1968. From J.M. Dingley 6826 = PDD 26220: ATCC 26256.
2509 *Lathyrus odoratus* L. - sweet pea. Woodhill, AK, NZ Jul 1968. From J.M. Dingley 68102.
10270 *Litchi chinensis* Sonn. - lychee - fruit lesions. Australia Dec 1981. From G. Laundon 18914.
2473 *Lupinus arboreus* Sims - tree lupin - seedling. Woodhill, AK, NZ Sep 1968. From J.M. Dingley 68144 = PDD 26782: ATCC 26259.
2474 *Lupinus arboreus* Sims - tree lupin - seedling. Kumeu, AK, NZ Oct 1968. From J.M. Dingley 68143 = PDD 26782: ATCC 26259.
2514 *Lupinus arboreus* Sims - tree lupin - seedling. Bethell's Beach, AK, NZ Jun 1968. From J.M. Dingley 6896A = PDD 28724.
2516 *Lupinus arboreus* Sims - tree lupin. Bethell's Beach, AK, NZ Jun 1968. From J.M. Dingley 6895A = PDD 28724.
1773 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Mar 1965. From J.M. Dingley 6570 = PDD 32975.
4839 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ May 1972. From J.M. Dingley 7254.
5428 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Mar 1964. From J.M. Dingley 6433.
10265 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Stratford, TK, NZ May 1977. From G. Laundon 11772b.
10308 *Lycopersicon esculentum* Mill. - tomato - fruit lesions. Levin, WN, NZ Apr 1979. From G. Laundon 14812.
2075 *Magnolia quinquepeta* (Buc'hoz) Dandy - magnolia - flower. Henderson, AK, NZ Sep 1967. From J.M. Dingley 67145 = PDD 26033.
1673 *Malus x domestica* Borkh. - apple. USA Jul 1965. From J.M. Dingley 65146.
1764 *Malus x domestica* Borkh. - apple cv. Sturmer - fruit. Auckland, AK, NZ May 1964. From J.M. Dingley 6453.
1765 *Malus x domestica* Borkh. - apple cv. Sturmer - fruit. Auckland, AK, NZ May 1964. From J.M. Dingley 6454 = PDD 25302.
1791 *Malus x domestica* Borkh. - apple - fruit. Auckland, AK, NZ Mar 1965. From J.M. Dingley 6546.
4863 *Malus x domestica* Borkh. - apple - leaf. Whakatane, BP, NZ Dec 1965. From J.M. Dingley 65227.
10113 *Malus x domestica* Borkh. - apple - fruit. Auckland, AK, NZ. From R.E. Beever 511 ← P.R. Johnston 839-1.
10272 *Malus x domestica* Borkh. - apple - fruit rot. Levin, WN, NZ Sep 1982. From G. Laundon 20170.
10926 *Malus x domestica* Borkh. - apple - fruit spot. Titirangi, AK, NZ Feb 1991. From P.G. Broadhurst = Herb. PDD 58435.
10268 *Metrosideros* sp. - leafspots. Waikanae, WN, NZ Apr 1980. From G. Laundon 16482.
1680 *Passiflora edulis* Sims - passionfruit - stem. Te Puke, BP, NZ Jan 1965. From J.M. Dingley 658.
4821 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Jan 1965. From J.M. Dingley 657.
1676 *Persea americana* Mill. - avocado. Australia Sep 1965. From J.M. Dingley 65177 ← J.H. Simmonds 13120B = PDD 28726.
1782 *Persea americana* Mill. - avocado. Australia Sep 1965. From J.M. Dingley 65177 ← J.H. Simmonds 13120B = PDD 28726.
2074 *Persea americana* Mill. - avocado - fruit. Auckland, AK, NZ Sep 1967. From J.M. Dingley 67144 = PDD 26028.
10315 *Persea americana* Mill. - avocado cv. Hass - fruit rot. BP, NZ Jan 1986. From W.F.T. Hartill 21 (214).
10346 *Persea americana* Mill. - avocado cv. Hass - fruit rot. Whangarei, ND, NZ Nov 1986. From W.F.T. Hartill 35 (250).
10347 *Persea americana* Mill. - avocado cv. Hass - twig lesion. Te Puke, BP, NZ Jul 1987. From W.F.T. Hartill 49 (276).
12261 * *Persea americana* Mill. - avocado - ripe rot of fruit. Te Puke, BP, NZ May 1993. From K. Everett 21 - *avocado.
10271 *Protea cynaroides* L. - king protea. New Plymouth, TK, NZ Jan 1982. From G. Laundon 19010.
5155 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine - fruit. Auckland, AK, NZ Feb 1967. From J.M. Dingley 6738.
10266 *Rhododendron* sp. - bud rot. Wellington, WN, NZ Nov 1979. From G. Laundon 15835.
10267 *Rhododendron* sp. - leaf blotches. Wellington, WN, NZ Nov 1979. From G. Laundon 15876.
5172 *Salix* sp. - willow. Auckland, AK, NZ Jun 1965. From J.M. Dingley 65122.
4881 *Solanum melongena* L. var. *esculentum* Nees - eggplant - fruit. Pukekohe, AK, NZ May 1974. From J.M. Dingley 7432.
6997 *Vaccinium corymbosum* L. - highbush blueberry - tip die-back. Te Puke, BP, NZ Dec 1979. From P.R. Johnston B70 = ATCC 60468.
6998 *Vaccinium corymbosum* L. - highbush blueberry - lesion on green fruit. Te Puke, BP, NZ Dec 1979. From P.R. Johnston B71 = ATCC 60469.
10264 *Xylosoa* sp. New Plymouth, TK, NZ Aug 1976. From G. Laundon 10889.
10274 From G. Laundon 21686.
- Colletotrichum acutatum** f.sp. *pineum* Dingley & Gilmore
1798 *Pinus contorta* Dougl. - lodgepole pine. Woodhill, AK, NZ May 1966. From J.M. Dingley 66163 = PDD 25807.
1797 *Pinus pinaster* Ait. - maritime pine, cluster pine. Woodhill, AK, NZ Dec 1966. From J.M. Dingley 66162.
1677 *Pinus radiata* D. Don - radiata pine, Monterey pine - needles. Woodhill, AK, NZ Jun 1964. From J.M. Dingley 6458 ← S. Davison.
1758 *Pinus radiata* D. Don - radiata pine, Monterey pine. Woodhill, AK, NZ Dec 1966. From J.M. Dingley 66157 = ATCC 26258.
1759 *Pinus radiata* D. Don - radiata pine, Monterey pine. Kumeu, AK, NZ Apr 1964. From J.M. Dingley 66158 = PDD 28723.
1760 *Pinus radiata* D. Don - radiata pine, Monterey pine (FRI 494b). Kaikohe, ND, NZ Dec 1966. From J.M. Dingley 66159.
1761 *Pinus radiata* D. Don - radiata pine, Monterey pine (FRI 494h). Te Teko, BP, NZ Dec 1966. From J.M. Dingley 66164.
1795 *Pinus radiata* D. Don - radiata pine, Monterey pine (FRI 494c) - seedling. Woodhill, AK, NZ Apr 1965. From J.M. Dingley 66160 = PDD 25510.
1796 *Pinus radiata* D. Don - radiata pine, Monterey pine. Whangarei, ND, NZ Feb 1966. From J.M. Dingley 66161.

- 1878 *Pinus radiata* D. Don - radiata pine, Monterey pine. Russell, ND, NZ Jun 1967. From J.M. Dingley 67101 = PDD 26040.
 1879 *Pinus radiata* D. Don - radiata pine, Monterey pine. Te Teko, BP, NZ Jul 1967. From J.M. Dingley 67102.
 1978 *Pinus radiata* D. Don - radiata pine, Monterey pine. Te Teko, BP, NZ Jul 1967. From J.M. Dingley 67117 = PDD 25809.
 2453 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedling. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 699 = PDD 26471.
 2454 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedling. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 698 = PDD 26471.
 2455 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedling. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 697 = PDD 26471.
 2456 *Pinus radiata* D. Don - radiata pine, Monterey pine. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 696 = PDD 26471.
 2457 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedling. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 695 = PDD 26471.
 2458 *Pinus radiata* D. Don - radiata pine, Monterey pine - seedling. Tokoroa, WO, NZ Jan 1969. From J.M. Dingley 694 = PDD 26471.
- Colletotrichum capsici** (Sydow) Butler & Bisby
 8839 *Piper methysticum* Forst.f. - kava. Fiji Apr 1985. From E.H.C. McKenzie ← D. Kashyap 36-85.4.
- Colletotrichum coccodes** (Wallroth) Hughes
 5140 *Antirrhinum majus* L. - snapdragon. Auckland, AK, NZ Aug 1975. From J.M. Dingley 7512.
 1704 *Citrus* sp. - grapefruit - fruit rind. Te Puke, BP, NZ Jan 1965. From J.M. Dingley 6515 ← S. Davison.
 4849 *Ficus carica* L. - fig - fruit. Mar 1964. From J.M. Dingley 6427.
 5118 *Helianthus tuberosus* L. - Jerusalem artichoke - fruit. Otara, AK, NZ Oct 1973. From J.M. Dingley 7390 = PDD 32069.
 1702 *Lycopersicon esculentum* Mill. - tomato - fruit. Te Puke, BP, NZ Apr 1964. From J.M. Dingley 6434 ← S. Davison = PDD 25298.
 4824 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Mar 1964. From J.M. Dingley 6437.
 4865 *Lycopersicon esculentum* Mill. - tomato - root. Papakura, AK, NZ Oct 1974. From J.M. Dingley 7463 = PDD 32818.
 5174 *Lycopersicon esculentum* Mill. - tomato. Oratia, AK, NZ May 1964. From J.M. Dingley 6451.
 4904 *Medicago sativa* L. - lucerne, alfalfa - stem. Hastings, HB, NZ Dec 1974. From J.M. Dingley 7474 = PDD 32794.
 2117 *Platycladus orientalis* (L.) Franco - Oriental arborvitae cv. Decussatus. Auckland, AK, NZ Dec 1967. From J.M. Dingley 67170.
 7773 *Ripogonum scandens* J.R. & G. Forst. - kareao, supplejack - berry. Waitakere Ranges, AK, NZ Sep 1979. From P.R. Johnston 19-79.
 4831 *Solanum quitoense* Lam. - naranjilla - fruit. Avondale, AK, NZ Sep 1972. From J.M. Dingley 72110 = PDD 30227.
 4819 *Solanum tuberosum* L. - potato - stem. Auckland, AK, NZ Jan 1971. From J.M. Dingley 719 = ATCC 26260.
 10275 *Solanum tuberosum* L. - potato - tubers. Levin, WN, NZ Apr 1977. From G. Laundon 11708.
 1883 *Trifolium repens* L. - white clover - leaf. Mt Albert, AK, NZ. From J.M. Dingley 67106 = PDD 26144.
 1885 *Trifolium repens* L. - white clover - leaf. Auckland, AK, NZ Jun 1967. From J.M. Dingley 67108.
 2928 *Trifolium repens* L. - white clover - petiole. Palmerston North, WI, NZ Feb 1970. From E.H.C. McKenzie 67.
- Colletotrichum dematium** (Persoon) Grove
 5127 *Aucuba* sp. Auckland, AK, NZ Jul 1966. From J.M. Dingley 6698.
 10276 *Capsicum* sp. - fruit rot. Brunei Oct 1977. From G. Laundon 12360.
 4761 *Crinum* sp. - crinum - sclerotia on bulb scales. Levin, WN, NZ Aug 1964. From J.M. Dingley 6490 ← S. Davison.
 6244 *Freycinetia* sp. - leaf spot. Auckland, AK, NZ Nov 1978. From P.R. Johnston.
 4816 *Medicago sativa* L. - lucerne, alfalfa. Bulls, WI, NZ Dec 1969. From J.M. Dingley 69129.
 10279 *Modiola caroliniana* G. Don - leafspots. Levin, WN, NZ Jul 1980. From G. Laundon 16867b.
 10278 *Murraya koenigii* (L.) K. Spreng. - curry-leaf tree. Singapore Sep 1979. From G. Laundon 15564.
 7743 *Muscari* sp. - muscari - leaf. Auckland, AK, NZ Jul 1977. From G.I. Robertson P222.
 10310 *Ranunculus repens* L. - creeping buttercup. Levin, WN, NZ Nov 1979. From G. Laundon 15806.
 10277 Papua New Guinea Sep 1979. From G. Laundon 15471b.
- Colletotrichum destructivum** O'Gara
 7756 *Lotus pedunculatus* Cav. - dark red stem spot. Mt Albert, AK, NZ Jul 1979. From P.R. Johnston 10-79.
 7772 *Medicago sativa* L. - lucerne, alfalfa - stem blackening. Ruakura, WO, NZ Oct 1978. From P.R. Johnston 58-78.
 7774 *Medicago sativa* L. - lucerne, alfalfa - leaf spot. Ruakura, WO, NZ Nov 1977. From P.R. Johnston 99.77.
 10280 *Medicago sativa* L. - lucerne, alfalfa - stems. Papua New Guinea Feb 1979. From G. Laundon 14521.
 7755 *Onobrychis vicifolia* Scop. - sainfoin - stem darkening. Mt Albert, AK, NZ Jul 1979. From P.R. Johnston 11-79.
 10281 *Rumex pulcher* L. - fiddle dock - leafspots. Levin, WN, NZ Oct 1979. From G. Laundon 15716b.
 10282 *Trifolium repens* L. - white clover - leafspots. Masterton, WA, NZ Apr 1982. From G. Laundon 19512.
- Colletotrichum fructigenum** (Berkeley) Vasil'evskii
 4885 *Acmena smithii* (Poir.) Merr. & L.M. Perry - acmena - berry. Kerikeri, ND, NZ Aug 1965. From J.M. Dingley 65168 = PDD 24753.
 5126 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Te Puke, BP, NZ Mar 1970. From J.M. Dingley 7024 = PDD 28560.
 5175 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit. Te Puke, BP, NZ Oct 1965. From J.M. Dingley 65194 = PDD 30313.
 4828 *Citrus limon* (L.) Burm.f. - lemon cv. Meyer. Auckland, AK, NZ Nov 1966. From J.M. Dingley 66178 = PDD 25804.
 4818 *Cydonia oblonga* Mill. - quince. Auckland, AK, NZ Mar 1970. From J.M. Dingley 7029.
 4883 *Cydonia oblonga* Mill. - quince - fruit. Auckland, AK, NZ Jun 1964. From J.M. Dingley 6456 = PDD 23554.
 4813 *Erythrina crista-galli* L. - cocks spur - lesions on stem. Auckland, AK, NZ Jun 1965. From J.M. Dingley 65125 ← S. Davison.
 4880 *Ficus carica* L. - fig - fruit. Kumeu, AK, NZ Nov 1965. From J.M. Dingley 65203 = PDD 25283.
 1763 *Lycopersicon esculentum* Mill. - tomato - green fruit. Epsom, AK, NZ Mar 1964. From J.M. Dingley 6435 = PDD 23530.
 4817 *Pyrus communis* L. - pear cv. Winter Cole. Auckland, AK, NZ. From J.M. Dingley 7030 = PDD 28300.
 4825 *Pyrus communis* L. - pear cv. Winter Cole. Auckland, AK, NZ Apr 1970. From J.M. Dingley 7019 = PDD 28300.
 10364 *Salix alba* L. X *S. matsudana* G. Koidz. - willow. Aokautere, WN, NZ Feb 1983. From G. Laundon 20912.
- Colletotrichum fuscum** Laubert
 3253 *Digitalis lanata* J.F. Ehrh. - Grecian foxglove - leaf. Matakana, AK, NZ Apr 1972. From G.F. Laundon LEV 6256 ← A. Easton.
 4210 *Digitalis purpurea* L. - foxglove - leaf spot. Levin, WN, NZ Sep 1975. From G.F. Laundon LEV 9770b.
 10283 *Digitalis purpurea* L. - foxglove - leafspot. Levin, WN, NZ Dec 1978. From G. Laundon 14264.
- Colletotrichum gloeosporioides* (Penzig) Penzig & Saccardo
 see *Glomerella cingulata*.
 see *Glomerella cingulata* var. *minor*.
- Colletotrichum graminicola** (Cesati) Wilson
 11021 *Bromus willdenowii* Kunth - prairiegrass - leaf. NZ May 1989. From M. Templeton ← R. Skipp.
 12090 *Hierochloa redolens* (Sol. ex Vahl) Roemer & Schultes - leaf. Tauranga, BP, NZ Dec 1993. From J.M. Young 0018 - identified by E.H.C. McKenzie.
 5171 *Paspalum* sp. - paspalum. Piha, AK, NZ Oct 1965. From J.M. Dingley 65192.
- Colletotrichum lindemuthianum** (Saccardo & Magnus) Briosi & Cavara
 9713 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-1 ← M.D. Templeton / C.J. Lamb Alpha X Tu.
 9714 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-2 ← M.D. Templeton / C.J. Lamb Beta.
 9715 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-3 ← M.D. Templeton / C.J. Lamb Gamma.
 9716 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-4 ← M.D. Templeton / C.J. Lamb Delta.
 9717 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-5 ← M.D. Templeton / C.J. Lamb Epsilon.
 9718 *Phaseolus vulgaris* L. - French bean. USA. From R.E. Beever 509-6 ← M.D. Templeton / C.J. Lamb Lambda.

- Colletotrichum malvarum** (Braun & Caspary) Southworth
10107 *Lavatera* sp. cv. Mont Blanc - stem & leafspots. Hamilton, WO, NZ Oct 1989. From P.R. Johnston C1111 ← P.G. Broadhurst.
- Colletotrichum musae** (Berkeley & Curtis) Arx
syn. *Gloeosporium musarum* Cooke & Massee
5501 *Musa* sp. - plantain. Cook Is. Apr 1977. From E.H.C. McKenzie ← P.R. Johnston.
1679 *Musa X paradisiaca* L. - banana. Tonga Jan 1965. From J.M. Dingley 654. = PDD 28516.
2212 *Musa X paradisiaca* L. - banana. Auckland, AK, NZ Mar 1968. From J.M. Dingley 6828.
4845 *Musa X paradisiaca* L. - banana. Auckland, AK, NZ Aug 1965. From J.M. Dingley 65167 = PDD 24653.
- Colletotrichum orbiculare** (Berkeley & Montagne) Arx
1774 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. Australia. From J.M. Dingley 65169 ← J.H. Simmonds 16081.
4826 *Cucumis melo* L. - rock melon. Papatoetoe, AK, NZ Jan 1972. From J.M. Dingley 727 = PDD 29734.
6870 *Cucumis melo* L. - rock melon - fruit. Kaitaia, ND, NZ Mar 1980. From S.R. Pennycook.
1974 *Cucumis sativus* L. - cucumber - fruit. Auckland, AK, NZ Jan 1967. From J.M. Dingley 679 = PDD 25815.
4850 *Cucumis sativus* L. - cucumber - fruit. Mangere, AK, NZ Mar 1967. From J.M. Dingley 6781 = PDD 26052.
4874 *Protea* sp. - seedling. Auckland, AK, NZ Aug 1965. From J.M. Dingley 65162.
- Colletotrichum rhodocyclum* (Montagne) Petrak
see *Glomerella phacidiorum*.
- Colletotrichum** sp.
10328 *Acacia* sp. Australia Sep 1979. From G. Laundon 15490a.
7814 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
12110 *Alectryon excelsus* Gaertn. - titoki - grey centred (1-2mm) leaf lesions on upper surface & brown on under surface. Oratia, AK, NZ Nov 1992. From J.M. Young R50 - identified by E.H.C. McKenzie.
2524 *Banksia* sp. - banksia. Auckland, AK, NZ Jun 1968. From J.M. Dingley 6888.
11410 *Blechnum procerum* (Forst.f.) Swartz - leafspot. Christchurch, MC, NZ Nov 1991. From J.M. Young B6.
10338 *Camellia* sp. Auckland, AK, NZ 1983. From G. Laundon 21212 ← C.F. Hill 1193.
11405 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - leaf lesion, brown elliptical with halo. Albany, AK, NZ Nov 1991. From J.M. Young P7.
11412 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - dark brown elliptical 3-5mm lesion with chlorotic halo on leaf. NZ Nov 1991. From J.M. Young P7.
11475 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP26(1).
11486 *Cordylina* sp. - brown elliptical leaf lesions (2-8mm) with chlorotic halo. Oratia, AK, NZ Dec 1991. From J.M. Young Or11c.
10949 *Cucumis melo* L. - melon - fruit rot. HB, NZ. From P.R. Johnston 1150-2.
10339 *Cucurbita maxima* Duch. - pumpkin - fruit rot. Levin, WN, NZ Jun 1983. From G. Laundon 21244c.
10336 *Cucurbita* sp. - stem. Marton, WI, NZ Dec 1981. From G. Laundon 18832.
10334 *Iris* sp. Hastings, HB, NZ Oct 1980. From G. Laundon 17131.
10335 *Juglans* sp. - leaf & fruit spots. Waituna West, WI, NZ Mar 1981. From G. Laundon 17897.
11485 *Nightia excelsa* R. Br. - rewarewa - leafspot. Oratia, AK, NZ Dec 1991. From J.M. Young Or8B.
10337 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Levin, WN, NZ May 1982. From G. Laundon 19589.
11556 *Maclaurina sinclairii* (Hook.f.) Koyama - tips of leaves tan with greasy edge. Oratia, AK, NZ Dec 1991. From J.M. Young Or3b.
2497 *Malus X domestica* Borkh. - apple. From J.M. Dingley 68118 ← P.J. Brook.
11386 *Medicago sativa* L. - lucerne, alfalfa - stem lesion. Pukekohe, AK, NZ. From P.R. Johnston 1.
11387 *Medicago sativa* L. - lucerne, alfalfa - stem lesion. Pukekohe, AK, NZ. From P.R. Johnston 2.
11397 *Medicago sativa* L. - lucerne, alfalfa - stem lesion. Pukekohe, AK, NZ. From P.R. Johnston 3.
11398 *Medicago sativa* L. - lucerne, alfalfa - stem lesion. Pukekohe, AK, NZ. From P.R. Johnston 8.
7627 *Meryta sinclairii* (Hook.f.) Seem. - puka - leaves. Lady Alice Is., ND, NZ Jan 1982. From R.E. Beever 60-10 - Tane 38: 77-92, 1984.
10365 *Modiola caroliniana* G. Don - leafspot. Levin, WN, NZ Jul 1980. From G. Laundon 16867a.
2510 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ. From J.M. Dingley 68101.
10959 *Persea americana* Mill. - avocado - fruit rot. Te Puke, BP, NZ. From P.R. Johnston 918-14 ← W.F.T. Hartill.
10960 *Persea americana* Mill. - avocado - fruit rot. Te Puke, BP, NZ. From P.R. Johnston 918-16 ← W.H.T. Hartill.
10961 *Persea americana* Mill. - avocado - fruit rot. Te Puke, BP, NZ. From P.R. Johnston 918-22 ← W.H.T. Hartill.
11457 *Phormium cookianum* Le Jolis - New Zealand mountain flax. Taupo, TO, NZ Nov 1991. From J.M. Young T98.
11474 *Phormium* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP23(3).
11805 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - elliptical brown leafspots (1-2mm) with chlorotic halo. Manapouri, FD, NZ Dec 1992. From J.M. Young K3.
11847 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - brown edged elliptical tan leaf lesion (0.5-2cm). Taupo, TO, NZ Dec 1992. From J.M. Young Q8.
12085 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - brown (1-2mm) leafspots with yellow halos. Manapouri, FD, NZ Nov 1992. From J.M. Young K3 - Identified by E.H.C. McKenzie.
12091 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - elliptical dark brown (10mm) leafspots with papery centres. Oratia, AK, NZ Nov 1992. From J.M. Young R22 - identified by E.H.C. McKenzie.
12108 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - dark red/black elongated (1mm) leaf lesions. Oratia, AK, NZ Nov 1992. From J.M. Young R31 - identified by E.H.C. McKenzie.
12113 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - black elliptical (1-2mm) leafspots. Harewood, MC, NZ Nov 1993. From J.M. Young WW4 - identified by E.H.C. McKenzie.
11462 *Pittosporum tennifolium* Sol. ex Gaertn. - kohukohu, black matipo - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP2c.
2114 *Platyclusus orientalis* (L.) Franco - Oriental arborvita cv. Decussatus. Auckland, AK, NZ Dec 1967. From J.M. Dingley 67167.
5111 *Protea barbigera* Meissn. - seedling. Auckland, AK, NZ Jan 1967. From J.M. Dingley 673.
4861 *Protea cynaroides* L. - king protea. Auckland, AK, NZ Feb 1967. From J.M. Dingley 6740.
1788 *Protea* sp. Auckland, AK, NZ Nov 1966. From J.M. Dingley 66127.
4888 *Protea* sp. - seedling. Kumeu, AK, NZ Feb 1965. From J.M. Dingley 6551.
4875 *Protea susannae* E.P. Phillips. Auckland, AK, NZ Feb 1967. From J.M. Dingley 6741.
11429 *Pseudopanax arboreus* (Murray) Philpson - puahou, five-finger - round (>1mm) purple black expands to grey centred leaf lesion (2.5mm). Taupo, TO, NZ Nov 1991. From J.M. Young T39.
11456 *Rhopalostylis sapida* Wendl. & Drude - nikau - black angular leafspot (2-3mm). Taupo, TO, NZ Nov 1991. From J.M. Young T91.
11851 *Rhopalostylis sapida* Wendl. & Drude - nikau - leafspot. Oratia, AK, NZ Dec 1992. From J.M. Young L1.
11857 *Ulex europaeus* L. - gorse. AK, NZ Aug 1991. From P.R. Johnston G48.
11858 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G68.
11859 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G84.
11860 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G90.
11861 *Ulex europaeus* L. - gorse. BP, NZ Sep 1991. From P.R. Johnston G108.
11862 *Ulex europaeus* L. - gorse. BP, NZ Dec 1991. From P.R. Johnston G213.
10323 From G. Laundon 10566b.
10324 Soil. Motueka, NN, NZ Mar 1977. From G. Laundon 12347b.
10325 From G. Laundon 15425a.
10326 From G. Laundon 15428.

- 10327 Papua New Guinea 1979. From G. Laundon 15471a.
 10330 From G. Laundon 15501.
 10332 From G. Laundon 15563b.
 10333 From G. Laundon 16940a.
 10366 From G. Laundon 21393.
 10385 From G. Laundon 15442.
 11455 Orchid (native) - leafspot. Taupo, TO, NZ Nov 1991. From J.M. Young T89.

Colletotrichum trichellum (Fries) Duke

- 8241 *Hedera helix* L. - ivy. Mt Albert, AK, NZ May 1983. From C.F. Hill AS21718.

Colletotrichum trifolii Bain & Essary

- 5181 *Medicago sativa* L. - lucerne, alfalfa. Te Kuiti, WO, NZ Nov 1973. From J.M. Dingley 73105 = PDD 32074.
 6879 *Medicago sativa* L. - lucerne, alfalfa - stem spot. Ruakura, WO, NZ Apr 1980. From P.R. Johnston C2.
 6883 *Medicago sativa* L. - lucerne, alfalfa - stem spot. Ruakura, WO, NZ Apr 1980. From P.R. Johnston C4.
 10311 From G. Laundon 21689.
 10340 From G. Laundon 21688.
 10341 From G. Laundon 21513.

Conidiocarpus sp.

- 7759 *Colocasia esculenta* (L.) Schott - taro. Tahiti Jun 1982. From E.H.C. McKenzie.

Coniothyrium fuckelii Saccardo

see *Leptosphaeria coniothyrium*.

Coniothyrium minitans Campbell

- 5626 *Sclerotinia sclerotiorum* (Libert) de Bary. Pukekohe, AK, NZ Oct 1969. From J.M. Dingley 6998 ← W.R. Jarvis.
 5635 *Sclerotinia sclerotiorum* (Libert) de Bary. Pukekohe, AK, NZ Jan 1970. From J.M. Dingley 7043 ← W.R. Jarvis.

Cordella johnstonii M.B. Ellis

see *Apiospora setosa*.

Corticium rolfsii Curzi

see *Athelia rolfsii*.

Corynespora cassiicola (Berkeley & Curtis) Wei

- 10343 *Cucumis sativus* L. - cucumber. Jul 1978. From G. Laundon 13398b - (imported interception).

Cryptocline sp.

- 10367 *Cortaderia* sp. - leafspots. Invercargill, SL, NZ Mar 1980. From G. Laundon 16404.
 10386 *Cortaderia* sp. - leafspots. Auckland, AK, NZ May 1979. From G. Laundon 14929.

Cryptosporella viticola Shear

see *Phomopsis viticola*.

Cryptosporiopsis malicorticis (Cordley) Nannfeldt

see *Pezizula malicorticis*.

Cryptosporiopsis sp.

- 7064 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit. Kumeu, AK, NZ May 1981. From S.R. Pennycook 949.
 7815 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7826 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit rot. NZ Sep 1982. From G.J. Samuels 82-280 ← S.R. Pennycook.
 7827 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit rot. NZ Sep 1982. From G.J. Samuels 82-285 ← S.R. Pennycook.
 7828 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit rot. NZ Sep 1982. From G.J. Samuels 82-284 ← S.R. Pennycook.
 7829 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit rot. NZ Sep 1982. From G.J. Samuels 82-283 ← S.R. Pennycook.
 7832 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit rot. NZ. From G.J. Samuels 82-282 ← S.R. Pennycook.
 7792 *Citrus* sp. - leaf spot. Cook Is. Jul 1982. From P.R. Johnston ← R.A. Fullerton.

Cunninghamella sp.

- 1083 Soil. Mt Albert, AK, NZ. From F.J. Morton H152.

Curvularia brachyspora Boedijn

- 6262 *Digitaria sanguinalis* (L.) Scop. - summergrass, hairy crabgrass - leaf. Oratia, AK, NZ Feb 1975. From E.H.C. McKenzie 23.

Curvularia cf. *clavata* Jain

- 10344 Lawn (dying). Wellington, WN, NZ Aug 1976. From G. Laundon 10873.
 11029 *Setaria* sp. - seed. Japan. From E.H.C. McKenzie.
 11028 *Zea mays* L. - maize - seed. Japan. From E.H.C. McKenzie ← M. Tsuda.

Curvularia eragrostidis (Hennings) Meyer

- 8838 *Piper methysticum* Forst.f. - kava. Fiji Apr 1985. From E.H.C. McKenzie ← D. Kashyap 36-85-1.

Curvularia geniculata (Tracy & Earle) Boedijn

see *Cochliobolus geniculatus*.

Curvularia intermedia Boedijn

see *Cochliobolus intermedius*.

Curvularia ischaemi McKenzie

- 6142 *Ischaemum indicum* (Houtt.) Merr. - batiki bluegrass - leaf. Solomon Is. Aug 1978. From E.H.C. McKenzie = PDD 41192 - Trans. Br. Mycol. Soc. 77: 446-449, 1981 - **ex Paratype specimen**.
 6172 *Ischaemum indicum* (Houtt.) Merr. - batiki bluegrass - leaf. Solomon Is. May 1978. From E.H.C. McKenzie 3679 = PDD 41189 - Trans. Br. Mycol. Soc. 77: 446-449, 1981 - **ex Paratype specimen**.

Curvularia lunata (Wakker) Boedijn

see *Cochliobolus lunatus*.

Curvularia lunata var. *aeria* (Batista, Lima & Vasconcelos) M.B. Ellis

- 11030 *Oryza sativa* L. - rice - seed. Burma. From E.H.C. McKenzie ← M. Tsuda.

Curvularia sp.

- 6181 *Brachiaria mutica* (Forsk.) Stapf - para grass. Solomon Is. May 1978. From E.H.C. McKenzie 3849.
 9942 *Dactyloctenium aegyptium* (L.) Beauv. - crowfoot - dead flower head. Western Samoa Dec 1988. From E.H.C. McKenzie.
 6116 *Panicum miliaceum* L. - broomcorn millet - seedhead. Solomon Is. May 1978. From E.H.C. McKenzie.
 6117 *Sorghum bicolor* (L.) Moench - sorghum - seedhead. Solomon Is. May 1978. From E.H.C. McKenzie.

Curvularia trifolii (Kauffman) Boedijn

- 6145 *Agrostis capillaris* L. - browntop, colonial bentgrass - leaf. Whangaroa, ND, NZ Feb 1975. From E.H.C. McKenzie 31.
 6156 *Agrostis capillaris* L. - browntop, colonial bentgrass - leaf. Whangaroa, ND, NZ Feb 1975. From E.H.C. McKenzie 30.
 6155 *Axonopus affinis* Chase - narrow-leaved carpet grass - leaf. Whangaroa, ND, NZ Feb 1975. From E.H.C. McKenzie 32.
 6154 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5355.
 6144 *Digitaria setivalva* Stent - woolly finger grass - leaf. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 225.
 6148 *Echinochloa crus-galli* (L.) Beauv. - barnyard grass - leaf. Oratia, AK, NZ Feb 1975. From E.H.C. McKenzie 22.
 10345 *Gladiolus* sp. - corm. USA Apr 1980. From G. Laundon 16525.
 6150 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5942.
 6180 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5942.
 6147 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf. Huia, AK, NZ May 1975. From E.H.C. McKenzie 92.
 6153 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf. Mill Bay, AK, NZ Jun 1976. From E.H.C. McKenzie 263.
 6146 *Paspalum distichum* L. - Mercer grass - leaf. Mill Bay, AK, NZ Jun 1976. From E.H.C. McKenzie 255.
 6152 *Phleum pratense* L. - timothy - leaf. Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 37.
 6149 *Setaria glauca* (auct. non L.) Beauv. - yellow bristlegrass - leaf. Mt Albert, AK, NZ Apr 1975. From E.H.C. McKenzie 84.
 6151 *Sporobolus africanus* (Poir.) Robyns & Tournay - rats-tail - leaf. Mt Albert, AK, NZ Apr 1975. From E.H.C. McKenzie 81.
 6114 *Trifolium repens* L. - white clover. NZ 1977. From E.H.C. McKenzie ← G.C.M. Latch A2.
 11026 *Trifolium* sp. - clover - seed. India. From E.H.C. McKenzie ← M. Tsuda.

Curvularia trifolii (Kauffman) Boedijn f.sp. **gladioli** Parmelee & Luttrell

- 6159 *Gladiolus* sp. - gladiolus - bulb. Kumeu, AK, NZ Nov 1975. From E.H.C. McKenzie.
 6160 *Gladiolus* sp. - gladiolus - bulb. Auckland, AK, NZ Jul 1977. From E.H.C. McKenzie 421.

Curvularia verruculosa Tandon & Bilgrami ex Ellis
 see *Cochliobolus verruculosus*.

Cylindrocarpon didymum (Hartig) Wollenweber

- 7039 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - male plant, dead stem. Aug 1980. From G.J. Samuels.
 2020 *Dianthus caryophyllus* L. - carnation. Nelson, NN, NZ Apr 1967. From G.F. Laundon LEV 1386C.

Cylindrocarpon heteronemum (Berkeley & Broome) Wollenweber
 see *Nectria galligena*.

Cylindrocarpon lucidum Booth
 see *Nectria lucida*.

Cylindrocarpon mali (Allescher) Wollenweber
 see *Nectria galligena*.

Cylindrocarpon obtusisporum (Cooke & Harkness) Wollenweber
 see *Nectria tawa*.

Cylindrocarpon sp. see also *Nectria cf. coprosmae*; *Nectria coprosmae*; *Nectria fragilis*; *N. pinea*; *Nectria* sp.; *N. tasmanica*.

- 5259 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Naumai, ND, NZ Aug 1960. From J.M. Dingley 6028.
 5261 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Mangere, AK, NZ Oct 1963. From J.M. Dingley 63120.
 10389 *Malus X domestica* Borkh. - apple - roots. Hastings, HB, NZ Aug 1977. From G. Laundon 12061.
 10371 *Prunus persica* (L.) Batsch - roots. Ashhurst, WI, NZ Nov 1977. From G. Laundon 12476.
 10390 *Pseudopanax* sp. Palmerston North, WI, NZ Sep 1977. From G. Laundon 12218b.

Cylindrocarpon tenue Bugnicourt

- 10372 *Colocasia* sp. - tuber. Samoa Feb 1977. From G. Laundon 11494.

Cylindrocladiella peruviana (Batista, Bezerra & Herrera) Boesewinkel

- 9351 Grasshopper - gut. Indonesia. From G.J. Samuels 85-274.

Cylindrocladium floridanum Sobers & Seymour

- 10373 *Liquidambar* sp. - root lesions. Brixton, TK, NZ Jun 1977. From G. Laundon 17868.
 10391 *Liquidambar* sp. - root lesion. Brixton, TK, NZ Jun 1977. From G. Laundon 11868.

Cylindrocladium parvum Anderson

- 10377 *Asparagus officinalis* L. - asparagus - root rot. Takapau, WA, NZ Nov 1979. From G. Laundon 15756.
 10375 *Rheum rhabarbarum* L. - rhubarb - basal rot. Otaki, WN, NZ Oct 1979. From G. Laundon 15580.
 10376 *Rheum* sp. - basal rot. Otaki, WN, NZ Oct 1979. From G. Laundon 15639.

Cylindrocladium scoparium Morgan
 see *Calonectria kytensis*.

Cylindrocladium sp.

- 10379 *Phaseolus vulgaris* L. - bean - seedlings. Dannevirke, WA, NZ Nov 1977. From G. Laundon 12446.
 10380 *Rumex pulcher* L. - fiddle dock. Levin, WN, NZ Jun 1979. From G. Laundon 15085- rec. as *C. pulchum*.
 10392 *Zingiber* sp. Fiji May 1978. From G. Laundon 13171.

Cylindrosporium concentricum Greville
 see *Pyrenopeziza brassicae*.

Cytospora leucostoma (Persoon) Saccardo

syn. *Valsa leucostoma* (Persoon) Fries

- 8842 *Prunus armeniaca* L. - apricot cv. Moorpark - dead branch. Clyde, CO, NZ Feb 1985. From J.M. Young A1.
 8843 *Prunus armeniaca* L. - apricot cv. Moorpark - dead branch. Clyde, CO, NZ Feb 1985. From J.M. Young A2.
 8844 *Prunus armeniaca* L. - apricot cv. Moorpark - dead branch. Clyde, CO, NZ Feb 1985. From J.M. Young B1.
 8845 *Prunus armeniaca* L. - apricot cv. Moorpark - dead branch. Clyde, CO, NZ Feb 1985. From J.M. Young C1.
 8846 *Prunus armeniaca* L. - apricot cv. Moorpark - dead branch. Clyde, CO, NZ Feb 1985. From J.M. Young E1.
 8581 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine cv. Fantasia - fruiting arm. NZ Nov 1983. From G.J. Samuels ← J.M. Young.

Dactylaria ampulliformis (Tubaki) Bhatt & Kendrick

- 3660 *Cocos nucifera* L. - coconut. From R.F. Elliott = ATCC 16166.

Dactylaria sp.

- 11420 *Carex virgata* Sol. ex Boott. - swamp sedge - small brown leaf streaks (3mm). Taupo, TO, NZ Nov 1991. From J.M. Young T20.
 11482 *Carex virgata* Sol. ex Boott. - swamp sedge - chocolate brown elliptical leaf lesion (2-5mm long). Taupo, TO, NZ Dec 1991. From J.M. Young T95.

- Dendrodochium* sp.
see *Nectria aureo-fulva*; *N. subquaternata*.
- Dendryphion nanum*** (C.G. Nees) Hughes
10457 *Chrysanthemum* sp. Levin, WN, NZ Oct 1977. From G. Laundon 12358a.
1088 *Passiflora edulis* Sims - passionfruit - root. Oct 1962. From F.J. Morton H165 ← S. Davison.
- Diaporthe adunca*** (Roberge ex Desmazières) Niessel
10111 *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain - shrivelled upper part of stalk bearing seedhead. Palmerston North, WI, NZ. From M.J. Christensen.
- Diaporthe citri*** Wolf
anam. *Phomopsis citri* Fawcett
10355 *Citrus reticulata* Blanco - mandarin - leaf scab. Kerikeri, ND, NZ Apr 1990. From P.G. Broadhurst ← P. Sutton.
6972 *Citrus sinensis* (L.) Osbeck - orange - stem end rot. USA. From G.J. Samuels 77-53 ← J.O. Whiteside PR349.
6969 *Citrus* sp. - grapefruit - stem end rot. USA 1978. From G.J. Samuels 78-56 ← L.W. Trimmer.
6976 *Citrus* sp. Cook Is. 1976. From G.J. Samuels 77-58 ← R.A. Fullerton 76-160.
6977 *Citrus* sp. Cook Is. 1976. From G.J. Samuels 77-55 ← R.A. Fullerton 76-144.
6979 *Citrus* sp. - grapefruit - stem end rot. USA 1978. From G.J. Samuels 78-58 ← L.W. Trimmer.
6980 *Citrus* sp. - dead wood. Cook Is. 1976. From G.J. Samuels 76-198 ← R.A. Fullerton 76143.
6981 *Citrus* sp. - grapefruit - stem end rot. USA 1978. From G.J. Samuels 78-54 ← L.W. Trimmer.
6989 *Citrus* sp. - grapefruit - stem end rot. USA 1978. From G.J. Samuels 78-57 ← L.W. Trimmer.
- Diaporthe eres*** Nitschke
10072 *Juglans regia* L. - walnut. Southbridge, MC, NZ Sep 1978. From G.F. Laundon 13472.
10076 *Malus X domestica* Borkh. - apple. Levin, WN, NZ Aug 1978. From G.F. Laundon 13566.
- Diaporthe perniciosa*** Marchal
2073 *Malus X domestica* Borkh. - apple - fruit. Waimea West, NN, NZ Sep 1967. From G.F. Laundon LEV 1658.
6968 *Malus X domestica* Borkh. - apple. Northern Ireland 1979. From G.J. Samuels 79-92 ← T.R. Swinborne.
6982 *Malus X domestica* Borkh. - apple cv. Sturmer - leaf spot. Oratia, AK, NZ Nov 1975. From G.J. Samuels 75-301 ← S.R. Pennycook 280.
6983 *Malus X domestica* Borkh. - apple - calyx of young fruit. Motueka, NN, NZ Nov 1979. From G.J. Samuels ← S.R. Pennycook 863.
- Diaporthe*** sp.
7816 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
12520 *Ileostylis micranthus* (Hook.f.) Tiegh. - mistletoe - rot in haustorial tissue. Every Reserve, CO, NZ Jun 1995. From P.R. Johnston ← G. Loh plant3 = PDD 64851.
12521 *Ileostylis micranthus* (Hook.f.) Tiegh. - mistletoe - rotten haustorial tissue at base of branch dieback. Every Reserve, CO, NZ Jun 1995. From P.R. Johnston ← G. Loh plant1 = PDD 64852.
12522 *Ileostylis micranthus* (Hook.f.) Tiegh. - mistletoe - rotten haustorial tissue associated with tip dieback. Every Reserve, CO, NZ Jun 1995. From P.R. Johnston ← G. Loh = PDD 64853.
12285 *Juglans regia* L. - walnut - twig dieback. NZ 1995. From K. Knight 95-650.
12132 *Peraxilla colensoi* (Hook.f.) Tiegh. - mistletoe. Eglington Valley, FD, NZ Dec 1993. From P.R. Johnston A1-1 ← S.L. Parkes.
12232 *Peraxilla colensoi* (Hook.f.) Tiegh. - mistletoe. Eglington Valley, FD, NZ Dec 1993. From P.R. Johnston B9 ← S.L. Parkes.
12233 *Peraxilla tetrapetala* (L.f.) Tiegh. - mistletoe. Eglington Valley, FD, NZ Dec 1993. From P.R. Johnston D1 ← S.L. Parkes.
- Dictyochaeta fertilis*** (Hughes & Kendrick) Holubozha-Jechova
10363 *Trifolium repens* L. - roots. Hastings, HB, NZ Nov 1979. From G. Laundon 15822a.
- Dictyosporium elegans*** Corda
8163 *Lolium perenne* L. - perennial ryegrass - root. NZ May 1983. From E.H.C. McKenzie ← M.J. Christensen 19-5.
- Dictyotrichiella*** sp.
8358 *Dacrydium cupressinum* Sol. ex Lamb. - rimu - decorticated wood. Sweetwater, WD, NZ May 1974. From G.J. Samuels 74-59 = PDD 34068.
- Dicyma pulvinata*** (Berkeley & Curtis) Arx
7655 *Colocasia esculenta* (L.) Schott - taro. Western Samoa Jan 1982. From E.H.C. McKenzie.
- Didymella applanata*** (Niessl) Saccardo
2005 *Rubus idaeus* L. - raspberry - leaf spot. Motueka, NN, NZ Jan 1967. From G.F. Laundon LEV 1170.
10487 *Rubus idaeus* L. - raspberry. Tadmoor, NN, NZ Mar 1980. From G. Laundon 16355.
- Didymella bryoniae*** (Auerswald) Rehm
syn. *Mycosphaerella melonis* (Passerini) Chiu & Walker
anam. *Phoma cucurbitacearum* (Fries) Saccardo
anam. *Ascochyta cucumis* Fautrey & Roumeguere
10394 *Carica papaya* L. - pawpaw, papaya - fruit rot. Australia Jun 1979. From G. Laundon 14994a.
6820 *Cucumis melo* L. - rock melon - fruit rot. Orere Point, AK, NZ Mar 1979. From P.R. Johnston 79.37.
2100 *Cucumis sativus* L. - cucumber - fruit. Australia Nov 1967. From G.F. Laundon LEV 1760 ← G.L. Cuthbert.
2003 *Cucurbita maxima* Duch. - pumpkin - fruit. Levin, WN, NZ Nov 1966. From G.F. Laundon LEV 1021.
5190 *Cucurbita maxima* Duch. - pumpkin. Pukekohe, AK, NZ Mar 1979. From J.M. Dingley 6770.
6821 *Cucurbita maxima* Duch. - pumpkin - fruit rot. Nelson, NN, NZ Aug 1979. From P.R. Johnston 79-108.
6822 *Cucurbita maxima* Duch. - pumpkin - fruit rot. NZ 1977. From P.R. Johnston 77-144.
10118 *Cucurbita maxima* Duch. - buttercup squash - fruit rot. Pukekohe, AK, NZ Apr 1988. From J. Rees-George 923.
10393 *Cucurbita pepo* L. Levin, WN, NZ Oct 1978. From G. Laundon 13762.
- Didymella lycopersici*** Klebahn
anam. *Phoma lycopersici* Cooke
2072 *Lycopersicon esculentum* Mill. - tomato - fruit. Tonga Sep 1967. From G.F. Laundon 1643B.
- Didymellina macrospora* Klebahn
see *Mycosphaerella macrospora*.
- Diheterospora chlamydosporia*** (Goddard) Barron & Onions
7893 Soil (maize-field). Hamilton, WO, NZ Dec 1982. From G.J. Samuels ← G.I. Robertson M77.
- Dilophospora alopecuri*** (Fries) Fries
12916 *Holcus lanatus* L. - Yorkshire fog, velvet grass - eye-spot lesions of leaves. Palmerston N., WI, NZ. From I.T. Riley DA92.
12917 *Holcus lanatus* L. - Yorkshire fog, velvet grass - eye-spot lesions of leaves. Palmerston N., WI, NZ. From I.T. Riley DA93.
12918 *Holcus lanatus* L. - Yorkshire fog, velvet grass. Palmerston N., WI, NZ. From I.T. Riley DA94.
- Diplodia mutila* Fries
see *Botryosphaeria stevensii*.

Diplodia pinea (Desmazières) Kickx
see *Sphaeropsis sapinea*.

Diplodia zeae (Schweinitz) Leveille
syn. *Diplodia maydis* (Berkeley) Saccardo
9445 *Zea mays* L. - maize - kernels. WO, NZ May 1987. From P.G. Broadhurst IB4 ← Sanitarium Health Foods.
9446 *Zea mays* L. - maize - kernels. WO, NZ. From P.G. Broadhurst Ig3 ← Sanitarium Health Foods.

Discogloeum vernoniae (Libert) Petrak
10488 *Veronica tournefortii* C.C. Gmel. - leafspot. Levin, WN, NZ Aug 1977. From G. Laundon 11993.

Discohainesia oenotherae (Cooke & Ellis) Nannfeldt
5528 *Fuchsia* sp. Auckland, AK, NZ Feb 1966. From J.M. Dingley 6629.

Discula nervisequa (Fueckel) Morelet
see *Apiognomonina veneta*.

Doratomyces microsporus (Saccardo) Morton & G. Smith
1094 *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede - leaf. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H286.
1054 *Solanum tuberosum* L. - potato. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H97 ← J.M. Dingley.

Drechmeria coniospora (Drechsler) Gams & Jansson
12524 * Pasture soil. Te Awamutu, WO, NZ. From F.S. Hay - *unspecified species of bacterial feeding nematodes.

Drechslera australiensis M.B. Ellis
see *Cochliobolus australiensis*.

Drechslera avenae (Eidam) Scharif
see *Pyrenophora avenae*.

Drechslera biseptata (Saccardo & Roumeguere) Richardson & Fraser

6207 *Aira caryophyllaea* L. - silvery-hair grass. Waitakere Ranges, AK, NZ May 1977. From E.H.C. McKenzie 93-1.
6208 *Aira caryophyllaea* L. - silvery-hair grass. Waitakere Ranges, AK, NZ May 1977. From E.H.C. McKenzie 93-2.
6204 *Digitaria smutsii* Stent. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 201.
6808 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Jan 1979. From E.H.C. McKenzie 12,10-3.
11022 *Ulex europaeus* L. - gorse. NZ. From E.H.C. McKenzie ← P.R. Johnston.
6205 *Vulpia bromoides* (L.) S.F. Gray - squirreltail fescue, vulpia hair grass. One Tree Hill, AK, NZ Jul 1975. From E.H.C. McKenzie 104-1.
6206 *Vulpia bromoides* (L.) S.F. Gray - squirreltail fescue, vulpia hair grass. One Tree Hill, AK, NZ Jul 1975. From E.H.C. McKenzie 104-2.

Drechslera brizae (Nisikado) Subramanian & Jain

6162 *Briza maxima* L. - big quaking grass - leaf. Epsom, AK, NZ Nov 1976. From E.H.C. McKenzie 367.
6805 *Briza maxima* L. - big quaking grass - leaf. Eilerslie, AK, NZ Nov 1976. From E.H.C. McKenzie 377.
6161 *Briza minor* L. - little quaking grass - leaf. Kaikohe, ND, NZ Dec 1976. From E.H.C. McKenzie 381.
6163 *Briza minor* L. - little quaking grass - leaf. Mt Albert, AK, NZ Oct 1976. From E.H.C. McKenzie 357.
6164 *Briza minor* L. - little quaking grass - leaf. Waitakere Ranges, AK, NZ Nov 1975. From E.H.C. McKenzie 124-3.
6182 *Briza minor* L. - little quaking grass - leaf. Waitakere Ranges, AK, NZ Nov 1975. From E.H.C. McKenzie 124-2.
6183 *Briza minor* L. - little quaking grass - leaf. Waitakere Ranges, AK, NZ Nov 1975. From E.H.C. McKenzie 124-1.
6267 *Briza minor* L. - little quaking grass - leaf. Kaikohe, ND, NZ Dec 1976. From E.H.C. McKenzie 381-B.

Drechslera campanulata (Lev.) Sutton
see *Pyrenophora semeniperda*.

Drechslera cynodontis (Marignoni) Subramanian & Jain
see *Cochliobolus cynodontis*.

Drechslera dematioidea (Bubak & Wroblewski) Subramanian & Jain

6211 *Aira caryophyllaea* L. - silvery-hair grass. Waikumete, AK, NZ Nov 1976. From E.H.C. McKenzie 366.
6213 *Anthoxanthum odoratum* L. - sweet vernal. Glen Massey, WO, NZ Oct 1976. From E.H.C. McKenzie 347.
6748 *Anthoxanthum odoratum* L. - sweet vernal. Kaikohe, ND, NZ Sep 1976. From E.H.C. McKenzie 308.
6216 *Cortaderia* sp. - toetoe. Whangarei, ND, NZ Sep 1976. From E.H.C. McKenzie 315.
6214 *Holcus lanatus* L. - Yorkshire fog, velvetgrass. Kaikohe, ND, NZ Sep 1976. From E.H.C. McKenzie 310.
6215 *Holcus lanatus* L. - Yorkshire fog, velvetgrass. Kaikohe, ND, NZ Sep 1976. From E.H.C. McKenzie 309.
6212 *Stenotaphrum secundatum* (Walt.) O. Kuntze - buffalo grass, St. Augustine grass. Warkworth, AK, NZ Oct 1976. From E.H.C. McKenzie 344.

Drechslera dictyoides (Drechsler) Shoemaker
see *Pyrenophora dictyoides*.

Drechslera erythrospila (Drechsler) Shoemaker
see *Pyrenophora erythrospila*.

Drechslera graminea (Rabenhorst ex Schlechtendal) Shoemaker
see *Pyrenophora graminea*.

Drechslera iridis (Oudemans) M.B. Ellis
see *Bipolaris iridis*.

Drechslera japonica (Ito & Kuribayashi) Shoemaker
see *Pyrenophora japonica*.

Drechslera maydis (Nisikado) Subramanian & Jain
see *Cochliobolus heterostrophus*.

Drechslera multififormis Jooste

6113 *Tribulus terrestris* L. - puncture vine - hay. South Africa. From E.H.C. McKenzie = IMI 165250: PRE 44794: CBS 480.74 - **ex Type specimen**.

Drechslera phlei (Graham) Shoemaker

6751 *Phleum pratense* L. - timothy. Palmerston North, WI, NZ. From E.H.C. McKenzie 146.

Drechslera poae (Baudys) Shoemaker

6750 *Poa pratensis* L. - Kentucky bluegrass. Mt Albert, AK, NZ Mar 1976. From E.H.C. McKenzie 271.
10399 Soil. Motueka, NN, NZ Mar 1977. From G. Laundon 12347a.

Drechslera ravenelii (Curtis) Subramanian & Jain
see *Cochliobolus ravenelii*.

Drechslera sacchari (Butler) Subramanian & Jain
see *Bipolaris sacchari*.

Drechslera verticillata (O'Gara) Shoemaker
see *Pyrenophora semeniperda*.

Drechslera siccans (Drechsler) Shoemaker

- 2937 *Lolium perenne* L. - perennial ryegrass - leaf. Palmerston North, WI, NZ Sep 1969. From E.H.C. McKenzie 38.
6749 *Lolium* sp. - ryegrass cv. Wewo (Netherlands). Palmerston North, WI, NZ Mar 1975. From E.H.C. McKenzie 63.

Drechslera sorokiniana (Saccardo) Subramanian & Jain

see *Cochliobolus sativus*.

Drechslera sp.

- 10401 *Cortaderia* sp. Invercargill, SL, NZ Nov 1977. From G. Laundon 12553.
10400 *Croton* sp. - leafspots. W. Samoa Nov 1977. From G. Laundon 12488.
6807 *Dactylis glomerata* L. - cocksfoot - washed leaves. Ruakura, WO, NZ Jan 1979. From E.H.C. McKenzie 12,10-2.
9944 *Dactyloctenium aegyptium* (L.) Beauv. - crowsfoot - dead flower head. Western Samoa Dec 1988. From E.H.C. McKenzie.
6806 *Dichelachne crinita* (L.f.) Hook.f. - long-hair plume grass - leaf. Rangitoto Is., AK, NZ Jan 1980. From E.H.C. McKenzie 469.
10548 *Eleusine indica* (L.) Gaertn. - crowsfoot - leafspot. Kumeu, AK, NZ Jun 1990. From E.H.C. McKenzie.
5443 *Oryza sativa* L. - rice. Auckland, AK, NZ Mar 1969. From J.M. Dingley 6934.
10102 *Puccinellia fasciculata* (Torrey) Bicknell - saltgrass - leafspot. Island Bay, WN, NZ. From E.H.C. McKenzie = PDD 55148.
10103 *Puccinellia fasciculata* (Torrey) Bicknell - saltgrass - leafspot. Island Bay, WN, NZ. From E.H.C. McKenzie.
9943 *Zoysia* sp. Western Samoa Dec 1988. From E.H.C. McKenzie.
9941 Grass debris. Western Samoa Dec 1988. From E.H.C. McKenzie.
10402 Orchid - leaf spots. Australia May 1979. From G. Laundon 14877.

Drechslera spicifera (Bainier) Arx

see *Cochliobolus spicifer*.

Drechslera teres (Saccardo) Shoemaker

see *Pyrenophora teres*.

Drechslera tetrarrhenae Paul

see *Pyrenophora tetrarrhenae*.

Drechslera triseptata (Drechsler) Subramanian & Jain

- 6119 *Dactylis glomerata* L. - cocksfoot - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5321.
6120 *Holcus lanatus* L. - Yorkshire fog, velvetgrass - leaf. Oratia, AK, NZ Feb 1975. From E.H.C. McKenzie 18.
6115 *Lolium multiflorum* Lam. - Italian ryegrass cv. Grasslands Paroa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5988.
6118 *Lolium multiflorum* Lam. X *L. perenne* - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ 1975. From E.H.C. McKenzie 5630.

Drechslera turcica (Passerini) Subramanian & Jain

see *Setosphaeria turcica*.

Elsinoe tiliae Creelman

- 3344 *Tilia cordata* Mill. - small-leaved lime (linden) - leaves and bract. Palmerston North, WI, NZ Nov 1972. From G.F. Laundon LEV 6783.

Embellisia allii (Campanile) Simmons

- 2009 *Allium sativum* L. - garlic - bulb. Auckland, AK, NZ Apr 1966. From G.F. Laundon LEV 650A.
5436 *Allium sativum* L. - garlic. Blenheim, MB, NZ Mar 1966. From J.M. Dingley 6641.
12496 *Allium sativum* L. - garlic - bulb blackening. Yugoslavia 1986. From M. Arsenijevic Ht51 - Nikolic & Arsenijevic: Contemporary agric., 4 1964, Novi Sad.
12497 *Allium sativum* L. - garlic - bulb blackening. Yugoslavia 1992. From M. Arsenijevic Ht60 - Nikolic & Arsenijevic: Contemporary agric. 4, 1964, Novi Sad.
12498 *Allium sativum* L. - garlic - bulb blackening. Yugoslavia 1992. From M. Arsenijevic Ht61 - Nikolic & Arsenijevic: Contemporary agric. 4, 1964, Novi Sad.

Embellisia novae-zelandiae E. Simmons & C.F. Hill

- 10683 *Leptinella dioica* Hook.f. - cotula - leaf. Papakura, AK, NZ. From E.H.C. McKenzie ← C.F. Hill 4252 = PDD 58011.
10682 *Leptinella maniototo* (Petrie) Lloyd & C. Webb - maniototo cotula - leaf. Auckland, AK, NZ. From E.H.C. McKenzie ← C.F. Hill 4102 = PDD 58010.

Emericella nidulans (Eidam) Vuillemin

anam. *Aspergillus nidulans* (Eidam) Winter

- 10190 *Rosa* sp. - roots. Lower Hutt, WN, NZ Oct 1977. From G.F. Laundon 12365b.
5603 From J.M. Dingley 6592 ← IMI 85473.
7775 Laboratory derived strain. From R.E. Beever ← G. Turner - Trans. Br. Mycol. Soc. 80: 327-331, 1983.
7776 Laboratory derived strain. From R.E. Beever 10-1 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 10).
7777 Laboratory derived strain. From R.E. Beever 10-3 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 3).
7778 Laboratory derived strain. From R.E. Beever 10-10 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8247 Laboratory derived strain. From R.E. Beever 10-4 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8248 Laboratory derived strain. From R.E. Beever 10-5 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 8).
8249 Laboratory derived strain. From R.E. Beever 10-12 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 1).
8250 Laboratory derived strain. From R.E. Beever 10-13 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 8).
8251 Laboratory derived strain. From R.E. Beever 10-14 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 8).
8252 Laboratory derived strain. From R.E. Beever 10-17 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8253 Laboratory derived strain. From R.E. Beever 10-2 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8254 Laboratory derived strain. From R.E. Beever 10-8 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 8).
8255 Laboratory derived strain. From R.E. Beever 10-16 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8256 Laboratory derived strain. From R.E. Beever 10-6 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 5).
8257 Laboratory derived strain. From R.E. Beever 10-7 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 5).
8258 Laboratory derived strain. From R.E. Beever 10-15 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
8259 Laboratory derived strain. From R.E. Beever 10-19 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 2).
8260 Laboratory derived strain. From R.E. Beever 10-20 - Trans. Br. Mycol. Soc. 80: 327-331, 1983.
8510 Laboratory derived strain. From R.E. Beever ← D.J. Cove a82.
8511 Laboratory derived strain. From R.E. Beever ← D.J. Cove s153.
8512 Laboratory derived strain. From R.E. Beever ← D.J. Cove 237.
8513 Laboratory derived strain. From R.E. Beever ← FGSC 32.
8514 Laboratory derived strain. From R.E. Beever ← D.J. Cove S492.
8515 Laboratory derived strain. From R.E. Beever 237 & 492.
8516 Laboratory derived strain. From R.E. Beever ← D.J. Cove yw
8517 Laboratory derived strain. From R.E. Beever ← D.J. Cove S334.

Endomyces geotrichum Butler & Petersen

anam. *Geotrichum candidum*

- 5442 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit. NZ Oct 1973. From J.M. Dingley 7381.

- 5502 *Carica papaya* L. - pawpaw, papaya - fruit. Cook Is. Apr 1977. From E.H.C. McKenzie.
 151 *Solanum tuberosum* L. - potato. NZ Aug 1961. From F.J. Morton H5.
 10519 *Solanum tuberosum* L. - potato - tuber rots. Rata, RI, NZ Mar 1977. From G. Laundon 11568b.
- Endothia fluens** (Sowerby) Shear & N.E. Stevens
 5292 *Fuchsia excorticata* (J.R. & G. Forst.) L.f. - kotukutuku, tree fuchsia - bark. Rotoehu, BP, NZ May 1964. From J.M. Dingley 6460.
- Endothia tropicalis** Shear & N.E. Stevens
 5459 *Elaeocarpus dentatus* (J.R. & G. Forst.) Vahl - hinau. Waitakere Ranges, AK, NZ 1958. From J.M. Dingley 5833.
- Engynodontium araneum** (Cavara) W. Gams, de Hoog & Samson
 8704 Spider. Auckland, AK, NZ Aug 1980. From S. Dhana ← G.J. Samuels 80-101 = CBS 658.80 - Persoonia 12: 138, 1984.
- Ephelis** sp.
 8159 *Danthonia spicata* (L.) Beauv. ex Roem. & Schult. - leaf endophyte. NZ Jun 1983. From M.G. Cromey 5-4.
 8160 *Danthonia spicata* (L.) Beauv. ex Roem. & Schult. - leaf endophyte. NZ Jun 1983. From M.G. Cromey 3-1.
- Epicoccum nigrum** Link
 10460 *Asparagus officinalis* L. - asparagus. Levin, WN, NZ May 1979. From G. Laundon 14980b.
 11503 *Malus X domestica* Borkh. - apple - bark. Kumeu, AK, NZ. From P.R. Johnston 81.
 10459 *Persea americana* Mill. - avocado - leafspots. Te Kaha, BP, NZ Aug 1978. From G. Laundon 13470.
 10458 From G. Laundon 10566a.
- Epicoccum purpurascens** Ehrenberg
 2048 *Bromus* sp. - bromegrass - leaf. Levin, WN, NZ Aug 1967. From G.F. Laundon LEV 1565A.
 2931 *Lolium perenne* L. - perennial ryegrass - leaf debris. Palmerston North, WI, NZ Dec 1969. From E.H.C. McKenzie 31A.
 1732 Air. Mt Albert, AK, NZ. From S. Davison = PDD 5930.
- Eupenicillium brefeldianum** (Dodge) Stolk & Scott
 syn. *Penicillium brefeldianum* Dodge
 anam. *Penicillium dodgei* Pitt
 9034 From M.D. Templeton ← M.G. Shepherd = QM 1873 - Biochem. J. 223: 707-714.
- Eupenicillium senticosum** Scott
 anam. *Penicillium senticosum* Scott
 5693 Worm cast. Palmerston North, WI, NZ Aug 1976. From G.C.M. Latch S44.
- Eurotium chevalieri** Mangin
 anam. *Aspergillus chevalieri* (Mangin) Thom & Church
 433 Wool. NZ Oct 1961. From J.M. Dingley 65117 ← M.H. Dye F25.
 875 Wool. Mt Albert, AK, NZ Sep 1961. From F.J. Morton H14 ← M.H. Dye.
- Eutypa lata** (Persoon) L.R. & C. Tulasne
 11787 *Vitis vinifera* L. - grape cv. Cabernet Sauvignon - cordon. Eskdale, HB, NZ May 1993. From W.F.T. Hartill.
 11788 *Vitis vinifera* L. - grape cv. Cabernet Sauvignon - cordon. Eskdale, HB, NZ Jun 1993. From W.F.T. Hartill.
- Exserohilum turcicum* (Passerini) Leonard & Suggs
 see *Setosphaeria turcica*.
- Flammulina velutipes** (Curtis) Singer
 12059 China. From X.Z. Ren FL ← Y.X. Chen.
- Fulvia fulva** (Cooke) Ciferri
 syn. *Cladosporium fulvum* Cooke
 7320 *Lycopersicon esculentum* Mill. - tomato - leaf spot. NZ Jul 1981. From E.H.C. McKenzie ← F.J. Newhook.
- Fusarium acuminatum* Ellis & Everhart
 see *Gibberella acuminata*.
- Fusarium anthophilum** (Braun) Wollenweber
 10464 *Amaryllis* sp. - bulb lesions. Netherlands. From G. Laundon 19527.
 10461 *Asparagus officinalis* L. - asparagus - seed. Hastings, HB, NZ Jan 1980. From G. Laundon 16096.
 10462 *Cymbidium* sp. - leafspots. Tauranga, BP, NZ Oct 1980. From G. Laundon 17223.
 10463 *Cymbidium* sp. - leafspots. USA Oct 1981. From G. Laundon 18596.
- Fusarium arthrosporioides** Sherbakoff
 8135 From J.B. Taylor F103 ← IMI 163864.
 10465 From G. Laundon 10861b.
 10466 From G. Laundon 11117.
 10467 From G. Laundon 12263.
 10468 From G. Laundon 16807.
 10469 From G. Laundon 16808.
 10470 From G. Laundon 16809.
- Fusarium avenaceum* (Corda) Saccardo
 see *Gibberella avenacea*.
- Fusarium camptoceras** Wollenweber & Reinking
 10472 Australia. From G. Laundon 18253 ← Burgess F1099.
- Fusarium coccophilum* (Desmazières) Wollenweber & Reinking
 see *Nectria flammaea*.
- Fusarium concolor** Reinking
 5213 *Cucurbita* sp. - squash. Auckland, AK, NZ Feb 1964. From J.M. Dingley 6410.
 5235 *Pisum sativum* L. - garden pea. Auckland, AK, NZ Dec 1971. From J.M. Dingley 7178.
 5225 Nelson, NN, NZ May 1970. From J.M. Dingley 7035 ← G.C.M. Latch.
 5644 Pasture. Palmerston North, WI, NZ Jun 1973. From J.M. Dingley 7346.
- Fusarium crookwellense** Burgess, Nelson & Toussoun
 10348 * *Persea americana* Mill. - avocado cv. Hass - fruit rot. Tauranga, BP, NZ Jan 1989. From W.F.T. Hartill = Broadbent F203 - *avocado (Hartill).
 8856 Litter in maize field. Palmerston North, WI, NZ Jun 1984. From H. Hussein 130.
- Fusarium culmorum** (W.G. Smith) Saccardo
 5231 *Cortaderia jubata* (Lem.) Stapf - purple pampas grass - seedling. Mid Canterbury, MC, NZ Aug 1970. From J.M. Dingley 7055 = PDD 28522.
 5652 *Dactylis glomerata* L. - cocksfoot. Mt Albert, AK, NZ Jun 1973. From J.M. Dingley 7340.
 5238 *Dianthus caryophyllus* L. - carnation. Auckland, AK, NZ Aug 1970. From J.M. Dingley 7048 = PDD 28465.
 10085 *Dianthus caryophyllus* L. - carnation - stem. Auckland, AK, NZ 1985. From P.G. Broadhurst.

- 10474 *Dianthus caryophyllus* L. - carnation - basal rot. Ashhurst, WI, NZ. From G. Laundon 10861a.
 10475 *Fragaria* sp. - roots. Levin, WN, NZ 1977. From G. Laundon 11937c.
 4901 *Lolium perenne* L. - perennial ryegrass. Hamilton, WO, NZ Jan 1959. From J.M. Dingley 5944.
 5648 *Lupinus albus* L. - white lupin - leaf. Pukekohe, AK, NZ Oct 1973. From J.M. Dingley 7384.
 5198 *Passiflora* sp. - passionfruit. Matakana, AK, NZ Mar 1966. From J.M. Dingley 6674 = PDD 33962.
 5653 *Phaseolus coccineus* L. - scarlet runner bean - stem base. Otara, AK, NZ Dec 1972. From J.M. Dingley 733.
 10230 *Poa* sp. Wellington?, WN, NZ Feb 1990. From P.G. Broadhurst F303 - from golf course green.
 5197 *Prunus persica* (L.) Batsch - peach - seedling cotyledon. Auckland, AK, NZ Oct 1966. From J.M. Dingley 66124 = PDD 25806.
 5173 *Secchium edule* (Jacq.) Swartz - choko, chayote - fruit. Auckland, AK, NZ Aug 1976. From J.M. Dingley 767 ← P.R. Johnston.
 4913 *Solanum tuberosum* L. - potato - tuber. NZ Jun 1976. From J.M. Dingley 761 ← P.R. Johnston.
 5207 *Sorghum bicolor* (L.) Moench - sorghum. Morrinsville, WO, NZ Mar 1969. From J.M. Dingley 6923.
 5130 *Zea mays* L. - maize. Morrinsville, WO, NZ Feb 1972. From J.M. Dingley 7220.
 5196 Wool. Jul 1965. From J.M. Dingley 65140 ← A.P. Mulcock.
 5221 Pasture. Palmerston North, WI, NZ Mar 1970. From J.M. Dingley 7020 = PDD 28264.
 5222 Nelson, NN, NZ May 1970. From J.M. Dingley 7036 ← G.C.M. Latch.
 8030 From J.B. Taylor F97 ← IMI 164746.
 8262 Shoe leather. NZ Oct 1983. From G.J. Samuels ← LASRA.
 8997 Soil (maize-field). Levin, WN, NZ May 1984. From H. Hussein 167.

Fusarium decemcellulare Brick
 see *Nectria rigidiuscula*.

Fusarium equiseti (Corda) Saccardo
 see *Gibberella intricans*.

Fusarium eumartii Carpenter

- 10480 Orchid - bulb. Rotorua, BP, NZ Jan 1980. From G. Laundon 16130a.

Fusarium fusariodes (Fragoso & Ciferri) Booth

- 10481 Australia. From G. Laundon 18254 ← Burgess F1069.

Fusarium graminearum Schwabe
 see *Gibberella zeae*.

Fusarium graminum Corda

- 11865 *Ulex europaeus* L. - gorse. AK, NZ Aug 1991. From P.R. Johnston G36.
 11866 *Ulex europaeus* L. - gorse. CL, NZ Sep 1991. From P.R. Johnston G107.

Fusarium heterosporum Nees
 see *Gibberella gordonia*.

Fusarium illudens Booth
 see *Nectria illudens*.

Fusarium larvarum Fuckel
 see *Nectria aurantiicola*.

Fusarium lateritium Nees
 see *Gibberella baccata*.

Fusarium longipes Wollenweber & Reinking

- 9332 *Cyrtosperma chamissonis* (Schott) Merr. - giant swamp taro - corm rot. Federated States of Micronesia Jan 1987. From E.H.C. McKenzie.
 10484 Australia May 1981. From G. Laundon 18125 ← Burgess F2825.

Fusarium merismoides Corda

- 8133 From J.B. Taylor F101 ← IMI 105043.
 10485 Australia May 1981. From G. Laundon 18127 ← Burgess F1489.
 10486 Australia. From G. Laundon 18128 ← Burgess F4017.

Fusarium moniliforme Sheldon var. *subglutinans* Wollenweber & Reinking
 see *Gibberella fujikuroi* var. *subglutinans*.
 see *Gibberella fujikuroi*.

Fusarium nivale Cesati ex Berlese & Voglino
 see *Monographella nivalis*.

Fusarium oxysporum Schlechtendal

- 5122 *Allium cepa* L. - onion. Katikati, BP, NZ Mar 1960. From J.M. Dingley 6020.
 5123 *Allium cepa* L. - onion. Pukekohe, AK, NZ Jun 1960. From J.M. Dingley 6021.
 5158 *Allium cepa* L. - onion. Pukekohe, AK, NZ Jun 1961. From J.M. Dingley 6139.
 5183 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From J.M. Dingley 6527.
 5188 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From J.M. Dingley 6526.
 12897 *Allium cepa* L. - onion - basal plate of bulb. Pukekohe, AK, NZ Dec 1995. From P.G. Broadhurst F568.
 2219 *Arachis hypogaea* L. - groundnut, peanut. Te Kopuru, ND, NZ Mar 1968. From J.M. Dingley 6835.
 4847 *Asparagus officinalis* L. - asparagus - marginal tissue. Hawkes Bay, HB, NZ Jan 1972. From J.M. Dingley 721 = PDD 34758.
 4867 *Asparagus officinalis* L. - asparagus - six-year-old plant. Hastings, HB, NZ Oct 1971. From J.M. Dingley 7177.
 4903 *Asparagus officinalis* L. - asparagus - nine-year-old plant. Hastings, HB, NZ Oct 1971. From J.M. Dingley 7176.
 4909 *Asparagus officinalis* L. - asparagus - vascular tissue. Hastings, HB, NZ Dec 1971. From J.M. Dingley 724.
 10498 *Asparagus officinalis* L. - asparagus - root rot. Hastings, HB, NZ Nov 1979. From G. Laundon 15803.
 10499 *Asparagus officinalis* L. - asparagus - root rot. Levin, WN, NZ Aug 1980. From G. Laundon 16950.
 10500 *Asparagus officinalis* L. - asparagus - root rot. Levin, WN, NZ Aug 1980. From G. Laundon 16968.
 5240 *Brassica oleracea* L. var. *capitata* L. - cabbage - stem. Auckland, AK, NZ Aug 1973. From J.M. Dingley 7355.
 7876 *Colocasia esculenta* (L.) Schott - taro. Cook Is. Aug 1982. From G.J. Samuels ← R.A. Fullerton 8222.
 9452 *Cucumis melo* L. - rock melon - stem. AK, NZ Dec 1981. From G.I. Robertson P318.
 5170 *Cucumis sativus* L. - cucumber. Auckland, AK, NZ May 1972. From J.M. Dingley 7252.
 10496 *Fragaria* sp. - root rot. Levin, WN, NZ. From G. Laundon 11774.
 5223 *Glycine max* (L.) Merr. - soybean - root. Te Kauwhata, WO, NZ Mar 1969. From J.M. Dingley 6922.
 10285 *Hoheria* sp. - houhere, lacebark - stem canker. Te Puna, BP, NZ. From P.G. Broadhurst F311.
 1888 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. USA Jun 1967. From J.M. Dingley 67111.
 1889 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. USA Jun 1967. From J.M. Dingley 67112.
 3742 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Mangere, AK, NZ. From J.B. Taylor F17.
 5128 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - tuber. Naumai, ND, NZ Aug 1960. From J.M. Dingley 6023.
 5132 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Auckland, AK, NZ Nov 1960. From J.M. Dingley 6042.

- 5168 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Mangere, AK, NZ Oct 1963. From J.M. Dingley 63119.
- 5242 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Naumai, ND, NZ Aug 1960. From J.M. Dingley 6024.
- 7060 *Iris* sp. - leaf. Mt Albert, AK, NZ Sep 1977. From G.I. Robertson P259.
- 2004 *Lilium* sp. - lily - bulb. New Plymouth, TK, NZ. From G.F. Laundon LEV 1299.
- 5163 *Lilium* sp. - lily - bulb. Palmerston North, WI, NZ Jun 1964. From J.M. Dingley 6482.
- 2007 *Lycopersicon esculentum* Mill. - tomato - seedling. Levin, WN, NZ Apr 1966. From G.F. Laundon LEV 697B.
- 2069 *Lycopersicon esculentum* Mill. - tomato - stem. Nelson, NN, NZ Sep 1967. From G.F. Laundon LEV 1642.
- 2271 *Lycopersicon esculentum* Mill. - tomato - wilt. Levin, WN, NZ Jun 1968. From G.F. Laundon LEV 2227 ← A.F. Rainbow.
- 3673 *Lycopersicon esculentum* Mill. - tomato - stem. Mangere, AK, NZ Nov 1973. From C.F. Hill FUS37.
- 3732 *Lycopersicon esculentum* Mill. - tomato. Panmure, AK, NZ. From J.B. Taylor F4 ← F.J. Newhook 1390.
- 3733 *Lycopersicon esculentum* Mill. - tomato. Panmure, AK, NZ. From J.B. Taylor F5 ← F.J. Newhook 1391.
- 3740 *Lycopersicon esculentum* Mill. - tomato. NZ. From J.B. Taylor F15 ← F.T. Last.
- 3741 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor F16 ← F.T. Last.
- 3748 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor F25 ← F.J. Newhook 585.
- 3749 *Lycopersicon esculentum* Mill. - tomato - root. Mangere, AK, NZ. From J.B. Taylor F26.
- 3750 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor F27 ← F.J. Newhook 384.
- 3751 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor F28 ← F.J. Newhook 372.
- 3753 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor F30 ← F.T. Last.
- 3754 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor F31 ← F.T. Last.
- 5192 *Malus X domestica* Borkh. - apple. Hastings, HB, NZ Mar 1964. From J.M. Dingley 6416.
- 5134 *Medicago sativa* L. - lucerne, alfalfa. Wanaka, OL, NZ Jun 1961. From J.M. Dingley 6117.
- 5144 *Medicago sativa* L. - lucerne, alfalfa. Wanaka, OL, NZ Jun 1961. From J.M. Dingley 6129A.
- 10501 *Nerine* sp. - bulb rot. Palmerston North, WI, NZ May 1983. From G. Laundon 21185.
- 12898 *Ocimum basilicum* L. - basil - vascular wilt. Nelson, NZ Jan 1996. From P.G. Broadhurst F571.
- 4905 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Nov 1959. From J.M. Dingley 5948.
- 5209 *Passiflora edulis* Sims - passionfruit. Henderson, AK, NZ Mar 1966. From J.M. Dingley 6657.
- 9453 *Passiflora edulis* Sims - passionfruit - stem base. Kumeu, AK, NZ Jan 1982. From G.I. Robertson P320.
- 9454 *Passiflora edulis* Sims - passionfruit - stem base. Kumeu, AK, NZ Jan 1982. From G.I. Robertson P324.
- 11045 *Persea americana* Mill. - avocado - fruit neck rot. BP, NZ Jan 1992. From P.G. Broadhurst F461 ← W.H.T. Hartill.
- 3743 *Phaseolus* sp. - bean. Cambridge, WO., NZ. From J.B. Taylor F18 ← J.M. Dingley 669.
- 5647 *Phaseolus* sp. - bean - seedling. Whangarei, ND, NZ Dec 1973. From J.M. Dingley 744.
- 5230 *Pisum sativum* L. - garden pea. Auckland, AK, NZ Dec 1971. From J.M. Dingley 7179.
- 10497 *Pisum sativum* L. - pea. Palmerston North, WI, NZ Dec 1977. From G. Laundon 12537a.
- 2021 *Poncirus trifoliata* (L.) Raf. - trifoliolate orange - seed. Australia May 1967. From G.F. Laundon LEV 1393A.
- 3759 *Prunus armeniaca* L. - apricot - root. Mt Albert, AK, NZ. From J.B. Taylor F38.
- 5200 *Prunus persica* (L.) Batsch - peach. Auckland, AK, NZ Nov 1966. From J.M. Dingley 66135.
- 12130 *Prunus persica* (L.) Batsch - peach cv. Golden Queen - roots and crown. Hawkes Bay, HB, NZ Aug 1994. From P.G. Broadhurst ← G. Tate.
- 11318 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9161.
- 11319 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9162.
- 11320 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9163.
- 11321 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9164.
- 11322 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9165.
- 11323 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9166.
- 11324 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9167.
- 11325 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9168.
- 11326 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9169.
- 11327 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9170.
- 11328 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9171.
- 11329 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9172.
- 11330 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9173.
- 11331 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9174.
- 11332 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9175.
- 11333 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9176.
- 11334 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9177.
- 11335 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9179.
- 11336 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9180.
- 11337 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9181.
- 11338 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9182.
- 11339 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9183.
- 11340 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9184.
- 11341 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9185.
- 11342 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9186.
- 11343 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9187.
- 11344 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9188.
- 11345 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9189.
- 11346 *Pterocarpus indicus* Willd. - angkana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SO9190.
- 10228 *Sandersonia aurantiaca* Hook. - Chinese-lantern lily - tuber lesion. Mt. Maunganui, BP, NZ Jan 1990. From P.G. Broadhurst F299.
- 5141 *Solanum tuberosum* L. - potato. Mt Albert, AK, NZ Jun 1961. From J.M. Dingley 6143.
- 5142 *Solanum tuberosum* L. - potato - root. Whangarei, ND, NZ Oct 1961. From J.M. Dingley 6110A.
- 5186 *Solanum tuberosum* L. - potato. Auckland, AK, NZ Jun 1961. From J.M. Dingley 6150.
- 5202 *Solanum tuberosum* L. - potato. Auckland, AK, NZ Jun 1961. From J.M. Dingley 6148.
- 5232 *Sorghum bicolor* (L.) Moench - sorghum. Morrinsville, WO, NZ Mar 1969. From J.M. Dingley 6924.
- 5211 *Trifolium repens* L. - white clover - root. Tiroto, GB, NZ Dec 1966. From J.M. Dingley 66174 = PDD 25802.
- 8702 *Vaccinium corymbosum* L. - highbush blueberry - berry. Te Puke, BP, NZ Jan 1984. From P.G. Broadhurst.
- 5146 *Vigna angularis* (Willd.) Ohwi & Ohashi - adzuki bean - seedling. Otara, AK, NZ Jan 1972. From J.M. Dingley 728 = PDD 34760.
- 5220 *Zea mays* L. - maize. Auckland, AK, NZ Mar 1969. From J.M. Dingley 6938.
- 8994 *Zea mays* L. - maize. Palmerston North, WI, NZ Jun 1984. From H. Hussein 157.
- 6664 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
- 6665 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
- 3760 Soil. Motueka, NN, NZ. From J.B. Taylor F39.
- 3761 Soil. Motueka, NN, NZ. From J.B. Taylor F40.
- 3762 Soil. Motueka, NN, NZ. From J.B. Taylor F41.
- 5143 Grass. Claudelands, WO, NZ Jan 1959. From J.M. Dingley 5940.
- 8261 Shoe leather. NZ Oct 1983. From G.J. Samuels ← LASRA.
- 8357 NZ Nov 1983. From G.J. Samuels 83-493 ← K.R.W. Hammett.
- 8703 Wallpaper. Auckland, AK, NZ Aug 1984. From G.J. Samuels.
- 10432 Machinery oil. Glenbrook, AK, NZ. From P.G. Broadhurst F328 ← E.H.C. McKenzie.

- Fusarium oxysporum** Schlechtendal f. sp. **cepae** (Hanzawa) Snyder & Hansen
5148 *Allium cepa* L. - onion - seedling. Pukekohe, AK, NZ Nov 1960. From J.M. Dingley 6019.
- Fusarium oxysporum** Schlechtendal f. sp. **conglutinans** (Wollenweber) Snyder & Hansen
5167 *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede. Ruatoria, GB, NZ Jan 1966. From J.M. Dingley 6624.
5182 *Brassica napus* L. var. *napobrassica* (L.) Reichen. - swede. Ruatoria, GB, NZ Jan 1966. From J.M. Dingley 6623 = PDD 25142.
- Fusarium oxysporum** Schlechtendal f. sp. **cucumerina** Owen
12900 *Cucumis sativus* L. - gherkin - vascular wilt. Tauranga, BP, NZ Jan 1996. From P.G. Broadhurst F570.
- Fusarium oxysporum** Schlechtendal f. sp. **dianthi** (Prill. & Delacr.) Snyder & Hansen
10411 * *Dianthus barbatus* L. - sweet william - wilt. Israel 1986. From T. Katan FOD-1547 ← R. Cohn 1547 = ATCC 66050 - Pl. Path. 38: 376-381, 1989 - race 2? - *carnation (Katan).
10407 * *Dianthus caryophyllus* L. - carnation cv. Lena - wilt. Israel 1987. From T. Katan FOD-E54 ← E. Hadar E-54 - Pl. Path. 38: 376-381, 1989 - race 2? - *carnation (Katan).
10408 * *Dianthus caryophyllus* L. - carnation cv. Yafa - wilt. Israel 1987. From T. Katan FOD-E77 ← R. Cohn - Pl. Path. 38: 376-381, 1989 - race 2? - *carnation (Katan).
10409 * *Dianthus caryophyllus* L. - carnation cv. Smarty - wilt. Israel 1987. From T. Katan FOD-E95 ← R. Cohn 521 - Pl. Path. 38: 376-381, 1989 - race 2? - *carnation (Katan).
10410 * *Dianthus caryophyllus* L. - carnation cv. Sandra Rosa - wilt. Israel 1988. From T. Katan FOD-E114 ← E. Hadar E114 = ATCC 66048 - Pl. Path. 38: 376-381, 1989 - race 2? - *carnation (Katan).
10495 *Dianthus caryophyllus* L. - carnation. From G. Laundon AK1038.
- Fusarium oxysporum** Schlechtendal f. sp. **lycopersici** (Saccardo) Snyder & Hansen
3589 *Lycopersicon esculentum* Mill. - tomato - stem, vascular staining. Levin, WN, NZ Apr 1973. From G.F. Laundon LEV 7173 ← P.D. Whitwell.
3745 *Lycopersicon esculentum* Mill. - tomato - root. USA. From J.B. Taylor F22 ← W.C. Snyder.
5204 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Oct 1966. From J.M. Dingley 66125.
3589 *Lycopersicon esculentum* Mill. - tomato - stem, vascular staining. Levin, WN, NZ Apr 1973. From G.F. Laundon LEV 7173 ← P.D. Whitwell.
3745 *Lycopersicon esculentum* Mill. - tomato - root. USA. From J.B. Taylor F22 ← W.C. Snyder.
5204 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Oct 1966. From J.M. Dingley 66125.
10412 * *Lycopersicon esculentum* Mill. - tomato cv. Vemone - wilt. Israel 1987. From T. Katan FOL-650 ← R. Cohn 650 - race 1 - *tomato (Katan).
10413 * *Lycopersicon esculentum* Mill. - tomato cv. 111 - wilt. Israel 1986. From T. Katan FOL-1295 ← R. Cohn 1295 = ATCC 66047 - race 2 - *tomato (Katan).
10719 * *Lycopersicon esculentum* Mill. - tomato cv. Marmande - wilt. Israel 1985. From T. Katan FOL1 = ATCC 66044 - Pl. Dis. 73: 800-803, 1989 - race 1 - *tomato (Katan).
10720 * *Lycopersicon esculentum* Mill. - tomato cv. Vemone - wilt. Israel 1987. From T. Katan FOL649 ← R. Cohn 649 = ATCC 66045 - race 1 - *tomato (Katan).
10826 * *Lycopersicon esculentum* Mill. - tomato cv. 837 - wilt. Israel 1986. From T. Katan FOL355 ← R. Cohn 355 = ATCC 66046 - race 2 - *tomato (Katan).
- Fusarium oxysporum** Schlechtendal f. sp. **melongenae** Matuo & Ishogami
10419 * *Solanum melongena* L. var. *esculentum* Nees - eggplant - wilt. Israel 1987. From T. Katan FOMG-750 ← R. Cohn 750 = ATCC 66056 - *eggplant (Katan).
- Fusarium oxysporum** Schlechtendal f. sp. **melonis** Snyder & Hansen
8357 NZ Nov 1983. From G.J. Samuels 83-493 ← K.R.W. Hammett.
10229 *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon - vascular wilt. Waimauku, AK, NZ Jan 1990. From P.G. Broadhurst F295.
10414 * *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon cv. Ein Dor - wilt. Israel 1989. From T. Katan FOM-ED9 - race 0 - *muskmelon (Katan).
10415 * *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon cv. Eden - wilt. Israel 1989. From T. Katan FOM-KNH ← R. Cohn - Phytoparasitica 17: 319-322, 1989 - race 1,2 - *muskmelon (Katan).
10416 * *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon cv. Eden - wilt. Israel 1988. From T. Katan FOM-RM2 ← R. Cohn RM2 - Phytoparasitica 17: 319-322, 1989 - race 2 - *muskmelon (Katan).
10417 * *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon cv. Ein-Dor - wilt. Israel 1986. From T. Katan FOM-318 ← R. Cohn 318 = ATCC 66052 - Phytoparasitica 17: 319-322, 1989 - race 0 - *muskmelon (Katan).
10418 * *Cucumis melo* L. var. *reticulatus* Ser. - muskmelon - wilt. Israel 1987. From T. Katan FOM-1451 ← R. Cohn 1451 - Phytoparasitica 17: 319-322, 1989 - race 1 - *muskmelon (Katan).
- Fusarium oxysporum** Schlechtendal f. sp. **narcissi** Snyder & Hansen
5161 *Narcissus* sp. - narcissus. Marton, WI, NZ Feb 1964. From J.M. Dingley 6411.
5169 *Narcissus* sp. - daffodil. Tauranga, BP, NZ Feb 1964. From J.M. Dingley 6627.
5205 *Narcissus* sp. - daffodil. Tauranga, BP, NZ Feb 1964. From J.M. Dingley 6628 = PDD 25228.
- Fusarium oxysporum** Schlechtendal f. sp. **niveum** (E.F. Smith) Snyder & Hansen
5216 *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon. Kaitaia, ND, NZ Dec 1966. From J.M. Dingley 66172 = PDD 25810.
10420 * *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon - wilt. Israel 1986. From T. Katan FON-AA-0 ← S. Freeman AA-0 = ATCC 66054 - Pl. dis. 73: 800-803, 1989 - *watermelon (Katan).
10721 * *Citrullus lanatus* (Thunb.) Matsum. & Nakai - watermelon cv. Odem - stem. Israel 1986. From T. Katan FON7 ← R. Cohn 7 - *watermelon (Katan).
- Fusarium oxysporum** Schlechtendal f. sp. **perniciosum** (Hepting) Toole
11349 *Albizia julibrissin* Durazz. - wilt. USA. From J. Rees-George ← ATCC 24566 ← R.J. Stipes F13.
11347 *Albizia* sp. - mimosa - wilt. From J. Rees-George ← ATCC 12282 ← W.F. Jeffers.
- Fusarium oxysporum** Schlechtendal f. sp. **pisi** (van Hall) Snyder & Hansen
3746 *Pisum sativum* L. - garden pea - root. USA. From J.B. Taylor F23 ← W.C. Snyder - **ex Type specimen**.
5185 *Pisum sativum* L. - garden pea - seed. Palmerston North, WI, NZ Dec 1965. From J.M. Dingley 65228 = PDD 25273.
- Fusarium oxysporum** Schlechtendal f. sp. **redolens** (Wollenweber) Gordon
5159 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From J.M. Dingley 6525.
5165 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From J.M. Dingley 6528.
4846 *Asparagus officinalis* L. - asparagus. Hawkes Bay, HB, NZ Dec 1971. From J.M. Dingley 7183 = PDD 34758.
4848 *Asparagus officinalis* L. - asparagus - root. Hawkes Bay, HB, NZ Jan 1972. From J.M. Dingley 722 = PDD 34758.
4868 *Asparagus officinalis* L. - asparagus. Auckland, AK, NZ Jun 1971. From J.M. Dingley 7165.
4869 *Asparagus officinalis* L. - asparagus - crown. Hastings, HB, NZ Jan 1972. From J.M. Dingley 7210.
4902 *Asparagus officinalis* L. - asparagus - stem beneath scale. NZ Jan 1972. From J.M. Dingley 7214.
4906 *Asparagus officinalis* L. - asparagus - root. Hastings, HB, NZ Jan 1972. From J.M. Dingley 729.
5133 *Asparagus officinalis* L. - asparagus - root. Hawkes Bay, HB, NZ Jan 1972. From J.M. Dingley 7215.
5234 *Dianthus caryophyllus* L. - carnation - stem base. Auckland, AK, NZ Nov 1974. From J.M. Dingley 7471 = PDD 32793.
5643 *Phaseolus* sp. - bean. Otara, AK, NZ Dec 1972. From J.M. Dingley 7311.
5145 *Solanum tuberosum* L. - potato - tuber. Auckland, AK, NZ Oct 1961. From J.M. Dingley 6111.
3747 Germany. From J.B. Taylor F24 ← W. Gerlach - **ex Type specimen**.

Fusarium oxysporum Schlechtendal f. sp. **vasinfectum** (Atk.) Snyder & Hansen

- 10454 * *Gossypium barbadense* L. - sea island cotton cv. Pima S-5 - wilt. Israel 1986. From T. Katan FOV-CT20 - Phytopath. 78: 852-855, 1988 - race 3 - *cotton (Katan).
 10455 * *Gossypium barbadense* L. - sea island cotton cv. Pima S-5 - wilt. Israel 1986. From T. Katan FOV-MH4 - Phytopath. 78: 852-855, 1988 - race 3 - *cotton (Katan).
 10456 * *Gossypium barbadense* L. - sea island cotton cv. Pima S-5 - wilt. Israel 1985. From T. Katan FOV-ND = ATCC 66041 - Phytopath. 78: 852-855, 1988 - race 3 - *cotton (Katan).
 10722 * *Gossypium barbadense* L. - sea island cotton cv. Pima S-5 - wilt. Israel 1986. From T. Katan FOV348 ← R. Cohn 348 - Phytopath. 78: 852-855, 1988 - race 3 - *cotton (Katan).

Fusarium oxysporum Schlechtendal f. sp. **zingiber**

- 6664 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
 6665 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.

Fusarium poae (Peck) Wollenweber

- 10502 *Avena sativa* L. - oat - seed. NZ. From G. Laundon 11989 ← Victoria University 277 = IMI 157615.
 2040 *Dianthus caryophyllus* L. - carnation. Nelson, NN, NZ Jul 1967. From G.F. Laundon LEV 1528B.
 10503 *Dianthus caryophyllus* L. - carnation. Auckland, AK, NZ Apr 1983. From G. Laundon 21195 ← Plant Health and Diagnostic Service.
 8837 *Siteroptes avenae* (Muller) - mite - spore sac. Lincoln, MC, NZ Apr 1985. From E.H.C. McKenzie.
 8851 *Zea mays* L. - maize. Palmerston North, WI, NZ May 1984. From H. Hussein 3.
 8136 From J.B. Taylor F104 ← IMI 128054.

Fusarium proliferatum (Matsushima) Nirenberg

- 10062 *Carica papaya* L. - pawpaw, papaya - fruit rot. American Samoa. From P.G. Broadhurst F235 ← E.H.C. McKenzie.

Fusarium redolens Wollenweber

- 10504 *Asparagus officinalis* L. - asparagus. From G. Laundon 17200 ← W. Gerlach 62-380.
 10505 *Daucus carota* L. var. *sativus* Hoffm. - carrot. From G. Laundon 17201 ← W. Gerlach 62-382.
 10506 *Dianthus caryophyllus* L. - carnation. From G. Laundon 17202 ← W. Gerlach 62-378.
 10507 From G. Laundon 17204 ← IMI 250086.

Fusarium reticulatum Montagne

- 10508 Australia May 1981. From G. Laundon 18123 ← Burgess F94P.

Fusarium sacchari (Butler) W. Gams

- 7879 *Cymbidium* sp. NZ Nov 1982. From G.J. Samuels ← R.A. Fullerton 8232.
 7878 *Musa* sp. - banana. Cook Is. Jul 1982. From G.J. Samuels ← R.A. Fullerton 8202.

Fusarium sambucinum Fuckel var. **coeruleum** Wollenweber

- 10509 *Triticum aestivum* L. - wheat. 1979. From G. Laundon 15233.

Fusarium semitectum Berkeley & Ravenel

- 6263 *Ananas comosus* (L.) Merr. - pineapple. Cook Is. 1978. From P.R. Johnston.
 10512 *Capsicum* sp. - fruit. Tonga Jun 1977. From G. Laundon 11873.
 10513 *Capsicum* sp. - fruit. Fiji Jul 1977. From G. Laundon 11926c.
 5651 *Cucurbita maxima* Duch. - pumpkin. NZ Aug 1974. From J.M. Dingley 7458 ← B.T. Hawthorne.
 2027 *Dianthus caryophyllus* L. - carnation. New Plymouth, TK, NZ. From G.F. Laundon LEV 1398D.
 5135 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Naumai, ND, NZ Nov 1960. From J.M. Dingley 6041.
 5194 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Naumai, ND, NZ Jun 1961. From J.M. Dingley 6156.
 2064 *Lycopersicon esculentum* Mill. - tomato - fruit. Aug 1967. From G.F. Laundon LEV 1588.
 10514 *Monstera* sp. - seeds. Brazil Sep 1977. From G. Laundon 12210.
 5131 *Montanoa* sp. Auckland, AK, NZ Jun 1958. From J.M. Dingley 5838 = PDD 18554.
 7880 *Musa* sp. - banana. Cook Is. Apr 1982. From G.J. Samuels ← R.A. Fullerton 8202.
 7881 *Musa* sp. - banana. Cook Is. Apr 1982. From G.J. Samuels ← R.A. Fullerton 8203.
 10510 *Musa* sp. - fruit rot. Equador Apr 1977. From G. Laundon 11731.
 10511 *Musa* sp. - fruit rot. Equador May 1977. From G. Laundon 11787.
 10349 * *Persea americana* Mill. - avocado cv. Hass - fruit rot. Tauranga, BP, NZ Jan 1990. From W.F.T. Hartill = Broadbent F205 - *avocado (Hartill).
 5294 *Zea mays* L. - maize - stem. Seadown, SC, NZ Mar 1971. From J.M. Dingley 7155.
 2220 Te Kopuru, ND, NZ Mar 1968. From J.M. Dingley 6836 = PDD 34769.
 5154 Sewage. Mangere, AK, NZ Jun 1962. From J.M. Dingley 6214.
 10515 From G. Laundon 21735.

Fusarium solani (Martius) Saccardo

see *Nectria haematococca*.

Fusarium solani (Martius) Saccardo var. **coeruleum** (Libert ex Saccardo) Booth

- 2490 *Solanum tuberosum* L. - potato. Taumarānui, TO, NZ Oct 1968. From J.M. Dingley 68127.
 5116 *Solanum tuberosum* L. - potato - tuber. Auckland, AK, NZ Aug 1976. From J.M. Dingley 763.
 10473 *Solanum tuberosum* L. - potato - tuber rots. Opiki, WN, NZ Sep 1977. From G. Laundon 12235c - rec. as *F. coeruleum*.

Fusarium solani (Martius) Saccardo f. sp. **cucurbitae** Snyder & Hansen

- 12899 *Cucurbita maxima* Duch. - crown prince pumpkin - basal rot of stem. Pukekohe, AK, NZ Jan 1996. From P.G. Broadhurst F569 - race 1.

Fusarium solani (Martius) Saccardo f. sp. **eumartii** (Carpenter) Snyder & Hansen

- 5251 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka. Papakura, AK, NZ Jun 1958. From J.M. Dingley 5850.
 5250 *Macropiper excelsum* (Forst.f.) Miq. - kawakawa, pepper tree. Karekare, AK, NZ Jun 1958. From J.M. Dingley 5849 = PDD 13487.
 5276 *Meliclytus ramiflorus* J.R. & G. Forst. - mahoe - dead wood. NZ Jul 1972. From J.M. Dingley 7279.
 5199 *Phaseolus* sp. - bean. Auckland, AK, NZ Dec 1966. From J.M. Dingley 66173 = PDD 25805.
 5246 *Pinus* sp. Rotorua, BP, NZ Jun 1959. From J.M. Dingley 5955.
 5247 *Schefflera digitata* J.R. & G. Forst. - pate, five-finger. Huia, AK, NZ Mar 1958. From J.M. Dingley 5862.
 5257 *Sophora microphylla* Ait. - kowhai. Piha, AK, NZ Dec 1970. From J.M. Dingley 7091.

Fusarium solani (Martius) Saccardo f. sp. **mori** Sakurai & Matuo

- 9789 *Morus* sp. - mulberry - branch. From ATCC 18689 ← T. Matuo 217-5 - mating type MF-.
 9798 *Morus* sp. - mulberry - branch. From ATCC 18688 ← T. Matuo 217-20 - mating type MF+.

Fusarium solani (Martius) Saccardo f. sp. **phaseoli** (Burkholder) Snyder & Hansen

- 9794 *Phaseolus* sp. - kidney bean. From ATCC 42361 ← N. Matsuyama SUF386 ← T. Matsuo.
 9793 *Phaseolus vulgaris* L. - bean. From ATCC 38466 ← H.D. Van Etten T-162.
 9786 From ATCC 13719 ← W.C. Snyder 56.
 9792 Bean. From ATCC 38135 ← L.A. Hadwiger W-8 ← D.W. Burke.

Fusarium solani (Martius) Saccardo f. sp. **pisi** (Jones) Snyder & Hansen

- 7047 *Pisum sativum* L. - garden pea - root. Hawkes Bay, HB, NZ Dec 1974. From M.C.T. Trought ← S.A. Menzies 4139.

- 8578 * *Pisum sativum* L. - pea cv. Greenfeast - roots, stem base. Auckland, AK, NZ 1973. From S.A. Menzies 419 ← J.M. Dingley 731J - *pea.
 9785 *Pisum sativum* L. - garden pea. From ATCC 42973 ← T. Denny T-30 ← J.M. Kraft RR-5.
 9775 Pea - stem. From ATCC 14523 ← W.C. Snyder - J. Agric. Res. 26: 459-476, 1923.
 9780 Pea. From ATCC 38136 ← L.A. Hadwiger P-A ← R.J. Cook - Physiol. pl. path. 12: 63-72, 1978.
 9781 Pea. From ATCC 38467 ← H.D. Van Etten T-8.
 9782 Pea. From ATCC 42355 ← N. Matsuyama F1-10-1 ← T. Matsuo.
 9783 Pea. From ATCC 42364 ← T. Matsuo SUF654.
 9784 Pea. From ATCC 42365 ← N. Matsuyama SUF11-7 ← T. Matsuo.

Fusarium solani (Martius) Saccardo f. sp. **robiniae** Matuo & Sakurai

- 9778 *Robinia pseudoacacia* L. - black locust. From ATCC 18692 ← T. Matuo 578 ← T. Kobayashi.
 9791 *Robinia pseudoacacia* L. - black locust. From ATCC 18693 ← T. Matuo 577 ← T. Kobayashi - mating type MF+.

Fusarium solani (Martius) Saccardo f. sp. **xanthoxyli** Sakurai & Matuo

- 9777 *Zanthoxylum piperitum* DC. - Japan pepper - branch. From ATCC 18690 ← T. Matuo XV-23.
 9790 *Zanthoxylum piperitum* DC. - Japan pepper - branch. From ATCC 18691 ← T. Matuo 407.

Fusarium sp.

see also *Nectria decora*.

- 3763 *Fragaria X ananassa* Duch. - cultivated strawberry. Napier, HB, NZ. From J.B. Taylor F42.
 5147 *Glycine max* (L.) Merr. - soybean - root. Otara, AK, NZ Jun 1972. From J.M. Dingley 7276 = PDD 32902 - rec. as *Fusarium solani*.
 5162 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Mangere, AK, NZ Oct 1963. From J.M. Dingley 63122 - rec. as *Fusarium solani*.
 5160 *Lilium* sp. - lily. Carterton, WA, NZ Jan 1964. From J.M. Dingley 648 - rec. as *Fusarium solani*.
 2063 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor F14.
 3738 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor F11 ← F.T. Last.
 3739 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor F12 ← F.T. Last.
 5187 *Lycopersicon esculentum* Mill. - tomato - fruit. Auckland, AK, NZ Mar 1964. From J.M. Dingley 6431 - rec. as *Fusarium solani*.
 5791 *Musa X paradisiaca* L. - banana - finger stalk. Auckland, AK, NZ May 1977. From T.W. Canter-Visscher 800.
 5233 *Nicotiana tabacum* L. - tobacco - seedling. Auckland, AK, NZ Jun 1971. From J.M. Dingley 7171 - rec. as *Fusarium solani*.
 3752 *Passiflora edulis* Sims - passionfruit - root. NZ. From J.B. Taylor F29 - rec. as *Fusarium solani*.
 2093 *Passiflora* sp. - passionfruit. Western Samoa Oct 1967. From J.M. Dingley 67164.
 11046 *Persea americana* Mill. - avocado - fruit neck rot. BP, NZ Jan 1992. From P.G. Broadhurst F462 ← W.H.T. Hartill.
 3756 *Pisum sativum* L. - garden pea - root. Christchurch, MC, NZ. From J.B. Taylor F34 ← S.A. Menzies.
 3758 *Prunus armeniaca* L. - apricot - root. Mt Albert, AK, NZ. From J.B. Taylor F37.
 3765 *Prunus armeniaca* L. - apricot - root. Mt Albert, AK, NZ. From J.B. Taylor F44.
 3766 *Rosa* sp. - root. Avondale, AK, NZ. From J.B. Taylor F45.
 5236 *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ Nov 1961. From J.M. Dingley 6114 - rec. as *Fusarium solani*.
 5274 *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ Oct 1961. From J.M. Dingley 618.
 5226 *Sorghum bicolor* (L.) Moench - sorghum. Matamata, WO, NZ Feb 1969. From J.M. Dingley 6914 - rec. as *Fusarium solani*.
 3768 Soil (maize-field). NZ. From J.B. Taylor F49.
 10516 From G. Laundon 21384.
 10517 Australia May 1981. From G. Laundon 18124 ← Burgess F4909 - rec. as *Fusarium subtropicum*.

Fusarium sporotrichioides Sherbakoff

- 11357 NZ. From P.G. Broadhurst F478 ← S. Sager 202FB12.
 11358 NZ. From P.G. Broadhurst 479 ← S. Sager 273WA3.

Fusarium staphyleae Samuels & Rogerson

see *Nectria atrofusca*.

Fusarium stilboides Wollenweber

see *Gibberella stilboides*.

Fusarium subglutinans (Wollenweber & Reinking) Nelson, Toussoun & Makasas

- 8852 *Zea mays* L. - maize. Palmerston North, WI, NZ May 1984. From H. Hussein 7.

Fusarium sulphureum Schlechtendal

see *Gibberella cyanogena*.

Fusarium tabacinum (Beyma) W. Gams

see *Micronectriella cucumeris*.

Fusarium trichothecioides Wollenweber

- 10518 *Rumex pulcher* L. - fiddle dock - leaf spots. Levin, WN, NZ Jun 1979. From G. Laundon 15086b.
 5114 *Sechium edule* (Jacq.) Swartz - choko, chayote - fruit. Auckland, AK, NZ Aug 1976. From J.M. Dingley 765.

Fusarium tricinctum (Corda) Saccardo

see *Gibberella tricincta*.

Fusarium tumidum Sherbakoff

see *Gibberella tumida*.

Fusicladium carpophilum (Thumen) Oudemans

see *Venturia carpophila*.

Fusicoccum cajani (H. & P. Sydow & Butler) Samuels & B. Singh

see *Botryosphaeria xanthocephala*.

Fusicoccum luteum Pennycook & Samuels

- 7698 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe spot on fruit. Te Puke, BP, NZ May 1982. From S.R. Pennycook 1028.
 7813 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7926 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-6.
 7927 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-10.
 8004 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-5.
 8005 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Oct 1982. From S.R. Pennycook 1056-7.
 7928 *Malus X domestica* Borkh. - apple cv. Granny Smith - ripe rot of fruit. Auckland, AK, NZ Oct 1982. From S.R. Pennycook 1057-3.
 8006 *Malus X domestica* Borkh. - apple cv. Granny Smith - ripe rot of fruit. Kumeu, AK, NZ Oct 1982. From S.R. Pennycook 1057-5.
 8007 *Malus X domestica* Borkh. - apple - ripe rot of fruit. Kumeu, AK, NZ Oct 1982. From S.R. Pennycook 1057-6.
 8008 *Malus X domestica* Borkh. - apple cv. Granny Smith - ripe rot of fruit. Kumeu, AK, NZ Oct 1982. From S.R. Pennycook 1057-7.
 8010 *Malus X domestica* Borkh. - apple cv. Granny Smith - ripe rot of fruit. Kumeu, AK, NZ Oct 1982. From S.R. Pennycook 1057-8.
 8835 *Persea americana* Mill. - avocado - peduncle. Te Puna, BP, NZ. From M.A. Manning SRP1176.
 10316 *Persea americana* Mill. - avocado cv. Hass - fruit rot. Houhora, ND, NZ Jan 1987. From W.F.T. Hartill 42 (259).
 10317 *Persea americana* Mill. - avocado cv. Hass - pedicel lesion, ringneck. Maungawhai, AK, NZ Nov 1987. From W.F.T. Hartill 57 (288).

- 8834 *Pyrus communis* L. - pear - fruit; lenticel spots. Mt Albert, AK, NZ Feb 1984. From S.R. Pennycook SRP1130 - Mycotaxon 24: 445-458, 1985.
 9064 *Vitis vinifera* L. - grape cv. Palomino - fruit rot. Mangere, AK, NZ Apr 1986. From P.K. Buchanan 86-068 = PDD 52514.
 9065 *Vitis vinifera* L. - grape cv. Muller Thurgau - cane. Te Kauwhata, WO, NZ Oct 1986. From P.K. Buchanan 86-354 = PDD 52515.
- Fusicoccum parvum* Pennycook & Samuels
 see *Botryosphaeria parva*.
- Fusicoccum** sp.
 9692 *Knightsia excelsa* R. Br. - rewarewa - leaf tip dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
 9694 *Libocedrus plumosa* (D. Don) Sarg. - NZ incense cedar - leaf & twig dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
 9693 *Phyllocladus glaucus* Carr. - tanekaha - twig dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
 10077 *Ribes nigrum* L. - black currant - root. Levin, WN, NZ Feb 1979. From G.F. Laundon 14578.
- Ganoderma** cf. **applanatum** (Persoon) Patouillard
 12264 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Trounson Kauri Park, ND, NZ Jun 1991. From P.K. Buchanan 91-062a = PDD 63880 - single spore isolate a.
 12268 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook.f. ex Kirk - tawa? - fallen trunk. Taneatua, BP, NZ Jun 1992. From P.K. Buchanan 92-040b = PDD 63882 - single spore isolate b.
 12269 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook.f. ex Kirk - tawa? - fallen trunk. Taneatua, BP, NZ Jun 1992. From P.K. Buchanan 92-041a = PDD 63886 - single spore isolate a.
 12271 *Nothofagus?* sp. - beech - dead standing trunk. Berwick, DN, NZ Sep 1991. From P.K. Buchanan 91-144b = PDD 60991 - single spore isolate b.
 12267 *Pinus radiata* D. Don - radiata pine - stump. Riverhead Forest, AK, NZ Sep 1991. From P.K. Buchanan 91-089e = PDD 63881 - single spore isolate e.
 12265 NZ native tree - fallen wood. Waipoua Forest, ND, NZ Jun 1991. From P.K. Buchanan 91-072a = PDD 63884 - single spore isolate a.
 12266 Fallen oak or poplar. Newmarket, AK, NZ Apr 1991. From P.K. Buchanan 91-004b = PDD 63887 - single spore isolate b.
 12270 Log at garden edge. Botanic Gardens, Dunedin, DN, NZ Sep 1991. From P.K. Buchanan 91-141a = PDD 63879 - single spore isolate a.
- Ganoderma** sp.
 12051 China. From X.Z. Ren GA ← Y.X. Chen.
- Geotrichum candidum* Link
 see *Endomyces geotrichum*.
- Geotrichum** sp.
 11497 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless xylem. Te Puke, BP, NZ. From P.R. Johnston 87.
- Gibberella acuminata** Booth
 anam. *Fusarium acuminatum* Ellis & Everhart
 10526 *Malus X domestica* Borkh. - apple. Hastings, HB, NZ May 1983. From G. Laundon 21215.
 10525 *Rubus fruticosus* L. - blackberry - fruit. Levin, WN, NZ Mar 1983. From G. Laundon 21060.
 10522 *Sporobolus africanus* (Poir.) Robyns & Tournay - rats-tail. Levin, WN, NZ Oct 1977. From G. Laundon 12263.
 10524 *Triticum aestivum* L. - wheat. 1979. From G. Laundon 15235.
 4211 *Vicia faba* L. - broad bean - stem. Blenheim, MB, NZ Oct 1975. From G.F. Laundon LEV 9852 ← P.D. Whitwell.
 8142 From J.B. Taylor F95 ← IMI 136675.
 8996 Litter in maize field. Levin, WN, NZ May 1984. From H. Hussein 165.
 10520 From G. Laundon 11019.
 10521 From G. Laundon 12175.
 10523 From G. Laundon 15234.
- Gibberella avenacea** Cook
 anam. *Fusarium avenaceum* (Corda) Saccardo
 11044 *Agrostis capillaris* L. - Egmont browntop, colonial bentgrass - leaf lesions. Auckland, AK, NZ Dec 1991. From P.G. Broadhurst F451.
 5153 *Cotula dioica* Hook.f. - cotula - stolon. Kilbirnie, WN, NZ Mar 1975. From J.M. Dingley 766 ← M.J. Christensen.
 5184 *Cucumis sativus* L. - cucumber. Auckland, AK, NZ Feb 1964. From J.M. Dingley 649.
 12038 *Cytisus scoparius* (L.) Link - broom. BP, NZ Jan 1992. From P.R. Johnston B92 = herb. PDD 59753.
 12039 *Cytisus scoparius* (L.) Link - broom. Wairakei, TO, NZ Jul 1992. From P.R. Johnston B128 = herb. PDD 60521.
 12044 *Cytisus scoparius* (L.) Link - broom. Reefton, BR, NZ Feb 1992. From P.R. Johnston B98 = herb. PDD 59955.
 12063 *Cytisus scoparius* (L.) Link - broom. Tokoroa, BP, NZ Jan 1992. From P.R. Johnston B109.
 12585 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Canterbury, NZ Nov 1995. From P.G. Broadhurst ← K. Knight 2085-1 - single spore isolate.
 12586 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Canterbury, NZ Nov 1995. From P.G. Broadhurst ← K. Knight 2085-2 - single spore isolate.
 2065 *Dianthus caryophyllus* L. - carnation - leaf. Christchurch, MC, NZ Aug 1967. From G.F. Laundon LEV 1595B.
 10088 *Dianthus caryophyllus* L. - carnation - stem. Auckland, AK, NZ 1986. From P.G. Broadhurst - single spore isolate.
 8711 *Dianthus* sp. - carnation - lower leaf bases. Drury, AK, NZ Feb 1984. From W.F.T. Hartill.
 8712 *Dianthus* sp. - carnation - lower leaf bases. Drury, AK, NZ Feb 1984. From W.F.T. Hartill.
 5243 *Fragaria X ananassa* Duch. - cultivated strawberry. Auckland, AK, NZ Jan 1960. From J.M. Dingley 6012.
 2527 *Juniperus communis* L. var. *depressa* Pursh - ground juniper. Hamilton, WO, NZ May 1968. From J.M. Dingley 6885.
 10286 *Lens culinaris* Medic. - lentil - root rot. Blenheim, MB, NZ 1987. From P.G. Broadhurst F230.
 10527 *Malus X domestica* Borkh. - apple - branch. Upper Moutere, NN, NZ Oct 1976. From G. Laundon 11022.
 10528 *Malus X domestica* Borkh. - apple - fruit. Motueka, NN, NZ. From G. Laundon 11706.
 7744 *Narcissus* sp. - narcissus - bulb rot. Auckland, AK, NZ Jul 1977. From G.I. Robertson P237.
 10287 *Poa annua* L. - annual meadowgrass - roots. Wellington, WN, NZ Feb 1990. From P.G. Broadhurst F304.
 9333 *Prunus persica* (L.) Batsch - peach cv. Golden Queen - fruit lesion. Kumeu, AK, NZ Apr 1987. From P.G. Broadhurst PGB-F65 ← W.F.T. Hartill.
 10530 *Prunus persica* (L.) Batsch - fruit. Levin, WN, NZ Mar 1978. From G. Laundon 13063.
 2203 *Secale cereale* L. - ryegrass. Taupo, TO, NZ Feb 1968. From J.M. Dingley 6819 = PDD 26240.
 10529 *Sporobolus africanus* (Poir.) Robyns & Tournay - rats-tail. Levin, WN, NZ Oct 1977. From G. Laundon 12263b.
 10531 *Trifolium repens* L. - white clover - roots. Hastings, HB, NZ Nov 1979. From G. Laundon 15822b.
 11863 *Ulex europaeus* L. - gorse. BP, NZ Sep 1991. From P.R. Johnston G114.
 11864 *Ulex europaeus* L. - gorse. WD, NZ Mar 1992. From P.R. Johnston G233.
 12045 *Ulex europaeus* L. - gorse. Haast Beach, WD, NZ Mar 1992. From P.R. Johnston G237 = herb. PDD 60135.
 12046 *Ulex europaeus* L. - gorse. SL, NZ 1992. From P.R. Johnston G296 = herb. PDD 62559.
 4907 *Zea mays* L. - maize - cob husk. Pukekohe, AK, NZ Mar 1972. From J.M. Dingley 7235 = PDD 32892.
 5218 *Zea mays* L. - maize. Auckland, AK, NZ Mar 1969. From J.M. Dingley 6937.
 8860 *Zea mays* L. - maize. Levin, WN, NZ Jul 1984. From H. Hussein 140.
 3755 Wool. Christchurch, MC, NZ. From J.B. Taylor F32 ← A.P. Mulcock.
 4912 Grass. Hamilton, WO, NZ Jan 1959. From J.M. Dingley 5938.
 5237 Grass. Claudelands, WO, NZ Jan 1961. From J.M. Dingley 6122.
 8029 From J.B. Taylor F96 ← IMI 144747.
 10471 From G. Laundon 11699.

Gibberella baccata (Wallroth) Saccardoanam. *Fusarium lateritium* Nees

- 11498 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - bark. Te Puke, BP, NZ. From P.R. Johnston 86.
 10482 *Citrus sinensis* (L.) Osbeck - sweet orange - fruit. Auckland, AK, NZ Aug 1976. From G. Laundon 10851c.
 5288 *Cortaderia* sp. - toetoe. Turangi, TO, NZ Oct 1969. From J.M. Dingley 6997.
 8026 *Cortaderia* sp. - toetoe. Urewera Ranges, GB, NZ Mar 1982. From G.J. Samuels 82-298.
 12040 *Cytisus scoparius* (L.) Link - broom. Wairakei, TO, NZ Jul 1992. From P.R. Johnston B130 = herb. PDD 605204.
 12041 *Cytisus scoparius* (L.) Link - broom. Wairakei, TO, NZ Jul 1992. From P.R. Johnston B135 = herb. PDD 60523.
 5193 *Dianthus caryophyllus* L. - carnation. Auckland, AK, NZ Jun 1959. From J.M. Dingley 5924.
 7745 *Freesia* sp. - leaves discoloured. Waimauku, AK, NZ Aug 1977. From G.I. Robertson P265.
 12523 *Ileostylis micranthus* (Hook.f.) Tiegh. - mistletoe - haustorium. Every Reserve, CO, NZ Jun 1995. From P.R. Johnston ← G. Loh = PDD 64854.
 10532 *Juglans* sp. - dieback. Auckland, AK, NZ Sep 1978. From G. Laundon 13718.
 5297 *Lupinus arboreus* Sims - tree lupin. Piha, AK, NZ Oct 1962. From J.M. Dingley 6233.
 5410 *Lupinus arboreus* Sims - tree lupin. Piha, AK, NZ Jul 1965. From J.M. Dingley 65160.
 5219 *Mellilotus* sp. - sweet clover. NZ Sep 1969. From J.M. Dingley 6999.
 1799 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Sep 1962. From J.M. Dingley 6218.
 5217 *Passiflora edulis* Sims - passionfruit. Matakana, AK, NZ Mar 1966. From J.M. Dingley 6673.
 5299 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Sep 1962. From J.M. Dingley 6230.
 5661 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ Sep 1972. From J.M. Dingley 72116.
 9448 *Passiflora edulis* Sims - passionfruit - stem. Mt Albert, AK, NZ Nov 1980. From G.I. Robertson P307.
 9449 *Passiflora edulis* Sims - passionfruit - stem. Mt Albert, AK, NZ Nov 1980. From G.I. Robertson P311.
 12131 *Prunus persica* (L.) Batsch - peach cv. Golden Queen - roots & crown. Hawkes Bay, HB, NZ Aug 1994. From P.G. Broadhurst ← G. Tate.
 5455 *Solanum tuberosum* L. - potato - tuber. Auckland, AK, NZ Aug 1976. From J.M. Dingley 762.
 11867 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G52.
 11868 *Ulex europaeus* L. - gorse. DN, NZ Oct 1991. From P.R. Johnston G182.
 8855 *Zea mays* L. - maize. Palmerston North, WI, NZ May 1984. From H. Hussein 129.
 8033 From J.B. Taylor ← IMI 134593.
 10483 From G. Laundon 21390.

Gibberella cyanogena (Desmazières) Saccardosyn. *Gibberella saubinetii* (de Durieu & Montagne) Saccardoanam. *Fusarium sulphureum* Schlechtendal

- 10537 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - stem lesions. Hastings, HB, NZ Jan 1982. From G. Laundon 19019.
 5447 *Ammophila arenaria* (L.) Link - marram grass - stem. Piha, AK, NZ Jul 1967. From J.M. Dingley 67136.
 5448 *Ammophila arenaria* (L.) Link - marram grass. Piha, AK, NZ Jul 1967. From J.M. Dingley 67122.
 5449 *Ammophila arenaria* (L.) Link - marram grass - stem. Piha, AK, NZ Jul 1967. From J.M. Dingley 67120A.
 5519 *Ammophila arenaria* (L.) Link - marram grass. Piha, AK, NZ Jul 1967. From J.M. Dingley 67130.
 5507 *Cucurbita maxima* Duch. - pumpkin. Auckland, AK, NZ 1962. From J.M. Dingley 621.
 5545 *Cucurbita maxima* Duch. - pumpkin - skin. Auckland, AK, NZ Jun 1972. From J.M. Dingley 7281 ← T.W. Canter-Visscher.
 10538 *Cucurbita maxima* Duch. - pumpkin - fruit rot. Levin, WN, NZ Mar 1983. From G. Laundon 20995a.
 5403 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Waitakere Ranges, AK, NZ Jun 1958. From J.M. Dingley 5837.
 5405 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Harihari, WD, NZ Mar 1963. From J.M. Dingley 63109.
 1746 *Passiflora edulis* Sims - passionfruit - one-year-old wood. NZ Dec 1966. From J.M. Dingley 66138A.
 1749 *Passiflora edulis* Sims - passionfruit - tip die-back. Mt Albert, AK, NZ Dec 1966. From J.M. Dingley 66141D.
 1750 *Passiflora edulis* Sims - passionfruit - basal lesion. Mt Albert, AK, NZ Dec 1966. From J.M. Dingley 66142E.
 1751 *Passiflora edulis* Sims - passionfruit - basal lesion. Auckland, AK, NZ Oct 1966. From J.M. Dingley 66143.
 1752 *Passiflora edulis* Sims - passionfruit - lateral shoot. Mt Albert, AK, NZ Oct 1966. From J.M. Dingley 66144.
 1753 *Passiflora edulis* Sims - passionfruit - lateral shoot. Mt Albert, AK, NZ Nov 1966. From J.M. Dingley 66145.
 1754 *Passiflora edulis* Sims - passionfruit - one-year-old wood. Mt Albert, AK, NZ Nov 1966. From J.M. Dingley 66146.
 1755 *Passiflora edulis* Sims - passionfruit - one-year-old wood. Mt Albert, AK, NZ Dec 1966. From J.M. Dingley 66147J.
 1789 *Passiflora edulis* Sims - passionfruit - one-year-old wood. Mt Albert, AK, NZ Nov 1966. From J.M. Dingley 66151.
 1790 *Passiflora edulis* Sims - passionfruit - one-year-old wood. Mt Albert, AK, NZ Nov 1966. From J.M. Dingley 66152.
 1793 *Passiflora edulis* Sims - passionfruit - one-year-old wood. Mt Albert, AK, NZ. From J.M. Dingley 66155.
 2084 *Passiflora edulis* Sims - passionfruit - crown canker. Mt Albert, AK, NZ Oct 1967. From J.M. Dingley 67150.
 10533 *Solanum tuberosum* L. - potato - tuber rots. Auckland, AK, NZ Jul 1974. From G. Laundon 8528.
 10534 *Solanum tuberosum* L. - potato - tuber rots. Featherston, WA, NZ Oct 1976. From G. Laundon 11059.
 10535 *Solanum tuberosum* L. - potato - tuber rots. Opiki, NZ Sep 1977. From G. Laundon 12235b.
 1756 *Vitis vinifera* L. - grape - stem. Auckland, AK, NZ Dec 1966. From J.M. Dingley 66148K.
 1757 *Vitis vinifera* L. - grape - stem. Mt Albert, AK, NZ Nov 1966. From J.M. Dingley 66149.
 10536 Australia May 1981. From G. Laundon 18122 ← Burgess F4450.

Gibberella flacca (Wallroth) Saccardo

- 1709 *Amaranthus* sp. Auckland, AK, NZ 1958. From J.M. Dingley 5840 = PDD 12249.

Gibberella fujikuroi (Sawada) Wollenweberanam. *Fusarium moniliforme* Sheldon

- 5191 *Allium cepa* L. - onion. Pukekohe, AK, NZ Feb 1965. From J.M. Dingley 6524.
 10232 *Cymbidium* sp. - orchid - leaf rot at base. Mangere, AK, NZ Jan 1990. From P.G. Broadhurst F307.
 10234 *Cymbidium* sp. - orchid - leaf rot at base. Mangere, AK, NZ Jan 1990. From P.G. Broadhurst F298.
 2025 *Dianthus caryophyllus* L. - carnation. Nelson, NN, NZ Apr 1967. From G.F. Laundon LEV 1386B.
 5646 *Hordeum vulgare* L. - barley - stem base. Mt Albert, AK, NZ Aug 1973. From J.M. Dingley 7365.
 10539 *Odontoglossum* sp. - leaf spots. Waitara, TK, NZ May 1976. From G. Laundon 10706.
 5201 *Oryza sativa* L. - rice. Te Puke, BP, NZ Mar 1967. From J.M. Dingley 6761.
 5224 *Oryza sativa* L. - rice. Auckland, AK, NZ Mar 1969. From J.M. Dingley 6945.
 5252 *Oryza sativa* L. - rice. Te Puke, BP, NZ Jan 1969. From J.M. Dingley 6912.
 2264 *Passiflora edulis* Sims - passionfruit. Kerikeri, ND, NZ May 1968. From J.M. Dingley 6876.
 5152 *Pinus radiata* D. Don - radiata pine. Monterey pine. Rotorua, BP, NZ Jun 1972. From J.M. Dingley 7273 = PDD 34761.
 5241 *Solanum tuberosum* L. - potato - tuber. Pukekohe, AK, NZ Nov 1961. From J.M. Dingley 6113.
 5151 *Zea mays* L. - maize - stem. NZ Jun 1972. From J.M. Dingley 7278 = PDD 32900.
 8854 *Zea mays* L. - maize. Palmerston North, WI, NZ Jun 1984. From H. Hussein 123.
 10541 *Zea mays* L. - maize - seed. South Africa Aug 1978. From G. Laundon 13579.
 5645 Orchid - leaf. NZ Dec 1972. From J.M. Dingley 739 ← C.H. Procter.
 8134 From J.B. Taylor F102 ← IMI 158047.
 10540 Orchid - leafspots. Hastings, HB, NZ Aug 1977. From G. Laundon 11900.

Gibberella fujikuroi (Sawada) Wollenweber var. *subglutinans* Edwardsanam. *Fusarium moniliforme* Sheldon var. *subglutinans* Wollenweber & Reinking

- 4910 *Asparagus officinalis* L. - asparagus - crown. Hastings, HB, NZ Jan 1972. From J.M. Dingley 7216.

- 4911 *Asparagus officinalis* L. - asparagus - crown. Hastings, HB, NZ Jan 1972. From J.M. Dingley 7211.
 5129 *Asparagus officinalis* L. - asparagus - stem base. Hastings, HB, NZ Jan 1972. From J.M. Dingley 7213.
 5137 *Asparagus officinalis* L. - asparagus - crown. Hastings, HB, NZ Jan 1972. From J.M. Dingley 7212.
 10231 *Cymbidium* sp. - orchid - leaf rot at base. Mangere, AK, NZ. From P.G. Broadhurst F296.
 10233 *Cymbidium* sp. - orchid - leaf rot at base. Mangere, AK, NZ. From P.G. Broadhurst F297.
 5260 *Gladiolus* sp. - gladiolus. Levin, WN, NZ Sep 1970. From J.M. Dingley 7067.
 5212 *Iris* sp. - bulb. Auckland, AK, NZ Dec 1964. From J.M. Dingley 64166.
 5203 *Oryza sativa* L. - rice. Te Puke, BP, NZ Mar 1967. From J.M. Dingley 6760 = PDD 26146.
 5650 *Pinus* sp. Rotorua, BP, NZ Sep 1973. From J.M. Dingley 7377.
 5214 *Zea mays* L. - maize. Auckland, AK, NZ Mar 1969. From J.M. Dingley 6936.
 5662 *Zea mays* L. - maize. NZ Jun 1972. From J.M. Dingley 7277 ← R.A. Fullerton.
 6666 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
 6667 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.

***Gibberella gordonii* Booth**anam. *Fusarium heterosporum* Nees

- 5655 Ergot on *Lolium perenne* L. - perennial ryegrass. Waitangi, ND, NZ Feb 1972. From J.M. Dingley 7229.
 5156 Ergot on *Paspalum dilatatum* Poir. - dallisgrass, paspalum. Mt Albert, AK, NZ May 1973. From J.M. Dingley 7350 = PDD 30823.
 4694 *Lolium* sp. - ryegrass - seed head. Marton, WI, NZ Feb 1976. From G.F. Laundon 10301.
 10542 *Lolium* sp. - head blight. Marton, WI, NZ Feb 1976. From G. Laundon 10301.
 10543 *Lycopersicon esculentum* Mill. - tomato - roots. Levin, WN, NZ Dec 1980. From G. Laundon 17474.
 5427 *Paspalum* sp. - paspalum. Auckland, AK, NZ Jun 1968. From J.M. Dingley 6899.
 11686 On *Claviceps* sp. on sedge. Chatham Is., NZ. From P.R. Johnston C262.

***Gibberella intricans* Wollenweber**anam. *Fusarium equiseti* (Corda) Saccardo

- 1689 *Arundo* sp. Piha, AK, NZ 1958. From J.M. Dingley 5841 = PDD 14630.
 10544 *Asparagus* sp. - crown and roots. Motueka, NN, NZ Nov 1976. From G. Laundon 11162.
 10545 *Asparagus* sp. - roots. Hastings, HB, NZ Sep 1978. From G. Laundon 13627.
 10547 *Asparagus* sp. - roots. Hastings, HB, NZ Nov 1979. From G. Laundon 15803c.
 10546 *Beta vulgaris* L. - red beet - roots. Hastings, HB, NZ Apr 1979. From G. Laundon 14731b.
 10061 *Carica papaya* L. - pawpaw, papaya - fruit rot. American Samoa. From P.G. Broadhurst F234 ← E.H.C. McKenzie.
 5440 *Cortaderia conspicua* (Forst.f.) Stapf - toetoe. Little Wanganui, WD, NZ May 1963. From J.M. Dingley 63113 = PDD 23582.
 5413 *Cortaderia fulvida* (Buchan.) Zotov - toetoe. Waimarino, Turangi, TO, NZ. From J.M. Dingley 7057.
 5409 *Cortaderia richardii* (Endl.) Zotov - toetoe. Ashley Gorge, NC, NZ May 1963. From J.M. Dingley 63112.
 1955 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6715.
 1956 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6716.
 1957 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6717.
 1958 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6718.
 1959 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6719.
 1960 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6720.
 1961 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6721.
 1962 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6722.
 1963 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6723.
 1964 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6724.
 1965 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6725.
 1967 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6726.
 1968 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6727.
 1970 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6729.
 1971 *Cortaderia* sp. - toetoe. Piha, AK, NZ Jan 1967. From J.M. Dingley 6730.
 5408 *Cortaderia* sp. - toetoe. Tararua Ranges, WN, NZ Feb 1972. From J.M. Dingley 7231.
 2024 *Dianthus caryophyllus* L. - carnation. New Plymouth, TK, NZ May 1967. From G.F. Laundon LEV 1398B.
 5245 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect on kiwifruit. Tauranga, BP, NZ Apr 1975. From J.M. Dingley 753.
 5296 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Tiirangi, AK, NZ Mar 1963. From J.M. Dingley 63110 = PDD 23140.
 9700 * *Persea americana* Mill. - avocado cv. Hass - ripe fruit. Te Puna, BP, NZ Feb 1987. From W.F.T. Hartill - *avocado (Hartill).
 10350 * *Persea americana* Mill. - avocado cv. Hass - fruit rot. Tauranga, BP, NZ Jan 1989. From W.F.T. Hartill = Broadbent F202 - *avocado (Hartill).
 5404 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Piha, AK, NZ Jun 1958. From J.M. Dingley 5836.
 8850 *Zea mays* L. - maize. Levin, WN, NZ May 1984. From H. Hussein 2.
 8857 *Zea mays* L. - maize. Palmerston North, WI, NZ Jun 1984. From H. Hussein 133.
 8031 From J.B. Taylor F98 ← IMI 127561.

***Gibberella pulicaris* (Fries) Saccardo**anam. *Fusarium sambucinum* Fuckel

- 12237 *Cytisus scoparius* (L.) Link - broom. Mamaku Plateau, BP, NZ Sep 1991. From P.R. Johnston B43 ← S. Parkes.
 12238 *Cytisus scoparius* (L.) Link - broom. Lake Taupo, TO, NZ Sep 1991. From P.R. Johnston B53 ← S. Parkes.
 12239 *Cytisus scoparius* (L.) Link - broom. Tokoroa, BP, NZ Sep 1991. From P.R. Johnston B62 ← S. Parkes.
 4890 *Lolium perenne* L. - perennial ryegrass. NZ Nov 1973. From J.M. Dingley 7395.
 2099 *Lycopersicon esculentum* Mill. - tomato. Levin, WN, NZ Oct 1967. From G.F. Laundon LEV 1714B ← R.A.S. Waters K49.
 10622 *Medicago* sp. - roots. Oakura, TK, NZ May 1981. From G. Laundon 18097.
 5179 *Oryza sativa* L. - rice - seed. Te Puke, BP, NZ Mar 1971. From J.M. Dingley 7132.
 5164 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Sep 1962. From J.M. Dingley 6251C.
 5649 *Solanum quitoense* Lam. - naranjilla - fruit lesion. NZ Sep 1972. From J.M. Dingley 72117.
 10114 *Ulex europaeus* L. - gorse - tip dieback & leafspot. Northland, ND, NZ Feb 1990. From P.R. Johnston 90-1 = PDD 56837.
 10115 *Ulex europaeus* L. - gorse - tip dieback & leafspot. Northland, NZ Feb 1990. From P.R. Johnston 90-2 = PDD 56837.
 10116 *Ulex europaeus* L. - gorse. Northland, NZ Feb 1990. From P.R. Johnston 90-3 = PDD 56837.
 11869 *Ulex europaeus* L. - gorse. MB, NZ Aug 1991. From P.R. Johnston G11.
 8137 From J.B. Taylor F105 ← IMI 139152.
 8858 Litter in maize field. Palmerston North, WI, NZ Jun 1984. From H. Hussein 134.
 8995 Litter in maize field. Palmerston North, WI, NZ May 1984. From H. Hussein 164.

Gibberella saubinetii* (de Durieu & Montagne) Saccardo**see *Gibberella cyanogena*.Gibberella* sp.**

- 5431 *Coprosma areolata* Cheesem. Harihari, WD, NZ May 1963. From J.M. Dingley 63114.

***Gibberella stilboides* Gordon ex Booth**anam. *Fusarium stilboides* Wollenweber

- 10625 *Carya* sp. - nut. USA Apr 1979. From G. Laundon 14838.
 10624 *Citrus* sp. - fruit. Cook Is. Sep 1978. From G. Laundon 13641.

- 5227 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect. Tauranga, BP, NZ Feb 1974. From J.M. Dingley 7451D ← L. Fergusson 43-1.
 5229 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect. Tauranga, BP, NZ Sep 1975. From J.M. Dingley 7522B ← L. Fergusson 4-15.
 5239 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect. Tauranga, BP, NZ Feb 1974. From J.M. Dingley 7451E ← L. Fergusson 35-2.
 5268 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect. Tauranga, BP, NZ Sep 1975. From J.M. Dingley 7522E ← L. Fergusson 15-3.
 5289 *Hemiberlesia rapax* (Comst.) [Invertebrate] - greedy scale insect. Tauranga, BP, NZ. From J.M. Dingley 7522F ← L. Fergusson 15-13.
 5423 *Hemiberlesia* sp. [Invertebrate] - scale insect. Tauranga, BP, NZ Sep 1975. From J.M. Dingley 7522C ← L. Fergusson 4-21.
 7746 *Iris* sp. - bulb. Waimauku, AK, NZ Jul 1977. From G.I. Robertson P251.
 7747 *Iris* sp. - iris cv. Wedgwood - tip die-back. Waimauku, AK, NZ Aug 1977. From G.I. Robertson P252.
 7748 *Iris* sp. - leaf spot. Waimauku, AK, NZ Jul 1977. From G.I. Robertson P253.
 9450 *Passiflora edulis* Sims - passionfruit - stem. Mt Albert, AK, NZ Nov 1980. From G.I. Robertson P308.
 9451 *Passiflora edulis* Sims - passionfruit - stem. Mt Albert, AK, NZ Nov 1980. From G.I. Robertson P309.
 8993 *Zea mays* L. - maize. Palmerston North, WI, NZ Aug 1984. From H. Hussein 156.
 10623 Unidentified leaves. Samoa. From G. Laundon 10767.

Gibberella tricineta El-Gholl, McRitchie, Schoulties & Ridingsanam. *Fusarium tricinctum* (Corda) Saccardo

- 5244
- Pisum sativum*
- L. - garden pea. Auckland, AK, NZ Dec 1971. From J.M. Dingley 7181 ← J.D. Fletcher.

Gibberella tumida Broadhurst & Johnstonanam. *Fusarium tumidum* Sherbakoff

- 11549 *Cytisus scoparius* (L.) Link - broom. Kinleath, TO, NZ Sep 1991. From P.R. Johnston B47 = IMI 351951.
 11550 *Cytisus scoparius* (L.) Link - broom. Hatepe, TO, NZ Sep 1991. From P.R. Johnston B52 = IMI 351949.
 11551 *Cytisus scoparius* (L.) Link - broom. Kumara, WD, NZ Feb 1992. From P.R. Johnston B97.
 11757 *Cytisus scoparius* (L.) Link - broom. TO, NZ Sep 1991. From P.R. Johnston B51 = IMI 351949.
 11758 *Cytisus scoparius* (L.) Link - broom. Taurewa, TO, NZ Sep 1991. From P.R. Johnston B57.
 11759 *Cytisus scoparius* (L.) Link - broom. Taurewa, TO, NZ Sep 1991. From P.R. Johnston B58.
 11760 *Cytisus scoparius* (L.) Link - broom. Mamaku Plateau, BP, NZ Dec 1991. From P.R. Johnston B84.
 11761 *Cytisus scoparius* (L.) Link - broom. Mamaku Plateau, BP, NZ Dec 1991. From P.R. Johnston B86.
 12570 *Cytisus scoparius* (L.) Link - broom. Golden Downs State Forest, NN, NZ Mar 1993. From A. Howarth B144.
 12571 *Cytisus scoparius* (L.) Link - broom. Golden Downs State Forest, NN, NZ Mar 1993. From A. Howarth B145.
 12572 *Cytisus scoparius* (L.) Link - broom. Motueka, NN, NZ Mar 1993. From A. Howarth B147.
 12573 *Cytisus scoparius* (L.) Link - broom. Motueka, NN, NZ Mar 1993. From A. Howarth B148.
 12574 *Cytisus scoparius* (L.) Link - broom. Buller Gorge, BR, NZ Mar 1993. From A. Howarth B150.
 12575 *Cytisus scoparius* (L.) Link - broom. Buller Gorge, BR, NZ Mar 1993. From A. Howarth B151.
 12576 *Cytisus scoparius* (L.) Link - broom. Motueka, NN, NZ Mar 1993. From A. Howarth B152.
 12580 *Cytisus scoparius* (L.) Link - broom. Golden Downs State Forest, NN, NZ Mar 1993. From A. Howarth B154.
 11552 *Ulex europaeus* L. - gorse. WD, NZ Oct 1991. From P.R. Johnston G192.
 11553 *Ulex europaeus* L. - gorse. Harihari, WD, NZ Oct 1991. From P.R. Johnston G200.
 11554 *Ulex europaeus* L. - gorse. Whangapoua, CL, NZ Mar 1992. From P.R. Johnston G248 = PDD 11554.
 11581 *Ulex europaeus* L. - gorse - tip dieback. Thames, CL, NZ Mar 1993. From P.R. Johnston 163-2 = Herb. PDD 62183 - single ascospore isolate.
 11582 *Ulex europaeus* L. - gorse - tip dieback. Thames, CL, NZ Mar 1993. From P.R. Johnston 163-3 = Herb. PDD 62183 - single ascospore isolate.
 11583 *Ulex europaeus* L. - gorse - tip dieback. Thames, CL, NZ Mar 1993. From P.R. Johnston 163-4 = Herb. PDD 62183 - single ascospore isolate.
 11584 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 163-1 - single ascospore isolate.
 11585 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 163-6 - single ascospore isolate.
 11586 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 163-8 - single ascospore isolate.
 11587 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 163-9 - single ascospore isolate.
 11588 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-1 - single ascospore isolate.
 11589 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-2 = PDD 62184: ATCC 96385 - N.Z. Mycol. Res. 98: (7) 729-732, 1994 - single ascospore isolate - holotype.
 11590 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-4 = herb. PDD 62184 - N.Z. Mycol. Res. 98: (7) 729-732, 1994 - single ascospore isolate.
 11591 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-6 - single ascospore isolate.
 11592 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-7 - single ascospore isolate.
 11593 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-8 - single ascospore isolate.
 11594 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 166-9 - single ascospore isolate.
 11595 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-1 = herb. PDD 62186 - N.Z. Mycol. Res. 98: (7) 729-732, 1994 - single ascospore isolate.
 11596 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-2 = herb. PDD 62186 - N.Z. Mycol. Res. 98: 729-732, 1994 - single ascospore isolate.
 11597 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-3 = herb. PDD 62186 - N.Z. Mycol. Res. 98: (7) 729-732, 1994 - single ascospore isolate.
 11598 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-4 - single ascospore isolate.
 11599 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-7 - single ascospore isolate.
 11600 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-9 - single ascospore isolate.
 11601 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 167-10 - single ascospore isolate.
 11602 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-1 = herb. PDD 62185 - single ascospore isolate.
 11603 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-2 = herb. PDD 62185 - single ascospore isolate.
 11604 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-3 - single ascospore isolate.
 11605 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-4 - single ascospore isolate.
 11606 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-5 - single ascospore isolate.
 11607 *Ulex europaeus* L. - gorse - tip dieback. Coromandel, CL, NZ Mar 1993. From P.R. Johnston 168-6 - single ascospore isolate.
 11762 *Ulex europaeus* L. - gorse. Huia, AK, NZ Aug 1991. From P.R. Johnston G46 = IMI 351950.
 11763 *Ulex europaeus* L. - gorse. Russell, ND, NZ Sep 1991. From P.R. Johnston G81.
 11764 *Ulex europaeus* L. - gorse. BP, NZ Sep 1991. From P.R. Johnston G127.
 11765 *Ulex europaeus* L. - gorse. Chatham Is., NZ Nov 1991. From P.R. Johnston G212.
 11766 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Feb 1992. From P.R. Johnston G221 = herb. PDD 59748.
 11767 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Feb 1992. From P.R. Johnston G222 = herb. PDD 59748.
 11768 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Feb 1992. From P.R. Johnston G224 = herb. PDD 59747.
 11769 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Feb 1992. From P.R. Johnston G225 = herb. PDD 59747.
 11770 *Ulex europaeus* L. - gorse. Haast Beach, WD, NZ Mar 1992. From P.R. Johnston G234 = herb. PDD 60162.
 11771 *Ulex europaeus* L. - gorse. WD, NZ Mar 1992. From P.R. Johnston G244 = herb. PDD 61679.
 11772 *Ulex europaeus* L. - gorse. WD, NZ Mar 1992. From P.R. Johnston G245 = herb. PDD 61679.
 11773 *Ulex europaeus* L. - gorse. Kuaotunu, CL, NZ Mar 1992. From P.R. Johnston G249 = herb. PDD. 60096.
 11774 *Ulex europaeus* L. - gorse. Coroglen, CL, NZ Mar 1992. From P.R. Johnston G252 = herb. PDD 60095.
 11775 *Ulex europaeus* L. - gorse. Whitianga, CL, NZ Mar 1992. From P.R. Johnston G254 = herb. PDD 60094.

- 12116 *Ulex europaeus* L. - gorse. Cornwallis, AK, NZ Aug 1991. From P.R. Johnston G34.
 12117 *Ulex europaeus* L. - gorse. Okarito, WD, NZ Oct 1991. From P.R. Johnston G199.
 12118 *Ulex europaeus* L. - gorse. Buller Gorge, BR, NZ Aug 1993. From P.R. Johnston G322.
 12563 *Ulex europaeus* L. - gorse - tip dieback & lesions on stems & spines. Kamo, ND, NZ Jun 1995. From A. Howarth A3 = PDD 64681 - Mycol. res. 98: 729-732, 1994.
 12577 *Ulex europaeus* L. - gorse - tip dieback & lesions on stems & spines. Waitakere Ranges, AK, NZ Mar 1992. From A. Howarth B239.
 12578 *Ulex europaeus* L. - gorse - tip dieback & lesions on stems & spines. Haast Beach, WD, NZ Mar 1992. From A. Howarth G256.
 12579 *Ulex europaeus* L. - gorse - tip dieback & lesions on stems & spines. Inangahua Junction, BR, NZ. From A. Howarth G321.
 12919 Sphagnum. NZ. From A. Gianotti.
- Gibberella zeae** (Schweinitz) Petch
 anam. *Fusarium graminearum* Schwabe
 5435 *Cortaderia* sp. - toetoe. Henderson, AK, NZ Aug 1965. From J.M. Dingley 65164.
 5458 *Cortaderia* sp. - toetoe. Auckland, AK, NZ Aug 1965. From J.M. Dingley 65165.
 5269 *Dactylis glomerata* L. - cocksfoot. Palmerston North, WI, NZ Jun 1959. From J.M. Dingley 5941.
 10084 *Dianthus caryophyllus* L. - carnation - stem. Auckland, AK, NZ 1985. From P.G. Broadhurst - single spore isolate.
 10086 *Dianthus caryophyllus* L. - carnation - stem. Auckland, AK, NZ 1985. From P.G. Broadhurst.
 10087 *Dianthus caryophyllus* L. - carnation - stem. Auckland, AK, NZ 1986. From P.G. Broadhurst - single spore isolate.
 5210 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Naumai, ND, NZ May 1965. From J.M. Dingley 6580.
 10351 * *Persea americana* Mill. - avocado cv. Hass - fruit rot. Tauranga, BP, NZ Jan 1990. From W.F.T. Hartill = Broadbent F302 - *avocado (Hartill).
 5228 *Sorghum bicolor* (L.) Moench - sorghum. Auckland, AK, NZ Jul 1973. From J.M. Dingley 7353.
 10626 *Triticum aestivum* L. - wheat - head blight. Marton, WI, NZ Feb 1976. From G. Laundon 10312a.
 10627 *Triticum aestivum* L. - wheat - head blight. Fielding, WI, NZ Jan 1982. From G. Laundon 18975.
 5178 *Zea mays* L. - maize - stalk. Pukekohe, AK, NZ Jun 1972. From J.M. Dingley 7246.
 8998 *Zea mays* L. - maize. Palmerston North, NZ Jun 1984. From H. Hussein 170.
 8032 South Africa. From J.B. Taylor F99 ← IMI 160243.
- Gliocladium aurifilum* (Gerard) Seifert, Samuels & W. Gams
 see *Sphaerostilbella lutea*.
- Gliocladium roseum* Bainier
 see *Nectria ochroleuca*.
- Gliocladium** sp.
 see also *Nectria egmontensis*; *N. grammicospora*; *N. kowhai*; *N. stenospora*.
 1041 *Citrus* sp. - bark. Auckland, AK, NZ Dec 1961. From F.J. Morton H71 ← J.M. Dingley.
- Gliocladium virens** Miller, Giddens & Foster
 3089 Soil. NZ. From E.H.C. McKenzie TG2.
 9467 From ATCC 9645 ← W.H. Weston T-1 = CBS 430.54: IMI 45553: IFO 6355: NRRL 2314: QM 365 - Causes deterioration of plastics - fungus resistance testing.
- Gliomastix murorum** (Corda) Hughes var. felina (Marchal) Hughes
 9479 *Cordylone australis* (Forst.f.) Endl. - cabbage tree, ti kauka - roots of dead tree. Mangere, AK, NZ Feb 1988. From J. Rees_George 921
 ← P.K. Buchanan 88-055.
- Gliomastix** sp.
 1071 *Bambusa* sp. - bamboo. Mt Albert, AK, NZ Mar 1962. From F.J. Morton H122.
 1080 Timber. North Shore, AK, NZ Jul 1962. From F.J. Morton H147.
 3857 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ158.
- Gloeosporium kaki** Horie
 10492 *Diospyros kaki* L.f. - Japanese persimmon. Japan. From P.R. Johnston ← IFO 7478.
- Gloeosporium musarum* Cooke & Massee
 see *Colletotrichum musae*.
- Gloeosporium platani* (Montagne) Oudemans
 see *Apiognomonium veneta*.
- Glomerella cingulata** (Stoneman) Spaulding & Schrenk
 anam. *Colletotrichum gloeosporioides* (Penzig) Penzig & Saccardo
 4872 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf spot. NZ Jul 1969. From J.M. Dingley 6957.
 4873 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Te Puke, BP, NZ Mar 1970. From J.M. Dingley 7018.
 4823 *Aucuba* sp. Auckland, AK, NZ Jul 1966. From J.M. Dingley 6697.
 4822 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook.f. ex Kirk - tawa. Waitomo, WO, NZ Mar 1966. From J.M. Dingley 6636.
 10644 *Camellia sinensis* (L.) O. Kuntze - tea - dieback. Levin, WN, NZ Sep 1982. From G. Laundon 20134.
 8143 *Camellia* sp. - leaf spot. UK. From G.F. Laundon LEV2001 ← Ministry of Agriculture, Fisheries & Food, UK 82-437.
 8144 *Camellia* sp. - die-back. New Plymouth, TK, NZ Aug 1982. From G.F. Laundon LEV20041.
 8145 *Camellia* sp. USA 1982. From G.F. Laundon LEV20370.
 10642 *Camellia* sp. - leafspots. From G. Laundon 20000 ← Ministry of Agriculture, Fisheries & Food, UK 82-432.
 10643 *Camellia* sp. - leafspots. From G. Laundon 20001 ← Ministry of Agriculture, Fisheries & Food, UK 82-437.
 10646 *Camellia* sp. USA 1982. From G. Laundon 20369.
 10953 *Capsicum annuum* L. - sweet pepper - fruit rot. HB, NZ. From P.R. Johnston 1146-1.
 10958 *Capsicum annuum* L. - sweet pepper - fruit rot. HB, NZ. From P.R. Johnston 1145-2 = PDD 57164.
 5176 *Capsicum frutescens* L. - tabasco. Gisborne, GB, NZ Mar 1965. From J.M. Dingley 6566.
 10615 *Carica papaya* L. - pawpaw, papaya - fruit rots. Australia Jun 1979. From G. Laundon 14994b - perithecial strain.
 10620 *Citrus limon* (L.) Burm.f. - lemon - dieback. Levin, WN, NZ Sep 1982. From G. Laundon 20167.
 10950 *Citrus limon* (L.) Burm.f. - lemon - fruit rot. ND, NZ. From P.R. Johnston 1021-3.
 4827 *Citrus reticulata* Blanco - Clementine mandarin. Auckland, AK, NZ Jul 1968. From J.M. Dingley 68100.
 4837 *Citrus sinensis* (L.) Osbeck - sweet orange - fruit. Whangarei, ND, NZ Nov 1965. From J.M. Dingley 65206.
 10616 *Citrus sinensis* (L.) Osbeck - sweet orange - fruit. Auckland, AK, NZ Aug 1980. From G. Laundon 16960.
 10659 *Citrus sinensis* (L.) Osbeck - orange. Belize. From P.R. Johnston ← IMI 226803 ← T.G. Denham.
 10951 *Citrus sinensis* (L.) Osbeck - orange - fruit rot. ND, NZ. From P.R. Johnston 1023-23.
 10952 *Citrus sinensis* (L.) Osbeck - orange - fruit rot. ND, NZ. From P.R. Johnston 1009-10.
 10956 *Citrus sinensis* (L.) Osbeck - orange - fruit rot. ND, NZ. From P.R. Johnston 1023-15.
 10957 *Citrus sinensis* (L.) Osbeck - orange - fruit rot. Auckland, AK, NZ. From P.R. Johnston 1014-8.
 12065 *Citrus sinensis* (L.) Osbeck - orange. Whangarei, ND, NZ Aug 1988. From R.E. Beever 592 ← P.R. Johnston 1022-2.
 1770 *Citrus* sp. - leaf. Te Puke, BP, NZ. From J.M. Dingley 64100.
 2240 *Citrus* sp. Tauranga, BP, NZ Mar 1968. From J.M. Dingley 6845.
 4876 *Citrus* sp. - leaf. Tonga Aug 1975. From J.M. Dingley 7513.
 12064 *Citrus* sp. - grapefruit. Auckland, AK, NZ Aug 1988. From R.E. Beever 589 ← P.R. Johnston 1012-12.
 10658 *Citrus X paradisi* Macfadyen - grapefruit - immature fruit. Caribbean. From P.R. Johnston ← IMI 202931 ← J.M. Waller.

- 4838 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Auckland, AK, NZ Mar 1966. From J.M. Dingley 6681.
- 5117 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Whangarei, ND, NZ Aug 1972. From J.M. Dingley 72102.
- 5177 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Whangarei, ND, NZ Jul 1972. From J.M. Dingley 7287.
- 2506 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka. Auckland, AK, NZ Jul 1968. From J.M. Dingley 68106.
- 5285 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka. Auckland, AK, NZ Mar 1966. From J.M. Dingley 6653.
- 4832 *Cordyline* sp. - cabbage tree, ti kauka. Taupo, TO, NZ Sep 1965. From J.M. Dingley 65187.
- 4810 *Cucumis sativus* L. - apple cucumber. Auckland, AK, NZ Feb 1966. From J.M. Dingley 6620.
- 5180 *Cucurbita maxima* Duch. - pumpkin. Mt Albert, AK, NZ Oct 1964. From J.M. Dingley 64110.
- 5121 *Cyclamen persicum* Mill. - florist's cyclamen - flower. Havelock North, HB, NZ May 1973. From J.M. Dingley 7339.
- 9484 *Cymbidium* sp. - orchid - leaf lesion. Auckland, AK, NZ Jun 1988. From P.G. Broadhurst.
- 10634 *Cymbidium* sp. - leafspots. Nelson, NN, NZ Jun 1976. From G. Laundon 10733.
- 2508 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato. Waitakere Ranges, AK, NZ. From J.M. Dingley 68104.
- 4815 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato - fruit. Te Puke, BP, NZ Mar 1966. From J.M. Dingley 6638.
- 4879 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato. Auckland, AK, NZ Jul 1964. From J.M. Dingley 6472.
- 5488 *Cyphomandra betacea* (Cav.) Sendtn. - tamarillo, tree tomato. Auckland, AK, NZ Jul 1964. From J.M. Dingley 6472.
- 3277 *Earina mucronata* Lindl. - earina - leaf sheath. New Plymouth, TK, NZ Jun 1972. From G.F. Laundon LEV 6384 ← A.W. Easton.
- 4887 *Earina mucronata* Lindl. - earina. NZ Jul 1972. From J.M. Dingley 7284.
- 10633 *Earina mucronata* Lindl. Okato, TK, NZ Aug 1980. From G. Laundon 6553.
- 12066 *Ficus carica* L. - fig. Auckland, AK, NZ May 1988. From R.E. Beever 593 ← P.R. Johnston 945-2.
- 10614 *Fragaria* sp. Levin, WN, NZ Jan 1977. From G. Laundon 11500.
- 10637 *Geniostoma* sp. - leafspots. Days Bay, WN, NZ Nov 1979. From G. Laundon 15815.
- 4811 *Helianthus tuberosus* L. - Jerusalem artichoke - fruit. Auckland, AK, NZ Aug 1973. From J.M. Dingley 7391.
- 4889 *Hoya carnosa* (L.f.) R. Br. - hoyo, wax plant. Piha, AK, NZ Dec 1970. From J.M. Dingley 7090.
- 10617 *Leucodendron* sp. Levin, WN, NZ. From G. Laundon 17322.
- 12581 *Lupinus albus* L. - white lupin - stem. Canada. From P.R. Johnston C1218 ← T.C. Paulitz.
- 1768 *Lycopersicon esculentum* Mill. - tomato - green fruit. Auckland, AK, NZ Jul 1964. From J.M. Dingley 6466.
- 4834 *Lycopersicon esculentum* Mill. - tomato. USA Jul 1965. From J.M. Dingley 65148.
- 10954 *Lycopersicon esculentum* Mill. - tomato - fruit rot. HB, NZ. From P.R. Johnston 1170-1 = Herb. PDD 57163.
- 10955 *Lycopersicon esculentum* Mill. - tomato - fruit rot. HB, NZ. From P.R. Johnston 1173-2.
- 12067 *Lycopersicon esculentum* Mill. - tomato. Gisborne, GB, NZ May 1990. From R.E. Beever 599 ← P.R. Johnston 1169-6.
- 3461 *Macropiper excelsum* (Forst.f.) Miq. - kawakawa, pepper tree - leaf. Levin, WN, NZ Apr 1973. From G.F. Laundon LEV 7154.
- 10635 *Macropiper excelsum* (Forst.f.) Miq. - kawakawa, pepper tree - leafspots. Levin, WN, NZ Oct 1977. From G. Laundon 12290a.
- 10636 *Macropiper excelsum* (Forst.f.) Miq. - kawakawa, pepper tree - leafspots. Levin, WN, NZ Oct 1977. From G. Laundon 12290b.
- 10645 *Macropiper excelsum* (Forst.f.) Miq. - kawakawa, pepper tree - leafspots. Levin, WN, NZ Sep 1982. From G. Laundon 20168.
- 4833 *Malus X domestica* Borkh. - apple. USA Jul 1965. From J.M. Dingley 65147.
- 5120 *Malus X domestica* Borkh. - apple. Nelson, NN, NZ Jun 1967. From J.M. Dingley 67110.
- 5124 *Malus X domestica* Borkh. - apple. Mt Albert, AK, NZ Mar 1964. From J.M. Dingley 6545.
- 7017 *Malus X domestica* Borkh. - apple - fruit. Kumeu, AK, NZ May 1980. From S.R. Pennycook 877A.
- 7702 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Kumeu, AK, NZ Jun 1982. From S.R. Pennycook 1031 5/4 1.
- 10112 *Malus X domestica* Borkh. - apple cv. Grannysmith - fruit. Kumeu, AK, NZ. From R.E. Beever 510 ← P.R. Johnston 824.
- 11016 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Kumeu, AK, NZ. From R.E. Beever 824ss8 ← P.R. Johnston C824 - Curr. Genet. 25: 202-8, 1994, Gene 122: 225-30, 1992 - ss8 is a single conidial isolate.
- 12068 *Malus X domestica* Borkh. - apple cv. Grannysmith. Hamilton, WO, NZ May 1988. From R.E. Beever 518 ← P.R. Johnston 954-2.
- 12071 *Malus X domestica* Borkh. - apple cv. Grannysmith. Kumeu, AK, NZ Aug 1987. From R.E. Beever REB824ss8 ← P.R. Johnston C824 - working stock for mutagenesis.
- 12074 *Malus X domestica* Borkh. - apple cv. Grannysmith. Hamilton, WO, NZ Jun 1988. From R.E. Beever 520 ← P.R. Johnston 963-19.
- 12077 *Malus X domestica* Borkh. - apple cv. Grannysmith. Kumeu, AK, NZ Jun 1990. From R.E. Beever 601-7ss.
- 4835 *Mangifera indica* L. - mango. Fiji Aug 1964. From J.M. Dingley 64109.
- 6881 *Medicago sativa* L. - lucerne, alfalfa - stem spot. Ruakura, WO, NZ Apr 1980. From P.R. Johnston C3.
- 6882 *Medicago sativa* L. - lucerne, alfalfa - stem spot. Ruakura, WO, NZ Apr 1980. From P.R. Johnston C6.
- 4843 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Piha, AK, NZ Jun 1967. From J.M. Dingley 6796.
- 4862 *Paeonia* sp. - peony. Nelson, NN, NZ Nov 1970. From J.M. Dingley 7085.
- 1681 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Jan 1965. From J.M. Dingley 6518.
- 1771 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Aug 1964. From J.M. Dingley 64108.
- 4814 *Passiflora edulis* Sims - passionfruit - fruit. NZ Feb 1967. From J.M. Dingley 6739 = PDD 25936.
- 4866 *Passiflora edulis* Sims - passionfruit - brown fruit spot. Auckland, AK, NZ Jan 1967. From J.M. Dingley 671.
- 4878 *Passiflora edulis* Sims - passionfruit - fruit. Auckland, AK, NZ Aug 1975. From J.M. Dingley 7515.
- 4882 *Passiflora edulis* Sims - passionfruit - tendrils. Te Puke, BP, NZ Oct 1964. From J.M. Dingley 64104.
- 4884 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Jan 1965. From J.M. Dingley 6516.
- 4829 *Persea americana* Mill. - avocado. Auckland, AK, NZ Dec 1973. From J.M. Dingley 748.
- 5119 *Persea americana* Mill. - avocado. Auckland, AK, NZ Oct 1970. From J.M. Dingley 7074.
- 12564 *Persea americana* Mill. - avocado - fruit rot. Australia Feb 1983. From P.R. Johnston 1216-1 ← L. Coates 22516.
- 12565 *Persea americana* Mill. - avocado - fruit rot. Australia Sep 1993. From P.R. Johnston 1216-2 ← L. Coates T10-1.
- 12566 *Persea americana* Mill. - avocado - fruit rot. Australia Apr 1987. From P.R. Johnston 1216-3 ← L. Coates 23691.
- 12567 *Persea americana* Mill. - avocado - fruit rot. Australia Apr 1990. From P.R. Johnston 1216-4 ← L. Coates 23695.
- 12568 *Persea americana* Mill. - avocado - fruit rot. Australia May 1987. From P.R. Johnston 1216-5 ← L. Coates 24154.
- 12569 *Persea americana* Mill. - avocado - fruit rot. Australia Feb 1992. From P.R. Johnston 1216-6 ← L. Coates 23941.
- 8153 *Piper methysticum* Forst.f. - kava - stem rot. Vanuatu Jun 1983. From E.H.C. McKenzie 15.
- 8154 *Piper methysticum* Forst.f. - kava - stem rot. Vanuatu Jun 1983. From E.H.C. McKenzie 12.
- 8155 *Piper methysticum* Forst.f. - kava - stem rot. Vanuatu Jun 1983. From E.H.C. McKenzie 5.
- 8156 *Piper methysticum* Forst.f. - kava - stem rot. Vanuatu Jun 1983. From E.H.C. McKenzie 13.
- 8157 *Piper methysticum* Forst.f. - kava - stem rot. Vanuatu Jun 1983. From E.H.C. McKenzie 11.
- 8840 *Piper methysticum* Forst.f. - kava. Fiji Apr 1985. From E.H.C. McKenzie ← D. Kashyap 36-85-2.
- 8841 *Piper methysticum* Forst.f. - kava. Fiji Apr 1985. From E.H.C. McKenzie ← D. Kashyap 36-85-5.
- 5139 *Piper* sp. Cook Is. Jun 1966. From J.M. Dingley 6689.
- 5149 *Psidium littorale* Raddi var. *longipes* (O. Berg) Fosb. - red guava - fruit. Epsom, AK, NZ Jul 1965. From J.M. Dingley 65139.
- 7696 *Stylosanthes guianensis* Aubl. - Brazilian lucerne, stylo. Solomon Is. Mar 1982. From E.H.C. McKenzie.
- 10641 *Syngonium* sp. - leafspots. Napier, HB, NZ Jul 1982. From G. Laundon 19733.
- 5125 *Telopea* sp. - waratah - leaf. Auckland, AK, NZ Nov 1974. From J.M. Dingley 7469.
- 6999 *Vaccinium corymbosum* L. - highbush blueberry - stem. Whakatane, BP, NZ Dec 1979. From P.R. Johnston B76.
- 7000 *Vaccinium corymbosum* L. - highbush blueberry - twig. Te Puke, BP, NZ Dec 1979. From P.R. Johnston B79.
- 4877 *Vitex lucens* Kirk - puriri - berry. Auckland, AK, NZ Aug 1964. From J.M. Dingley 6494.
- 5400 *Vitex lucens* Kirk - puriri - berry. Titirangi, AK, NZ Feb 1974. From J.M. Dingley 7419.
- 5138 *Vitis vinifera* L. - grape - fruit. Blenheim, MB, NZ Mar 1966. From J.M. Dingley 6644.
- 4870 Orchid - leaf. Auckland, AK, NZ Oct 1972. From J.M. Dingley 72126.
- 4871 Orchid. Auckland, AK, NZ Oct 1964. From J.M. Dingley 64103.

- 5535 Australia Sep 1965. From J.M. Dingley 65171 ← Simmonds 16361E.
 8146 Orchid - leaf spot. Te Awamutu, WO, NZ Aug 1979. From G.F. Laundon LEV 15405.
 10618 From G. Laundon 18434.
 10632 Orchid - leafspots. Te Awamutu, WO, NZ Aug 1979. From G. Laundon 15405.
 10638 Leaves (unidentified). W. Samoa Jun 1980. From G. Laundon 16743.
 10662 Orchid - leaf lesions. Colombia Aug 1981. From G. Laundon 18732b.
 12069 NZ Nov 1988. From R.E. Beever 518-1 - nit 1 mutant from 518 (ICMP 12068).
 12070 NZ Feb 1989. From R.E. Beever 518-38 - nit M mutant from 518 (ICMP 12068).
 12072 NZ Nov 1990. From R.E. Beever 583-1 - nit 1 mutant from C824 (ICMP 12071).
 12073 NZ Nov 1990. From R.E. Beever 583-5 - nit M from C824 (ICMP 12071).
 12075 NZ Nov 1990. From R.E. Beever 520-31 - nit 1 mutant from 520 (ICMP 12074).
 12076 NZ Nov 1990. From R.E. Beever 520-43 - nit M mutant from 520 (ICMP 12074).
 12078 NZ Oct 1990. From R.E. Beever 575-1 - nit 1 mutant from 601-7ss (ICMP 12077).
 12079 NZ Oct 1990. From R.E. Beever 575-8 - nit M mutant from 601-7ss (ICMP 12077).
- Glomerella cingulata** (Stoneman) Spaulding & Shrenk var. *minor* Wollenweber
 1778 *Carica* sp. - pawpaw. Australia Sep 1965. From J.M. Dingley 65173 ← J.H. Simmonds 16633C = PDD 28797.
 1780 *Carica* sp. - pawpaw. Australia Sep 1965. From J.M. Dingley 65175 ← J.H. Simmonds 16347A2 = PDD 28797.
 1781 *Persea americana* Mill. - avocado. Sep 1965. From J.M. Dingley 65176 ← J.H. Simmonds 16643A.
 10656 Australia. From P.R. Johnston ← IMI 313839.
 10657 Australia. From P.R. Johnston ← IMI 313842.
- Glomerella phacidioromorpha** (Cesati) Petrak
 anam. *Colletotrichum rhodocyclum* (Montagne) Petrak
 10649 *Hemerocallis* sp. - stem lesions. New Plymouth, TK, NZ Apr 1979. From G. Laundon 14822.
 1786 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Aratiatia, TO, NZ Oct 1965. From J.M. Dingley 65189.
 1787 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Aratiatia, TO, NZ Oct 1965. From J.M. Dingley 65190.
 7013 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Waiuku, AK, NZ Jun 1980. From S.R. Pennycook 882G.
 7014 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Waiuku, AK, NZ Jun 1980. From S.R. Pennycook 882F.
 7015 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Waiuku, AK, NZ Jun 1980. From S.R. Pennycook 882B.
 7016 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Waiuku, AK, NZ May 1980. From S.R. Pennycook 882A.
 10647 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leafspots. Palmerston North, WI, NZ Nov 1977. From G. Laundon 12406.
 10648 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leafspots. Christchurch, MC, NZ Oct 1977. From G. Laundon 12424.
 10650 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leafspots. Auckland, AK, NZ May 1979. From G. Laundon 14928a.
 10663 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leafspots. Levin, WN, NZ Apr 1979. From G. Laundon 14720.
 12086 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - elliptical leafspots with light brown centre & dark brown border. Manapouri, FD, NZ Nov 1993. From J.M. Young MM4 - identified by E.H.C. McKenzie.
- Glomerella phomoides** Swank
 10660 *Lycopersicon esculentum* Mill. - tomato - fruit. USA. From P.R. Johnston ← IMI 17310 ← I.T. Brooks.
- Glomerella** sp.
 5281 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ Mar 1964. From J.M. Dingley 6437.
 1886 *Malus X domestica* Borkh. - apple cv. Sturmer. Appleby, NN, NZ. From J.M. Dingley 67109.
 5790 *Musa X paradisiaca* L. - banana - finger stalk. Auckland, AK, NZ May 1977. From T.W. Canter-Visscher 799.
 5282 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Auckland, AK, NZ Jun 1967. From J.M. Dingley 6795.
 5283 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Auckland, AK, NZ Sep 1964. From J.M. Dingley 64102.
- Gnomonia comari** P. Karsten
 anam. *Zythia fragariae* Laibach
 5416 *Fragaria X ananassa* Duch. - cultivated strawberry. Katikati, BP, NZ Jun 1968. From J.M. Dingley 6892.
 10108 *Fragaria X ananassa* Duch. - strawberry cv. Pajaro - leaf blotch. Waitakere, AK, NZ Sep 1989. From P.G. Broadhurst.
 10651 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1977. From G. Laundon 11937a.
- Gnomonia platani* Klebahn
 see *Apiognomonium veneta*.
- Gnomonia rostellata** (Fries) Brefeld
 12499 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1984. From M. Arsenijevic Kp33.
 12500 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1987. From M. Arsenijevic Kp72.
 12501 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1987. From M. Arsenijevic Kp107.
 12502 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1987. From M. Arsenijevic Kp132.
- Griphosphaeria corticola* (Fuckel) Hohnel
 see *Clethruidium corticola*.
- Guignardia citricarpa** Kiely
 anam. *Phyllosticta citricarpa* (McAlpine) van der Aa
 7872 *Citrus limon* (L.) Burm.f. - lemon. From P.R. Johnston ← ATCC 32757.
 7874 *Citrus reticulata* Blanco - Clementine mandarin. From P.R. Johnston ← ATCC 32758.
 7873 *Citrus sinensis* (L.) Osbeck - sweet orange cv. Valencia - peel. From P.R. Johnston ← ATCC 26254.
 7825 *Citrus* sp. - fruit lesion. NZ. From P.R. Johnston ← G.F. Laundon.
 8336 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - storage rot of fruit. Kerikeri, ND, NZ Aug 1983. From C.F. Hill AS2093.
- Guignardia dracena** Gutner
 10652 *Dracaena* sp. - leafspots. Cook Is. Sep 1978. From G. Laundon 13720.
- Guignardia** sp.
 12119 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - symptomless leaf. Paihia, ND, NZ Aug 1994. From P.R. Johnston.
 12120 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - symptomless leaf. Paihia, ND, NZ Aug 1994. From P.R. Johnston.
 12121 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - symptomless leaf. Paihia, ND, NZ Aug 1994. From P.R. Johnston.
- Hainesia lythri* (Desmazières) Höhnel
 see *Pezizella oenotherae*
- Harposporium bysmatosporum** Drechsler
 12582 NZ. From F.S. Hay D14.
- Harposporium helicoides** Drechsler
 12526 * Sheep dung. Flock House, Bulls, WI, NZ. From F.S. Hay - *unknown species of bacterial feeding nematodes.
- Harposporium leptospira** Drechsler
 12527 * Sheep dung. Flock House, Bulls, WI, NZ. From F.S. Hay - *unknown species of bacterial feeding nematodes.

Harposporium sp.

- 12525 *Sheep dung. Flock House, Bulls, WI, NZ. From F.S. Hay - probably *H. bysmatosporum* or *H. helicoides* (Hay) - *unspecified species of bacterial feeding nematodes.

Helminthosporium maydis Nisikado

see *Cochliobolus heterostrophus*.

Helminthosporium solani de Durieu & Montagne

- 5504 *Solanum tuberosum* L. - potato. Hamilton, WO, NZ Sep 1969. From J.M. Dingley 6989.

Hendersonula toruloidea Nattrass

- 5425 Auckland, AK, NZ Dec 1970. From J.M. Dingley 7089 ← F.M. Rush-Munro 323-37.

Hericium erinaceus (Bulliard) Persoon

- 12052 China. From X.Z. Ren #He ← Y.X. Chen.

Heterobasidium annosum (Fries) Brefeld

- 9543 *Picea glauca* (Moench) Voss - white spruce. Finland Nov 1983. From P.K. Buchanan 84-324-2 ← K. Korhonen 831102-2-1-2 - single spore isolate.
- 9548 *Picea glauca* (Moench) Voss - white spruce. Finland Nov 1983. From P.K. Buchanan 84-324-6 ← K. Korhonen 831102-2-1-6 - single spore isolate.
- 9541 *Picea* sp. - spruce - stump. UK Sep 1983. From P.K. Buchanan 84-285-A ← N. Hallenberg GB931 - single spore isolate.
- 9542 *Pinus pinaster* Ait. - maritime pine, cluster pine - stump. France Oct 1972. From P.K. Buchanan 85-032 ← A. David LY-AD3055.
- 9544 *Pinus sylvestris* L. - scots pine. Finland Nov 1983. From P.K. Buchanan 84-329-2 ← K. Korhonen 831102-1-6-2 - single spore isolate.
- 9549 *Pinus sylvestris* L. - scots pine. Finland Nov 1983. From P.K. Buchanan 84-329-4 ← K. Korhonen 831102-1-6-4 - single spore isolate.
- 9547 *Tsuga heterophylla* (Raf.) Sarg. - western hemlock - stump. Canada Jul 1939. From P.K. Buchanan 85-010 ← DAOM F9326 ← J.E. Bier.
- 9545 Afghanistan 1976. From P.K. Buchanan 85-031 ← Lalande = LY-AD 2031.
- 9546 USA. From P.K. Buchanan 85-042 ← G. Johnson DFP10257 = DFP 10257.
- 9550 India. From P.K. Buchanan 85-038 ← S. Singh 972.

Heterobasidium araucariae P.K. Buchanan

- 9529 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Trounson Kauri Park, ND, NZ Sep 1984. From P.K. Buchanan 84-263XP = PDD 48007.
- 9530 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Omahuta Forest Sanctuary, ND, NZ Sep 1984. From P.K. Buchanan 84-250PS = PDD 48003.
- 9531 *Agathis australis* (D. Don) Lindl. - kauri - fallen branch. Puketi State Forest, ND, NZ Sep 1984. From P.K. Buchanan 84-254PS = PDD 48004.
- 9532 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Trounson Kauri Park, ND, NZ Sep 1984. From P.K. Buchanan 84-241A = PDD 48005.
- 9533 *Agathis australis* (D. Don) Lindl. - kauri - fallen branches. Waipoua Forest, ND, NZ Sep 1985. From P.K. Buchanan 85-299XP = PDD 48002 - **ex Holotype specimen.**
- 9534 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Little Barrier Is., CL, NZ Jun 1984. From P.K. Buchanan 84-135XP = PDD 48006.
- 9551 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Trounson Kauri Park, ND, NZ Sep 1984. From P.K. Buchanan 84-249 = PDD 48556 - ex sporophore.
- 9552 *Agathis australis* (D. Don) Lindl. - kauri - base of fallen trunk. Omahuta Forest Sanctuary, ND, NZ Sep 1984. From P.K. Buchanan 84-251XP = PDD 49000.
- 9553 *Agathis australis* (D. Don) Lindl. - kauri - base of fallen tree. Omahuta Forest Sanctuary, ND, NZ Sep 1984. From P.K. Buchanan 84-251i.
- 9554 *Agathis australis* (D. Don) Lindl. - kauri - fallen branch. Puketi State Forest, ND, NZ Sep 1984. From P.K. Buchanan 84-254i = PDD 48004 - from single spore.
- 9555 *Agathis australis* (D. Don) Lindl. - kauri - fallen tree. Trounson Kauri Park, ND, NZ Sep 1984. From P.K. Buchanan 84-262Ps = PDD 49001.
- 9560 *Agathis australis* (D. Don) Lindl. - kauri - fallen trunk. Manaia Sanctuary, CL, NZ Mar 1985. From P.K. Buchanan 85-055 ← I. Hood FRI 3049 = FRI 3049; PDD 49003 - from sporophore.
- 9561 *Agathis australis* (D. Don) Lindl. - kauri. NZ. From P.K. Buchanan 85-065 ← F.F. Lombard ← J.W. Gilmour = FRI 167e - from sporophore.
- 9535 *Agathis vitiensis* (Seem.) Benth. & Hook.f. ex Drake - dakua. Fiji 1941. From P.K. Buchanan 84-226 ← I.A. Hood NZFRI24 = NZFRI 24.
- 9540 *Araucaria bidwillii* Hook. - bunya-bunya pine - decayed wood. Australia Aug 1976. From P.K. Buchanan 85-018 ← J. Tierney 2728-6 ← L. Bolland.
- 9538 *Araucaria cunninghamii* D. Don - hoop pine - stump. Australia Apr 1970. From P.K. Buchanan 85-016 ← J. Tierney 679-4 ← B.N. Brown.
- 9539 *Araucaria cunninghamii* D. Don - hoop pine. Australia Jan 1985. From P.K. Buchanan 85-046 ← J. Tierney 5549A.
- 9557 *Araucaria cunninghamii* D. Don - hoop pine - stump - from decayed wood near sporophore. Australia Jan 1985. From P.K. Buchanan 85-048 ← J. Tierney 5550B.
- 9558 *Araucaria cunninghamii* D. Don - hoop pine - stump - from decayed wood near sporophore. Australia Jan 1985. From P.K. Buchanan 85-049 ← J. Tierney 5551B.
- 9559 *Araucaria cunninghamii* D. Don - hoop pine - decayed wood near sporophore. Australia Jan 1985. From P.K. Buchanan 85-050 ← J. Tierney 5568B.
- 9536 *Pinus taeda* L. - loblolly pine. Auckland, AK, NZ. From P.K. Buchanan 85-041 ← G. Johnson DFP 10220 = DFP 10220.
- 9537 *Pinus taeda* L. - loblolly pine - log. NZ. From P.K. Buchanan 85-064 ← F.F. Lombard s-n ← J.W. Gilmour FRI167d.
- 9556 Aerial spores in plantation of *Araucaria cunninghamii* D. Don. Australia Apr 1970. From P.K. Buchanan 85-017 ← B.N. Brown 684-4.

Hirsutella rhossiliensis Minter & Brady

- 12528 * Pasture soil. Flock House, Bulls, WI, NZ. From F.S. Hay - *unknown species of nematodes.

Hypholoma brunnea (Masse) Reid

- 9631 *Nothofagus* sp. Urewera National Park, GB, NZ May 1990. From R.H. Petersen 2821 - tester strains for compatibility tests.
- 9632 *Nothofagus* sp. Te Anau, FD, NZ May 1990. From R.H. Petersen 2645 - Tenn 48863 - tester strain for compatibility tests.

Hypocrea ascoboloides Rehm

- 1692 *Coprosma lucida* J.R. & G. Forst. - karamu. Little Barrier Is., CL, NZ 1958. From J.M. Dingley 583.
- 5418 Waitakere Ranges, AK, NZ Feb 1963. From J.M. Dingley 6331.

Hypocrea atro-gelatinosa Dingley

- 5429 *Dacrydium cupressinum* Sol. ex Lamb. - rimu. Harihari, WD, NZ Mar 1963. From J.M. Dingley 6358 = PDD 21153.
- 5433 *Grifola berkeleyi* (Fr.) Merr. Mamaku Ranges, BP, NZ 1958. From J.M. Dingley 5810.

Hypocrea coprosma Dingley

anam. *Trichoderma viride* Persoon

- 5522 *Quintinia serrata* A. Cunn. - quintinia. Lake lanthe, WD, NZ Mar 1963. From J.M. Dingley 6357.
- 5543 *Weinmannia racemosa* L.f. - kamahi. Lake lanthe, WD, NZ Mar 1963. From J.M. Dingley 6351.
- 5544

Hypocrea gelatinosa (Tode) Fries

- 5414 Dead wood. Piha, AK, NZ Jun 1971. From J.M. Dingley 7167.
- 5417 Dead wood. NZ Mar 1972. From J.M. Dingley 7241.

Hypocrea manuka Dingley

- 5419 *Dysoxylum spectabile* (Forst.f.) Hook. f. - kohekohe. Auckland, AK, NZ Jul 1964. From J.M. Dingley 6470.

Hypocrea nebulosa Masee

5438 Westhaven Inlet, NN, NZ Nov 1970. From J.M. Dingley 7087.

Hypocrea rufa (Persoon) Fries

anam. *Trichoderma viride* Persoon

- 1697 *Pinus radiata* D. Don - radiata pine, Monterey pine. Woodhill, AK, NZ 1958. From J.M. Dingley 588.
 1696 *Podocarpus* sp. Waipoua, ND, NZ 1958. From J.M. Dingley 587.
 1695 *Rhopalostylis sapida* Wendl. & Drude - nikau. Piha, AK, NZ 1958. From J.M. Dingley 586.

Hypocrea schweinitzii (Fries) Saccardo

anam. *Trichoderma viride* Persoon

- 5421 *Dacrydium cupressinum* Sol. ex Lamb. - rimu. Harihari, WD, NZ Mar 1963. From J.M. Dingley 6352.
 1694 *Nothofagus fusca* (Hook.f.) Oerst. - red beech. Totara Flat, BR, NZ 1955. From J.M. Dingley 585.
 5426 *Weinmannia racemosa* L.f. - kamahi. Harihari, WD, NZ Mar 1963. From J.M. Dingley 6359 = PDD 20988.

Hypocrea semiorbis Berkeley

anam. *Trichoderma viride* Persoon : Fries

- 1693 *Nothofagus* sp. - beech. Mohaka, GB, NZ 1958. From J.M. Dingley 584.
 5412 Dead wood. NZ Mar 1972. From J.M. Dingley 7242.

Hypocrea vinosa Cooke

anam. *Trichoderma viride* Persoon : Fries

- 5411 *Hoheria populnea* A. Cunn. - houhere, lacebark. Waitakere Ranges, AK, NZ May 1972. From J.M. Dingley 7265.
 5420 *Salix* sp. - willow. Hamilton, WO, NZ Feb 1963. From J.M. Dingley 6333.

Hypoderma sp.

anam. *Leptothyrium* sp.

- 8150 *Cordyline banksii* Hook. f. - ti ngahere - dead leaves. Graham River Valley, NN, NZ Apr 1983. From P.R. Johnston R191.

Hypomyces aurantius (Persoon) L.R. & C. Tulasne

anam. *Cladobotryum varium* Nees

- 1706 Polypore. Titirangi, AK, NZ 1958. From J.M. Dingley 5813.
 7882 Polypore - fruiting body. Urewera National Park, GB, NZ Nov 1982. From G.J. Samuels 82-281.
 8244 Polypore. Reefton, WD, NZ May 1983. From G.J. Samuels 83-119.
 8351 Polypore. Granville State Forest, BR, NZ May 1983. From G.J. Samuels 83-118 = PDD 44200.
 8352 Polypore. Westland National Park, WD, NZ May 1983. From G.J. Samuels 83-15 = PDD 44191.
 8353 Polypore. Mt Egmont National Park, TK, NZ Mar 1983. From G.J. Samuels 83-27 = PDD 44195.

Hypomyces aureo-nitens L.R. & C. Tulasne

- 8339 *Stereum* sp. Japan Sep 1983. From G.J. Samuels 83-286 = PDD 44208.

Hypomyces chrysospermus L.R. & C. Tulasne

anam. *Sepedonium chrysospermum* (Bulliard) Link

- 5473 *Porphyrella* sp. Titirangi, AK, NZ Mar 1966. From J.M. Dingley 6632.
 8338 Bolete. Japan Sep 1983. From G.J. Samuels 83-285 = PDD 44207.

Hypomyces rosellus (Albertini & Schweinitz) L.R. & C. Tulasne

anam. *Cladobotryum dendroides* (Bulliard) W. Gams & Hoozemans

- 5500 *Stereum* sp. Orere, AK, NZ 1958. From J.M. Dingley 5814.

Hypomyces sp.

- 5518 Bolete. Kauaeranga, CL, NZ Mar 1965. From J.M. Dingley 6568.
 7900 Polypore. Lake Waikaremoana, GB, NZ Nov 1982. From G.J. Samuels 82-274.
 8243 Bolete. Mill Bay, AK, NZ May 1983. From G.J. Samuels 83-214.
 8263 Bolete. Japan Sep 1983. From G.J. Samuels 83-291 = PDD 44213.
 8264 Bolete. Mill Bay, AK, NZ May 1983. From G.J. Samuels 83-58. = PDD 44196.

Isaria felina (de Candolle) Fries

- 5630 Opossum dung. NZ Nov 1973. From J.M. Dingley 742.

Itersonilia pastinacae Channon

- 10664 *Senecio vulgaris* L. - leaf & calyx spots. Levin, WN, NZ Jul 1978. From G. Laundon 13402.

Itersonilia sp.

- 2052 *Pastinaca sativa* L. - parsnip. Levin, WN, NZ Aug 1967. From G.F. Laundon LEV 1573.

Kabatiella zeae Narita & Hiratsuka

see *Aureobasidium zeae*.

Kramasamuha sibika Subramanian & Vittal

- 7757 *Psidium guajava* L. - yellow guava - bark canker. Western Samoa May 1982. From E.H.C. McKenzie.

Kutilakesa sp.

see *Nectriella pironii*.

Langermannia gigantea (Batsch) Rosk.

- 11669 Paddock. Lincoln, MC, NZ. From A. Mitchell.

Lasiodiplodia theobromae (Patouillard) Griffon & Maublanc

syn. *Botryodiplodia theobromae* Patouillard

- 5532 *Citrus aurantiifolia* (Christm.) Swingle - West Indian lime - leaf spot. Niue Sep 1975. From J.M. Dingley 7517 ← R.A. Fullerton.
 9331 *Cyrtosperma chamissonis* (Schott) Merr. - giant swamp taro - corm rot. Federated States of Micronesia Jan 1987. From E.H.C. McKenzie.
 10078 *Mangifera* sp. - fruit rot. Tonga Nov 1976. From G.F. Laundon 11220.
 10395 *Mangifera* sp. - leafspots. Mexico Aug 1980. From G. Laundon 16943.
 2001 *Musa X paradisiaca* L. - banana. Oct 1965. From G.F. Laundon LEV 345.
 7700 *Psidium guajava* L. - yellow guava - branch canker. Western Samoa Mar 1982. From E.H.C. McKenzie ← T.V. Bourke.
 10290 *Theobroma cacao* L. - cacao - branch. Solomon Is. Feb 1990. From E.H.C. McKenzie ← J. Saelea.
 10396 From G. Laundon 21394.

Lentinula edodes (Berkeley) Singer

- 9636 From P.K. Buchanan 92-052 ← A.L.J. Cole ← S.T. Chang L14 - shiitake mushroom.
 9637 From P.K. Buchanan 92-053 ← A.L.J. Cole ← S.T. Chang L14 - shiitake mushroom.
 9638 From P.K. Buchanan 92-054 ← A.L.J. Cole ← S.T. Chang L40 - shiitake mushroom.
 9639 From P.K. Buchanan 92-055 ← A.L.J. Cole ← S.T. Chang L46 - shiitake mushroom.
 9640 From P.K. Buchanan 92-056 ← A.L.J. Cole ← S.T. Chang L24 - shiitake mushroom.
 9641 From P.K. Buchanan 92-057 ← A.L.J. Cole ← S.T. Chang L35 - shiitake mushroom.
 9642 From P.K. Buchanan 92-058 ← A.L.J. Cole ← S.T. Chang L54 - shiitake mushroom.

- 9643 From P.K. Buchanan 92-059 ← A.L.J. Cole ← S.T. Chang L16 - shiitake mushroom.
 9644 From P.K. Buchanan 92-060 ← A.L.J. Cole ← S.T. Chang L34 - shiitake mushroom.
 9645 From P.K. Buchanan 92-061 ← A.L.J. Cole ← S.T. Chang L38 - shiitake mushroom.
 9646 From P.K. Buchanan 92-062 ← A.L.J. Cole ← S.T. Chang L39 - shiitake mushroom.
 9647 From P.K. Buchanan 92-063 ← A.L.J. Cole ← S.T. Chang L10 - shiitake mushroom.
 9648 From P.K. Buchanan 92-064 ← A.L.J. Cole ← S.T. Chang L12 - shiitake mushroom.
 9649 From P.K. Buchanan 92-065 ← A.L.J. Cole ← S.T. Chang L13 - shiitake mushroom.
 12050 China. From X.Z. Ren Cr02 ← Y.X. Chen - rec. as *Lentis edodes*.

Lepteutypa cupressi (Nattrass, Booth, & Sutton) Swartanam. *Seiridium unicorne* (Cooke & Ellis) Sutton

- 7321 *Chamaecyparis lawsoniana* (Murr.) Parl. - Lawson cypress - canker. Warkworth, AK, NZ. From R.E. Beever ← S.R. Pennycook 974.
 7307 *X Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress - stem canker. Te Puke, BP, NZ May 1981. From G.I. Robertson P315.
 7322 *X Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress cv. Leighton Green - canker. Lincoln, MC, NZ Sep 1980. From R.E. Beever ← R.M. Beresford F009.

Leptodontidium elatius (Mangenot) Hoog.

- 7018 *Malus X domestica* Borkh. - apple - ripe spot on fruit. Oratia, AK, NZ. From S.R. Pennycook = IMI 346240 - rec. as *Pezicula malicorticus*.

Leptodontidium elatius (Mangenot) Hoog.anam. *Phlyctema vagabunda* Desmazières

- 5660 *Malus X domestica* Borkh. - apple. Christchurch, MC, NZ Feb 1974. From J.M. Dingley 7424 ← J.S. Cole = IMI 346239 - rec. as *Pezicula alba*.

Leptosphaeria coniothyrium (Fuckel) Saccardoanam. *Coniothyrium fuckelii* Saccardo

- 2284 *Araucaria columnaris* (Forst.f.) Hook. - New Caledonia pine. Palmerston North, WI, NZ May 1968. From G.F. Laundon LEV 2190B.
 10654 *Camellia* sp. - leafspots. New Plymouth, TK, NZ Aug 1982. From G. Laundon 20004.
 2097 *Rosa* sp. Ashhurst, WI, NZ Nov 1967. From G.F. Laundon LEV 1745.
 10653 *Rosa* sp. Lower Hutt, WN, NZ Oct 1977. From G. Laundon 12365a.

Leptosphaeria maculans (Desmazières) Cesati & de Notarisanam. *Phoma lingam* (Tode) Desmazières

- 8344 *Brassica napus* L. - rape cv. Rangī - base of stem. Methven, MC, NZ Aug 1983. From M.G. Cromey 1.
 8345 *Brassica napus* L. - rape cv. Rangī - base of stem. Methven, MC, NZ Aug 1983. From M.G. Cromey 2.
 8346 *Brassica napus* L. - rape cv. Rangī - base of stem. Methven, MC, NZ Aug 1983. From M.G. Cromey 3.
 8347 *Brassica napus* L. - rape cv. Rangī - base of stem. Methven, MC, NZ Aug 1983. From M.G. Cromey 4.
 10655 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - basal rot. Inglewood, TK, NZ May 1978. From G. Laundon 13182.
 10665 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - basal rot. Levin, WN, NZ Feb 1979. From G. Laundon 12890.

Leptosphaeria pratensis Saccardo & Briardanam. *Stagonospora meliloti* (Lasch) Petrak

- 5658 *Trifolium* sp. - clover. NZ Aug 1970. From J.M. Dingley 7053 ← G.C.M. Latch = PDD 28407.

Leptosphaerulina australis McAlpine

- 10313 *Agrostis capillaris* L. - browntop, colonial bentgrass. Mangawhai, AK, NZ. From P.G. Broadhurst.
 9049 *Hordeum vulgare* L. - barley cv. Illia - healthy green leaf. Lincoln, MC, NZ Nov 1985. From T. Riesen 13 = PDD 50269.
 10312 *Leptinella* sp. - cotula - leaf. Orewa, AK, NZ Mar 1990. From P.G. Broadhurst.

Leptosphaerulina chartarum Rouxanam. *Pithomyces chartarum* (Berkeley & Curtis) M.B. Ellis

- 5477 *Holcus lanatus* L. - Yorkshire fog, velvetgrass - litter. UK Sep 1961. From J.M. Dingley 6383 ← J. Lacey C242.
 2493 *Holcus* sp. Mt Albert, AK, NZ Jun 1959. From J.M. Dingley 68122.
 2010 *Lactuca sativa* L. - lettuce. Hope, NN, NZ Mar 1967. From G.F. Laundon LEV 1327B.
 2933 *Lolium perenne* L. - perennial ryegrass - leaf debris. Palmerston North, WI, NZ May 1969. From E.H.C. McKenzie 50c.
 10943 *Malus X domestica* Borkh. - apple - fruit. Levin, WN, NZ Apr 1977. From G. Laundon 1161d.
 5485 *Vitis vinifera* L. - grape - stem. Auckland, AK, NZ Nov 1966. From J.M. Dingley 66136.
 428 Air. NZ. From M.H. Dye F16 ← J.M. Dingley SB20A.
 1274 Air. Mt Albert, AK, NZ Jul 1961. From S. Davison SB.36C.
 1278 Pasture. Australia. From S. Davison F.E.4S ← E. Fisher.
 1687 Grass - litter. Mt Albert, AK, NZ Jan 1965. From J.M. Dingley 6511.
 2494 Grass. Hamilton, WO, NZ May 1958. From J.M. Dingley 68121.
 3086 Pasture litter. Palmerston North, WI, NZ Mar 1969. From E.H.C. McKenzie 49.
 3869 Plant debris. Auckland, AK, NZ 1959. From J.M. Dingley S73A.
 7069 Soil (pasture). NZ 1958. From J.D. Stout C race A.
 7070 Soil (pasture). NZ 1958. From J.D. Stout C 3x4-7.
 7071 Soil (pasture). NZ 1958. From J.D. Stout Str C, race.
 7072 Soil (pasture). NZ 1958. From J.D. Stout C batch 1.
 7074 Soil (pasture). NZ 1958. From J.D. Stout strain C.
 12892 Uruguay. From R.E. Beever 79-15 ← R. Collin = PDD 65549.

Leptosphaerulina trifolii (Rostrup) Petrak

- 5623 *Lupinus luteus* L. - yellow lupin - stem. Pukekohe, AK, NZ Nov 1973. From J.M. Dingley 7398.
 7771 *Medicago sativa* L. - lucerne, alfalfa - leaf spot. Mt Albert, AK, NZ Sep 1979. From P.R. Johnston 16.79.
 5621 Debris in *Agrostis* sp. Palmerston North, WI, NZ Mar 1973. From J.M. Dingley 7332.

Leptostroma sp.see *Coccomyces* sp.*Leptothyrium* sp.see *Hypoderma* sp.**Leucoagaricus leucothites** (Vittadini) Vasser

- 11667 Cow paddock. Taitapu, MC, NZ Apr 1990. From A. Mitchell.

Leucogyrophana mollusca (Fries) Pouzar

- 9628 *Pinus patula* Schlecht. & Cham. - patula pine - wood pile. Mt Roskill, AK, NZ Jul 1989. From P.K. Buchanan 89-119.

Limonomycetes roseipellis Stalpers & Loerakker

- 12896 *Leptinella* sp. - cotula - lawn sward. St Heliers Bay, AK, NZ Feb 1990. From P.K. Buchanan 90-007.

Lophodermium sp.

- 7791 *Metrosideros* sp. - rata - dead leaves. Waitakere Ranges, AK, NZ Aug 1982. From P.R. Johnston R82.

Macrophomina phaseolina (Tassi) Goidanichanam. *Sclerotium bataticola* (Taubenhaus) Butler

- 10666 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - roots. Motueka, NN, NZ Dec 1978. From G. Laundon 14257.
 10667 *Chrysanthemum X morifolium* Ramat. - florist's chrysanthemum - roots. Taradale, HB, NZ Feb 1979. From G. Laundon 14499.
 6254 *Trifolium repens* L. - white clover. Palmerston North, WI, NZ Nov 1978. From P.R. Johnston ← M.J. Christensen VIPATH19.

Mariannaea elegans (Corda) Samson var. *elegans*syn. *Paecilomyces elegans* (Corda) Mason & Hughes

- 5462 *Dysoxylum spectabile* (Forst.f.) Hook. f. - kohekohe. Waitakere Ranges, AK, NZ Nov 1964. From J.M. Dingley 64142.

Marssonina brunnea (Ellis & Everhart) Magnus f. sp. *brunnea*

- 7646 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar - leaf. Netherlands Nov 1979. From A.G. Spiers Br19 = ATCC 56780.
 7648 *Populus tremuloides* Mich. - aspen poplar - leaf. USA (Alaska) Aug 1977. From A.G. Spiers Br23 = ATCC 56781.
 7644 *Populus X euramericana* (Dode) Guinier - poplar cv. Robusta - leaf. UK Jul 1979. From A.G. Spiers Br16 = ATCC 56778.
 7645 *Populus X euramericana* (Dode) Guinier - poplar cv. Robusta - leaf. Eire Oct 1979. From A.G. Spiers Br17 = ATCC 56779.
 7647 *Populus X euramericana* (Dode) Guinier - poplar cv. I214 - leaf. Turkey Dec 1979. From A.G. Spiers Br20.

Marssonina castagnei (Desmazières & Montagne) Magnus

- 7649 *Populus alba* L. - white poplar - circular leaf spot. Eire Oct 1979. From A.G. Spiers Cs2 = ATCC 56782.

Marssonina daphnes (Desmazières) Magnus

- 1691 *Daphne odora* Thunb. - daphne. Whangarei, ND, NZ Nov 1965. From J.M. Dingley 65204.

Marssonina panattoniana (Berlese) Magnus

- 5599 *Lactuca sativa* L. - lettuce - ringspot on leaf. Dunedin, DN, NZ Sep 1977. From T.W. Canter-Visscher 142.

Marssonina populi (Libert) Magnus

- 7650 *Populus nigra* L. - Lombardy (black) poplar cv. Italica - leaf. UK Nov 1979. From A.G. Spiers Po3 = ATCC 56783.
 7651 *Populus nigra* L. - Lombardy (black) poplar cv. Italica - leaf. Eire Oct 1979. From A.G. Spiers Po4 = ATCC 56784.
 7652 *Populus X berolinensis* Dipp. - Berlin poplar - leaf. Germany Nov 1979. From A.G. Spiers Po5 = ATCC 56785.

Memnoniella echinata (Rivolta) Galloway

- 6594 Japan 1967. From G.J. Samuels ← IFO 8856.

Memnoniella subsimplex (Cooke) Deighton

- 6595 Japan 1962. From G.J. Samuels ← IFO 7525 = ATCC 18838.

Menisporrella sp.

- 2205 *Oryza sativa* L. - rice - leaf base. Te Puke, BP, NZ. From J.M. Dingley 6821.

Metarhizium anisopliae Metschnikoff) Sorokin var. *anisopliae*

- 1076 *Abelmoschus esculentus* (L.) Moench - okra. Pukekohe, AK, NZ Apr 1962. From F.J. Morton H134.
 3095 *Costelytra zealandica* (White) [Invertebrate] - New Zealand grass grub. Palmerston North, WI, NZ Jan 1969. From E.H.C. McKenzie 43.
 1035 *Heteronychus arator* (Fabricius) [Invertebrate] - black beetle. Palmerston North, WI, NZ Nov 1961. From F.J. Morton H58.
 3259 *Heteronychus arator* (Fabricius) [Invertebrate] - black beetle. NZ. From G.C.M. Latch 101.
 149 *Oxycaenus* sp. [Invertebrate] - subtterranean grass caterpillar. Palmerston North, WI, NZ Aug 1961. From F.J. Morton H3 ← R.A. Cumber ← G.C.M. Latch.
 5439 *Stethaspis longicornis* (Arrow) [Invertebrate]. Leigh, AK, NZ Mar 1965. From J.M. Dingley 6556.
 3258 *Wiseana* sp. NZ. From G.C.M. Latch 10M.

Metarhizium sp.

- 2113 Caterpillar. Christchurch, MC, NZ Nov 1967. From J.M. Dingley 67166.
 5422 Stag beetle (Lucanidae) - pupa. Waitakere Ranges, AK, NZ Aug 1965. From J.M. Dingley 65193.

Microascus trigonosporus Emmons & Dodgeanam. *Scopulariopsis trigonospora* Emmons & Dodge

- 1720 Lincoln, MC, NZ. From S. Davison 6587 ← P. Meredith.

Microdochium bolleyi (Sprague) de Hoog & Hermanides-Nijhof

- 9458 *Agrostis* sp. - bentgrass. NZ Aug 1987. From P.G. Broadhurst ← G.S. Grandison.
 9041 *Lolium* sp. - ryegrass - root. Palmerston North, WI, NZ. From E.H.C. McKenzie ← M.J. Christensen.
 10064 Turf. Ngaruawahia, WO, NZ. From R.E. Beever 507-54 ← A. Pennucci.
 10065 Turf. Wellsford, ND, NZ. From R.E. Beever 507-82b ← A. Pennucci.
 10066 Turf. Hamilton, WO, NZ. From R.E. Beever 507-41 ← A. Pennucci.

Microdochium dimerum (Penzig) Arx

- 10478 *Agropyron* sp. - roots. Marton, WI, NZ Jun 1981. From G. Laundon 18102.
 10477 *Beta vulgaris* L. - red beet - root lesions. Hastings, HB, NZ Apr 1979. From G. Laundon 14731c.
 10476 *Triticum aestivum* L. - wheat - basal rot. Manawatu, WI, NZ Dec 1978. From G. Laundon 14261a.
 10479 Australia May 1981. From G. Laundon 18126 ← Burgess F2964.

Microdochium nivale (Fries) Samuels & Hallettsee *Monographella nivalis*.**Micronectriella cucumeris** (Klebahn) Boothanam. *Fusarium tabacinum* (Beyma) W. Gams

- 6663 *Ranunculus repens* L. - creeping buttercup - leaf spot. Levin, WN, NZ Mar 1979. From G.F. Laundon LEV 15190.

Microspheariopsis sp.

- 12097 *Cytisus scoparius* (L.) Link - broom. Tongariro National Park, TO, NZ Sep 1991. From P.R. Johnston B54.
 12100 *Cytisus scoparius* (L.) Link - broom. Tongariro National Park, TO, NZ Sep 1991. From P.R. Johnston B56.
 12101 *Cytisus scoparius* (L.) Link - broom. Tokoroa, BP, NZ Sep 1991. From P.R. Johnston B63.
 12102 *Cytisus scoparius* (L.) Link - broom. Tokoroa, BP, NZ Sep 1991. From P.R. Johnston B67.
 12103 *Cytisus scoparius* (L.) Link - broom. Waipahi, SL, NZ Oct 1991. From P.R. Johnston B76.
 12104 *Cytisus scoparius* (L.) Link - broom. Arthurs Pass, NC, NZ Feb 1992. From P.R. Johnston B95.
 12105 *Cytisus scoparius* (L.) Link - broom. Culverden, NC, NZ Mar 1993. From P.R. Johnston B140.
 11802 *Hebe* sp. - pale brown necrotic leaf lesion with dark edge. Ashburton, MC, NZ Dec 1992. From J.M. Young G2.
 11786 *Phormium* sp. - brown leaf streak up to 3cm long. Albany, AK, NZ Nov 1992. From J.M. Young D83.
 11431 *Pittosporum colensoi* Hook. f. - small black irregular leaf specks with chlorotic halos. Taupo, TO, NZ Nov 1991. From J.M. Young T42.
 11488 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round tan leafspots (3mm dia.) with dark margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or2c.
 11489 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round tan leafspots (3mm dia.) with dark margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or7a.
 11779 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round (2-4mm diam.) brown leafspots with halo. Albany, AK, NZ Nov 1992. From J.M. Young D9.

- 11782 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round (1-2mm diam.) dark brown-red leafspot. Albany, AK, NZ Nov 1992. From J.M. Young D22.
- 11889 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round (0.5-1cm) tan irregular leafspots with dark cente, faint chlorotic margin. Taupo, TO, NZ Dec 1992. From J.M. Young Q42.
- 11890 *Pittosporum crassifolium* Banks & Sol. ex A. Cunn. - karo, lemonwood - round (0.5-1cm) tan irregular leafspots with dark cente, faint chlorotic margin. Taupo, TO, NZ Dec 1992. From J.M. Young Q44.
- 11418 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood - purple round lesion 1-2mm no discrete margin on leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T16.
- 11430 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood. Taupo, TO, NZ Nov 1991. From J.M. Young T41.
- 11778 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood - round (1mm diam.) brown-purple leafspot. Albany, AK, NZ Nov 1992. From J.M. Young D4.
- 12109 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood - dark red/black (2-3mm) leafspots with papery centres. Oratia, AK, NZ Nov 1992. From J.M. Young R42 - identified by E.H.C. McKenzie.
- 11419 *Pittosporum* sp. cv. *ralphsii* - black round spots 1-2mm both sides of leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T17.
- 11440 *Pittosporum* sp. cv. *ralphsii* - leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T71.
- 11470 *Pittosporum tenuifolium* Sol. ex Gaertn. - kohukohu, black matipo - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP12(3).
- 11416 *Pittosporum tenuifolium* Sol. ex Gaertn. - kohukohu, black matipo - small (1mm) round black spots on both sides of leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T11.
- 11870 *Ulex europaeus* L. - gorse. WO, NZ Sep 1991. From P.R. Johnston G109.
- 11871 *Ulex europaeus* L. - gorse. SL, NZ Nov 1991. From P.R. Johnston G198.
- 11872 *Ulex europaeus* L. - gorse. MC, NZ Jun 1992. From P.R. Johnston G260.
- 11873 *Ulex europaeus* L. - gorse. SL, NZ Apr 1992. From P.R. Johnston G265.
- 12042 *Ulex europaeus* L. - gorse. Lake Brunner, WD, NZ Jan 1993. From P.R. Johnston G267 = Herb. PDD 62729.

Monacrosporium bembicodes (Dreschler) Subramanian
10668 From G. Laundon 16993.

Monilia cinerea Bonorden
see *Monilinia laxa*.

Monilia sp.

see also *Neurospora crassa*.

- 5494 *Artocarpus altilis* (Parkins.) Fosb. - breadfruit. Cook Is. Mar 1977. From E.H.C. McKenzie ← P.A. Maddison.

Monilinia fructicola (Winter) Honey

syn. *Sclerotinia fructicola* (Winter) Rehm

- 2709 *Prunus armeniaca* L. - apricot. Loburn, CO, NZ Oct 1969. From J.M. Dingley 69117 ← J.B. Corbin.
- 2710 *Prunus armeniaca* L. - apricot. Christchurch, MC, NZ Oct 1969. From J.M. Dingley 69118.
- 7639 *Prunus armeniaca* L. - apricot - fruit. Alexandra, CO, NZ Mar 1982. From R.E. Beever 60-1 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 7640 *Prunus persica* (L.) Batsch - peach cv. Blackboy - fruit. Royal Oak, AK, NZ. From R.E. Beever 61-1.
- 7641 *Prunus persica* (L.) Batsch - peach - fruit. Whenuapai, AK, NZ Feb 1979. From R.E. Beever 153b ← W.F.T. Hartill - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 7642 *Prunus persica* (L.) Batsch - peach cv. Golden Queen - fruit. Hastings, HB, NZ Mar 1979. From R.E. Beever 156 ← W.F.T. Hartill.
- 9455 *Prunus persica* (L.) Batsch - peach - fruit. Kumeu, AK, NZ Jan 1987. From W.F.T. Hartill 262 - sensitive to iprodione (2ppm), resistant to carbendazim (1000ppm).
- 9456 *Prunus persica* (L.) Batsch - peach - fruit. Kumeu, AK, NZ Jan 1987. From W.F.T. Hartill 263 - resistant to iprodione (2ppm) & carbendazim (1000ppm).
- 9457 *Prunus persica* (L.) Batsch - peach - fruit. Kumeu, AK, NZ Jan 1987. From W.F.T. Hartill 264 - sensitive to iprodione (2ppm) and carbendazim (0.1ppm).
- 9811 *Prunus persica* (L.) Batsch - peach - brown rot on fruit. Kumeu, AK, NZ Feb 1989. From W.F.T. Hartill ← A. Slade D - sensitive to carbendazim (2ppm) and roval (2ppm), resistant to triforine (20ppm).
- 9812 *Prunus persica* (L.) Batsch - nectarine cv. Fantasia - brown rot on fruit. Coatsville, AK, NZ Feb 1989. From M. Cornwell ← A. Slade E - sensitive to roval (2ppm) and carbendazim (2ppm), resistant to triforine (20ppm).
- 8349 *Prunus salicina* Lindl. - Japanese plum - young fruit. Royal Oak, AK, NZ Nov 1983. From R.E. Beever 81-1.
- 5466 *Prunus* sp. Christchurch, MC, NZ Oct 1969. From J.M. Dingley 69117.

Monilinia laxa (Alderhold & Ruhland) Honey

syn. *Sclerotinia laxa* Alderhold & Ruhland

anam. ***Monilia cinerea*** Bonorden

- 2682 *Chaenomeles japonica* (Thunb.) Lindl. ex Spach - japonica. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69103 ← H.J. Boesewinkel H685.
- 2693 *Chaenomeles japonica* (Thunb.) Lindl. ex Spach - japonica - twig die back. Hastings, HB, NZ Sep 1969. From J.M. Dingley 69115 ← H.J. Boesewinkel.
- 7653 *Prunus armeniaca* L. - apricot - fruit. Alexandra, CO, NZ Mar 1982. From R.E. Beever 59-14 - N.Z. J. Agric. Res. 29: 299-304, 1986.
- 7654 *Prunus armeniaca* L. - apricot - fruit. Alexandra, CO, NZ Mar 1982. From R.E. Beever 59-9.
- 8348 *Prunus armeniaca* L. - apricot - young fruit. Alexandra, CO, NZ Nov 1983. From R.E. Beever 86-1.
- 2687 *Prunus domestica* L. - European plum. Loburn, CO, NZ Nov 1969. From J.M. Dingley 69108 ← J.B. Corbin.
- 2684 *Prunus glandulosa* Thunb. - flowering almond. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69105 ← P.E. Smale.
- 2692 *Prunus glandulosa* Thunb. - flowering almond. Loburn, CO, NZ Nov 1969. From J.M. Dingley 69113 ← J.B. Corbin.
- 5475 *Prunus glandulosa* Thunb. - flowering almond. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69112.
- 2686 *Prunus persica* (L.) Batsch - peach. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69107 ← J.B. Corbin.
- 2690 *Prunus persica* (L.) Batsch - peach. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69111 ← J.B. Corbin.
- 2688 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69109 ← J.B. Corbin.
- 2683 *Prunus* sp. - flowering cherry. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69104.
- 2689 *Prunus* sp. Loburn, CO, NZ Nov 1969. From J.M. Dingley 69110 ← J.B. Corbin.
- 5493 *Prunus* sp. Christchurch, MC, NZ Nov 1969. From J.M. Dingley 69119.
- 2711 Loburn, CO, NZ Nov 1969. From J.M. Dingley 69119 ← H.J. Boesewinkel R706 ← P.E. Smale.

Monilochaetes infuscans Ellis & Halsted ex Harter

- 12286 *Ipomoea batatas* (L.) Lam. - kumara cv. Jewell, sweet potato - scurf on storage roots. Pukekohe, AK, NZ Nov 1994. From P.G. Broadhurst 94213 - benomyl sensitive.
- 12287 *Ipomoea batatas* (L.) Lam. - kumara cv. Jewell, sweet potato - scurf on storage roots. Pukekohe, AK, NZ Nov 1994. From P.G. Broadhurst 94214 - benomyl sensitive.
- 12288 *Ipomoea batatas* (L.) Lam. - kumara cv. Owairaka Red, sweet potato - scurf on storage roots. Ruawai, ND, NZ Nov 1994. From P.G. Broadhurst 94215I - benomyl resistant.
- 12289 *Ipomoea batatas* (L.) Lam. - kumara cv. Owairaka Red, sweet potato - scurf on storage roots. Ruawai, ND, NZ Nov 1994. From P.G. Broadhurst 94215II - benomyl resistant.

Monochaetia karstenii (Saccardo & Sydow) Sutton

- 10669 *Camellia* sp. - leaf & stem. New Plymouth, TK, NZ Mar 1982. From G. Laundon 19370.
10670 *Camellia* sp. - stem. New Plymouth, TK, NZ Aug 1982. From G. Laundon 20003.

Monodictys levis (Wiltshire) Hughes

- 10723 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1977. From G. Laundon 11924b.

Monographella nivalis (Schaffnit) E. Muller

- anam. *Microdochium nivale* (Fries) Samuels & Hallett
anam. *Fusarium nivale* Cesati ex Berlese & Voglino

- 8709 *Agrostis* sp. - bentgrass. Queenstown, OL, NZ Sep 1984. From R.E. Beever 105-2 ← M.J. Christensen.
10433 *Festuca arundinacea* Schreb. - tall fescue - roots. Auckland, AK, NZ. From P.G. Broadhurst M340.
9058 *Poa annua* L. - annual meadow grass - leaf and crown. Wellington, WN, NZ Jul 1986. From M.J. Christensen.
8710 *Poa* sp. - leaf lesion. Queenstown, OL, NZ Sep 1984. From R.E. Beever 105-3 ← M.J. Christensen.
10494 *Triticum aestivum* L. - wheat - basal rot. Manawatu, WI, NZ Dec 1978. From G. Laundon 14261b.
7327 Soil. North Shore, AK, NZ Jun 1981. From G.J. Samuels 81-372.
8708 Turf. Ashburton, MC, NZ Jul 1984. From R.E. Beever 105-1 ← M.J. Christensen.
9957 Turf. Huapai, AK, NZ. From R.E. Beever 507-15 ← A. Pennucci.
9958 Turf. Takapuna, AK, NZ May 1989. From R.E. Beever 507-106 ← A. Pennucci.
10060 Turf. Ngauruahia, WO, NZ. From R.E. Beever 507-53 ← A. Pennucci.

Mortierella ramanniana (Moller) Linnemann

- 10671 *Fragaria* sp. - roots. Jul 1977. From G. Laundon 11937b.

Mucor mucedo Linnaeus

- 6196 From R.E. Beever Z43(-) ← G.W. Gooday Z43(-) ← CBS - J. Gen. Micro. 74: 233-239, 1973; Phytochem. 7: 2103-2105, 1968.
6197 From R.E. Beever Z46(+) ← G.W. Gooday Z46(+) ← CBS - J. Gen. Micro. 74: 233-239, 1973; Phytochem. 7: 2103-2105, 1968.

Mucor sp.

- 10684 *Freycinetia arborea* Gaudich. - dead leaves. USA (Hawaii). From E.H.C. McKenzie.

Mycocentrospora acerina (Hartig) Deighton

- 10724 *Daucus carota* L. var. *sativus* Hoffm. - carrot - roots. Ohakune, RI, NZ Sep 1978. From G. Laundon 13722.
11454 *Daucus carota* L. var. *sativus* Hoffm. - carrot - leafspots. NZ Sep 1992. From P.G. Broadhurst.
6573 *Viola X Witrockiana* Gams - pansy cv. Majestic Giant - leaf spot. Wanganui, WI, NZ Aug 1979. From G.F. Laundon LEV 15385.

Mycogone rosea Link

- 5441 Mushroom. Waitakere Ranges, AK, NZ Mar 1966. From J.M. Dingley 6646.

Mycoleptodiscus indicus (Sahni) Sutton

- 10827 Orchid. Thailand Aug 1977. From G. Laundon 12088.

Mycosphaerella brassicicola (Duby) Lindau

- 12053 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Pukekohe, AK, NZ Nov 1992. From P.G. Broadhurst 9330.
12054 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Pukekohe, AK, NZ Nov 1992. From P.G. Broadhurst 9331.
12055 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Pukekohe, AK, NZ Nov 1992. From P.G. Broadhurst 9332.
12056 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Hastings, HB, NZ Feb 1993. From P.G. Broadhurst 9333.
12057 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Hastings, HB, NZ Feb 1993. From P.G. Broadhurst 9334.
12058 *Brassica oleracea* L. var. *capitata* L. - cabbage - leafspot. Hastings, HB, NZ Feb 1993. From P.G. Broadhurst 9335.

Mycosphaerella davisii Jones

- anam. *Cercospora davisii* Ellis & Everhart

- 6106 *Melilotus* sp. - sweet clover. Palmerston North, WI, NZ 1978. From P.R. Johnston ← G.C.M. Latch E54.

Mycosphaerella fragariae (L.R. Tulasne) Lindau

- anam. *Ramularia brunnea* Peck

- 8028 *Fragaria X ananassa* Duch. - strawberry cv. Tioga - petioles, leaves (frog eye spot). Pukekohe, AK, NZ Jan 1983. From W.F.T. Hartill.
10109 *Fragaria X ananassa* Duch. - strawberry cv. Pajaro - leafspot. Waitakere, AK, NZ Nov 1989. From P.G. Broadhurst.

Mycosphaerella graminicola (Fuckel) Schroeter

- anam. *Septoria tritici* Roberge ex Desmazières

- 12503 *Triticum aestivum* L. - wheat - leaf blotch. Yugoslavia 1988. From M. Arsenijevic Se2 - Pl. Prot. 85, 1965, Belgrade.
12504 *Triticum aestivum* L. - wheat - leafspot. Yugoslavia 1988. From M. Arsenijevic Se4 - Pl. Prot. 85, 1965, Belgrade.
12505 *Triticum aestivum* L. - wheat - leafspot. Yugoslavia 1988. From M. Arsenijevic Se5 - Pl. Prot. 85, 1965, Belgrade.

Mycosphaerella ligulicola Baker, Dimock & Davis

- anam. *Ascochyta chrysanthemi* F.L. Stevens

- 2012 *Chrysanthemum* sp. - flower. New Plymouth, TK, NZ Apr 1967. From G.F. Laundon LEV 1337.
2270 *Chrysanthemum* sp. - flower blight. Waitara, TK, NZ May 1968. From G.F. Laundon LEV 2210.
2287 *Chrysanthemum* sp. - ray blight. Palmerston North, WI, NZ Jun 1968. From G.F. Laundon 2245.
10672 *Chrysanthemum* sp. Tauranga, BP, NZ Jun 1976. From G. Laundon 10715.
10673 *Chrysanthemum* sp. - leafspots. Masterton, WA, NZ Sep 1978. From G. Laundon 13629.

Mycosphaerella macrospora (Klebahn) Jorstad

- syn. *Didymellina macrospora* Klebahn

- anam. *Cladosporium iridis* (Fautrey & Roumeguere) de Vries

- 7308 *Iris* sp. - iris cv. Wedgwood - leaf spot. Hobsonville, AK, NZ Jul 1977. From G.I. Robertson P232.
10610 *Iris* sp. - leaf. Northcote, AK, NZ Jul 1990. From G.I. Robertson.

Mycosphaerella melonis (Passerini) Chiu & Walker

- see *Didymella bryoniae*.

Mycosphaerella pinodes (Berkeley & Bloxam) Vestergren

- anam. *Ascochyta pinodes* Jones

- 10677 *Eucalyptus gonatea* - leafspots. Marton, WI, NZ Aug 1978. From G. Laundon 13576.
2142 *Pisum sativum* L. - garden pea - cotyledon. Jan 1968. From G.F. Laundon LEV1909 ← J.C. Muirhead.
2268 *Pisum sativum* L. - garden pea - leaf, stem and pod lesion. Otaki, WN, NZ Apr 1968. From G.F. Laundon LEV 2184.
10674 *Pisum sativum* L. - pea - seed. Aug 1977. From G. Laundon 12063a.
10675 *Pisum sativum* L. - pea - seed. Aug 1977. From G. Laundon 12063b.
10676 *Pisum sativum* L. - pea - root. Palmerston North, WI, NZ Dec 1977. From G. Laundon 12540.

Mycosphaerella pomi (Passerini) Lindau

- anam. *Cylindrosporium pomi* Brooks

- 11687 *Malus X domestica* Borkh. - apple - pitting on fruit. Te Puke, BP, NZ. From P.R. Johnston - first record for New Zealand.

Mycosphaerella sp.

- 11559 *Blechnum* sp. - linear lesion running along leaf veins. Albany, AK, NZ Dec 1991. From J.M. Young P3b.

- Mycosphaerella zae-maydis*** Mukunya & Boothroyd
anam. *Phyllosticta maydis* Army & Nelson
3493 *Zea mays* L. - maize - leaf. USA 1971. From G.F. Laundon LEV 7131 ← D.C. Army.
- Myrioconium*** sp.
10726 *Olearia traversii* (F. Muell.) Hook. f. - akeake - vascular stain. Waikanae, WN, NZ Dec 1979. From G. Laundon 16006.
- Myrothecium carmichaelii*** Greville
3093 Pasture litter. Linton, WN, NZ Apr 1971. From E.H.C. McKenzie.
- Myrothecium gramineum*** Libert
2200 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ Feb 1968. From J.M. Dingley 6816.
- Myrothecium leucotrichum*** (Peck) Tulloch
1074 *Solanum nigrum* L. - black nightshade. Titirangi, AK, NZ Apr 1962. From F.J. Morton H128.
5454 *Solanum nigrum* L. - black nightshade. Titirangi, AK, NZ Nov 1964. From J.M. Dingley 64140.
- Myrothecium roridum*** Tode
10727 *Syngonium* sp. Levin, WN, NZ Aug 1977. From G. Laundon 12001.
- Myrothecium*** sp.
5467 Scale insect. Auckland, AK, NZ May 1972. From J.M. Dingley 7263.
- Myrothecium verrucaria*** (Albertini & Schweinitz) Ditmar
3085 *Agrostis capillaris* L. - browntop, colonial bentgrass - leaf. Palmerston North, WI, NZ Mar 1969. From E.H.C. McKenzie 45.
3098 *Medicago sativa* L. - lucerne, alfalfa - leaf. Katikati, BP, NZ Mar 1969. From E.H.C. McKenzie 44.
3094 Pasture litter. Palmerston North, WI, NZ Apr 1971. From E.H.C. McKenzie 272.
7891 Soil (maize-field). Hamilton, WO, NZ Dec 1982. From G.J. Samuels ← G.I. Robertson M64.
- Nectria atrofusca*** (Schweinitz) Ellis & Everhart
anam. *Fusarium staphyleae* Samuels & Rogerson
8027 USA. From G.J. Samuels - **ex Type specimen.**
- Nectria aurantiicola*** Berkeley & Broome
anam. *Fusarium larvarum* Fuckel
10612 *Hemiberlesia lataniae* [Invertebrate] - scale insect on lombardy poplar. Gisborne, GB, NZ. From P.G. Broadhurst F361 ← J.G. Charles.
5444 Scale insect. Tauranga, BP, NZ Dec 1974. From J.M. Dingley 7470.
5616 Scale insect on kiwifruit. Tauranga, BP, NZ 1974. From J.M. Dingley 7452 ← A.M. Fergusson 35-1.
11047 Scale insect on *Salix X reichardtii*???. Gisborne, GB, NZ Nov 1991. From P.G. Broadhurst F464.
11180 Scale insect on poplar. Gisborne, GB, NZ Nov 1991. From P.G. Broadhurst F465.
11181 Scale insect on kiwifruit. Mt Albert, AK, NZ Jan 1992. From P.G. Broadhurst F466.
11182 Scale insect on poplar. Kerikeri, ND, NZ Dec 1991. From P.G. Broadhurst F467.
- Nectria aureo-fulva*** Cooke & Ellis
anam. *Dendrodochium* sp.
5278 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Waitakere Ranges, AK, NZ Aug 1970. From J.M. Dingley 7052.
5279 Dead wood. Auckland, AK, NZ May 1972. From J.M. Dingley 7257.
- Nectria*** cf. ***coprosmae*** Dingley
anam. *Cylindrocarpon* sp.
9336 *Ripogonum scandens* J.R. & G. Forst. - kareao, supplejack - stem. TK, NZ. From G.J. Samuels 73-229.
- Nectria*** cf. ***tawa*** Dingley
anam. *Cylindrocarpon obtusisporum* (Cook & Harkness) Wollenweber
9335 *Coprosma* sp. - roots. Auckland, NZ Aug 1973. From G.J. Samuels 73-152.
9337 *Coprosma* sp. - trunk. Auckland, NZ. From G.J. Samuels 73-255.
- Nectria coprosmae*** Dingley
anam. *Cylindrocarpon* sp.
9342 *Collospermum hastatum* (Col.) Skotts. - leaf. Te Awamutu, WO, NZ. From G.J. Samuels 79-97.
9339 *Freyinetia baueriana* Endl. subsp. *banksii* (A. Cunn.) Stone - kiekie. NZ. From G.J. Samuels 74-118.
9340 *Rhopalostylis sapida* Wendl. & Drude - nikau. Little Barrier Is., CL, NZ. From G.J. Samuels 76-39.
9343 Tree - bark. Auckland, AK, NZ. From G.J. Samuels 81-368.
9345 Tree - bark. WD, NZ. From G.J. Samuels 83-155 = PDD 46335.
- Nectria decora*** (Wallroth) Fuckel
anam. *Fusarium* sp.
5520 From J.M. Dingley 6787 ← CBS 132-35.
- Nectria egmontensis*** Dingley
anam. *Gliocladium* sp.
5424 *Pseudowintera colorata* (Raoul) Dandy - horopito. Tararua Ranges, WN, NZ Mar 1972. From J.M. Dingley 7245.
- Nectria flammea*** (Tulasne) Dingley
anam. *Fusarium coccophilum* (Desmazières) Wollenweber & Reinking
9774 Scale insect parasite on pepino. Auckland, AK, NZ Oct 1988. From P.R. Johnston.
11031 Scale insect on tobacco weed. Kerikeri, ND, NZ. From P.G. Broadhurst 440 ← D. Allen.
- Nectria fragilis*** Dingley
anam. *Cylindrocarpon* sp.
5298 *Wintera* sp. Bank's Peninsula, MC, NZ Jun 1958. From J.M. Dingley 5848.
- Nectria galligena*** Bresadola
anam. *Cylindrocarpon heteronemum* (Berkeley & Broome) Wollenweber
anam. *Cylindrocarpon mali* (Allescher) Wollenweber
4070 *Malus X domestica* Borkh. - apple cv. Granny Smith - eye rot of fruit. Auckland, AK, NZ Jun 1974. From H.J. Boesewinkel.
5430 *Malus X domestica* Borkh. - apple - stem. Auckland, AK, NZ 1965. From J.M. Dingley 66126.
9472 *Malus X domestica* Borkh. - apple cv. Royal Gala - circular canker on branch with central pinkish-white spore mass. Pukekohe, AK, NZ Nov 1987. From W.F.T. Hartill 291 = PDD 48116.
10611 *Malus X domestica* Borkh. - apple - stem canker. Motueka, NN, NZ. From P.G. Broadhurst.
- Nectria gracilipes*** (L.R. & C. Tulasne) Wollenweber
syn. *Sphaerostilbe gracilipes* L.R. & C. Tulasne
anam. *Stilbella clavulata* (Montagne) Seifert
7896 Dead log. Brazil Nov 1977. From G.J. Samuels BR27 = NY-BR27.

- 7897 Bark. Venezuela Jul 1972. From G.J. Samuels 72-159 = NY-VE5106.
 7901 Bark. Brazil Dec 1977. From G.J. Samuels BR1017A = NY-BR1017A.
 7904 Bark. Venezuela 1972. From G.J. Samuels 72-97 = NY-VE4322.
 7909 Recently felled tree. Brazil Dec 1977. From G.J. Samuels BR852 = NY-BR852.
 7911 Bark. Venezuela 1972. From G.J. Samuels 72-160 = NY-BR5085.

Nectria grammicospora Ferdinandsen & Wingeanam. *Gliocladium* sp.

- 7807 *Hoheria populnea* A. Cunn. - houhere, lacebark - bark. Waitakere Ranges, AK, NZ Nov 1976. From G.J. Samuels 76-196.
 7803 Wood. Venezuela Jul 1972. From G.J. Samuels 72-92 = Dumont VE4373.
 7805 Fruit. Venezuela Jul 1971. From G.J. Samuels 71-314 = Dumont VE2077.
 7806 Bark. Venezuela Jul 1971. From G.J. Samuels 71-290 = Dumont VE2029.

Nectria haematococca Berkeley & Broomeanam. *Fusarium solani* (Martius) Saccardo

- 3767 *Citrus limon* (L.) Burm.f. - lemon - root. Gisborne, GB, NZ. From J.B. Taylor F48.
 8832 *Coffea arabica* L. - coffee - root. Fiji Oct 1984. From E.H.C. McKenzie ← D. Kashyap 68-84.
 2059 *Cucumis sativus* L. - cucumber. Whangarei, ND, NZ. From J.B. Taylor FUS9.
 2060 *Cucumis sativus* L. - cucumber. Palmerston North, WI, NZ. From J.B. Taylor FUS10.
 3736 *Cucumis sativus* L. - cucumber. Whangarei, ND, NZ. From J.B. Taylor F9.
 3737 *Cucumis sativus* L. - cucumber. Palmerston North, WI, NZ. From J.B. Taylor F10.
 5249 *Cucumis sativus* L. - cucumber. Whangarei, ND, NZ Dec 1963. From J.M. Dingley 63141.
 5654 *Cucurbita maxima* Duch. - pumpkin - skin after storage. Mt Albert, AK, NZ Jun 1974. From J.M. Dingley 7438 ← B.T. Hawthorne.
 10998 * *Cucurbita maxima* Duch. - buttercup squash - fruit lesion. Mercer, AK, NZ Mar 1987. From B.T. Hawthorne BTH800 ← J. Rees-George 4-46-2Aii - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 10999 * *Cucurbita maxima* Duch. - buttercup squash - root. Pukekohe, AK, NZ Jan 1988. From B.T. Hawthorne BTH869 ← J. Rees-George 56-3 - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 11000 * *Cucurbita maxima* Duch. - buttercup squash - fruit storage rot. Pukekohe, AK, NZ Apr 1988. From B.T. Hawthorne BTH929 ← J. Rees-George 4-65-3a - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 11001 * *Cucurbita maxima* Duch. - buttercup squash - fruit rot. Pukekohe, AK, NZ Apr 1988. From B.T. Hawthorne BTH930 ← J. Rees-George 4-66-9a - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 11002 * *Cucurbita maxima* Duch. - buttercup squash - fruit rot. Pukekohe, AK, NZ May 1988. From B.T. Hawthorne BTH931 ← J. Rees-George 4-69-36a - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 11003 * *Cucurbita maxima* Duch. - pumpkin - root. Kumeu, AK, NZ Dec 1988. From B.T. Hawthorne BTH975 ← J. Rees-George 77-1a - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *pumpkin (Rees-George).
 11004 * *Cucurbita maxima* Duch. - buttercup - root rot. Kumeu, AK, NZ Dec 1988. From B.T. Hawthorne BTH976 ← J. Rees-George 77-1b - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 11005 * *Cucurbita maxima* Duch. - buttercup squash - root rot. Kumeu, AK, NZ Dec 1988. From B.T. Hawthorne BTH977 ← J. Rees-George 77-3i - NZ J. Crop Hort. Sci. 20: 51-57, 1992 - *buttercup squash (Rees-George).
 10989 *Cucurbita* sp. USA. From B.T. Hawthorne FRCS207 ← P.E. Nelson = FRC S207 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 10990 *Cucurbita* sp. USA. From B.T. Hawthorne FRCS220 ← P.E. Nelson = FRC S220 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 10991 *Cucurbita* sp. USA. From B.T. Hawthorne FRCS695 ← P.E. Nelson = FRC S695 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 10992 *Cucurbita* sp. USA. From B.T. Hawthorne WIS FS3 ← D. Samac ← S.N. Smith Fs3 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 10993 *Cucurbita* sp. USA. From B.T. Hawthorne WIS FS5 ← D. Samac ← S.H. North FS5 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11006 * *Cucurbita* sp. Auckland, NZ. From B.T. Hawthorne PGB153 ← P.G. Broadhurst - N.Z. crop & hort. sci. 20: 51-57, 1992 - *cucurbita sp. (Broadhurst).
 10678 *Daucus carota* L. var. *sativus* Hoffm. - carrot - roots. Stoke, NN, NZ Feb 1978. From G. Laundon 11468.
 5136 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato. Dargaville, ND, NZ Aug 1960. From J.M. Dingley 6026.
 10995 *Liriodendron tulipifera* L. - tulip tree. USA. From B.T. Hawthorne HVE T95 ← H.D. Van Etten T95 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 1997 *Lycopersicon esculentum* Mill. - tomato. Tauranga, BP, NZ. From J.B. Taylor FUS1.
 1998 *Lycopersicon esculentum* Mill. - tomato. Titirangi, AK, NZ. From J.B. Taylor FUS2.
 1999 *Lycopersicon esculentum* Mill. - tomato. Napier, HB, NZ. From J.B. Taylor FUS3.
 3730 *Lycopersicon esculentum* Mill. - tomato. Titirangi, AK, NZ. From J.B. Taylor F2.
 3731 *Lycopersicon esculentum* Mill. - tomato. Napier, HB, NZ. From J.B. Taylor F3.
 3744 *Lycopersicon esculentum* Mill. - tomato. Mt Albert, AK, NZ. From J.B. Taylor F19 ← J.M. Dingley 6431.
 5195 *Medicago sativa* L. - lucerne, alfalfa. Wanaka, OL, NZ Jun 1961. From J.M. Dingley 6118.
 11007 *Medicago sativa* L. - lucerne, alfalfa - crown. CO, NZ 1979. From B.T. Hawthorne BTH 446 ← J. Rees-George EX6-79-153-11b - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11008 *Medicago sativa* L. - lucerne, alfalfa - crown rot. CO, NZ 1979. From B.T. Hawthorne BTH447 ← J. Rees-George EX6-79-180-35b - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11009 *Medicago sativa* L. - lucerne, alfalfa - crown rot. Winchmore, MC, NZ Nov 1979. From B.T. Hawthorne BTH538 ← J. Rees-George EX8-80-50-5-14Cre - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11010 *Medicago sativa* L. - lucerne, alfalfa - crown rot. SC, NZ Nov 1979. From B.T. Hawthorne BTH539 ← J. Rees-George EX8-80-57-41-6 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11011 *Medicago sativa* L. - lucerne, alfalfa - crown rot. SC, NZ Nov 1979. From B.T. Hawthorne BTH540 ← J. Rees-George EX8-80-58-41-6 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 5208 *Nicotiana tabacum* L. - tobacco - seedling. Motueka, NN, NZ Mar 1967. From J.M. Dingley 6758.
 2058 *Passiflora edulis* Sims - passionfruit. Matamata, WO, NZ. From J.B. Taylor FUS7 ← S. Davison.
 2263 *Passiflora edulis* Sims - passionfruit. Kerikeri, ND, NZ May 1968. From J.M. Dingley 6875.
 3734 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ. From J.B. Taylor F6 ← S. Davison.
 3735 *Passiflora edulis* Sims - passionfruit. Matamata, WO, NZ. From J.B. Taylor F7 ← S. Davison.
 3757 *Passiflora edulis* Sims - passionfruit - root. NZ. From J.B. Taylor F35.
 5157 *Passiflora edulis* Sims - passionfruit. Te Puke, BP, NZ Jun 1959. From J.M. Dingley 5946.
 5206 *Passiflora edulis* Sims - passionfruit. Matakana, AK, NZ Mar 1966. From J.M. Dingley 6671.
 5215 *Passiflora edulis* Sims - passionfruit - root. Auckland, AK, NZ Mar 1966. From J.M. Dingley 6670.
 5514 *Passiflora edulis* Sims - passionfruit. Western Samoa Feb 1977. From E.H.C. McKenzie.
 2262 *Passiflora mollissima* (HBK) Bailey - banana passionfruit - root. Kerikeri, ND, NZ May 1968. From J.M. Dingley 6874 = PDD 26680.
 10680 *Persea americana* Mill. - avocado. Ormond, GB, NZ Jul 1977. From G. Laundon 11920.
 5166 *Pisum sativum* L. - garden pea. Nelson, NN, NZ Dec 1965. From J.M. Dingley 65229.
 10996 *Pisum sativum* L. - pea. USA. From B.T. Hawthorne HVE6-36 ← H.D. Van Etten 6-36 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 10997 *Pisum sativum* L. - pea. USA. From B.T. Hawthorne HVE6-94 ← H.D. Van Etten 6-94 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11012 *Pisum sativum* L. - pea. HB, NZ. From B.T. Hawthorne SAM440 ← S.A. Menzies 440 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11013 *Pisum sativum* L. - pea. HB, NZ. From B.T. Hawthorne SAM616 ← S.A. Menzies 616 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11014 *Pisum sativum* L. - pea. Nelson, NN, NZ. From B.T. Hawthorne SAM7194 ← S.A. Menzies 7194 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11015 *Pisum sativum* L. - pea. Nelson, NN, NZ. From B.T. Hawthorne SAM7277 ← S.A. Menzies 7277 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.
 11350 *Pisum sativum* L. - pea. From J. Rees-George ← H. van Etten HVET-8 - J. Bact. 171: 1942-51, 1989.
 11351 *Pisum sativum* L. - pea. From J. Rees-George ← H. van Etten HVET-30 - J. Bact. 171: 1942-51, 1989.
 2022 *Poncirus trifoliata* (L.) Raf. - trifoliate orange - seed. Australia May 1967. From G.F. Laundon LEV 1393B.

- 11242 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9151.
 11243 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9152.
 11244 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9153.
 11245 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9155.
 11312 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9156.
 11313 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9157.
 11314 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9158.
 11315 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9159.
 11316 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9160.
 11317 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9178.
 11352 *Pterocarpus indicus* Willd. - angšana - trunk. Singapore. From J. Rees-George ← Y.K. Fong SS9150.
 5115 *Solanum tuberosum* L. - potato - tuber. Auckland, AK, NZ Aug 1976. From J.M. Dingley 764.
 10679 *Solanum tuberosum* L. - potato - tuber. Rata, RI, NZ Mar 1977. From G. Laundon 11568a.
 5113 *Zea mays* L. - maize. Pukekohe, AK, NZ Mar 1972. From J.M. Dingley 7248.
 6668 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
 6669 *Zingiber officinale* Rosc. - ginger - rhizome rot. Fiji Nov 1979. From P.R. Johnston.
 5150 Sewage. Mangere, AK, NZ Jun 1962. From J.M. Dingley 6213.
 7871 Mite. Auckland, AK, NZ Nov 1982. From E.H.C. McKenzie ← S. Dhana.
 8138 From J.B. Taylor F106. ← IML 124588.
 10435 Machinery oil. Glenbrook, AK, NZ. From P.G. Broadhurst F327 ← E.H.C. McKenzie.
 10994 USA. From B.T. Hawthorne WIS F37 ← D. Samac ← S.N. Smith FS37 - NZ J. Crop Hort. Sci. 20: 51-57, 1992.

Nectria haematococca Berkeley & Broome var. ***cucurbitae*** (Snyder & Hansen) Dingley

- anam. *Fusarium solani* (Martius) Saccardo f. sp. *cucurbitae* Snyder & Hansen
 9799 *Cucurbita* sp. From ATCC 38468 ← H.D. Van Etten T-131.
 9776 From ATCC 18098 ← W.C. Snyder S Cu-14a - red perithecial hermaphrodite, mates with ICMP 9787 (ATCC 18 099) - race 1.
 9779 From ATCC 24157 ← C.R. Curtis S29 - Pl. Physiol. 49: 235-239, 1972 - red perithecial, homothallic.
 9787 From ATCC 18099 ← W.C. Snyder S,Cu-9 - white perithecial hermaphrodite, mates with ICMP 9776 (ATCC 18098) - race 1.
 9788 From ATCC 18281 ← C.R. Curtis 12 ← W.C. Snyder - white perithecial, mates with ICMP 9796 (ATCC 18279).
 9795 From ATCC 18278 ← C.R. Curtis 50 ← W.C. Snyder - red perithecial male, mates with ICMP 9797 (ATCC 18280).
 9796 From ATCC 18279 ← C.R. Curtis 17 ← W.C. Snyder - white perithecial male, mates with ICMP 9788 (ATCC 18281).
 9797 From ATCC 18280 ← C.R. Curtis 4 ← W.C. Snyder - red perithecial female, mates with ICMP 9795 (ATCC 18278).

Nectria illudens Berkeley

- anam. *Fusarium illudens* Booth
 2463 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Mt Pihanga, TO, NZ Nov 1968. From J.M. Dingley 68154.
 9708 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe - bark. Urewera National Park, GB, NZ May 1985. From G.J. Samuels 85-67 = PDD 50076.
 9707 *Metrosideros* sp. Mt Aspiring National Park, OL, NZ Apr 1985. From G.J. Samuels 85-37 = PDD 50049.
 9706 Tree - bark. Lake Wilkie, SL, NZ Apr 1985. From G.J. Samuels 85-28 = PDD 50041.

Nectria inventa Pethybridge

- anam. *Verticillium tenerum* (Nees) Link
 12260 *Zantedeschia* sp. - calla lilly - tuber. Kaeo, ND, NZ Nov 1994. From E.H.C. McKenzie ← W.H.T. Hartill.
 897 Grass - dead stem. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H47.
 3815 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ101.
 3846 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ144.

Nectria kowhai Dingley

- anam. *Gliocladium* sp.
 1710 *Sophora microphylla* Ait. - kowhai. Waikowhai, AK, NZ Feb 1958. From J.M. Dingley 5854 = PDD 13151.

Nectria lucida Hohnel

- anam. *Cylindrocarpon lucidum* Booth
 2045 *Fragaria X ananassa* Duch. - cultivated strawberry - root. Hawera, TK, NZ Nov 1965. From G.F. Laundon LEV 385D.
 10387 *Rosa* sp. - roots. Masterton, WA, NZ. From G. Laundon 11257.

Nectria macrostoma Berkeley & Curtis

- anam. *Stilbella* sp.
 7902 Bark. Waitakere Ranges, AK, NZ Mar 1980. From G.J. Samuels 80-51.

Nectria ochroleuca (Schweinitz) Berkeley

- anam. *Gliocladium roseum* Bainier
 10629 *Asparagus officinalis* L. - asparagus. Levin, WN, NZ May 1977. From G. Laundon 11750.
 5270 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook. f. ex Kirk - tawa. Henderson, AK, NZ Feb 1958. From J.M. Dingley 5861 = PDD 14618.
 9048 *Hordeum vulgare* L. - barley cv. Illia - healthy green leaf. Lincoln, MC, NZ Sep 1985. From T. Riesen 4 = PDD 52068.
 1932 *Lupinus arboreus* Sims - tree lupin. Te Henga, AK, NZ Jul 1967. From J.M. Dingley 67119.
 2462 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Mt Pihanga, TO, NZ. From J.M. Dingley 68155.
 5254 *Meliccytus ramiflorus* J.R. & G. Forst. - mahoe. Waitakere Ranges, AK, NZ Mar 1972. From J.M. Dingley 7238.
 5271 *Olearia rani* (A. Cunn.) Druce - heketara. Waitakere Ranges, AK, NZ May 1963. From J.M. Dingley 6366.
 1890 *Pinus radiata* D. Don - radiata pine, Monterey pine - bark. Rotorua, BP, NZ Jun 1967. From J.M. Dingley 67113.
 1891 *Pinus radiata* D. Don - radiata pine, Monterey pine - bark. Rotorua, BP, NZ Jun 1967. From J.M. Dingley 67114.
 5277 *Rhopalostylis sapida* Wendl. & Drude - nikau. Coromandel, CL, NZ Dec 1969. From J.M. Dingley 706.
 10630 *Solanum tuberosum* L. - potato - tuber. Levin, WN, NZ Jun 1977. From G. Laundon 11923.
 5253 *Sophora microphylla* Ait. - kowhai. Piha, AK, NZ Dec 1970. From J.M. Dingley 7092.
 5275 *Sophora microphylla* Ait. - kowhai. Auckland, AK, NZ Oct 1970. From J.M. Dingley 7078.
 10628 *Zantedeschia* sp. - seed. Palmerston North, WI, NZ Apr 1976. From G. Laundon 10646.
 5264 Bark. NZ Jan 1963. From J.M. Dingley 6328A.
 5280 Bark. Auckland, AK, NZ Jan 1963. From J.M. Dingley 6328.
 10631 Orchid - bulbs. Rotorua, BP, NZ. From G. Laundon 16130.

Nectria parvipialis Samuels

see *Sesquicillium pseudosetosum*.

Nectria peziza (Tode) Fries

- anam. *Acremonium* sp.
 5273 *Geniostoma* sp. Upper Piha Valley, AK, NZ Dec 1963. From J.M. Dingley 63130.

Nectria pinea Dingley

- anam. *Cylindrocarpon* sp.
 5287 *Pinus radiata* D. Don - radiata pine, Monterey pine. NZ Nov 1965. From J.M. Dingley 65205.

Nectria puiggari Spegazzini

8148 *Hypoxyylon deustum* (Hoffm. : Fr.) Greville. Waitakere Ranges, AK, NZ Mar 1983. From G.J. Samuels 83-39.

Nectria radicolata Gerlach & Nilsson

anam. *Cylindrocarpon destructans* (Zinnsmeister) Scholten

- 10730 *Armoracia rusticana* P. Gaertn., B. Mey. & Schreb. - horse-radish - root. Palmerston North, WI, NZ Jun 1977. From G. Laundon 11872.
 10728 *Daucus carota* L. var. *sativus* Hoffm. - carrot - root. Ohakune, RI, NZ Mar 1977. From G. Laundon 11649b.
 10729 *Liquidambar* sp. - root. New Plymouth, TK, NZ Jun 1977. From G. Laundon 11868b.
 10732 *Pseudopanax* sp. - root. Palmerston North, WI, NZ Sep 1977. From G. Laundon 12218a.
 10731 *Telopea* sp. - waratah. New Plymouth, TK, NZ Jun 1977. From G. Laundon 11956.
 9348 *Trifolium repens* L. - white clover - root. From G.J. Samuels 83-550 ← M.J. Christensen.

Nectria rigidiuscula Berkeley & Broome

anam. *Fusarium decemcellulare* Brick

- 7701 *Psidium guajava* L. - yellow guava - branch canker. Western Samoa Mar 1982. From E.H.C. McKenzie ← T.V. Bourke.
 2250 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6862.
 2251 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6863.
 2252 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6864.
 2253 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6865.
 2254 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6866.
 2255 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6867.
 2256 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6868.
 2257 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6869.
 2260 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6872.
 2261 *Theobroma cacao* L. - cacao. Papua New Guinea May 1968. From J.M. Dingley 6873.
 8152 *Vanilla planifolia* Andr. - vanilla - stem blackening. Vanuatu Jun 1983. From E.H.C. McKenzie.
 10382 May 1981. From G. Laundon 18129 ← University of Sydney 1824.

Nectria sesquicillii Samuels

see *Sesquicillium* cf. *buxi*.

Nectria sesquiphialis Samuels

syn. *Sesquicillium asymmetricum* Samuels

9481 From G.J. Samuels 72-193 - **ex Type specimen.**

Nectria sp.

anam. *Cylindrocarpon* sp.

- 9346 *Astelia* sp. - leaf. Gisborne, GB, NZ. From G.J. Samuels 83-162 = PDD 46340.
 9349 *Astelia* sp. - leaf. GB, NZ. From G.J. Samuels 85-59 = PDD 47760.
 7801 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook. f. ex Kirk - tawa. Waitakere Ranges, AK, NZ Mar 1977. From G.J. Samuels 77-21.
 5272 *Brachyglottis repanda* J.R. & G. Forst. - rangiora. Little Barrier Is., CL, NZ Jun 1958. From J.M. Dingley 5846.
 5248 *Coprosma grandiflora* Hook. f. - kanono. Waitakere Ranges, AK, NZ Mar 1958. From J.M. Dingley 5855.
 5267 *Coprosma* sp. Auckland, AK, NZ Sep 1972. From J.M. Dingley 72120.
 5293 *Cyathea* sp. - tree fern. Waitakere Ranges, AK, NZ Mar 1966. From J.M. Dingley 6648 = PDD 25134.
 5258 *Fomes* sp. Waitakere Ranges, AK, NZ May 1966. From J.M. Dingley 6667.
 9705 *Hoheria populnea* A. Cunn. - houhere, lacebark - bark. Waitakere Ranges, AK, NZ Jun 1983. From G.J. Samuels 83-235 ← J.M. Dingley = PDD 46436.
 9704 *Pittosporum* sp. Nelson Lakes National Park, NN, NZ May 1983. From G.J. Samuels 83-229 = PDD 46430.
 5256 Rotting twig. Waitakere Ranges, AK, NZ May 1971. From J.M. Dingley 7166.
 7894 Bark. Brazil Nov 1977. From G.J. Samuels BR47.
 8236 Polypore. Buller Gorge, WD, NZ Mar 1983. From G.J. Samuels 83-48.

Nectria stenospora Berkeley & Broome

anam. *Gliocladium* sp.

5262 *Melicactus ramiflorus* J.R. & G. Forst. - mahoe. Henderson, AK, NZ 1957. From J.M. Dingley 5919 = PDD 13137.

Nectria subquaternata Berkeley & Broome

anam. *Dendrodochium* sp.

7808 Bark. Venezuela Jul 1971. From G.J. Samuels 71-349 = Dumont VE2865.

Nectria suffulta Berkeley & Curtis

anam. *Acremonium* sp.

- 5265 *Rhopalostylis sapida* Wendl. & Drude - nikau. Waitakere Ranges, AK, NZ May 1963. From J.M. Dingley 6365 = PDD 21988.
 5266 *Rhopalostylis sapida* Wendl. & Drude - nikau. Puketū Forest, ND, NZ Jul 1963. From J.M. Dingley 6385.

Nectria sulcispota Petch

5263 *Coprosma robusta* Raoul - karamu. Auckland, AK, NZ Oct 1963. From J.M. Dingley 63101.

Nectria tasmanica Berkeley

anam. *Cylindrocarpon* sp.

5290 Waitakere Ranges, AK, NZ Oct 1972. From J.M. Dingley 7310.

Nectria tawa Dingley

anam. *Cylindrocarpon obtusisporum* (Cooke & Harkness) Wollenweber

- 9341 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook. f. ex Kirk - tawa. Auckland, AK, NZ. From G.J. Samuels 77-17.
 9338 *Dacrydium cupressinum* Sol. ex Lamb. - rimu. WD, NZ. From G.J. Samuels 74-50.
 5629 Auckland, AK, NZ Jan 1970. From J.M. Dingley 702 ← F.M. Rush-Munro 134S.
 9344 Tree - bark. ND, NZ. From G.J. Samuels 82-92.
 9347 Tree - bark. BR, NZ. From G.J. Samuels 83-234 = PDD 46435.
 10369 From G. Laundon 11988.

Nectria vilior Starback

5255 *Melicactus ramiflorus* J.R. & G. Forst. - mahoe. Hunua Ranges, AK, NZ Feb 1963. From J.M. Dingley 6330.

Nectria westlandica Dingley

9703 Bark. Mt Egmont National Park, TK, NZ Apr 1983. From G.J. Samuels 83-203 = PDD 46408.

Nectriella pironii Alfieri & Samuels

anam. *Kutilakesa* sp.

- 6671 *Aphelandra squarrosa* Nees - zebra plant. USA 1978. From G.J. Samuels 7824 - **ex Type specimen.**
 6672 *Aphelandra squarrosa* Nees - zebra plant. USA Jun 1978. From G.J. Samuels 78-40.
 6673 *Codiaeum variegatum* (L.) Blume var. *pictum* (C. & G. Lodd.) Mull.-Arg. - croton - stem gall. USA May 1978. From G.J. Samuels 78-27.
 6674 *Leucophyllum frutescens* (Berland.) I.M. Johnst. - ceniza. USA May 1977. From G.J. Samuels 78-32.

Neosartorya fischeri (Wehmer) Malloch & Cainanam. *Aspergillus fischeri* Wehmer5624 *Pisum sativum* L. - garden pea - seed. Palmerston North, WI, NZ Aug 1972. From J.M. Dingley 72103.**Neurospora crassa** Shear & Dodgeanam. *Monilia* sp.

- 6360 Laboratory derived strain. From R.E. Beever ← D.D. Perkins 8437-5a - Neurospora Newsletter 29: 45-121, 1982.
 6361 Laboratory derived strain. From R.E. Beever ← D.D. Perkins 8437-2A - Neurospora Newsletter 29: 45-121, 1982.
 7722 Laboratory derived strain. From R.E. Beever ← FGSC 997 - Neurospora Newsletter 29: 45-121, 1982.
 7723 Laboratory derived strain. From R.E. Beever ← FGSC 998 - Neurospora Newsletter 29: 45-121, 1982.
 7781 Laboratory derived strain. From R.E. Beever ← FGSC 987 - Neurospora Newsletter 29: 45-121, 1982.
 7782 Laboratory derived strain. From R.E. Beever ← FGSC 988 - Neurospora Newsletter 29: 45-121, 1982.
 7783 Laboratory derived strain. From R.E. Beever ← FGSC 1243 - Neurospora Newsletter 29: 45-121, 1982.
 7784 Laboratory derived strain. From R.E. Beever ← FGSC 1244 - Neurospora Newsletter 29: 45-121, 1982.
 7785 Laboratory derived strain. From R.E. Beever ← FGSC 117 - Neurospora Newsletter 29: 45-121, 1982.
 7786 Laboratory derived strain. From R.E. Beever ← FGSC 456 - Neurospora Newsletter 29: 45-121, 1982.
 7823 Laboratory derived strain. From R.E. Beever ← FGSC 2964 - Neurospora Newsletter 29: 45-121, 1982.
 7824 Laboratory derived strain. From R.E. Beever ← FGSC 2965 - Neurospora Newsletter 29: 45-121, 1982.
 10406 From R.E. Beever ← B.P. Segedin lys5ascoa - Laboratory strain. Mating type a, requires lysine, gives white ascospores in crosses.

Nimbya sp.11417 *Carex secta* Boott. in Hook.f. Taupo, TO, NZ Nov 1991. From J.M. Young T13.**Nomuraea rileyi** (Farlow) Samsonsyn. *Botrytis rileyi* Farlowsyn. *Beauveria rileyi* (Farlow) Grosswald8836 *Thysanoplusia orichalcea* (Fabricius) [Invertebrate] - soybean looper - mummified larva. Pukekohe, AK, NZ May 1985. From G.J. Samuels 85-9
← M.G. Hill.**Ochroconis constricta** (Abbott) de Hoog & Arxsyn. *Scolecobasidium constrictum* Abbott

6591 Soil. Wellington, WN, NZ Jul 1979. From F.M. Rush-Munro 790688.

Ombrophila microspora (Ellis & Everhart) Saccardo & P. Sydowanam. *Phialophora* sp.

- 7794 *Cyathea* sp. - tree fern - decaying caudex. Cascades Park, AK, NZ Sep 1981. From G.J. Samuels 81-370.
 7797 *Freyinetia baueriana* Endl. subsp. *banksii* (A. Cunn.) Stone - kiekie - stem. Waipoua Forest, ND, NZ Jun 1981. From G.J. Samuels 81-216.
 7793 Tree-fern - decaying trunk. Waipoua Forest, ND, NZ Jun 1981. From G.J. Samuels 81-215.

Ombrophila sp.7798 *Freyinetia baueriana* Endl. subsp. *banksii* (A. Cunn.) Stone - kiekie. Waipoua Forest, ND, NZ Apr 1982. From G.J. Samuels 82-220.**Ombrophila violacea** Fries

7796 Tree-fern - caudex. Omahuta State Forest, ND, NZ Jun 1982. From G.J. Samuels 82-73.

Paecilomyces carneus (Duche & Heim) A.H.S. Brown & G. Smith

7762 Soil. Palmerston North, WI, NZ May 1977. From G.C.M. Latch S-65.

Paecilomyces elegans (Corda) Mason & Hughessee *Mariannaea elegans* var. *elegans*.**Paecilomyces farinosus** (Holm) A.H.S. Brown & G. Smith

- 7819 *Vespa germanica* (Fabricius) [Invertebrate] - German wasp. Lincoln, MC, NZ Oct 1982. From E.H.C. McKenzie ← J. Whitford.
 147 Insect. Palmerston North, WI, NZ Nov 1961. From F.J. Morton H52 ← G.C.M. Latch.
 5468 Insect. Palmerston North, WI, NZ Nov 1964. From J.M. Dingley 64143.
 10733 Weevil. Levin, WN, NZ. From G. Laundon 10918.

Paecilomyces javanicus (Friederichs & Bally) A.H.S. Brown & G. Smith

5450 Trapdoor spider. Palmerston North, WI, NZ Mar 1966. From J.M. Dingley 6635.

Paecilomyces lilacinus (Thom) Samsonsyn. *Penicillium lilacinum* Thom

- 1242 Sodium malonate solution 2M, pH 5.1. From F.J. Morton H391.
 5523 Auckland, AK, NZ Apr 1977. From G.J. Samuels ← Health Department 770460.
 5669 Sheep dung. Palmerston North, WI, NZ Jan 1976. From G.C.M. Latch S15.
 5676 Sheep dung. Palmerston North, WI, NZ Mar 1976. From G.C.M. Latch S22.
 10835 Mullet - in gut (anaerobic). Waimea Estuary, NN, NZ 1989. From E.H.C. McKenzie ← D. Mountford.

Paecilomyces marquandii (Masse) Hughes

5673 Soil. Palmerston North, WI, NZ Jan 1976. From G.C.M. Latch S19.

Paecilomyces sp.

- 426 Wool. 1961. From M.H. Dye F14.
 1087 Soil. Rotorua, BP, NZ Jul 1963. From F.J. Morton H164 ← A.H. Uljee.
 3858 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ159.
 5445 Insect. NZ Jul 1973. From J.M. Dingley 7359 ← J.S. Timlin.

Paecilomyces variotii Bainier

- 1082 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Auckland, AK, NZ Jul 1962. From F.J. Morton H151 ← A.G. Watson.
 146 Wool. Auckland, AK, NZ Aug 1961. From F.J. Morton H1 ← M.H. Dye.
 2207 Poultry mash. Lincoln, MC, NZ Mar 1968. From J.M. Dingley 6823 ← B.A. Peddis.
 5478 Insect. NZ 1964. From J.M. Dingley 64144.
 10357 Oil. Glenbrook, AK, NZ. From E.H.C. McKenzie.
 10734 Aerial contaminant. Levin, WN, NZ Sep 1976. From G. Laundon 10958.

Panellus longinquus (Berkeley) Singer

- 9633 *Nothofagus* sp. Monowai, FD, NZ May 1990. From R.H. Petersen 2665 - tester strains for compatibility tests.
 9634 Urewera National Park, GB, NZ May 1990. From R.H. Petersen 2830 = TENN 48864 - tester strains for compatibility tests.

Peckiella geoglossi (Ellis & Everhart) Saccardo5432 *Geoglossum* sp. Waitakere Ranges, AK, NZ Jul 1972. From J.M. Dingley 7299.**Penicillium aculeatum** Raper & Fennell

5675 Soil. Castlepoint, WA, NZ Jan 1976. From G.C.M. Latch S21.

Penicillium aurantiogriseum Dierckxsyn. *Penicillium cyclopium* Westling

- 1196 *Cyphomandra betacea* Cav. Sendtn. - tamarillo, tree tomato - fruit. Auckland, AK, NZ May 1962. From F.J. Morton H345.
 1238 *Triticum aestivum* L. - wheat - grains. Auckland, AK, NZ Aug 1962. From F.J. Morton H380.
 1237 Mushroom compost. Auckland, AK, NZ Aug 1962. From F.J. Morton H385.
 2720 Rubberised canvas. Devonport, AK, NZ Feb 1970. From J.M. Dingley 7012

Penicillium bilaii Chalabuda

- 5668 Soil. Wairarapa, WA, NZ Nov 1975. From G.C.M. Latch S14.

Penicillium brefeldianum Dodgesee *Eupenicillium brefeldianum*.**Penicillium brevicompactum** Dierckx

- 3580 *Cucumis melo* L. - rock melon - leaf. Levin, WN, NZ Jan 1973. From G.F. Laundon LEV 6960.
 1240 *Lolium perenne* L. - perennial ryegrass. Mt Albert, AK, NZ Apr 1963. From F.J. Morton H388.
 1192 *Pittosporum* sp. - stem and root. May 1962. From F.J. Morton H341 ← A.H. Uljee.
 878 Air. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H19.
 1169 Mushroom compost. Whakarewarewa, BP, NZ Mar 1962. From F.J. Morton H316.
 1172 Straw basket. Oct 1961. From F.J. Morton H319.
 1174 Air. Mt Albert, AK, NZ. From F.J. Morton H321.
 1208 Soil. Rotorua, BP, NZ Jul 1962. From F.J. Morton H357.
 1234 Air. Palmerston North, WI, NZ Aug 1962. From F.J. Morton H382 ← I. Andrews.
 2090 Paper. Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67156.

Penicillium canescens Sopp

- 7767 Sheep dung. Palmerston North, WI, NZ Aug 1977. From G.C.M. Latch S-83.

Penicillium capsulatum Raper & Fennell

- 890 Wool. Oct 1961. From F.J. Morton H37 ← M.H. Dye.

Penicillium chrysogenum Thom

- 425 UK. From J.M. Dingley 65118 ← Glaxo Laboratories X1612.
 1175 Wool. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H322 ← M.H. Dye.
 1195 Air. Mt Albert, AK, NZ May 1962. From F.J. Morton H344 ← D.W. Dye.
 1227 Bread. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H376.

Penicillium citrinum Thom

- 1205 *Cucumis melo* L. - rock melon - seed. Mt Albert, AK, NZ Jul 1962. From F.J. Morton H354.
 5691 Worm cast. Palmerston North, WI, NZ Aug 1976. From G.C.M. Latch S42.
 5695 Worm cast. Palmerston North, WI, NZ Aug 1976. From G.C.M. Latch S43.
 5697 Sheep dung. Palmerston North, WI, NZ Mar 1977. From G.C.M. Latch S48.

Penicillium claviforme Bainier

- 1197 *Cyphomandra betacea* Cav. Sendtn. - tamarillo, tree tomato - fruit. Auckland, AK, NZ May 1962. From F.J. Morton H346.
 1225 *Prunus* sp. - plum. Mt Albert, AK, NZ. From F.J. Morton H374.
 1065 Rat faeces. NZ Feb 1962. From F.J. Morton H114.

Penicillium commune Thomsee *Penicillium puberulum*.**Penicillium corylophilum** Dierckx

- 1179 Air. Mt Albert, AK, NZ. From F.J. Morton H326.
 1182 Air. Palmerston North, WI, NZ. From F.J. Morton H329 ← G.C.M. Latch.
 5672 Sheep dung. Palmerston North, WI, NZ Jan 1976. From G.C.M. Latch S18.

Penicillium crustosum Thom

- 5678 *Lolium perenne* L. - perennial ryegrass. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S27.
 5671 Sheep dung. Palmerston North, WI, NZ Jan 1976. From G.C.M. Latch S17.

Penicillium cyclopium Westlingsee *Penicillium aurantiogriseum*.*Penicillium dangeardii* Pittsee *Talaromyces flavus*.**Penicillium decumbens** Thom

- 5679 *Lolium perenne* L. - perennial ryegrass - leaf. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S28.
 5680 *Lolium perenne* L. - perennial ryegrass - leaf. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S29.
 1241 *Malus X domestica* Borkh. - apple - skin washings. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H389.
 5688 Sheep dung. Palmerston North, WI, NZ Jun 1976. From G.C.M. Latch S39.

Penicillium digitatum (Persoon) Saccardo

- 1178 *Citrus limon* (L.) Burm.f. - lemon - fruit. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H325.
 1235 *Citrus limon* (L.) Burm.f. - lemon - fruit. Mt Albert, AK, NZ 1964. From F.J. Morton H383.
 3014 *Citrus limon* (L.) Burm.f. - lemon - fruit. Auckland, AK, NZ. From M.S. Reid ← K.J. Anderson.
 10736 *Citrus sinensis* (L.) Osbeck - orange - fruit rots. Levin, WN, NZ Aug 1979. From G. Laundon 12016.
 8350 *Citrus* sp. - grapefruit - fruit. Royal Oak, AK, NZ Nov 1983. From R.E. Beever 81-3.
 1188 *Solanum nigrum* L. - black nightshade - dead leaf. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H337.
 2089 Paper. Mt Wellington, AK, NZ Oct 1967. From J.M. Dingley 67155.

Penicillium diversum Raper & Fennell

- 1730 Human spinal fluid. Auckland, AK, NZ Mar 1966. From S. Davison 6643.

Penicillium dodgei Pittsee *Eupenicillium brefeldianum*.**Penicillium expansum** Link

- 1149 *Bambusa* sp. - bamboo. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H302.
 1160 *Citrus limon* (L.) Burm.f. - lemon - rotten fruit. Titirangi, AK, NZ. From F.J. Morton H313.
 1193 *Erica* sp. - stem. Auckland, AK, NZ May 1962. From F.J. Morton H342 ← A.H. Uljee.
 880 *Malus X domestica* Borkh. - apple - rotten fruit from cold store. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H24.
 1155 *Malus X domestica* Borkh. - apple - rotten fruit. Mt Albert, AK, NZ Mar 1962. From F.J. Morton H308.
 1194 *Malus X domestica* Borkh. - apple - bark. Auckland, AK, NZ May 1962. From F.J. Morton H343 ← A.H. Uljee.
 2708 *Malus X domestica* Borkh. - apple. Nelson, NN, NZ. From L.H. Briggs.
 1224 *Prunus* sp. - plum. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H373.

- 9719 *Pyrus communis* L. - pear - fruit. Hastings, HB, NZ Oct 1987. From G.I. Robertson A59 - resistant to carbendazim.
 9720 *Pyrus communis* L. - pear - fruit. Hastings, HB, NZ Oct 1987. From G.I. Robertson A60 - sensitive to carbendazim.
 9722 *Pyrus communis* L. - pear - fruit. Hastings, HB, NZ Oct 1987. From G.I. Robertson A62 - sensitive to carbendazim.
 9723 *Pyrus communis* L. - pear - fruit. Hastings, HB, NZ Oct 1987. From G.I. Robertson A63 - sensitive to carbendazim.
 1210 *Rosa* sp. - leaf. Otahuhu, AK, NZ Jul 1962. From F.J. Morton H359.
 891 Wool. NZ Oct 1961. From F.J. Morton H39 ← M.H. Dye.
 895 Straw basket. Mt Albert, AK, NZ Oct 1971. From F.J. Morton H44.
 1156 Cream bottle. Takapuna, AK, NZ Mar 1962. From F.J. Morton H309.
 1170 Mushroom compost. Whakarewarewa, BP, NZ Mar 1962. From F.J. Morton H317.
 1206 Soil. Rotorua, BP, NZ Jul 1962. From F.J. Morton H355.
 1207 Soil. Rotorua, BP, NZ Jul 1963. From F.J. Morton H356.
 5666 Sheep dung. Palmerston North, WI, NZ Nov 1979. From G.C.M. Latch S9C.
 8595 Spain. From R.E. Beever ← M.F. Madelin ← C. Ramirez 5141 - Trans. Br. Mycol. Soc. 80: 327-331, 1983.
 8695 Laboratory derived strain. From R.E. Beever 8-4 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 10).
 8696 Laboratory derived strain. From R.E. Beever 8-5 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 1).
 8697 Laboratory derived strain. From R.E. Beever 8-6 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 5).
 8698 Laboratory derived strain. From R.E. Beever 8-7 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 9).
 8699 Laboratory derived strain. From R.E. Beever 8-14 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 3).
 8700 Laboratory derived strain. From R.E. Beever 8-16 - Trans. Br. Mycol. Soc. 80: 327-331, 1983 (class 6).
- Penicillium frequentans* Westling
 see *Penicillium glabrum*.
- Penicillium funiculosum*** Thom
 2098 *Crocus* sp. - crocus - corm. Turkey Nov 1967. From G.F. Laundon LEV 1749B.
 7594 From R.A. Fullerton ← ATCC 11797 = NRRL A622.
- Penicillium glabrum*** (Wehmer) Westling
 syn. *Penicillium frequentans* Westling
 148 Air. Mt Albert, AK, NZ Sep 1961. From F.J. Morton H2.
 887 Auckland, AK, NZ Oct 1961. From F.J. Morton H30 ← J. Grigor.
 1187 Wool. NZ Dec 1961. From F.J. Morton H336 ← M.H. Dye.
 1199 Stored timber. North Shore, AK, NZ Jul 1962. From F.J. Morton H348.
 5686 Sheep dung. Palmerston North, WI, NZ Jul 1976. From G.C.M. Latch S37.
- Penicillium griseofulvum*** Dierckx
 1209 *Rosa* sp. - leaf. Otahuhu, AK, NZ Jul 1963. From F.J. Morton H358.
 1723 From S. Davison 6591 = IMI 75832.
- Penicillium griseoroseum*** Dierckx
 941 *Hoheria populnea* A. Cunn. - houhere, lacebark. Waitakere Ranges, AK, NZ Sep 1963. From F.J. Morton H192.
- Penicillium hirsutum*** Dierckx
 10735 *Iris* sp. - bulb. Netherlands Oct 1979. From G. Laundon 15682a.
- Penicillium inflatum*** Stolk & Malla
 7763 Soil (ryegrass pasture). Inglewood, TK, NZ Jun 1977. From G.C.M. Latch S-76.
- Penicillium italicum*** Wehmer
 1176 *Citrus limon* (L.) Burm.f. - lemon - fruit. Mt Albert, AK, NZ 1961. From F.J. Morton H323.
 1177 *Citrus limon* (L.) Burm.f. - lemon - fruit. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H324.
 1236 *Citrus limon* (L.) Burm.f. - lemon - fruit. Mt Albert, AK, NZ Aug 1962. From F.J. Morton H384.
- Penicillium janczewskii*** Zaleski
 7764 Soil. Taupo, TO, NZ May 1977. From G.C.M. Latch S-70.
- Penicillium janthinellum*** Biourge
 1184 *Allium cepa* L. - onion. Mt Albert, AK, NZ. From F.J. Morton H331.
 5685 *Lolium perenne* L. - perennial ryegrass - leaf. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S36.
 1212 *Medicago sativa* L. - lucerne, alfalfa. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H361.
 1219 *Solanum tuberosum* L. - potato - tuber. Mt Albert, AK, NZ Dec 1961. From F.J. Morton H368.
 942 Concrete sewer pipe. Mangere, AK, NZ Sep 1963. From F.J. Morton H193.
 1173 Soil. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H320.
 1198 Sewage water. Mangere, AK, NZ Jul 1962. From F.J. Morton H347.
 5665 Soil. Wairarapa, WA, NZ Nov 1975. From G.C.M. Latch S8.
 5674 Soil. Castlepoint, WA, NZ Jan 1976. From G.C.M. Latch S20.
 5687 Sheep dung. Palmerston North, WI, NZ Jul 1976. From G.C.M. Latch S38.
- Penicillium jensenii*** Zaleski
 syn. *Penicillium nalgiovenese* Laxa
 5611 Ellischauer cheese. Czechoslovakia 1933. From J.M. Dingley 65131 ← IMI 39804 ← O. Laxa = ATCC 10472: CBS 352.48: NRRL 911.
- Penicillium kloeckeri* Pitt
 see *Talaromyces wortmannii*.
- Penicillium lilacinum* Thom
 see *Paecilomyces lilacinus*.
- Penicillium loliense*** Pitt
 5667 *Lolium* sp. - ryegrass - dead leaf. Palmerston North, WI, NZ Nov 1975. From G.C.M. Latch S11.
- Penicillium miczynskii*** Zaleski
 7765 *Lolium* sp. - ryegrass - cut herbage. Wairarapa, WA, NZ Feb 1977. From G.C.M. Latch S-64.
 883 Air. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H26.
- Penicillium minioluteum*** Dierckx
 1167 Air. Mt Albert, AK, NZ Mar 1962. From F.J. Morton H314.
 1185 Air. Mt Albert, AK, NZ. From F.J. Morton H332.
 5663 Soil. Palmerston North, WI, NZ Apr 1976. From G.C.M. Latch S4.
- Penicillium nalgiovenese* Laxa
 see *Penicillium jensenii*.
- Penicillium novae-zeelandiae*** van Beyma
 7766 *Illium* *Lolium* sp. - ryegrass - cut herbage. Palmerston North, WI, NZ Oct 1978. From G.C.M. Latch S-85.

- Penicillium ochrochloron*** Biourge
9468 From ATCC 9112 ← G.A. Greathouse USDA 1336.2 = CBS 110.666: IMI 61271: NRRL 744: QM 477 - copper tolerant - fungus resistance testing.
- Penicillium paxilli*** Bainier
7761 Soil. Masterton, WA, NZ Jul 1977. From G.C.M. Latch S-82.
- Penicillium puberulum*** Bainier
syn. *Penicillium commune* Thom
1223 Dead wood. Karekare, AK, NZ Jan 1962. From F.J. Morton H372.
1226 Bread. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H375.
- Penicillium purpurogenum*** Stoll
884 *Allium cepa* L. - onion - root. Auckland, AK, NZ Oct 1961. From F.J. Morton H27.
- Penicillium raistrickii*** G. Smith
5694 Sheep - rumen. Palmerston North, WI, NZ Apr 1976. From G.C.M. Latch S45 ← M. Fowler.
- Penicillium roseopurpureum*** Dierckx
1191 *Pittosporum* sp. - stem, root. Auckland, AK, NZ May 1962. From F.J. Morton H340 ← A.H. Uljee.
- Penicillium rugulosum*** Thom
5677 Sheep dung. Palmerston North, WI, NZ Mar 1976. From G.C.M. Latch S23.
5690 Sheep dung. Palmerston North, WI, NZ Jul 1976. From G.C.M. Latch S41.
- Penicillium senticosum* Scott
see *Eupenicillium senticosum*.
- Penicillium simplicissimum*** (Oudemans) Thom
1721 Sheep dung. Palmerston North, WI, NZ Nov 1975. From G.C.M. Latch S6.
5664 Sheep dung. Palmerston North, WI, NZ Nov 1975. From G.C.M. Latch S6.
5670 Soil. Wairarapa, WA, NZ Jan 1976. From G.C.M. Latch S16.
5681 Soil. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S30.
5682 Sheep dung. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S31.
9711 Fibre packing tray. Otahuhu, AK, NZ Jul 1988. From G.I. Robertson P382.
- Penicillium*** sp.
10489 *Gladiolus* sp. - corm rot. Titirangi, AK, NZ. From P.G. Broadhurst SAM9011.
10490 *Gladiolus* sp. - corm rot. Titirangi, AK, NZ. From P.G. Broadhurst SAM9012.
8594 *Lycopersicon esculentum* Mill. - tomato cv. Viroso - saprophytic growth on petals. Mangere, AK, NZ Sep 1983. From B.F. O'Flaherty.
11490 *Sandersonia aurantiaca* Hook. - Chinese lantern lily - storage rot of tuber. Pukekohe, AK, NZ Nov 1992. From P.G. Broadhurst.
475 Bark. Mt Albert, AK, NZ Sep 1961. From F.J. Morton H9.
1183 Cave wall. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H330.
1204 Dead rat. Mt Albert, AK, NZ Jul 1962. From F.J. Morton H353.
1211 Wool. NZ Dec 1961. From F.J. Morton H360 ← M.H. Dye.
1239 Dead aphid and deposits. Auckland, AK, NZ Jan 1963. From F.J. Morton H387.
6099 Refrigerator door PVC gasket. Western Samoa Jun 1978. From E.H.C. McKenzie.
6101 Refrigerator door PVC gasket. Malaysia Jun 1978. From E.H.C. McKenzie.
6102 Refrigerator door PVC gasket. Fiji Jun 1978. From E.H.C. McKenzie.
- Penicillium spinulosum*** Thom
1189 *Lolium perenne* L. - perennial ryegrass. Katikati, BP, NZ Dec 1961. From F.J. Morton H338 ← S. Davison.
1228 *Zea mays* L. - maize. Mt Albert, AK, NZ Jul 1963. From F.J. Morton H390.
1203 Dead rat. Mt Albert, AK, NZ Jul 1962. From F.J. Morton H352.
1233 Air. Palmerston North, WI, NZ Aug 1962. From F.J. Morton H381 ← I. Andrews.
5692 Sheep - rumen. Palmerston North, WI, NZ Apr 1976. From G.C.M. Latch S46 ← M. Fowler.
- Penicillium sublateralium*** Biourge
7768 Soil. New Plymouth, TK, NZ Apr 1977. From G.C.M. Latch S-61.
- Penicillium thomii*** Maire
5696 *Lolium perenne* L. - perennial ryegrass. Wairarapa, WA, NZ Feb 1977. From G.C.M. Latch S47.
1148 Beer bottle. Mt Albert, AK, NZ Jan 1962. From F.J. Morton H301.
- Penicillium udagawae* Stolk & Samson
see *Talaromyces luteus*.
- Penicillium verruculosum*** Peyronel
7769 *Lolium* sp. - ryegrass - cut herbage. Kaikohe, ND, NZ Apr 1977. From G.C.M. Latch S-63.
5684 Worm cast. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S35.
- Penicillium waksmanii*** Zaleski
5689 *Lolium perenne* L. - perennial ryegrass - leaf. Wallaceville, WN, NZ Jun 1976. From G.C.M. Latch S40.
- Peniophora gigantea* (Fries) Massee
see *Phanerochaete gigantea*.
- Peniophora sacrata*
see *Amylostereum sacratum*.
- Periconia macrospinosa*** Lefebvre & A.G. Johnson
5698 *Lolium perenne* L. - perennial ryegrass - root. NZ Sep 1977. From M. Fowler P5.
- Periconia minutissima*** Corda
904 Air. Mt Albert, AK, NZ Jun 1963. From F.J. Morton H182.
- Periconia* sp.
11361 *Cortaderia* sp. - dead leaves. Tangihua Reserve, ND, NZ May 1992. From E.H.C. McKenzie.
- Periconiella phormii*** M.B. Ellis
1247 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. National Park, TO, NZ. From F.J. Morton H198.
1259 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Cascades Park, AK, NZ Jan 1964. From F.J. Morton H222.
- Pestalospaeria hanseni*** Shoemaker & Simpson
7572 *Pinus radiata* D. Don - radiata pine, Monterey pine - needle blight. Puhipuhi Forest, KA, NZ Aug 1981. From G.J. Samuels = PDD 42880.
7573 *Pinus radiata* D. Don - radiata pine, Monterey pine - needle blight. Puhipuhi Forest, KA, NZ Aug 1981. From G.J. Samuels = PDD 42880.
7574 *Pinus radiata* D. Don - radiata pine, Monterey pine - needle blight. Puhipuhi Forest, KA, NZ Aug 1981. From G.J. Samuels = PDD 42880.
7575 *Pinus radiata* D. Don - radiata pine, Monterey pine - needle blight. Puhipuhi Forest, KA, NZ Aug 1981. From G.J. Samuels = PDD 42880.

- Pestalotia photiniae*** Thümen
10737 *Photinia* sp. Auckland, AK, NZ Jan 1983. From G. Laundon 20706.
- Pestalotia* sp.**
5476 *Acca sellowiana* (O. Berg) Burret - feijoa. Auckland, AK, NZ May 1964. From J.M. Dingley 6452.
3062 *Prunus domestica* L. - European plum - leaf surface. Mt Albert, AK, NZ Oct 1970. From K.J. Anderson 10PR.
- Pestalotia vaccinii*** (Shear) Guba
5446 *Vaccinium* sp. - blueberry - stem. Auckland, AK, NZ Mar 1971. From J.M. Dingley 7147.
- Pestalotia watsoniae*** Verwoerd & Dippenaar
6891 *Watsonia meriana* (L.) Mill. - bugle lily. Mt Roskill, AK, NZ Nov 1979. From P.K. Buchanan A400.
- Pestalotiopsis adusta*** (Ellis & Everhart) Steyaert
5434 *Digitalis purpurea* L. - foxglove - leaf spot. NZ Jun 1972. From J.M. Dingley 7270.
- Pestalotiopsis funerea*** Desmazières Steyaert
7314 *X Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress cv. Leighton Green - canker. NZ Apr 1980. From R.E. Beever
← R.M. Beresford F005.
- Pestalotiopsis* sp.**
11506 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 78.
6030 *Arachis hypogaea* L. - groundnut, peanut - wilt. Fiji Jun 1978. From E.H.C. McKenzie.
11688 *Cyathodes robusta* Hook. f. - tip dieback. Chatham Is., NZ. From P.R. Johnston C34.
11689 *Cyathodes robusta* Hook. f. - tip dieback. Chatham Is., NZ. From P.R. Johnston C254 = PDD 62082.
11690 *Cyathodes robusta* Hook. f. - tip dieback. Chatham Is., NZ. From P.R. Johnston C293 = PDD 62082.
11704 *Cyathodes robusta* Hook. f. - tip dieback. Chatham Is., NZ Apr 1993. From P.R. Johnson C310.
9697 *Knightia excelsa* R. Br. - rewarewa - leaf tip dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
9696 *Libocedrus plumosa* (D. Don) Sarg. - NZ incense cedar - leaf dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
12506 *Malus X domestica* Borkh. - apple - fruit rot in storage. Yugoslavia 1987. From M. Arsenijevic Pe5.
9695 *Phyllocladus glaucus* Carr. - tanekaha - leaf tip dieback. Mangere, AK, NZ Jun 1988. From P.G. Broadhurst.
11783 *Phyllocladus trichomanoides* D. Don - tanekaha - red brown (1mm diam.) raised leafspot. Albany, AK, NZ Nov 1992. From J.M. Young D52.
11437 *Podocarpus totara* Bennett ex D. Don - totara - leaf necrosis of tips. Taupo, TO, NZ Nov 1991. From J.M. Young T59.
11784 *Pseudowintera* sp. - horopito - round (1-5mm diam.) red leafspot extending into veins. Albany, AK, NZ Nov 1992. From J.M. Young D56.
11852 *Rhopalostylis sapida* Wendl. & Drude - nikau - leafspot. Oratia, AK, NZ Dec 1992. From J.M. Young L2.
11874 *Ulex europaeus* L. - gorse. AK, NZ Aug 1991. From P.R. Johnston G4.
11875 *Ulex europaeus* L. - gorse. MB, NZ Aug 1991. From P.R. Johnston G17.
6088 Refrigerator door PVC gasket. Fiji Jun 1978. From E.H.C. McKenzie.
- Pezicula alba*** Guthrie
anam. *Phlyctema vagabunda* Desmazières
9724 *Malus X domestica* Borkh. - apple cv. Red Dougherty - fruit spot. Hastings, HB, NZ Aug 1988. From G.I. Robertson A246.
10105 *Malus X domestica* Borkh. - apple cv. Splendour - fruit. CO, NZ Oct 1989. From G.I. Robertson P389 ← M.A. Manning 285.
11020 *Malus X domestica* Borkh. - apple cv. Braeburn - ripe spot on fruit. Hastings, HB, NZ Aug 1991. From G.I. Robertson P492.
12583 *Malus X domestica* Borkh. - apple cv. Fuji - fruit rot. HB, NZ Sep 1995. From R.A. Fullerton.
10829 *Salix matsudana* G. Koidz. - willow - leafspot. Levin, WN, NZ Jun 1979. From G. Laundon 15020.
- Pezicula malicorticis*** (Jackson) Nannfeldt
anam. *Cryptosporiopsis malicorticis* (Cordley) Nannfeldt
10738 *Malus X domestica* Borkh. - apple - canker. Hawera, TK, NZ Aug 1982. From G. Laundon 20074.
- Pezizella oenotherae*** (Cook & Ellis) Saccardo
anam. *Hainesia lythri* (Desmazières) Höhnelt
10739 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1976. From G. Laundon 10959.
- Phacidiopycnis pseudotsugae* (M. Wilson) Hahn
see *Potebniomyces coniferarum*.
- Phacidiopycnis* sp.**
10740 From G. Laundon 21493.
- Phacidium* sp.**
anam. *Ceuthospora* sp.
8149 *Beilschmiedia tawa* (A. Cunn.) Benth. & Hook. f. ex Kirk - tawa - dead wood. Waitomo Caves, WO, NZ Apr 1983. From P.R. Johnston R247
= PDD 43821.
7048 *Medicago sativa* L. - lucerne, alfalfa. Christchurch, MC, NZ 1980. From P.R. Johnston ← B.T. Hawthorne.
8238 *Metrosideros* sp. - rata - fallen leaf. Mt Egmont, TK, NZ Apr 1983. From P.R. Johnston R275 = PDD 43824.
- Phaeoramularia eupatorii-odorati*** (Yen) Liu & Guo
9773 *Eupatorium glandulosum* HBK - leafspot. Port Charles, CL, NZ Sep 1988. From P.R. Johnston = PDD 54600.
- Phaeostalogmus* sp.**
10741 *Iris* sp. - leaves. Havelock North, HB, NZ Jan 1977. From G. Laundon 11345.
- Phanerochaete gigantea*** (Fries) Rattan, Abdullah & Ismail
syn. *Peniophora gigantea* (Fries) Masee
5456 From J.M. Dingley 6561 = FRI 241.
- Phialocephala* sp.**
10742 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1976. From G. Laundon 10858b.
- Phialophora asteris*** (Dowson) Burge & Isaac
syn. *Phialophora fastigiata* (Lagerberg & Melin) Conant
3872 *Aster novi-belgii* L. - Michaelmas daisy - stem. Belfast, MC, NZ Mar 1974. From G.F. Laundon LEV 8163.
5451 *Aster novi-belgii* L. - Michaelmas daisy - stem. Christchurch, MC, NZ Mar 1974. From J.M. Dingley 7428.
10744 *Aster* sp. UK. From G. Laundon 12041 ← CBS 471.67 ← M.N. Burge.
10743 Papermill slime. Canada 1959. From G. Laundon 11880 ← IMI 86982 - rec. as *P. fastigata*.
- Phialophora chrysanthemi*** (Zachos et al.) W. Gams
10830 *Chrysanthemum* sp. From G. Laundon 120-42 ← CBS 539.63 ← D.G. Zachos.
- Phialophora cinerescens*** (Wollenweber) van Beyma
2029 *Dianthus caryophyllus* L. - carnation. Upper Hutt, WN, NZ May 1967. From G.F. Laundon LEV 1409A.
3808 *Dianthus caryophyllus* L. - carnation - root. Manurewa, AK, NZ. From J.B. Taylor NZ88.
3811 *Dianthus caryophyllus* L. - carnation - root. Manurewa, AK, NZ. From J.B. Taylor NZ95.

- 5492 *Dianthus caryophyllus* L. - carnation. Hastings, HB, NZ Nov 1964. From J.M. Dingley 64159.
5499 *Dianthus caryophyllus* L. - carnation. Otaki, WN, NZ May 1965. From J.M. Dingley 6594.

Phialophora fastigiata (Lagerberg & Melin) Conant
see *Phialophora asteris*.

Phialophora mustea Neergaard
7328 Wood pulp. Kinelith, TO, NZ Sep 1981. From G.J. Samuels K5 ← R.P. Eade.

Phialophora richardsiae (Nannfeldt) Conant
10358 Oil. Glenbrook, AK, NZ. From E.H.C. Mckenzie.

Phialophora sp.
see also *Ombrophila microspora*.
11545 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Te Puke, BP, NZ. From P.R. Johnston 72.
11425 *Carex "ventosa"* - sedge - leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T31.
4212 *Rheum rhabarbarum* L. - rhubarb - stem. Otaki, WN, NZ Oct 1975. From G.F. Laundon LEV 9887.

Phlyctema vagabunda Desmazières
see *Leptodontium elatius*, *Pezicula alba*.

Phoma betae Frank
see *Pleospora bjoerlingii*.

Phoma cava Schulzer
6994 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit core. Henderson, AK, NZ May 1980. From P.R. Johnston ← S.R. Pennycook.
6995 *Malus X domestica* Borkh. - apple cv. Red Delicious - mouldy core. Hawkes Bay, HB, NZ. From P.R. Johnston ← S.R. Pennycook DO64.
6996 *Malus X domestica* Borkh. - apple cv. Red Delicious - mouldy core. Hawkes Bay, HB, NZ. From P.R. Johnston ← S.R. Pennycook D327.

Phoma chrysanthemicola Hollos
6610 *Agathis macrophylla* (Lindl.) Masters - dead leaf. Hunua Ranges, AK, NZ Sep 1979. From P.R. Johnston 76106.
3175 *Chrysanthemum indicum* L. - stem. From G.H. Boerema PD 70-928 ← CBS.
10745 *Chrysanthemum* sp. - roots. Nelson, NN, NZ May 1977. From G. Laundon 11770.
6617 *Medicago sativa* L. - lucerne, alfalfa - leaf. Ruakura, WO, NZ Jun 1978. From P.R. Johnston 7879.
6618 *Medicago sativa* L. - lucerne, alfalfa - root. Taupo, TO, NZ Aug 1978. From P.R. Johnston 78123 ← J.R. Rees-George 10314a1 = ATCC 60441: PDD 40200.
6619 *Medicago scutellata* (L.) Mill. - snail medic. Palmerston North, WI, NZ Feb 1978. From P.R. Johnston 7841 ← G.C.M. Latch E2 = ATCC 60442: PDD 40121.

Phoma cucurbitacearum (Fries) Saccardo
see *Didymella bryoniae*.

Phoma destructiva Plowright
2068 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Sep 1967. From G.F. Laundon LEV 1634b ← W.A. Apt.
2071 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Sep 1967. From G.F. Laundon LEV 1643a ← D.H. Postow.
5534 *Lycopersicon esculentum* Mill. - tomato - fruit. Cook Is. Aug 1969. From J.M. Dingley 6984.
10831 *Lycopersicon esculentum* Mill. - tomato - fruit rot. Tonga Jul 1978. From G. Laundon 13535.

Phoma eupyrena Saccardo
5625 *Lupinus albus* L. - white lupin. Pukekohe, AK, NZ Nov 1973. From J.M. Dingley 73100.
6291 *Phaseolus vulgaris* L. - bean - stem base. Netherlands 1978. From P.R. Johnston ← G.H. Boerema 78745.

Phoma exigua Desmazières
2288 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit spot. Auckland, AK, NZ Jul 1968. From G.F. Laundon LEV 2285.
2714 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Te Puke, BP, NZ Jul 1969. From J.M. Dingley 6969.
2716 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - petiole. Te Puke, BP, NZ Jul 1969. From J.M. Dingley 6977.
2717 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Te Puke, BP, NZ Jul 1969. From J.M. Dingley 6979.
7699 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - pedicel. Te Puke, BP, NZ May 1982. From S.R. Pennycook 1026D.
11499 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Te Puke, BP, NZ. From P.R. Johnston 85.
2038 *Citrus limon* (L.) Burm.f. - lemon. Levin, WN, NZ Jun 1957. From G.F. Laundon LEV 1467.
5452 *Citrus X tangelo* J. Ingram & H.E. Moore - tangelo cv. Seminole - fruit. Whangarei, ND, NZ Aug 1972. From J.M. Dingley 72108.
5531 *Cucumis sativus* L. - cucumber. Auckland, AK, NZ Oct 1972. From J.M. Dingley 72124.
5457 *Cynara scolymus* L. - globe artichoke. Pukekohe, AK, NZ Jun 1973. From J.M. Dingley 7342.
11184 *Cynara scolymus* L. - globe artichoke - leafspots. Otara, AK, NZ Jan 1977. From G. Laundon 11350.
7754 *Cyphomandra betacea* Cav. Sendtn. - tamarillo, tree tomato - storage rot. Henderson, AK, NZ Jul 1982. From S.R. Pennycook 1036
← G. Pringle = PDD 42787.
12241 *Cytisus scoparius* (L.) Link - broom. Tokoroa, BP, NZ Sep 1991. From P.R. Johnston B45 ← S. Parkes.
12242 *Cytisus scoparius* (L.) Link - broom. Holt Park, Otautau, SL, NZ Mar 1992. From P.R. Johnston B119 ← S. Parkes.
3990 *Eucalyptus erythrocorys* Muell. - illyarie - leaf spot. Ohau, WN, NZ Jul 1974. From G.F. Laundon LEV 8475b.
2286 *Fragaria X ananassa* Duch. - cultivated strawberry - root rot. Auckland, AK, NZ Jun 1968. From G.F. Laundon LEV 2244.
3348 *Fragaria X ananassa* Duch. - cultivated strawberry - fruit. Levin, WN, NZ Nov 1972. From G.F. Laundon LEV 6816.
5533 *Hydrangea* sp. - hydrangea - leaf. Auckland, AK, NZ Oct 1972. From J.M. Dingley 72122.
6611 *Lolium perenne* L. - perennial ryegrass. Palmerston North, WI, NZ. From P.R. Johnston 77.117 ← G.C.M. Latch P1 = ATCC 60443: PDD 40199.
5453 *Lupinus arboreus* Sims - tree lupin. Pukekohe, AK, NZ Nov 1973. From J.M. Dingley 73101.
2013 *Lycopersicon esculentum* Mill. - tomato. Levin, WN, NZ Apr 1967. From G.F. Laundon LEV 1346B.
2215 *Lycopersicon esculentum* Mill. - tomato. NZ. From J.M. Dingley 6831 ← G.F. Laundon 17149.
5631 *Lycopersicon esculentum* Mill. - tomato. Leigh, AK, NZ Jul 1964. From J.M. Dingley 6475.
10839 *Lycopersicon esculentum* Mill. - tomato - fruit rots. Stratford, TK, NZ May 1977. From G. Laundon 11772a.
11509 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 75.
11683 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless bark. Kumeu, AK, NZ. From P.R. Johnston 5A-8.
11185 *Nerium* sp. - leafspots. Aokautere, WN, NZ Mar 1980. From G. Laundon 16431.
10838 *Nicotiana tabacum* L. - tobacco - stems. Motueka, NN, NZ Jan 1977. From G. Laundon 11406.
2214 *Phaseolus coccineus* L. - runner bean. Remuera, AK, NZ. From J.M. Dingley 6830.
5530 *Phaseolus vulgaris* L. - bean. Auckland, AK, NZ Mar 1972. From J.M. Dingley 7329.
3530 *Populus X euramericana* (Dode) Guinier - poplar - leaf. Aokautere, WN, NZ May 1973. From G.F. Laundon LEV 7270.
10840 *Ranunculus sardous* Crantz - hairy buttercup. Levin, WN, NZ Oct 1979. From G. Laundon 15677c.
6621 *Trifolium purpureum* Loisel. Northland, ND, NZ Sep 1977. From P.R. Johnston 77.141 = ATCC 60444: PDD 40198.
10917 *Wellingtonia* sp. - stem lesions. Ashburton, MC, NZ Jun 1979. From G. Laundon 15142.

Phoma exigua Desmazières var. ***exigua***
6292 *Solanum tuberosum* L. - potato - gangrene on tuber. Netherlands 1977. From P.R. Johnston ← G.H. Boerema 77203.

Phoma exigua Desmazières var. **foveata** (Foister) Boerema

- 2140 *Solanum tuberosum* L. - potato - tuber. Opiki, WN, NZ Oct 1967. From G.F. Laundon LEV 1704 ← J.E. Hume.
11232 *Solanum tuberosum* L. - potato - tubers. Palmerston North, WI, NZ Nov 1977. From G. Laundon 12401 - rec. as *P. foveata*.

Phoma fallens Saccardo

- 10936 *Olea* sp. - leafspots. Levin, WN, NZ Nov 1976. From G. Laundon 11302.

Phoma fimeti Brunaud

- 6642 *Eucalyptus* sp. - dead wood. Ruakura, WO, NZ Nov 1977. From P.R. Johnston 77.170.
6864 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Dec 1979. From P.R. Johnston 80.5.
6876 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Mar 1980. From P.R. Johnston ← E.H.C. McKenzie 429.
6623 *Medicago sativa* L. - lucerne, alfalfa - root. Lincoln, MC, NZ 1979. From P.R. Johnston 79.62 ← B.T. Hawthorne 62 = ATCC 60446: PDD 40082.
6802 *Medicago sativa* L. - lucerne, alfalfa - root. Taupo, TO, NZ Jul 1979. From P.R. Johnston 79.61 = PDD 40237.
6622 *Pennisetum clandestinum* Hochst. ex Chiov. - kikuyu - leaf. Taipa, ND, NZ Oct 1977. From P.R. Johnston 77.142 = ATCC 60445: PDD 40083.
3172 Wood. Netherlands. From J.M. Dingley 7222 ← PD 68 = CBS 374.

Phoma glomerata (Corda) Wollenweber & Hochapfel

- 6827 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Mt Albert, AK, NZ Mar 1979. From P.R. Johnston 7947.
6828 *Dactylis glomerata* L. - cocksfoot - leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 79138 = ATCC 60448: PDD 40338.
6703 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 79135 = ATCC 60447: PDD 40239.
2323 *Malus X domestica* Borkh. - apple - fruit. Levin, WN, NZ Oct 1967. From G.F. Laundon LEV 1712B.
6826 *Malus X domestica* Borkh. - apple - twig. Mt Albert, AK, NZ Nov 1978. From P.R. Johnston 78136 = PDD 40336.
10841 *Malus X domestica* Borkh. - apple - branch. Waimea West, NN, NZ Aug 1969. From G. Laundon 3507.
6293 *Medicago sativa* L. - lucerne, alfalfa - seed. Netherlands 1977. From P.R. Johnston 7747 ← G.H. Boerema 7747.
6829 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - leaf. Auckland, AK, NZ Aug 1977. From P.R. Johnston 7792.
5460 *Vitis vinifera* L. - grape. NZ Aug 1970. From J.M. Dingley 7058.
5464 *Vitis vinifera* L. - grape. Australia Sep 1970. From J.M. Dingley 7069.
2000 Wool. NZ. From G.F. Laundon LEV 219.
5659 Wool. Lincoln, MC, NZ Jun 1959. From J.M. Dingley 5917.
8333 Mouldy wall-paper. Auckland, AK, NZ Sep 1983. From E.H.C. McKenzie.

Phoma herbarum Westendorp

- 6684 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 79143 = ATCC 60449.
6877 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Apr 1980. From P.R. Johnston 8062 = ATCC 60450: PDD 40396.
7053 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Dec 1980. From P.R. Johnston ← E.H.C. McKenzie 171.
6294 *Rosa* sp. - stem. Netherlands 1973. From P.R. Johnston ← G.H. Boerema 73665.

Phoma huancayensis Turkensteen

- 6624 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ Jul 1978. From P.R. Johnston 78105 = PDD 40092.
6823 *Dactylis glomerata* L. - cocksfoot - leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 79139.
6625 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf. Kaiakohe, ND, NZ Feb 1979. From P.R. Johnston 792 = ATCC 60451: PDD 40091.
6800 *Pennisetum clandestinum* Hochst. ex Chiov. - kikuyu - leaf. Waitakere Ranges, AK, NZ 1978. From P.R. Johnston 785 = ATCC 60452: PDD 40240.
6865 *Vaccinium corymbosum* L. - highbush blueberry cv. Atlantic - leaf spot. Hamilton, WO, NZ Jan 1979. From P.R. Johnston 7916.

Phoma jolyana Pirozynski & Morgan-Jones

- 10842 *Gleditsia triacanthos* L. - honey locust. Palmerston North, WI, NZ Aug 1979. From G. Laundon 15292.
7021 *Iris* sp. - leaf spot. Auckland, AK, NZ Jul 1977. From P.R. Johnston 7791 ← G.I. Robertson.

Phoma leveillei Boerema & Bollen

syn. *Pyrenochaeta acicola* (Leveille) Saccardo

- 10962 *Chrysanthemum* sp. Levin, WN, NZ Oct 1977. From G. Laundon 12358c.
6295 *Fragaria X ananassa* Duch. - cultivated strawberry - rhizome. Netherlands 1976. From P.R. Johnston ← G.H. Boerema 76416.
6626 *Medicago sativa* L. - lucerne, alfalfa - root. Lincoln, MC, NZ 1979. From P.R. Johnston 7963 ← B.T. Hawthorne 23 = ATCC 60453: PDD 40084.
6627 *Trifolium repens* L. - white clover - root. Palmerston North, WI, NZ Nov 1978. From P.R. Johnston 78180 ← M.J. Christensen IVP6 = ATCC 60454: PDD 40085.

Phoma lingam (Tode) Desmazières

see *Leptosphaeria maculans*.

Phoma lotivora Johnston

- 7023 *Lolium perenne* L. - perennial ryegrass - macerated pasture sample. Ruakura, WO, NZ Mar 1980. From P.R. Johnston 80.65.
6616 *Lotus pedunculatus* Cav. - lotus - root. Palmerston North, WI, NZ Mar 1978. From P.R. Johnston 78.45 ← G.C.M. Latch E25 = ATCC 60455: PDD 39973.
6798 *Lotus pedunculatus* Cav. - lotus cv. Maku. Auckland, AK, NZ Jan 1980. From P.R. Johnston 80.24 = ATCC 60456: PDD 40204.
6799 *Lotus pedunculatus* Cav. - lotus cv. Maku. Auckland, AK, NZ Jan 1980. From P.R. Johnston 80.25 = ATCC 60457: PDD 40204.
6884 *Lotus pedunculatus* Cav. - lotus - stem base and leaf spot. Mt Albert, AK, NZ May 1980. From P.R. Johnston IV = ATCC 60458: PDD 40427 - **ex Type specimen**.
6885 *Lotus pedunculatus* Cav. - lotus - stem base and leaf spot. Mt Albert, AK, NZ May 1980. From P.R. Johnston V = ATCC 60415: PDD 40427.
3870 *Lotus tenuis* Waldst. & Kit. ex Willd. - narrow-leaf birdsfoot trefoil - stem black rot. Aokautere, WN, NZ Nov 1973. From G.F. Laundon LEV 7554 = PDD 39972.

Phoma lycopersici Cooke

see *Didymella lycopersici*.

Phoma macra Sydow

- 10937 *Citrus* sp. - fruit. USA Apr 1979. From G. Laundon 14873.

Phoma macrostoma Montagne

- 11505 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless xylem. Kumeu, AK, NZ. From P.R. Johnston 79.
11684 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless bark. Kumeu, AK, NZ. From P.R. Johnston 5B-1.
10963 *Lycopersicon esculentum* Mill. - tomato - fruit. Stratford, TK, NZ May 1977. From G. Laundon 11772.
11204 *Malus X domestica* Borkh. - apple - fruit. Levin, WN, NZ Apr 1977. From G. Laundon 11691b.
11233 *Malus X domestica* Borkh. - apple - fruit. Levin, WN, NZ Apr 1977. From G. Laundon 11700.
11186 *Narcissus* sp. - leafspots. Kimbolton, WI, NZ Nov 1977. From G. Laundon 12385a.
10843 *Prunus persica* (L.) Batsch - peach - fruit spots. Levin, WN, NZ Dec 1981. From G. Laundon 18930.

Phoma macrostoma Montagne var. **macrostoma**

- 6603 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ Mar 1979. From P.R. Johnston 79-34 = ATCC 60416: PDD 39952.
6604 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ Jul 1978. From P.R. Johnston 7894 = PDD 39953.
6605 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ Mar 1979. From P.R. Johnston 79-36 =

- 6803 *Lolium perenne* L. - perennial ryegrass - macerated leaf. Ruakura, WO, NZ Jan 1979. From P.R. Johnston 80-23 = ATCC 60417: PDD 40389.
 2325 *Malus X domestica* Borkh. - apple - mummified fruit. Levin, WN, NZ Jul 1968. From G.F. Laundon LEV 2299A.
 2326 *Malus X domestica* Borkh. - apple - mummified fruit. Levin, WN, NZ Jul 1968. From G.F. Laundon LEV 2299B.
 2504 *Malus X domestica* Borkh. - apple. NZ Aug 1968. From J.M. Dingley 68109 ← P.J. Brook.
 3173 *Prunus cerasus* L. - sour cherry. Netherlands. From J.M. Dingley 7224 ← PD 71-425.
 6296 *Ulmus* sp. - elm - wood. Netherlands 1977. From P.R. Johnston ← G.H. Boerema 777.
- Phoma macrostoma** Montagne var. *incolorata* (Home) Boerema & Dorenbosch
 2715 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - fruit. Te Puke, BP, NZ Jul 1969. From J.M. Dingley 6972. PDD 39954.
 5461 *Knightia excelsa* R. Br. - rewarewa - leaf spot. Auckland, AK, NZ Jan 1973. From J.M. Dingley 7315.
 6814 *Lolium perenne* L. - perennial ryegrass - macerated leaf. Ruakura, WO, NZ Feb 1980. From P.R. Johnston 80-33 = ATCC 60420.
 6628 *Medicago sativa* L. - lucerne, alfalfa - leaf. Ruakura, WO, NZ Dec 1977. From P.R. Johnston 78-4 = ATCC 60418: PDD 40093.
 7022 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ Jan 1978. From P.R. Johnston 78-18.
 3174 *Pyrus communis* L. - pear. Netherlands. From J.M. Dingley 7225 ← PD 71-831.
 7037 *Rhododendron* sp. - leaf. Mt Albert, AK, NZ Jun 1978. From P.R. Johnston 78-95.
 7033 *Trifolium fragiferum* L. - strawberry clover. Palmerston North, WI, NZ Feb 1978. From P.R. Johnston 78-37 ← G.C.M. Latch E27.
 6629 *Trifolium* sp. - clover. Palmerston North, WI, NZ Feb 1978. From P.R. Johnston 78-64 ← G.C.M. Latch E28 = ATCC 60419: PDD 40337.
- Phoma medicaginis** Malbranche & Roumeguere
 6702 *Dactylis glomerata* L. - cocksfoot - dead leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 43.
 6678 *Medicago polymorpha* L. - bur medic, California bur clover - stem. Taipa, ND, NZ Oct 1977. From P.R. Johnston 77-128.
 6631 *Medicago sativa* L. - lucerne, alfalfa. Wellington, WN, NZ 1977. From P.R. Johnston 77-104 ← F.M. Rush-Munro = ATCC 6631: PDD 40086.
 6632 *Medicago sativa* L. - lucerne, alfalfa - stem. Ruakura, WO, NZ Nov 1977. From P.R. Johnston 77-160 = ATCC 60422: PDD 40087.
 6662 *Medicago sativa* L. - lucerne, alfalfa - root. Taupo, TO, NZ 1979. From P.R. Johnston 79-60 ← J.R. Rees-George 163-5-CRF.
 10938 *Medicago sativa* L. - lucerne, alfalfa. Mangaweka, RI, NZ Oct 1976. From G. Laundon 11031.
- Phoma medicaginis* Malbranche & Roumeguere var. *pinodella* (L.K. Jones) Boerema
 see *Phoma pinodella*.
- Phoma multirostrata** (Mathur et al.) Dorenbosch & Boerema
 6298 *Philodendron* sp. - leaf spot. Netherlands 1977. From P.R. Johnston ← G.H. Boerema 77508.
- Phoma nebulosa** (Persoon) Berkeley
 6299 *Urtica dioica* L. - European stinging nettle, perennial nettle - dead stems. Netherlands 1976. From P.R. Johnston ← G.H. Boerema 7639.
- Phoma negriana** Thümen
 10845 *Vitis vinifera* L. - grape - vine. Yugoslavia Jun 1977. From G. Laundon 10735.
- Phoma nigricans** Johnston & Boerema
 6869 *Acca sellowiana* (O. Berg) Burret - feijoa - seed. Auckland, AK, NZ Mar 1980. From P.R. Johnston ← G.J. Samuels IV16.
 6546 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf spot. Auckland, AK, NZ Mar 1979. From P.R. Johnston 79-46 = ATCC 60423 - **ex Type specimen**.
 6592 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf spot. Mt Albert, AK, NZ Jul 1978. From P.R. Johnston 78-109.
 6597 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf spot. Oratia, AK, NZ 1975. From P.R. Johnston 76.
 6602 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ 1979. From P.R. Johnston 79-38.
 7817 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Sep 1982. From S.R. Pennycook 1054.
 7054 *Arrhenatherum elatius* (L.) Beauv. ex J. & C. Presl - tall oatgrass - leaf. Auckland, AK, NZ Jan 1980. From P.R. Johnston 1.
 6598 *Iris* sp. - leaf. Auckland, AK, NZ Oct 1977. From P.R. Johnston 77-127 ← G.I. Robertson.
 7052 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Dec 1980. From P.R. Johnston ← E.H.C. McKenzie 116 = ATCC 60473.
 7055 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Dec 1980. From P.R. Johnston ← E.H.C. McKenzie 158.
 7030 *Lotus* sp. - dead leaf. Mt Albert, AK, NZ Jan 1978. From P.R. Johnston 78-22 = PDD 41084.
 7056 *Pennisetum clandestinum* Hochst. ex Chiov. - kikuyu - leaf. Auckland, AK, NZ Jan 1981. From P.R. Johnston 14 = ATCC 60474.
 6700 *Psidium* sp. - guava - die-back. Auckland, AK, NZ Nov 1979. From P.R. Johnston 79-141 ← S.R. Pennycook.
 7011 *Vaccinium corymbosum* L. - highbush blueberry - leaf spot. Whakatane, BP, NZ Dec 1979. From P.R. Johnston B89.
 6599 Twig. Waitakere Ranges, AK, NZ Nov 1977. From P.R. Johnston 77.178.
- Phoma paspali** Johnston
 6819 *Dactylis glomerata* L. - cocksfoot - leaf. Ruakura, WO, NZ Oct 1979. From P.R. Johnston 79-134 = ATCC 60460.
 6615 *Lolium perenne* L. - perennial ryegrass - leaf. Hamilton, WO, NZ Mar 1978. From P.R. Johnston 78-47 = ATCC 60425: PDD 39976.
 6614 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - dead leaf. Kaikohe, ND, NZ Jan 1979. From P.R. Johnston 793 = ATCC 60424 - **ex Type specimen**.
- Phoma pinodella** (L.K. Jones) Morgan-Jones & Burch
 5609 *Medicago sativa* L. - lucerne, alfalfa. Wanaka, OL, NZ 1961. From J.M. Dingley 6127 - rec. as *Phoma medicaginis* var. *pinodella*.
 6297 *Pisum sativum* L. - garden pea - stem. Netherlands 1977. From P.R. Johnston ← G.H. Boerema 77165 - rec. as *Phoma medicaginis* var. *pinodella*.
 6601 *Pisum sativum* L. - garden pea. NZ. From P.R. Johnston SM679 ← S.A. Menzies - rec. as *Phoma medicaginis* var. *pinodella*.
 10844 *Pisum sativum* L. - pea - roots. Palmerston North, WI, NZ Dec 1977. From G. Laundon 12537b - rec. as *Phoma medicaginis* var. *pinodella*.
- Phoma plurivora** Johnston
 6612 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - leaf. Auckland, AK, NZ Jul 1978. From P.R. Johnston 78-104 = ATCC 60461: PDD 39977.
 6613 *Medicago polymorpha* L. - bur medic, California bur clover - leaf. Parapara, ND, NZ Oct 1977. From P.R. Johnston 77-138 = ATCC 60462: PDD 39974.
 6875 *Pennisetum clandestinum* Hochst. ex Chiov. - kikuyu - leaf. Ohaewai, ND, NZ Oct 1977. From P.R. Johnston 77-137 = PDD 40395.
 6873 *Setaria* sp. - leaf and seedhead. Mt Albert, AK, NZ Feb 1979. From P.R. Johnston 79-23 = ATCC 60463: PDD 40397 - **ex Type specimen**.
 6874 *Setaria* sp. - leaf and seedhead. Mt Albert, AK, NZ Feb 1979. From P.R. Johnston 79.22 = PDD 40397.
- Phoma pomorum** Thumen
 6635 *Lolium perenne* L. - perennial ryegrass. NZ 1976. From P.R. Johnston ← S.R. Pennycook 354J = PDD 40089.
 6871 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Mar 1980. From P.R. Johnston ← E.H.C. McKenzie 408.
 6872 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Mar 1980. From P.R. Johnston ← E.H.C. McKenzie 398.
 6634 *Medicago polymorpha* L. - bur medic, California bur medic - stem. Parapara, ND, NZ Oct 1977. From P.R. Johnston 77.133 = ATCC 60465: PDD 40088.
 6633 *Medicago sativa* L. - lucerne, alfalfa - leaf. Ruakura, WO, NZ Nov 1978. From P.R. Johnston 78.142 = ATCC 60464: PDD 40090.
 3176 *Phaseolus vulgaris* L. - bean. Netherlands Feb 1972. From J.M. Dingley 7227 ← PD 71-821.
 2324 *Protea* sp. - leaf spot. Levin, WN, NZ Jul 1968. From G.F. Laundon LEV 2281.
 10846 *Prunus persica* (L.) Batsch - peach - roots. New Plymouth, TK, NZ Jul 1977. From G. Laundon 11979a.
- Phoma pratorum** Johnston & Boerema
 6818 *Dactylis glomerata* L. - cocksfoot - leaf. Ruakura, WO, NZ Nov 1979. From P.R. Johnston 79-145B = ATCC 60467.
 7049 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ 1980. From P.R. Johnston A ← E.H.C. McKenzie = ATCC 60466 - **ex Type specimen**.

- 7050 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ 1980. From P.R. Johnston B ← E.H.C. McKenzie = ATCC 60472.
7051 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ 1980. From P.R. Johnston C ← E.H.C. McKenzie.
- Phoma putaminum** Spegazzini
6301 *Ulmus* sp. - elm - wood. Netherlands 1975. From P.R. Johnston ← G.H. Boerema 75690.
3171 Soil. USA (Alaska) 1971. From J.M. Dingley 7223 ← PD 71 = CBS 2534.
- Phoma rumicicola** Boerema & Loerakker
4209 *Rumex obtusifolius* L. - broad-leaved dock - leaf. Levin, WN, NZ Aug 1975. From G.F. Laundon LEV 9695.
6824 *Rumex obtusifolius* L. - broad-leaved dock. Auckland, AK, NZ Mar 1979. From P.R. Johnston 79.28.
6825 *Rumex obtusifolius* L. - broad-leaved dock - petiole spot. Mt Albert, AK, NZ Jan 1979. From P.R. Johnston 79-8.
6878 *Rumex obtusifolius* L. - broad-leaved dock. Roto-o-rangi, WO, NZ Feb 1979. From P.R. Johnston 79-31 = PDD 41039.
10847 *Rumex obtusifolius* L. - broad-leaved dock - leafspots. Levin, WN, NZ Aug 1975. From G. Laundon 9695.
- Phoma senecionis** Sydow
10939 *Senecio jacobea* L. - ragwort - stem lesion. Raetihi, TO, NZ Feb 1977. From G. Laundon 11451.
- Phoma sorghina** Boerema, Dorenbosch & van Kesteren
10942 *Saccharum officinarum* L. - sugarcane - leafspot. Cook Is. Oct 1978. From G. Laundon 13914.
- Phoma** sp.
6816 *Acca sellowiana* (O. Berg) Burret - feijoa - flower. Auckland, AK, NZ Jan 1980. From P.R. Johnston 80-6.
6866 *Acca sellowiana* (O. Berg) Burret - feijoa - seed. Auckland, AK, NZ Mar 1980. From P.R. Johnston ← G.J. Samuels IV8.
6867 *Acca sellowiana* (O. Berg) Burret - feijoa - blossom. Auckland, AK, NZ Mar 1980. From P.R. Johnston ← G.J. Samuels IV8.
6868 *Acca sellowiana* (O. Berg) Burret - feijoa - seed. Auckland, AK, NZ Mar 1980. From P.R. Johnston ← G.J. Samuels IV10.
11478 *Alectryon excelsus* Gaertn. - titoki - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP31(1).
11384 *Angelica* sp. - root rot. Pukekohe, AK, NZ Aug 1992. From P.G. Broadhurst.
11450 *Blechnum (capense)* sp. - kiokio - leafspot. Oratia, AK, NZ Nov 1991. From J.M. Young Or33c.
12093 *Brachyglottis greyii* (Hook.f.) B. Nordenst. - brown/black circular (2-3mm) leaf lesions. Oratia, AK, NZ Nov 1992. From J.M. Young R56 - identified by E.H.C. McKenzie.
11385 *Bupleurum* sp. - thoroughwax - root rot. Pukekohe, AK, NZ Aug 1992. From P.G. Broadhurst.
11452 *Celmisia armstrongii* Petrie - leafspot. Motukarara, MC, NZ Nov 1991. From J.M. Young W9b.
11483 *Coprosma robusta* Raoul - karamu - green leaf lesion (3-4mm dia.) with broad (1cm dia.) dark halo. Oratia, AK, NZ Dec 1991. From J.M. Young Or9A.
11494 *Coprosma* sp. - tan leafspot (3-5mm dia.) with dark narrow margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or24a.
10493 *Cordylone australis* (Forst.f.) Endl. - cabbage tree, ti kauka - wilt. Titahi Bay, WN, NZ May 1990. From P.R. Johnston ← J. Rees-George 12-S-3C.
10966 *Cucurbita maxima* Duch. - pumpkin - fruit rots. Levin, WN, NZ Apr 1983. From G. Laundon 20995b.
11446 *Dacrydium cupressinum* Sol. ex Lamb. - rimu - leaf small irregular red blotches (1mm). Oratia, AK, NZ Dec 1991. From J.M. Young Or27a.
11608 *Delphinium* sp. - larkspur - leaf & stem spots. Pukekohe, AK, NZ Jan 1993. From P.G. Broadhurst 9302.
7024 *Dioscorea bulbifera* L. - bitter yam, air potato - leaf. Solomon Is. Jun 1978. From P.R. Johnston 78-88 ← E.H.C. McKenzie.
7028 *Dioscorea bulbifera* L. - bitter yam, air potato - dead plant. Niue Apr 1979. From P.R. Johnston 79-57 ← E.H.C. McKenzie.
7035 *Dioscorea bulbifera* L. - bitter yam, air potato - leaf. Vanuatu Mar 1978. From P.R. Johnston 78-36 ← E.H.C. McKenzie.
11806 *Dodonaea viscosa* Jacq. - akeake - magenta leafspot (<1cm) with non-discrete margin, black inner with pale centre. Taupo, TO, NZ Dec 1992. From J.M. Young Q2 - identified by E.H.C. McKenzie.
7026 *Emilia sonchifolia* (L.) DC. - red tassel flower - leaf spot caused by *Cercospora* sp. Solomon Is. Jun 1978. From P.R. Johnston 78-83 ← E.H.C. McKenzie.
11460 *Entelia arborescens* R. Br. - whau - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP1A.
11461 *Entelia arborescens* R. Br. - whau - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP1b - died 5-93.
10918 *Glycyrrhiza* sp. - leafspots. Levin, WN, NZ Feb 1980. From G. Laundon 16275.
11444 *Hebe elliptica* (Forst.f.) Pennell - circular leaf lesion (1cm dia.) uneven brown necrosis. Manapouri, FD, NZ Nov 1991. From J.M. Young M5d.
12094 *Hebe obtusata* (Cheesem.) Ckn. & Allan - angular (2-5mm) leaf lesions with non-discrete necrosis. Oratia, AK, NZ Nov 1992. From J.M. Young R65 - identified by E.H.C. McKenzie.
11407 *Hebe* sp. cv. Waireka - dark sunken 1-2mm leaf spot. Ashburton, MC, NZ Nov 1991. From J.M. Young As6a.
12092 *Hebe stricta* (Benth.) L.B. Moore - koromiko - irregular brown (5mm) leaf blotchs. Oratia, AK, NZ Nov 1992. From J.M. Young R23 - identified by E.H.C. McKenzie.
12089 *Hoheria populnea* A. Cunn. - houhere, lacebark - round leafspots with sunken centre on upper surface, magenta/black on lower surface. Tauranga, BP, NZ Dec 1993. From J.M. Young O012 - identified by E.H.C. McKenzie.
10940 *Leucodendron* sp. Hawera, TK, NZ Aug 1980. From G. Laundon 16990b.
10089 *Lonicera japonica* Thunb. - Japanese honeysuckle - leafspot. WO, NZ Jul 1989. From P.R. Johnston = PDD 55745.
7788 *Meryta sinclairii* (Hook.f.) Seem. - puka - spreading lesion on leaf. Lady Alice Is., ND, NZ Jan 1982. From R.E. Beever 60-14.
7789 *Meryta sinclairii* (Hook.f.) Seem. - puka - spreading lesion on leaf. Lady Alice Is., ND, NZ Jan 1982. From R.E. Beever 60-15.
7790 *Meryta sinclairii* (Hook.f.) Seem. - puka - spreading lesion on leaf. Lady Alice Is., ND, NZ Jan 1982. From R.E. Beever 60-16.
11558 *Myrsine australis* (A. Rich.) Allan - kohukohu, black matipo - round (1-3mm) magenta leafspot. Oratia, AK, NZ Dec 1991. From J.M. Young Or24a.
11886 *Olearia arborescens* (Forst.f.) Cockayne & Liang - tree daisy - black leafspots (2-7mm) with pale sunken centre. Manapouri, FD, NZ Dec 1992. From J.M. Young K21.
12087 *Olearia avicenniaefolia* (Raoul) Hook. f. - akeake - dark brown (2-5mm) leafspots with grey centres and yellow halos. Manapouri, FD, NZ Nov 1993. From J.M. Young MM10 - identified by E.H.C. McKenzie.
6817 *Paspalum dilatatum* Poir. - dallisgrass, paspalum - leaf. Auckland, AK, NZ Jun 1979. From P.R. Johnston 79-72.
10964 *Phormium* sp. - leafspots. Invercargill, SL, NZ Apr 1979. From G. Laundon 14846.
11796 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - elliptical (1-5mm long) black leafspot. Waioara, MC, NZ Nov 1992. From J.M. Young F17.
11846 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax - elliptical leafspot (1cm long) tan margin. Taupo, TO, NZ Dec 1992. From J.M. Young Q6.
11466 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP6(2).
11467 *Pittosporum eugenioides* A. Cunn. - tarata, lemonwood - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP6c.
12084 *Pseudopanax laetus* (Kirk) Philipson - large yellow leaf blotches with chlorosis and brown on underside. Oratia, AK, NZ Nov 1993. From J.M. Young J18 - identified by E.H.C. McKenzie.
10849 *Rheum rhabarbarum* L. - rhubarb - leafspots. Levin, WN, NZ Jul 1979. From G. Laundon 15165.
12297 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - cane cankers. Nelson, NN, NZ. From K. Knight 95/1306 - possibly *Didymella aplana*.
11849 *Schefflera digitata* J.R. & G. Forst. - pate, five-finger - irregular pale centred brown, shothole leafspots (1-15mm). Taupo, TO, NZ Dec 1992. From J.M. Young Q29.
11850 *Schefflera digitata* J.R. & G. Forst. - pate, five-finger - round dark brown leafspot (2mm) with sunken white centre. Manapouri, FD, NZ Dec 1992. From J.M. Young K22.
8707 *Scolytopa* sp. [Invertebrate] - passion vine hopper - discoloured eggs. Rukuhia, WO, NZ 1984. From P.R. Johnston PJG-1 ← P.R. Gerard.
12263 *Solanum melongena* L. var. *esculentum* Nees - eggplant - leaves. Auckland, AK, NZ. From E.H.C. McKenzie ← H.M. Dance = MAFLyfield 6272527.

- 7027 *Vaccinium corymbosum* L. - highbush blueberry cv. Stanley - crown of dead plant. Lake Cameron, Rukuhia, WO, NZ Feb 1979. From P.R. Johnston 79-19.
- 7031 *Vaccinium corymbosum* L. - highbush blueberry cv. Jersey - dead petiole. Moanatuatua, WO, NZ Nov 1978. From P.R. Johnston 78-181.
- 7032 *Vaccinium corymbosum* L. - highbush blueberry cv. Atlantic - leaf spot. Waikato, WO, NZ Jan 1979. From P.R. Johnston 79-17.
- 11448 *Vitex lucens* Kirk - puriri - white centred leaf lesion (<1mm) narrow dark margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or30a.
- 11477 *Vitex lucens* Kirk - puriri - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP30(2).
- 2204 *Vitis vinifera* L. - grape. Henderson, AK, NZ Feb 1968. From J.M. Dingley 6820 ← P.J. Brook.
- 7034 *Vitis vinifera* L. - grape - stem. Mt Albert, AK, NZ Aug 1978. From P.R. Johnston 78.117.
- 11794 *Weinmannia racemosa* L.f. - kamahi - irregular magenta leafspots with chlorotic halo. Waiora, MC, NZ Nov 1992. From J.M. Young F14.
- 10941 *Zantedeschia aethiopica* (L.) Spreng. - arum lily - leaf lesions. Levin, WN, NZ Dec 1981. From G. Laundon 18931.
- 7029 Soil surrounding passionfruit. Niue 1977. From P.R. Johnston 77-87.
- 7036 Soil surrounding passionfruit. Niue 1977. From P.R. Johnston 77.86 ← E.H.C. McKenzie.
- 10848 From G. Laundon 20096.
- 10919 From G. Laundon 21434.
- 10965 From G. Laundon 15094.
- 11187 From G. Laundon 17123.
- 11188 From G. Laundon 21435.
- 11189 From G. Laundon 21846.
- Phoma subordinata* Desmazières
see *Phomopsis subordinaria*.
- Phoma tropica** Schneider & Boerema
- 7038 *Citrus sinensis* (L.) Osbeck - orange - wood. Cook Is. May 1978. From P.R. Johnston 78-85.
- 6302 *Guzmania* sp. - leaf spot. Netherlands 1977. From P.R. Johnston ← G.H. Boerema 77794.
- Phoma wasabiae** Yokogi
- 9483 *Eutrema wasabi* (Sieb.) Maxim. - Japanese horse-radish - stem. Tirau, WO, NZ. From P.G. Broadhurst - Ann. Phytopath. Soc. Japan 52: 59-68, 1986.
- Phomopsis citri* Fawcett
see *Diaporthe citri*.
- Phomopsis juniperivora** Hahn
- 10068 From G.F. Laundon AK1401.
- Phomopsis obscurans** (Ellis & Everhart) Sutton
- 10070 *Fragaria* sp. South Africa 1971. From G.F. Laundon 5938.
- 10073 *Fragaria* sp. Australia Feb 1972. From G.F. Laundon 6322.
- 10074 *Fragaria* sp. Levin, WN, NZ Jan 1972. From G.F. Laundon 6018A.
- 3307 *Fragaria X ananassa* Duch. - cultivated strawberry - leaf. South Africa 1971. From G.F. Laundon LEV 5938 ← F.H.J. Rijkenberg.
- 3308 *Fragaria X ananassa* Duch. - cultivated strawberry - leaf. USA Apr 1972. From G.F. Laundon LEV 6290 ← C.M. Howard - cultivated.
- 3309 *Fragaria X ananassa* Duch. - cultivated strawberry - leaf. Australia Feb 1972. From G.F. Laundon LEV 6322 ← J. McGechan.
- Phomopsis plantaginis* Kurbansachatov
see *Phomopsis subordinaria*.
- Phomopsis** sp.
- 6970 *Acacia* sp. - wood. Auckland, AK, NZ May 1976. From G.J. Samuels 76-93.
- 11504 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 80.
- 11507 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 77.
- 11508 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 76.
- 11546 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Te Puke, BP, NZ. From P.R. Johnston 71.
- 11484 *Agathis australis* (D. Don) Lindl. - kauri - irregular leafspots (1mm dia.). Oratia, AK, NZ Dec 1991. From J.M. Young Or6c.
- 6986 *Citrus limon* (L.) Burm.f. - lemon - dead twig. Hope, NN, NZ Nov 1975. From G.J. Samuels 75-331.
- 11492 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leaf spot. Chatham Is., NZ Nov 1992. From P.R. Johnston C7.
- 11493 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leaf spot. Chatham Is., NZ Nov 1992. From P.R. Johnston C111.
- 11703 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leafspot. Chatham Is., NZ Apr 1993. From P.R. Johnston C239.
- 12034 *Cytisus scoparius* (L.) Link - broom. Waihi Beach, CL, NZ Sep 1991. From P.R. Johnston B24.
- 12106 *Cytisus scoparius* (L.) Link - broom. Mamaku Plateau, BP, NZ Sep 1991. From P.R. Johnston B32.
- 12107 *Cytisus scoparius* (L.) Link - broom. Otautau, SL, NZ Mar 1992. From P.R. Johnston B120.
- 10434 *Diospyros kaki* L.f. - Japanese persimmon - petiole lesion. Kerikeri, ND, NZ. From P.G. Broadhurst SAM9008.
- 6988 *Dodonaea* sp. Pukekohe, AK, NZ Jun 1976. From G.J. Samuels 76-99.
- 11892 *Fuchsia excorticata* (J.R. & G. Forst.) L.f. - kotukutuku, tree fuchsia - irregular (1-3mm) leafspots with black margin, tan centre; underside has magenta margin. Taupo, TO, NZ Dec 1992. From J.M. Young Q53.
- 6987 *Malus X domestica* Borkh. - apple - twig. Motueka, NN, NZ Jul 1975. From G.J. Samuels 75-209.
- 10069 *Malus X domestica* Borkh. - apple. Tukituki, HB, NZ Oct 1982. From G.F. Laundon 20249.
- 10071 *Nandina domestica* Thunb. Australia Jun 1976. From G.F. Laundon 10725.
- 9709 * *Persea americana* Mill. - avocado cv. Hass - stem end fruit rot. Mangawhai, AK, NZ Jan 1987. From W.F.T. Hartill 260 = PDD 48286 - beta spore form - *avocado.
- 9710 * *Persea americana* Mill. - avocado cv. Hass - stem end fruit rot. Mangawhai, AK, NZ Jan 1987. From W.F.T. Hartill 261 = PDD 48287 - alpha spore form - *avocado.
- 10075 *Rubus fruticosus* L. - blackberry. Hastings, HB, NZ Mar 1977. From G.F. Laundon 11588.
- 11876 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G69.
- 11877 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G78.
- 11878 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G135.
- 11879 *Ulex europaeus* L. - gorse. ND, NZ Sep 1991. From P.R. Johnston G138.
- 12060 *Ulex europaeus* L. - gorse. Dunedin, DN, NZ Oct 1991. From P.J. Johnston G183.
- 7025 *Vaccinium corymbosum* L. - highbush blueberry cv. Atlantic - leaf spot. Waikato, WO, NZ Jan 1979. From P.R. Johnston B41.
- 2141 *Vitis* sp. - grape. Upper Moutere, NN, NZ Jan 1968. From G.F. Laundon LEV 1903 ← A. Harre.
- 10681 From G. Laundon AK1131.
- Phomopsis subordinaria** (Desmazières) Traverso
syn. *Phoma subordinaria* Desmazières
- Phomopsis plantaginis** Kurbansachatov
- 10117 *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain - scape. Lincoln, MC, NZ Feb 1990. From M.G. Cromey 90-1 = PDD 56903 - first record for NZ.
- Phomopsis tuberivora** Gussow & Foster
- 8337 *Solanum tuberosum* L. - potato - tuber end rot. Canterbury, NZ Aug 1983. From P.R. Johnston.

Phomopsis viticola (Saccardo) Saccardosyn. *Cryptosporella viticola* Shear

- 2513 *Vitis vinifera* L. - grape. From J.M. Dingley 6897 ← P.J. Brook 219.
 5537 *Vitis vinifera* L. - grape cv. Palomino. Henderson, AK, NZ Feb 1963. From J.M. Dingley 6350.
 6984 *Vitis vinifera* L. - grape. Gisborne, GB, NZ. From G.J. Samuels ← M.H. Dye F65.
 6985 *Vitis vinifera* L. - grape cv. Golden Chasselas - zone between living and dead wood. Havelock North, HB, NZ Nov 1973. From G.J. Samuels ← M.H. Dye F81.
 6990 *Vitis vinifera* L. - grape. USA Feb 1976. From G.J. Samuels 76-70 ← C.C. Russell.
 6991 *Vitis vinifera* L. - grape. Australia. From G.J. Samuels 76-67 ← M.H. Dye DAR25962.
 6992 *Vitis vinifera* L. - grape. USA Feb 1976. From G.J. Samuels 76-71 ← C.C. Russell.
 8341 *Vitis vinifera* L. - grape cv. Muller Thurgau - leaf & shoot lesions. Te Kauwhata, WO, NZ Oct 1983. From S.R. Pennycook 1122b.
 10368 From G. Laundon 11193.

Phycomyces nitens Kunze

- 10093 Carpet. Titirangi, AK, NZ. From E.H.C. McKenzie.

Phyllosticta citricarpa (McAlpine) van der Aa
 see *Guignardia citricarpa*.

Phyllosticta maydis Army & Nelson
 see *Mycosphaerella zea-maydis*.

Phyllosticta sp.

- 8833 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leafspot. Mt Albert, AK, NZ Nov 1984. From E.H.C. McKenzie ← G.I. Robertson.
 11495 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leafspot. Chatham Is., NZ Dec 1992. From P.R. Johnston C8.
 11496 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - leafspot. Chatham Is., NZ Dec 1992. From P.R. Johnston C110.
 10967 *Eucalyptus* sp. - leafspots. Australia Jan 1983. From G. Laundon 20622.
 12249 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Paihia, ND, NZ Aug 1994. From P.R. Johnston 19.
 11893 *Vaccinium ashei* Reade - rabbit-eye blueberry cv. Delight. Taupaki, AK, NZ 1993. From W.F.T. Hartill - Probably same organism as called *Pestalotia vaccinii* in United States literature.
 10920 Leafspot. Singapore Nov 1979. From G. Laundon 15788.

Phytophthora cactorum (Lebert & Cohn) Schroeter

- 7297 *Malus X domestica* Borkh. - apple - root. Twyford, HB, NZ Jan 1967. From G.I. Robertson P13.
 10163 *Malus X domestica* Borkh. - apple. From G.F. Laundon AK1052.
 10164 *Malus X domestica* Borkh. - apple - canker. Motueka, NN, NZ Jun 1977. From G.F. Laundon 11836.
 10184 *Malus X domestica* Borkh. - apple - collar rot. Motueka, NN, NZ Jun 1977. From 11837.
 11853 * *Malus X domestica* Borkh. - apple - root lesions. Pakowai, HB, NZ Jul 1993. From F.M. Harris Ph114 - *apple, pear.
 7298 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P120.
 7299 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P124.

Phytophthora cinnamomi Rands

- 7300 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - root. Mt Albert, AK, NZ Nov 1979. From G.I. Robertson P302.
 7301 *Carya illinoensis* (Wangenh.) C. Koch - pecan - root. Paroa Bay, ND, NZ Jan 1980. From G.I. Robertson P304.
 7749 *Castanea* sp. - chestnut - root rot. Kumeu, AK, NZ Jan 1980. From G.I. Robertson P312.
 10165 *Erica* sp. From G.F. Laundon 11407.

Phytophthora citricola Sawada

- 7061 *Olearia paniculata* (J.R. & G. Forst.) Druce - akiraho - root. Lincoln, MC, NZ Dec 1978. From G.I. Robertson P283.
 7302 *Prunus mahaleb* L. - mahaleb cherry - root. Mt Albert, AK, NZ Jul 1979. From G.I. Robertson P300.
 7750 *Solanum muricatum* Ait. - pepino - root rot. Okaihau, ND, NZ Apr 1981. From G.I. Robertson P313.

Phytophthora citrophthora (Smith & Smith) Leonian

- 11388 *Citrus limon* (L.) Burm.f. - lemon - fruit. Auckland, AK, NZ Sep 1991. From G.I. Robertson P494.
 7751 NZ. From G.I. Robertson P88 = IMI 32034.

Phytophthora colocasiae Raciborski

- 11840 *Colocasia esculenta* (L.) Schott - taro. American Samoa 1993. From E.H.C. McKenzie.
 11841 *Colocasia esculenta* (L.) Schott - taro. American Samoa 1993. From E.H.C. McKenzie.
 11842 *Colocasia esculenta* (L.) Schott - taro. American Samoa 1993. From E.H.C. McKenzie.
 11843 *Colocasia esculenta* (L.) Schott - taro. American Samoa 1993. From E.H.C. McKenzie.
 11844 *Colocasia esculenta* (L.) Schott - taro. American Samoa 1993. From E.H.C. McKenzie.

Phytophthora cryptogea Pethybridge & Lafferty

- 9673 * *Asparagus officinalis* L. - asparagus - roots. USA Mar 1984. From P.G. Falloon PmACA108 - A1 mating type - *asparagus (Falloon).
 9674 * *Asparagus officinalis* L. - asparagus - roots. USA Apr 1982. From P.G. Falloon PmACA060 - A1 mating type - *asparagus (Falloon).
 9767 * *Asparagus officinalis* L. - asparagus - root/crown. USA Jan 1982. From P.G. Falloon PmACA004 - - A1 mating type - *asparagus (Falloon).
 9768 * *Asparagus officinalis* L. - asparagus cv. UC157 - crown. USA Mar 1982. From P.G. Falloon PmACA028 - - A1 mating type - *asparagus (Falloon).
 9769 * *Asparagus officinalis* L. - asparagus cv. UC157 - crown. USA Jan 1982. From P.G. Falloon PmACA033 - - A1 mating type - *asparagus (Falloon).
 10166 *Spinacia oleracea* L. - spinach - root rot. Hastings, HB, NZ Apr 1980. From G.F. Laundon 16574.
 9770 USA. From P.G. Falloon 9-1-5 A2 ← S.M. Mircetich 9-1-5 - A2 mating type.

Phytophthora drechsleri Tucker

- 9771 USA. From P.G. Falloon 4-4-7 ← S.M. Mircetich 4-4-7 - A2 mating type.
 10167 Conifer - root rot. Ohakea, WI, NZ May 1977. From G.F. Laundon 11793.

Phytophthora hibernalis Carne

- 11389 *Citrus limon* (L.) Burm.f. - lemon - fruit. Auckland, AK, NZ Sep 1991. From G.I. Robertson P493 ← F. Harris.

Phytophthora megasperma Drechsler

- 9760 * *Asparagus officinalis* L. - asparagus - spears / roots. Switzerland 1983. From P.G. Falloon ← D. Gindrat 83140 - *asparagus (Falloon).
 9761 * *Asparagus officinalis* L. - asparagus - spears & roots. Switzerland 1982. From P.G. Falloon ← D. Gindrat 84141 - *asparagus (Falloon).
 7304 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P135.
 7305 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P139.

Phytophthora megasperma Drechsler var. *glycinea* T.-L. Kuan & Erwin

- 9056 *Glycine max* (L.) Merr. - soybean. Australia 1984. From B.T. Hawthorne 421 ← M. Ryley - race 1.

Phytophthora megasperma Drechsler var. *medacaginis* T.-L. Kuan & Erwin

- 9057 *Cicer arietinum* L. - chickpea. Australia. From J. Rees-George 422 ← M. Ryley - Appl. Pl. Path. 9: 117, 1980.

- 7312 *Medicago sativa* L. - lucerne, alfalfa - root. USA. From B.T. Hawthorne 196 ← D.C. Erwin P844.
 7313 *Medicago sativa* L. - lucerne, alfalfa - root. USA. From B.T. Hawthorne 197 ← D.C. Erwin P1057.
 7603 *Medicago sativa* L. - lucerne, alfalfa - root. Central Otago, CO, NZ Sep 1981. From B.T. Hawthorne Ex3-8141-4 (221).
 8999 *Medicago sativa* L. - lucerne, alfalfa - roots. Australia Feb 1985. From J. Rees-George 415 ← J.A.G. Irwin UQ44 PMM.
 7602 Soil. Kiwitahi Station, TO, NZ Sep 1981. From B.T. Hawthorne Ex2-816 (220).
 9046 Soil. From ATCC 42154 ← S.A. Miller 5b4 - Phytopath. 69: 1051-1055, 1979.
- Phytophthora megasperma** Drechsler var. *megasperma*
 7304 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P135.
 7305 Soil (apple orchard). Hastings, HB, NZ Sep 1969. From G.I. Robertson P139.
- Phytophthora megasperma** Drechsler var. *sojajae* Hildebrand
 9489 a* *Asparagus officinalis* L. - asparagus - spears. Auckland, AK, NZ Aug 1980. From P.G. Falloon PmANZ006 - N.Z. J. Agric. Res. 25: 425-429, 1982 - *asparagus (Falloon).
 9490 a* *Asparagus officinalis* L. - asparagus - spears. Levin, WN, NZ Aug 1980. From P.G. Falloon PmANZ007 - N.Z. J. Agric. Res. 25: 425-429, 1982 - *asparagus (Falloon).
 9491 * *Asparagus officinalis* L. - asparagus cv. Limbras 22 - spears. Motueka, NN, NZ Oct 1986. From P.G. Falloon PmANZ033 - *asparagus (Falloon).
 9492 * *Asparagus officinalis* L. - asparagus cv. Lucullus. Waverly, TK, NZ Oct 1986. From P.G. Falloon PmANZ034 - *asparagus (Falloon).
 9493 * *Asparagus officinalis* L. - asparagus cv. Mary Washington 500. Manawatu, WI, NZ Oct 1986. From P.G. Falloon PmANZ037 - *asparagus (Falloon).
 9494 * *Asparagus officinalis* L. - asparagus cv. N.J.103 - spears. Hastings, HB, NZ Oct 1986. From P.G. Falloon PmANZ040 - *asparagus (Falloon).
 9495 * *Asparagus officinalis* L. - asparagus cv. Mary Washington - spears. Whakatane, BP, NZ Oct 1986. From P.G. Falloon PmANZ045 - *asparagus (Falloon).
 9661 * *Asparagus officinalis* L. - asparagus cv. Rutgers Beacon - spears. Tirau, WO, NZ Oct 1986. From P.G. Falloon PmANZ050 - *asparagus (Falloon).
 9662 *Asparagus officinalis* L. - asparagus cv. Mary Washington 500 - spears. Woodend, NC, NZ Oct 1986. From P.G. Falloon PmANZ072.
 9663 *Asparagus officinalis* L. - asparagus cv. Larac - spears. Paraparaumu, WN, NZ Oct 1986. From P.G. Falloon PmANZ074.
 9675 * *Asparagus officinalis* L. - asparagus cv. UC157 - crown tissue. USA Apr 1982. From P.G. Falloon PmACA014 - *asparagus (Falloon).
 9762 * *Asparagus officinalis* L. - asparagus - spear. USA Mar 1982. From P.G. Falloon PmACA020 - Pl. Dis. 72: 1988 - *asparagus (Falloon).
 9763 * *Asparagus officinalis* L. - asparagus - spear. USA Apr 1984. From P.G. Falloon PmACA045 - Pl. Dis. 72: 1988 - *asparagus (Falloon).
 9764 * *Asparagus officinalis* L. - asparagus - spear. USA Mar 1984. From P.G. Falloon PmACA049 - Pl. Dis. 72: 1988 - *asparagus (Falloon).
 9765 *Asparagus officinalis* L. - asparagus - spear. USA Apr 1984. From P.G. Falloon PmACA078 - Pl. Dis 72: 1988.
 9766 * *Asparagus officinalis* L. - asparagus. USA Apr 1983. From P.G. Falloon PmACA079 - Pl. Dis. 72: 1988 - *asparagus (Falloon).
 9486 a* Soil from asparagus field. Hastings, HB, NZ Jul 1980. From P.G. Falloon PmANZ001 - N.Z. J. Agric. Res. 25: 425-429, 1982 - *asparagus.
 9487 a* Soil from asparagus field. Hastings, HB, NZ Aug 1980. From P.G. Falloon PmANZ003 - N.Z. J. Agric. Res. 25: 425-429, 1982 - *asparagus (Falloon).
 9488 a* Soil from asparagus field. Hastings, HB, NZ Aug 1980. From P.G. Falloon PmANZ004 - N.Z. J. Agric. Res. 25: 425-429, 1982 - *asparagus (Falloon).
 9664 Soil from asparagus cv. Limbras 10 field. Ashburton, MC, NZ Dec 1986. From P.G. Falloon PmANZ085.
 9665 Soil from asparagus cv. Lucullus field. Rakaia, MC, NZ Dec 1986. From P.G. Falloon PmANZ091.
 9666 Soil from asparagus cv. Rutgers Beacon field. Wanaka, OL, NZ Nov 1986. From P.G. Falloon PmANZ093.
 9667 Soil from asparagus cv. Limbras 22 field. Hallombe, WI, NZ Nov 1986. From P.G. Falloon PmANZ096.
 9676 * Soil from asparagus field. Whakatane, BP, NZ Oct 1986. From P.G. Falloon 29A1soil - *asparagus (Falloon).
- Phytophthora nicotianae** van Breda de Haan var. *nicotianae*
 7752 *Nicotiana tabacum* L. - tobacco - stem. Motueka, NN, NZ. From G.I. Robertson P282.
- Phytophthora nicotianae** van Breda de Haan var. *parasitica* (Dastur) Waterhouse
 7753 *Malus X domestica* Borkh. - apple. Auckland, AK, NZ. From G.I. Robertson P277.
- Phytophthora** sp.
 9668 *Asparagus officinalis* L. - asparagus - roots. USA 1984. From P.G. Falloon PmACA105.
 9669 *Asparagus officinalis* L. - asparagus - roots & crown. USA Apr 1982. From P.G. Falloon PmACA082.
 9670 *Asparagus officinalis* L. - asparagus - roots & crown. USA Apr 1982. From P.G. Falloon PmACA100.
 9671 *Asparagus officinalis* L. - asparagus - roots. USA 1984. From P.G. Falloon PmACA102.
 9672 *Asparagus officinalis* L. - asparagus - spears, crowns & roots. USA Apr 1983. From P.G. Falloon PmACA103.
 10168 *Ilex polycarpa* Maxim. - root rot. New Plymouth, TK, NZ Jul 1977. From G.F. Laundon 11939.
 9055 *Medicago sativa* L. - lucerne, alfalfa - dark termination of root. Alexandra, CO, NZ Apr 1982. From J. Rees-George 254.
- Piptoporus cretaceus** (Lloyd) G.H. Cunningham
 11789 *Nothofagus cunninghamii* (Hook.f.) Oerst. - beech - fallen tree. Australia May 1987. From P.K. Buchanan 87-298 ← D. Arora - .
 11791 *Nothofagus cunninghamii* (Hook.f.) Oerst. - beech. Australia May 1987. From P.K. Buchanan 87-342.
- Pithomyces chartarum* (Berkeley & Curtis) M.B. Ellis
 see *Leptosphaerulina chartarum*.
- Pithomyces funiculosa** Palm, Stewart & Rossman
 11751 Termit mound. Swaziland Sep 1977. From R.E. Beever 754-1 ← ATCC 42411 ← M.E. Palm 1429 = PDD 62113 - single spore isolate - **ex Type Specimen**.
- Pithomyces graminicola** R.Y. Roy & Rai
 11752 Rhizosphere of wheat. Australia. From R.E. Beever 755-1 ← ATCC 26151 ← K. Sivasithamparam G191 = PDD 62114 - single spore isolate.
- Pithomyces karoo** Marasas & Schumann
 11753 *Gnidia polycephala* (C.A. Mey.) Gily. South Africa Feb 1970. From R.E. Beever 756-1 ← ATCC 24322 ← W.F.O. Marasas PRE44605 = PDD 62115 - single spore isolate - **ex Type Specimen**.
- Pithomyces quadratus** (Atkinson) M.B. Ellis
 11754 Leaf litter. From R.E. Beever 758-1 ← ATCC 32855 ← M.C. Papendorf = PDD 62116 - single spore isolate.
- Pithomyces sacchari** (Spegazzini) M.B. Ellis
 11755 *Medicago sativa* L. - lucerne, alfalfa - seed. South Africa 1970. From R.E. Beever 759-1 ← ATCC 24323 ← W.F.O. Marasas PRE44585 = PDD 62117 - single spore isolate.
- Pithomyces** sp.
 1276 Chalky rubble. France. From S. Davison 6323 ← DAOM 45409 ← J. Nicot.
 1277 USA Jul 1957. From S. Davison 6324 ← DAOM 57103 ← C.T. Rogerson.
- Pithomyces valparadisicus** (C.L. Spegazzini) P.M. Kirk
 11756 Soil. Spain. From R.E. Beever 760-1 ← ATCC 52745 ← J. Guarro FMR405 = PDD 62118 - single spore isolation.
- Plectosphaerella cucumerina** (Lindfors) Gams
 10923 *Anthurium* sp. - leafspots. Fiji Sep 1977. From G. Laundon 12203a.
 10921 *Chrysanthemum* sp. USA Oct 1977. From G. Laundon 12284.
 10922 *Ranunculus repens* L. - creeping buttercup - leafspots. Levin, WN, NZ Aug 1979. From G. Laundon 15190.

- 10969 *Ranunculus repens* L. - creeping buttercup - leafspots. Levin, WN, NZ May 1980. From G. Laundon 16623.
 10968 *Ranunculus sardous* Crantz - hairy buttercup - stem spots. Levin, WN, NZ Oct 1979. From G. Laundon 15677b.
- Plectosphaerella cucumeris** Klebahn
 9698 *Cucumis* sp. - melon - roots. Auckland, AK, NZ May 1988. From J. Rees-George A4-1a = PDD 48791.
 9699 *Cucumis* sp. - melon - roots. Auckland, AK, NZ May 1988. From J. Rees-George D5-2b = PDD 48791.
- Pleiochaeta setosa** (Kirchner) Hughes
 10944 *Lupinus* sp. - leafspots. Stratford, TK, NZ May 1978. From G. Laundon 13255.
 11880 *Ulex europaeus* L. - gorse. CL, NZ Sep 1991. From P.R. Johnston G129.
 11881 *Ulex europaeus* L. - gorse. CL, NZ Sep 1991. From P.R. Johnston G130.
- Pleospora bjoerlingii** Byford
 anam. *Phoma betae* Frank
 10945 *Beta vulgaris* L. - beet - root lesions. Hastings, HB, NZ Apr 1979. From G. Laundon 14731a.
- Pleospora herbarum** (Persoon) Rabenhorst
 anam. *Stemphylium botryosum* Wallroth
 11685 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless leaf midrib. Kumeu, AK, NZ. From P.R. Johnston 1A-2.
 10946 *Medicago sativa* L. - lucerne, alfalfa. Nov 1974. From G. Laundon 8891 ← Massy University.
 12243 *Ulex europaeus* L. - gorse. Moerewa, ND, NZ Sep 1991. From P.R. Johnston G40 ← S. Parkes.
 12244 *Ulex europaeus* L. - gorse. Albany, AK, NZ Aug 1993. From P.R. Johnston G306 ← S. Parkes.
 12245 *Ulex europaeus* L. - gorse. SL, NZ Mar 1994. From P.R. Johnston G325 ← S. Parkes.
- Pleospora papaveracea** (De Notaris) Saccardo
 10970 *Papaver nudicaule* L. - iceland poppy - damping off. Levin, WN, NZ Jan 1978. From G. Laundon 12799.
- Pleospora** sp.
 11547 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless leaf. Havelock North, HB, NZ. From P.R. Johnston 70.
- Pleospora tarda** Simmons
 anam. *Stemphylium botryosum* Wallroth
 5620 *Daucus carota* L. var. *sativus* Hoffm. - carrot. Pukekohe, AK, NZ Jan 1969. From J.M. Dingley 693.
 5505 *Lupinus arboreus* Sims - tree lupin - stem. Pukekohe, AK, NZ Nov 1973. From J.M. Dingley 73104.
 5524 *Lupinus arboreus* Sims - tree lupin - leaf. Pukekohe, AK, NZ Oct 1973. From J.M. Dingley 7394.
 5497 *Lycopersicon esculentum* Mill. - tomato - stem. Auckland, AK, NZ Mar 1973. From J.M. Dingley 7330.
 5600 *Matthiola incana* (L.) R. Br. - stock. Mt Roskill, AK, NZ May 1965. From J.M. Dingley 6599.
 5516 *Medicago sativa* L. - lucerne, alfalfa - leaf. Reporoa, TO, NZ Feb 1974. From J.M. Dingley 7411.
 2934 *Trifolium repens* L. - white clover - leaf debris. Palmerston North, WI, NZ Jun 1969. From E.H.C. McKenzie 608.
 5544 From G. Singh ← QM 9457.
- Pleurotus abalonus** Han, Chen & Cheng
 12273 Japan. From P.K. Buchanan 94-122 = LGM 39 No. 37 - single spore isolate.
 12274 Japan. From P.K. Buchanan 94-123 = LGM 39 (No.39) - single spore isolate.
 12279 Japan. From P.K. Buchanan 94-128 = LGM 39 (No. 22) - single spore isolate.
 12280 Japan. From P.K. Buchanan 94-129 = LGM 39 (No.41) - single spore isolate.
- Pleurotus australis** Cooke & Massee
 11571 *Leptospermum* sp. - manuka - fallen branch. Karekare, AK, NZ Feb 1987. From P.K. Buchanan 87-017a-i.
 11572 *Leptospermum* sp. - manuka - fallen branch. Karekare, AK, NZ Feb 1987. From P.K. Buchanan 87-018.
- Pleurotus cystidiosus** Miller
 12275 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar. USA. From P.K. Buchanan 94-124 = ATCC 28597 (No.2) - single spore isolate.
 12276 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar. USA. From P.K. Buchanan 94-125 = ATCC 28597 (No.19) - single spore isolate.
 12277 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar. USA. From P.K. Buchanan 94-126 = ATCC 28597 (No.3) - single spore isolate.
 12278 *Populus deltoides* Bartr. ex Marsh - Eastern cottonwood poplar. USA. From P.K. Buchanan 94-127 = ATCC 28597 (No.35) - single spore isolate.
 12272 *Quercus nuttallii* Palmer. USA. From P.K. Buchanan 94-121 = CBS 29835.
- Pleurotus opuntiae** (Durieu & Leveille) Saccardo
 11568 *Araucaria heterophylla* (Salisb.) Franco. - Norfolk Island pine. Raoul Is, NZ Sep 1988. From P.K. Buchanan 88-155 ← E.H.C. McKenzie.
 11565 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - dead tree. Orewa, AK, NZ Jun 1988. From P.K. Buchanan 88/115a-1
 ← J. Rees-George.
 11567 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka. Mt Albert, AK, NZ. From P.K. Buchanan 92-001.
 11670 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - dead stump. Mangere, AK, NZ Feb 1988. From P.K. Buchanan 88-042-1,3.
 11671 *Cordylina australis* (Forst.f.) Endl. - cabbage tree, ti kauka - dead stump. Tiritiri Matangi Is., AK, NZ. From P.K. Buchanan 88-045-1,2.
 11566 *Liquidambar styraciflua* L. - sweetgum - old wound on trunk. Auckland, AK, NZ Feb 1991. From P.K. Buchanan 90-133 ← J.A. Gunton.
- Pleurotus ostreatus** (Jacquin) Kummer
 11673 USA. From P.K. Buchanan 90-139-1,2,4 ← O. Miller VT1586-1-2-4.
 11674 USA. From P.K. Buchanan 90-141-1 ← Laurel Kuehnel Virginia Polytechnical Institute VT1046-01.
 11678 From P.K. Buchanan 90-143-4 ← R. Petersen 3504.
 11679 From P.K. Buchanan 90-144-17 ← R. Petersen 3507 - rec. as *P. pulmonarius*.
- Pleurotus pulmonarius** (Fries) Quelet
 11579 *Cassia* sp. - buttercup tree cv. John Bull - saprophytic on damaged, now dead trunk. Royal Oak, AK, NZ Mar 1988. From P.K. Buchanan 88-066abc ← J. Rees-George.
 11573 From P.K. Buchanan 90-140ab ← Laurel Kuehnel Virginia Polytechnical Institute 1332.01&.02.
 11574 Jul 1988. From P.K. Buchanan 88-134cd ← P.K. Buchanan 87-424 - re-isolated from spores from ICMP 11780.
 11575 USA. From P.K. Buchanan 91-088ac ← North West Mycological Consultants CS50.
 11576 From P.K. Buchanan 90-138ac ← Laurel Kuehnel Virginia Polytechnical Institute 1784-01&.03.
 11577 USA. From P.K. Buchanan 91-087ac ← North West Mycological Consultants CS175 - dikaryotic culture.
 11578 USA. From P.K. Buchanan 91-086bd ← North West Mycological Consultants CS32 - dikaryotic strain.
 11780 Hong Kong. From P.K. Buchanan 87-424 ← S.T. Chang STCP1-27 = herb. PDD 62304.
 11781 China. From P.K. Buchanan 93-009 = herb. PDD 62303.
 12284 From P.K. Buchanan 94-117 = N.W. Mycol. Consultants, USA.
- Pleurotus purpureo-olivaceus** (Stevenson) Segedin
 syn. *Pleurotus rattenburyi* Segedin
 11569 *Nothofagus solandri* (Hook.f.) Oerst. var. *cliffortioides* (Hook.f.) Poole - mountain beech. Tongariro National Park, TO, NZ May 1989. From P.K. Buchanan 89-103 ← R.E. Beever.
 11570 *Nothofagus solandri* (Hook.f.) Oerst. var. *cliffortioides* (Hook.f.) Poole - mountain beech. Tongariro National Park, TO, NZ May 1989. From P.K. Buchanan 89-106 ← R.E. Beever.
 11680 *Nothofagus solandri* (Hook.f.) Oerst. var. *solandri* - black beech. Tongariro National Park, TO, NZ May 1989. From P.K. Buchanan 89-105-2

- ← R.E. Beever.
 9629 *Nothofagus* sp. Lewis Pass, NC, NZ May 1990. From R.H. Petersen 2554 = TENN. 48868 - tester strains for compatability tests.
 9630 *Nothofagus* sp. Monowai, FD, NZ May 1990. From R.H. Petersen 2669 - TENN 48869 - tester strains for compatability tests.
- Pleurotus sajor-caju*** (Fries) Singer
 11672 Malaysia. From P.K. Buchanan 91-074 ← B.S. Lee.
- Polyporus tomentosus*** Fries var. ***circinatus*** (Fries) Sartory & Maire
 4105 *Pseudotsuga menziesii* (Mirb.) Franco - douglas fir. Canada 1953. From J.M. Dingley ← D. Chu 199 ← H.M. Craig.
- Potebniomyces coniferarum*** (Hahn) Smerlis
 anam. *Phacidiopycnis pseudotsugae* (M. Wilson) Hahn
 2525 *Sequoia sempervirens* (D. Don) Endl. - coast redwood. Rotorua, BP, NZ 1968. From J.M. Dingley 6887.
- Preussia fleischhakeri*** (Auerswald) Cain
 9050 *Hordeum vulgare* L. - barley cv. Triumph - healthy green leaf. Lincoln, MC, NZ Nov 1985. From T. Riesen 22 = PDD 52070.
- Pseudocochliobolus australiensis* Tsuda & Ueyama
 see *Cochliobolus australiensis*.
- Pseudocochliobolus geniculatus* (Nelson) Tsuda, Ueyama & Nishihara
 see *Cochliobolus geniculatus*.
- Pseudocochliobolus lunatus* (Nelson & Haasis) Tsuda, Ueyama & Nishihara
 see *Cochliobolus lunatus*.
- Pseudocochliobolus spicifer* (Nelson) Tsuda, Ueyama & Nishihara
 see *Cochliobolus spicifer*.
- Pullularia pullulans* (de Bary) Berkhout
 see *Aureobasidium pullulans*.
- Pyrenochaeta acicola* (Leveille) Saccardo
 see *Phoma leveilli*.
- Pyrenochaeta lycopersici*** Schneider & Gerlach
 1861 *Fragaria X ananassa* Duch. - cultivated strawberry. Mangere, AK, NZ Jul 1966. From F.T. Last J9.
 1909 *Lolium perenne* L. - perennial ryegrass. Mangere, AK, NZ Oct 1966. From F.T. Last J69.
 1896 *Solanum nigrum* L. - black nightshade. Mt Albert, AK, NZ Sep 1967. From F.T. Last J38.
 1892 *Veronica* sp. Mangere, AK, NZ Aug 1967. From F.T. Last J32.
 1893 *Veronica* sp. Mangere, AK, NZ Aug 1967. From F.T. Last J53.
- Pyrenochaeta*** sp.
 1993 *Convolvulus arvensis* L. - field bindweed. Mt Albert, AK, NZ Sep 1966. From F.T. Last J63.
 11190 *Fragaria X ananassa* Duch. - stawberry - root rot. Levin, WN, NZ Jan 1982. From G. Laundon 19172.
 1985 *Solanum nigrum* L. - black nightshade. Mangere, AK, NZ Aug 1966. From F.T. Last J53.
 1864 *Solanum* sp. Swanson, AK, NZ Sep 1966. From F.T. Last J15.
- Pyrenopeziza brassicae*** Sutton & Rawlinson
 anam. *Cylindrosporium concentricum* Greville
 8140 *Brassica oleracea* L. var. *botrytis* L. - cauliflower - light leaf spot. Levin, WN, NZ 1982. From W.F.T. Hartill ← L.H. Cheah = ATCC 48346.
 5699 *Brassica oleracea* L. var. *capitata* L. - cabbage - light leaf spot. Mt Albert, AK, NZ Oct 1977. From T.W. Canter-Visscher = ATCC 64680.
- Pyrenophora avenae*** Ito & Kuribayashi
 anam. *Drechslera avenae* (Eidam) Scharif
 10972 *Avena sativa* L. - oat - leaf spots. Takapau, WA, NZ Aug 1979. From G. Laundon 15376.
 6752 *Dichelachne crinita* (L.f.) Hook. f. - long-hair plume grass. Woodhill, AK, NZ Jun 1977. From E.H.C. McKenzie 413.
 10971 *Triticum aestivum* L. - wheat. Palmerston North, WI, NZ Oct 1976. From G. Laundon 11079a.
- Pyrenophora dictyoides*** Paul & Parbery
 anam. *Drechslera dictyoides* (Drechsler) Shoemaker
 6685 *Lolium multiflorum* Lam. X *L. perenne* L. - short rotation ryegrass cv. Grasslands Manawa - seed. Palmerston North, WI, NZ Jul 1975. From P.R. Johnston 15012.
 6810 *Lolium perenne* L. - perennial ryegrass - leaf. Ruakura, WO, NZ Nov 1979. From E.H.C. McKenzie 55.
- Pyrenophora erythrospila*** Paul
 anam. *Drechslera erythrospila* (Drechsler) Shoemaker
 6218 *Agrostis capillaris* L. - browntop, colonial bentgrass. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 245.
 6219 *Agrostis capillaris* L. - browntop, colonial bentgrass. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 213.
 6222 *Agrostis capillaris* L. - browntop, colonial bentgrass. Whangaroa, ND, NZ Feb 1975. From E.H.C. McKenzie 31.
 6223 *Agrostis capillaris* L. - browntop, colonial bentgrass. Palmerston North, WI, NZ 1976. From E.H.C. McKenzie ← M.J. Christensen.
 10397 *Agrostis capillaris* L. - browntop, colonial bentgrass. Levin, WN, NZ Mar 1979. From G. Laundon 14682.
 10398 *Agrostis capillaris* L. - browntop, colonial bentgrass. Levin, WN, NZ Apr 1979. From G. Laundon 14719a.
 6753 *Anthoxanthum odoratum* L. - sweet vernal. Ashhurst, WI, NZ Mar 1976. From E.H.C. McKenzie 148.
 6217 *Bromus willdenowii* Kunth - prairiegrass - seed. NZ. From E.H.C. McKenzie 5659.
 6221 *Digitaria smutsii* Stent. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 201.
 6220 *Lolium perenne* L. - perennial ryegrass - seed. Palmerston North, WI, NZ. From E.H.C. McKenzie 14671.
- Pyrenophora graminea*** Ito & Kuribayashi
 anam. *Drechslera graminea* (Rabenhorst ex Schlechtendal) Shoemaker
 10947 *Hordeum vulgare* L. - barley - leaf stripe. From G. Laundon 10659 ← B. Arnst.
- Pyrenophora japonica*** Ito & Kuribayashi
 anam. *Drechslera japonica* (Ito & Kuribayashi) Shoemaker
 10973 *Triticum aestivum* L. - wheat - seed. From G. Laundon 12077 ← Victoria University.
- Pyrenophora semeniperda*** (Brittlebank & Adam) Shoemaker
 anam. *Drechslera campanulata* (Leveille) Sutton
 anam. *Drechslera verticillata* (O'Gara) Shoemaker
 10924 *Avena sativa* L. - oat - seed. From G. Laundon 12079 ← Victoria University.
 6168 *Cortaderia jubata* (Lem.) Stapf - purple pampas grass - leaf. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 216-2.
 6169 *Cortaderia jubata* (Lem.) Stapf - purple pampas grass - leaf. Kaikohe, ND, NZ Sep 1976. From E.H.C. McKenzie 301.
 6184 *Cortaderia jubata* (Lem.) Stapf - purple pampas grass - leaf. Kaikohe, ND, NZ May 1976. From E.H.C. McKenzie 216-3.
 6166 *Rytidosperma racemosum* (R. Br.) Connor & Edgar - danthonia - leaf. One Tree Hill, AK, NZ Jul 1976. From E.H.C. McKenzie 291.
 6165 *Rytidosperma* sp. - leaf. One Tree Hill, AK, NZ Oct 1977. From E.H.C. McKenzie.
 6167 *Rytidosperma* sp. - leaf. One Tree Hill, AK, NZ Jul 1975. From E.H.C. McKenzie 1089.
 6171 *Rytidosperma* sp. - leaf. Auckland, AK, NZ Apr 1975. From E.H.C. McKenzie 89.

6170 *Sieglingia decumbens* (L.) Bernh. - heath grass - leaf. Waikumete, AK, NZ Nov 1976. From E.H.C. McKenzie 368.

Pyrenophora teres Drechsler

anam. *Drechslera teres* (Saccardo) Shoemaker

- 8723 *Hordeum vulgare* L. - barley cv. Zephyr - leaf, seed from 1982 harvest. NZ Oct 1984. From J.E. Sheridan DBVU21-841.
 8724 *Hordeum vulgare* L. - barley cv. Zephyr - leaf & seed from 1983 harvest. NZ Oct 1984. From J.E. Sheridan DBVU20-847.
 8725 *Hordeum vulgare* L. - barley cv. Triumph - leaf & seed from 1984 harvest. NZ Oct 1984. From J.E. Sheridan DBVU21-847.
 8726 *Hordeum vulgare* L. - barley cv. Zephyr - leaf & seed from 1982 harvest. NZ Oct 1984. From J.E. Sheridan DBVU20-842.
 8727 *Hordeum vulgare* L. - barley cv. Zephyr - leaf & seed from 1983 harvest. NZ Oct 1984. From J.E. Sheridan DBVU20-846.
 8728 *Hordeum vulgare* L. - barley cv. Zephyr - leaf & seed. NZ. From J.E. Sheridan DBVU21-846.
 8828 b *Hordeum vulgare* L. - barley cv. Golden Promise - leaf & seed from 1984 harvest. NZ. From J.E. Sheridan DBVU21-849.
 8829 b *Hordeum vulgare* L. - barley - seed. Oct 1984. From J.E. Sheridan DBVU22-841.
 8830 *Hordeum vulgare* L. - barley cv. Zephyr - leaf & seed from 1982 harvest. NZ Oct 1984. From J.E. Sheridan DBVU21-843.
 8831 *Hordeum vulgare* L. - barley cv. Golden Promise - leaf & seed from 1984 harvest. From J.E. Sheridan DBVU21-8410.
 10948 *Hordeum vulgare* L. - barley. Sanson, WI, NZ Dec 1982. From G. Laundon 20593b.
 3084 *Lolium* sp. - ryegrass. Palmerston North, WI, NZ May 1971. From E.H.C. McKenzie.
 10974 *Triticum aestivum* L. - wheat - seed. Masterton, WA, NZ Aug 1977. From G. Laundon 12097.

Pyrenophora tetrarrhenae Paul

anam. *Drechslera tetrarrhenae* Paul

- 6139 *Microaena stipoides* (Lab.) R. Br. - meadow ricegrass - leaf. One Tree Hill, AK, NZ Jul 1976. From E.H.C. McKenzie 278a.

Pyreneochaeta sp.

- 12252 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Torbay, AK, NZ Sep 1994. From P.R. Johnston 20.
 12253 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Torbay, AK, NZ Sep 1994. From P.R. Johnston 5.
 12254 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - isolated from symptomless leaves. Torbay, AK, NZ Sep 1994. From P.R. Johnston 6.

Pythium acanthicum Drechsler

- 10185 *Ixia* sp. Kerikeri, ND, NZ Oct 1977. From G.F. Laundon 12409A.
 2958 *Juniperus chinensis* L. - juniper cv. Pfitzeriana. Auckland, AK, NZ 1970. From G.I. Robertson T112 = IMI 155656.
 2959 River sand. Mercer, AK, NZ Sep 1970. From G.I. Robertson T675.
 2960 Soil. Masterton, WA, NZ Dec 1970. From G.I. Robertson T2094.
 3332 Soil. Auckland, AK, NZ 1970. From G.I. Robertson T1037.

Pythium afertile Kanouse & Humphrey

- 3333 Soil. Palmerston North, WI, NZ 1970. From G.I. Robertson T923.
 9054 Soil. Lincoln, MC, NZ Jul 1980. From B.T. Hawthorne 633.
 9269 Soil. Winchmore, MC, NZ Jul 1980. From B.T. Hawthorne 669.

Pythium aquatile Hohnk

- 3334 *Eucalyptus* sp. - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T191.
 2976 *Neopanax* sp. - root. Tauranga, BP, NZ Jul 1970. From G.I. Robertson T609.
 2977 Soil. Auckland, AK, NZ Nov 1970. From G.I. Robertson T179.

Pythium coloratum Vaartaja

- 4149 *Daucus carota* L. var. *sativus* Hoffm. - carrot - root. Pukekohe, AK, NZ Apr 1973. From G.I. Robertson T4034.
 4148 *Pastinaca sativa* L. - parsnip - root. Levin, WN, NZ Nov 1973. From G.I. Robertson T4809.
 9268 Soil. Lincoln, MC, NZ Jul 1980. From B.T. Hawthorne 661.

Pythium debaryanum auct. non Hesse

- 2987 *Fuchsia* sp. - root. Auckland, AK, NZ Jul 1970. From G.I. Robertson T451.
 7310 *Humulus lupulus* L. - hop - root. Riwaka, NN, NZ Nov 1978. From G.I. Robertson T7738.
 7309 *Phaseolus vulgaris* L. - bean - root. Otaki, WN, NZ Nov 1973. From G.I. Robertson T4756.

Pythium echinulatum Matthews

- 2978 River sand. Mercer, AK, NZ Sep 1970. From G.I. Robertson T698.
 2979 Soil. Mt Albert, AK, NZ Nov 1970. From G.I. Robertson T709.

Pythium erinaceus Robertson

- 6195 Soil (wheat field). Mid Canterbury, MC, NZ Apr 1975. From G.I. Robertson T6169 = CBS 505.80 - **ex Type specimen**.
 7040 Soil (wheat field). Mid Canterbury, MC, NZ Apr 1975. From G.I. Robertson T6159.
 7041 Soil (wheat field). Mid Canterbury, MC, NZ Apr 1975. From G.I. Robertson T6160.

Pythium gracile Schenk

- 10169 *Ixia* sp. - roots. Kerikeri, ND, NZ Oct 1977. From G.F. Laundon 12409C.

Pythium graminicola Subramaniam

- 8849 Soil. Western Samoa. From W.W.P. Gerlach 657.

Pythium inflatum Matthews

- 2973 *Dodonaea viscosa* Jacq. - akeake cv. Purpurea - root. Tauranga, BP, NZ Jul 1970. From G.I. Robertson T599 = IMI 155659.
 4151 Mud bed of stream. Auckland, AK, NZ Feb 1975. From G.I. Robertson T6015.

Pythium irregulare Buisman

- 2985 *Cyperus* sp. - sedge - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T115.
 2980 *Juniperus communis* L. var. *depressa* Pursh - ground juniper cv. Aurea - root. Hamilton, WO, NZ Jul 1970. From G.I. Robertson T369.
 9270 *Medicago sativa* L. - lucerne, alfalfa - root. Kiwitahi, TO, NZ Mar 1981. From B.T. Hawthorne 676.
 2984 *Muntingia calabura* L. - calabur - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T39.
 3335 Pumice. Auckland, AK, NZ 1970. From G.I. Robertson T663.
 9066 Soil. Wairakei, TO, NZ Jul 1980. From B.T. Hawthorne 642.
 9265 Soil. Broadlands, TO, NZ Jul 1980. From B.T. Hawthorne 646.
 9266 Soil. CO, NZ Jul 1980. From B.T. Hawthorne 654.

Pythium mastophorum Drechsler

- 12894 *Fragaria X ananassa* Duch. - strawberry. Whenuapai, AK, NZ Jun 1991. From M. Eden 185-2 = IMI 358409.
 12895 *Fragaria X ananassa* Duch. - strawberry. Whenuapai, AK, NZ Nov 1991. From M. Eden 225-2.

Pythium middletonii Sparrow

- 2975 *Cytisus* sp. - broom - root. Hamilton, WO, NZ Jun 1970. From G.I. Robertson T344.
 2974 *Rosa multiflora* Thunb. ex Murr. - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T40.

Pythium monospermum Pringsheim

- 3336 *Juniperus chinensis* L. - juniper cv. Pfizeriana - root. Massey, AK, NZ Jun 1970. From G.I. Robertson T124.
2992 *Prunus tomentosa* Thunb. - Nanking cherry - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T56.

Pythium periplocum Drechsler

- 8992 Western Samoa. From W.W.P. Gerlach.

Pythium rostratum Butler

- 2997 Soil. Auckland, AK, NZ Nov 1970. From G.I. Robertson T730.
2998 Soil. Palmerston North, WI, NZ Oct 1970. From G.I. Robertson T896.
2999 River sand. Waingawa River, WA, NZ Nov 1970. From G.I. Robertson T1594.
3337 Soil. Hawera, TK, NZ 1970. From G.I. Robertson T1725.

Pythium spinosum Sawada

- 2964 *Cyperus haspan* L. - sedge - root. New Lynn, AK, NZ Jul 1970. From G.I. Robertson T479.
2962 *Cyperus* sp. - sedge - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T103.
2963 *Cytisus scoparius* (L.) Link - broom - root. Auckland, AK, NZ Jun 1970. From G.I. Robertson T161.

Pythium splendens Braun

- 3339 *Aralia* sp. - root. Cambridge, WO, NZ Jul 1970. From G.I. Robertson T573.

Pythium torulosum Coker & Patterson

- 2967 River sand. Mercer, AK, NZ Sep 1970. From G.I. Robertson T690.
2968 River sand. Taranaki, TK, NZ Oct 1970. From G.I. Robertson T1284.
2969 Pumice. Lake Okareka, BP, NZ Oct 1970. From G.I. Robertson T1144.
3340 Soil. Whangarei, ND, NZ 1970. From G.I. Robertson T834.

Pythium ultimum Trow

- 2981 *Acacia leprosa* Sieb. ex DC. - cinnamon wattle - root. Hamilton, WO, NZ Jun 1970. From G.I. Robertson T417.
3341 *Citrus* sp. - root. Mt Albert, AK, NZ Aug 1970. From G.I. Robertson T76.
2982 Soil. Napier, HB, NZ Nov 1970. From G.I. Robertson T1409.
2983 Soil. Oamaru, DN, NZ Dec 1970. From G.I. Robertson T2018.
9267 Soil. Lincoln, MC, NZ Jul 1980. From B.T. Hawthorne 657.

Pythium undulatum H.E. Petersen

- 4155 *Larix decidua* Mill. - European larch - root. Golden Downs, NN, NZ May 1968. From G.I. Robertson T6098 ← C. Bassett FRI104.
4156 Soil. Woodville, WA, NZ May 1968. From G.I. Robertson T6099 ← C. Bassett FRI104A.

Pythium vanterpoolii V. & H. Kouyeas

- 4150 Turf - root. Palmerston North, WI, NZ Dec 1974. From G.I. Robertson T5741 ← M.J. Christensen.
7311 Turf - root. NZ Jul 1976. From G.I. Robertson T7147 ← M.J. Christensen.

Ramularia brunnea Peck

see *Mycosphaerella fragariae*.

Ramularia rhabdospora (Berkeley & Broome) Nannfeldt

- 10110 *Plantago lanceolata* L. - ribgrass, narrow-leaved plantain - reddish-brown desiccated areas on the underside of leaf. Palmerston North, WI, NZ. From M.J. Christensen.

Ramularia sp.

- 11800 *Corynocarpus laevigatus* J.R. & G. Forst. - karaka - irregular brown leafspot. Motukarara, MC, NZ Dec 1992. From J.M. Young E9.
4601 *Dendrobium* sp. - orchid - leaf spot. Tauranga, BP, NZ Dec 1975. From G.F. Laundon LEV 10064a.
11801 *Dodonaea viscosa* Jacq. - akeake - round red-black leafspot. Harewood, MC, NZ Nov 1992. From J.M. Young F6.

Rhinocladiella sp.

- 7296 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit core. Hawkes Bay, HB, NZ May 1981. From S.R. Pennycook 950mod.
1084 *Pinus radiata* D. Don - radiata pine, Monterey pine - root. Auckland, AK, NZ Jul 1962. From F.J. Morton H155.
6590 *Trifolium repens* L. - white clover - root. Palmerston North, WI, NZ 1979. From P.R. Johnston ← M.J. Christensen 6-21.

Rhizoctonia-like species - non basidiomycete

- 10090 *Leptinella dioica* Hook. f. - cotula dioica, maniototo cotula - stolons and roots. Papakura, AK, NZ. From M.J. Christensen & R.A. Skipp = PDD 56210.
10091 *Leptinella dioica* Hook. f. - cotula - stolons & roots. Mt. Roskill, AK, NZ. From M.J. Christensen & R.A. Skipp = PDD 56211.

Rhizoctonia solani Kuhn

see also *Thanatephorus cucumeris*.

- 11620 *Gypsophila paniculata* L. - gypsophila - basal stem rot. Pukekohe, AK, NZ Dec 1992. From P.G. Broadhurst 9314.
9726 * *Zea mays* L. - maize - root. Aorangi, WN, NZ 1981. From M. Fowler 81-38 - anastomosis group 2-1 - *maize, bean, radish, mustard, potato (Fowler).
11391 From G.I. Robertson P360 ← N.A. Anderson 43 - group tester AG-1.
11392 From G.I. Robertson P361 ← N.A. Anderson 48 - group tester AG2-1.
11393 From G.I. Robertson P362 ← N.A. Anderson H-3-77 - group tester AG2-2.
11394 From G.I. Robertson P363 ← N.A. Anderson P42 - group tester AG-3.
11395 From G.I. Robertson P364 ← N.A. Anderson 140 - group tester AG-4.
11396 From G.I. Robertson P365 ← N.A. Anderson 441 - group tester AG-5.

Rhizoctonia sp.

- 10171 *Avena byzantina* K. Koch - red oat. Bulls, WI, NZ Nov 1979. From G.F. Laundon 15868.
10174 *Brassica* sp. - stem rot. Wanganui, WI, NZ Feb 1980. From G.F. Laundon 16251.
10176 *Casurina* sp. - basal canker. Bay View, HB, NZ Mar 1980. From G.F. Laundon 16428.
10180 *Dianthus* sp. Hastings, HB, NZ Mar 1981. From G.F. Laundon 17815.
10172 *Fragaria* sp. - crown rot. Levin, WN, NZ Dec 1979. From G.F. Laundon 15993b.
10173 *Fragaria* sp. Hastings, HB, NZ Jan 1980. From G.F. Laundon 16113.
10181 *Lycopersicon esculentum* Mill. - tomato. Wanganui, WI, NZ Mar 1983. From G.F. Laundon 20951.
3074 *Malus X domestica* Borkh. - apple - root. Appleby, NN, NZ Feb 1970. From J.B. Taylor H131.
10175 *Prunus persica* (L.) Batsch - peach - basal rot. Napier, HB, NZ Mar 1980. From G.F. Laundon 16354.
10179 *Prunus persica* (L.) Batsch - peach - collar rot. Hastings, HB, NZ Aug 1980. From G.F. Laundon 16964.
10170 *Trifolium repens* L. - white clover - roots. Hastings, HB, NZ Nov 1979. From G.F. Laundon 15822d.
10178 From G.F. Laundon 16900.

Rhizopus oryzae Went & Prinsen-Geerligs

- 6543 Coco-cake. From T.W. Canter-Visscher ← CBS 324.35 ← K.B. Boedijn - rec. as *Rhizopus oligosporus*.
6544 From T.W. Canter-Visscher ← CBS 372.63.
9042 Yeast cake. From IFO 4706 ← H. Naganishi.
9043 From IFO 5380 ← Iowa State College 16 ← L.B. Lockwood 664.

- 9044 From IFO 5384 ← Iowa State College 32 ← NRRL 395.
- Rhizopus stolonifer** Vuillemin
10436 *Ipomoea batatas* (L.) Lam. - kumara, sweet potato - root. Dargaville, ND, NZ. From P.G. Broadhurst.
- Rhynchosporium secalis** (Oudemans) J.J. Davis
9435 *Agropyron repens* (L.) Beauv. - couchgrass, twitch - leaf scald lesions. West Melton, MC, NZ Sep 1984. From M.G. Cromey 84-34 - N.Z. J. Agric. Res. 30: 345-348, 1987.
9436 *Agropyron repens* (L.) Beauv. - couchgrass, twitch - leaf scald lesions. Burnham, MC, NZ Sep 1984. From M.G. Cromey 84-35 - N.Z. J. Agric. Res. 30: 345-348, 1987.
9437 *Agropyron repens* (L.) Beauv. - couchgrass, twitch - leaf scald lesions. Burnham, MC, NZ Sep 1984. From M.G. Cromey 84-36 - N.Z. J. Agric. Res. 30: 345-348, 1987.
9434 *Hordeum murinum* L. - wall barley - leaf scald lesions. Lincoln, MC, NZ Sep 1984. From M.G. Cromey 84-28 - N.Z. J. Agric. Res. 30: 345-348, 1987.
9438 *Hordeum vulgare* L. - barley cv. Atlas - leaf scald lesions. Lincoln, MC, NZ. From M.G. Cromey 84-49 - N.Z. J. Agric. Res. 30: 345-348, 1987 - race NZ 2.
9440 *Hordeum vulgare* L. - barley cv. Koru - leaf scald lesions. Annatt, MC, NZ Dec 1984. From M.G. Cromey 85-19 - N.Z. J. Agric. Res. 30: 345-348, 1987 - race NZ 2.
9441 *Hordeum vulgare* L. - barley cv. Gwylan - leaf scald lesions. Longbush, WA, NZ Jan 1985. From M.G. Cromey 85-66 - N.Z. J. Agric. Res. 30: 345-348, 1987 - race NZ 3.
9442 *Hordeum vulgare* L. - barley cv. Goldspear - leaf scald lesions. Dunroon, CO, NZ Feb 1985. From M.G. Cromey 85-73 - N.Z. J. Agric. Res. 30:34-348, 1987 - race NZ 1.
9443 *Secale cereale* L. - rye - leaf scald lesions. WA, NZ Dec 1985. From M.G. Cromey 85-76 - N.Z. J. Agric. Res. 30: 345-348, 1987.
- Rigidoporus lineatus** (Persoon) Ryvarden
12925 Cut log - causing economically serious rot of stored logs. Australia Mar 1996. From P.K. Buchanan 96-012 ← I.A. Hood.
- Rosellinia caudata** Petch
5491 *Rosa* sp. Auckland, AK, NZ Jan 1963. From J.M. Dingley 6327.
- Schizophyllum commune** Fries
10182 *Linum* sp. - seed. Jan 1981. From G.F. Laundon 17717A.
- Sclerotinia draytonii** Buddin & Wakefield
anam. *Botrytis gladiolorum* Timmermans
11191 *Freesia* sp. - leafspots. Levin, WN, NZ May 1977. From G. Laundon 11756.
10491 *Gladiolus* sp. - corm rot. Titirangi, AK, NZ. From P.G. Broadhurst.
7059 *Iris* sp. - leaf. Hobsonville, AK, NZ Jul 1977. From G.I. Robertson P245 = ATCC 60865.
9805 *Ixia polystachya* L. - leaves, stems & flowers. Waikumete, AK, NZ Oct 1988. From E.H.C. McKenzie.
11205 *Ixia* sp. - flowers. Kerikeri, ND, NZ Oct 1977. From G. Laundon 12409d.
- Sclerotinia fructicola* (Winter) Rehm
see *Monilinia fructicola*.
- Sclerotinia gladioli* Drayton
see *Stromatinia gladioli*.
- Sclerotinia laxa* Alderhold & Ruhland
see *Monilinia laxa*.
- Sclerotinia porri* Beyma
see *Botryotinia porri*.
- Sclerotinia minor** Jagger
5471 *Glycine max* (L.) Merr. - soybean - stem base. Otara, AK, NZ May 1972. From J.M. Dingley 7264.
2867 *Lactuca sativa* L. - lettuce - leaf. Pukekohe, AK, NZ Mar 1970. From B.T. Hawthorne 43.
5470 *Lotononis bainesii* Baker. Kaikohe, ND, NZ Apr 1974. From J.M. Dingley 7430.
10975 *Pisum sativum* L. - pea - stem rot. Manawatu, NZ Jan 1978. From G. Laundon 12758.
- Sclerotinia sclerotiorum** (Libert) de Bary
9352 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Jun 1987. From S.R. Pennycook B3.
9353 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - ripe rot of fruit. Te Puke, BP, NZ Jun 1987. From S.R. Pennycook D3.
11691 *Coxella dieffenbachii* (F. Muell.) Cheesm. & Hems. - flower stems & seed heads. Chatham Is., NZ. From P.R. Johnston C242 - new host record.
7315 *Dahlia* sp. - stalk. Havelock North, HB, NZ Jun 1977. From J. Rees-George 36.
7316 *Nicotiana tabacum* L. - tobacco - seedling. Motueka, NN, NZ Dec 1977. From J. Rees-George 39.
12515 *Petroselinum crispum* (Mill.) Nyman ex A.W. Hill - parsley - root rot. Yugoslavia 1988. From M. Arsenijevic Prs1.
12516 *Petroselinum crispum* (Mill.) Nyman ex A.W. Hill - parsley - root rot. Yugoslavia 1988. From M. Arsenijevic Prs2.
5472 *Urtica urens* L. - nettle. Hastings, HB, NZ Nov 1969. From J.M. Dingley 69120.
7012 *Vaccinium corymbosum* L. - highbush blueberry - twig blight. Lake Cameron, Rukuhia, WO, NZ Nov 1978. From P.R. Johnston B24 = ATCC 56844.
- Sclerotinia** sp.
5189 *Oryza sativa* L. - rice - water in paddy field. Solomon Is. Oct 1976. From J.M. Dingley 768.
10977 Bulb (unidentified). Levin, WN, NZ Aug 1980. From G. Laundon 17037.
- Sclerotinia trifoliorum** Eriksson
7318 *Medicago sativa* L. - lucerne, alfalfa - stem. NZ Feb 1981. From J. Rees-George 157.
7319 *Medicago sativa* L. - lucerne, alfalfa - stem. NZ Feb 1981. From J. Rees-George 158.
- Sclerotium bataticola** (Taubenhaus) Butler
see *Macrophominia phaseolina*.
- Sclerotium cepivorum** Berkeley
10916 * *Allium cepa* L. - onion - bulb base. Pukekohe, AK, NZ. From P.G. Broadhurst - *onion (Broadhurst).
10978 *Allium cepa* L. - onion - bulb rot. Hastings, HB, NZ Feb 1979. From G. Laundon 14585.
10979 *Allium cepa* L. - onion. Levin, WN, NZ Feb 1983. From G. Laundon 20838.
- Sclerotium gladioli* Massey
see *Stromatinia gladioli*.
- Sclerotium hydrophilum** Saccardo
7758 *Oryza sativa* L. - rice. Solomon Is. 1982. From E.H.C. McKenzie ← F.J. Newhook.
- Sclerotium rolfsii* Saccardo
see *Athelia rolfsii*.

- Scoleciasis atkinsonii** H. Sydow
10980 *Hebe stricta* (Benth.) L.B. Moore - koromiko - leafspots. Levin, WN, NZ Jan 1978. From G.F. Laundon 12743.
- Scolecobasidium constrictum* Abbott
see *Ochroconis constricta*.
- Scopulariopsis brevicaulis** (Saccardo) Bainier
1044 Air. Wanganui, WI, NZ Dec 1961. From F.J. Morton H74.
- Scopulariopsis trigonospora* Emmons & Dodge
see *Microascus trigonosporus*.
- Scyphospora phyllostachydis* Kantschaveli
see *Apiospora tintinnabula*.
- Seimatosporium grevilleae** (Loos) Shoemaker
10981 *Protea* sp. - leafspots. South Africa Dec 1978. From G. Laundon 14190.
- Seimatosporium leptospermi** Bagnall & Sheridan
11845 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - pinpoint leafspot with red margin. Taupo, TO, NZ Dec 1992. From J.M. Young Q5.
- Seimatosporium lichenicola* (Corda) Shoemaker & E. Muller
see *Clethruidium corticola*.
- Seimatosporium vaccinii** (Fuckel) Eriksson
7003 *Vaccinium ashei* Reade - rabbit-eye blueberry - twig. Rukuhia, WO, NZ Aug 1978. From P.R. Johnston B3 = ATCC 60470.
7004 *Vaccinium corymbosum* L. - highbush blueberry - dead twig. Moanatuatua, WO, NZ May 1979. From P.R. Johnston B56 = ATCC 60471.
7005 *Vaccinium corymbosum* L. - highbush blueberry - dead twig. Moanatuatua, WO, NZ May 1979. From P.R. Johnston B57.
- Seiridium cardinale** (Wagner) Sutton & Gibson
7323 X *Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress - canker. Lincoln, MC, NZ Sep 1980. From R.E. Beaver
← R.M. Beresford F010.
7324 X *Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress - canker. Lincoln, MC, NZ Sep 1980. From R.E. Beaver
← R.M. Beresford F011.
7325 X *Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress - canker. Lincoln, MC, NZ Sep 1980. From R.E. Beaver
← R.M. Beresford F012.
7326 X *Cupressocyparis leylandii* (A.B. Jacks & Dallim.) Dallim. - leyland cypress - canker. Motunau Beach, NC, NZ May 1981. From R.E. Beaver
← R.M. Beresford F016.
- Seiridium unicorne* (Cooke & Ellis) Sutton
see *Lepteutypa cupressi*.
- Selenosporella** sp.
11548 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 69.
11543 *Malus X domestica* Borkh. - apple cv. Braeburn - symptomless leaf. Kumeu, AK, NZ. From P.R. Johnston 74.
- Sepedonium chrysospermum* (Bulliard) Link
see *Hypomyces chrysospermus*.
- Sepedonium** sp.
10982 From G. Laundon 20609.
- Septocya ruborum** Lib. & Petrak
12507 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1987. From M. Arsenijevic Rb21.
12508 *Rubus fruticosus* L. - blackberry - necrotic lesions of canes. Yugoslavia 1987. From M. Arsenijevic Rb22.
- Septoria apiicola** Spegazzini
2233 *Apium graveolens* L. var. *dulce* (Mill.) Pers. - celery. Mt Albert, AK, NZ Jan 1968. From J.M. Dingley 6813.
- Septoria azaleae** Voglino
11206 *Rhododendron* sp. - leafspots. Wellington, WN, NZ Aug 1980. From G. Laundon 16942.
- Septoria betae** Westendorp
10983 *Beta vulgaris* L. - beet - leafspots. Christchurch, MC, NZ Oct 1979. From G. Laundon 15707.
- Septoria chrysanthemella** Saccardo
3346 *Chrysanthemum indicum* L. - leaf. Oakura, TK, NZ Nov 1972. From G.F. Laundon LEV 6809.
- Septoria citri** Passerini
2031 *Citrus* sp. South Africa Jun 1967. From G.F. Laundon LEV 1442.
10984 *Citrus* sp. - fruit. USA Apr 1977. From G. Laundon 11725.
- Septoria cucurbitacearum** Saccardo
2190 *Cucurbita maxima* Duch. - pumpkin - white lesion on leaf. Pukekohe, AK, NZ Jan 1968. From J.M. Dingley 681.
2191 *Cucurbita maxima* Duch. - pumpkin - brown lesion on leaf. Pukekohe, AK, NZ Jan 1968. From J.M. Dingley 682.
2198 *Cucurbita maxima* Duch. - pumpkin - white lesion. Pukekohe, AK, NZ Feb 1968. From J.M. Dingley 6814.
2199 *Cucurbita maxima* Duch. - pumpkin - brown lesions. Pukekohe, AK, NZ Feb 1968. From J.M. Dingley 6815.
- Septoria cyclaminis** de Durieu & Montagne
5526 *Cyclamen* sp. Hastings, HB, NZ Mar 1966. From J.M. Dingley 6652.
- Septoria daphnes** Desmazières
1700 *Daphne odora* Thunb. - daphne. Epsom, AK, NZ Jul 1965. From S. Davison 65222.
- Septoria drummondii** Ellis & Everhart
10985 *Phlox paniculata* L. - perennial phlox - leafspots. Levin, WN, NZ Feb 1980. From G. Laundon 16250.
- Septoria eucalypti** Winter & Roumeguère
11207 *Eucalyptus leucocylon* F.J. Muell. var. *rosea* Hortorum - white ironbark. Havelock North, HB, NZ Nov 1979. From G. Laundon 15766.
- Septoria gerberae** H. & P. Sydow
2196 *Gerbera jamesonii* H. Bolus ex Hook. f. - African daisy, Jameson daisy. Auckland, AK, NZ Jan 1969. From J.M. Dingley 687 ← K.R.W. Hammett.
- Septoria helianthi** Eff. & Kell.
12517 *Helianthus annuus* L. - sunflower - angular leafspot. Yugoslavia 1989. From M. Arsenijevic Sh6.
- Septoria helianthina** Petrov & Arsenijevic
12518 *Helianthus annuus* L. - sunflower - leaf speck. Yugoslavia 1980. From M. Arsenijevic Sx1- **ex Type Specimen**.
12519 *Helianthus annuus* L. - sunflower - leaf speck. Yugoslavia 1989. From M. Arsenijevic Sx10.

- Septoria orchidearum** Westendorp
4602 *Dendrobium* sp. - orchid - leaf spot. Tauranga, BP, NZ Dec 1975. From G.F. Laundon LEV 10064b.
- Septoria perforans** McAlpine
2232 *Arctotheca calendula* (L.) Levyns - Cape weed. Mt Albert, AK, NZ Jan 1968. From J.M. Dingley 6812.
- Septoria ranunculacearum** Léveillé
11192 *Ranunculus sardous* Crantz - hairy buttercup. Levin, WN, NZ Oct 1979. From G. Laundon 15696b.
- Septoria selenophomoides** Cash & Watson
4600 *Dendrobium* sp. - orchid - leaf spot. Taradale, HB, NZ Dec 1975. From G.F. Laundon LEV 10099 ← P.D. Whitwell.
- Septoria slaptonensis** D. Hawksworth & Punithalingham
12246 *Cytisus scoparius* (L.) Link - broom. Kawakawa, ND, NZ Sep 1991. From P.R. Johnston ← S. Parkes B9.
12247 *Cytisus scoparius* (L.) Link - broom. Kawakawa, ND, NZ Sep 1991. From P.R. Johnston ← S. Parkes B10.
11882 *Ulex europaeus* L. - gorse. MC, NZ Jun 1992. From P.R. Johnston G257.
11883 *Ulex europaeus* L. - gorse. Chatham Is., NZ Nov 1992. From P.R. Johnston G266.
12037 *Ulex europaeus* L. - gorse. Morrinsville, WO, NZ Sep 1991. From P.R. Johnston G163.
- Septoria** sp.
11195 *Ficus* sp. - leafspots. Palmerston North, WI, NZ Aug 1981. From G. Laundon 18319.
11471 *Hebe speciosa* (A. Cunn.) Cockayne & Allan - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP20 (1).
11442 *Lophomyrtus* sp. - round red leafspots (1mm). Chrschurch, MC, NZ Nov 1991. From J.M. Young B4.
11193 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa. Motueka, NN, NZ Nov 1976. From G. Laundon 11259.
11561 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - round 1-3mm sunken red brown leafspot. Oratia, AK, NZ Dec 1991. From J.M. Young Or21a.
11557 *Myrsine australis* (A. Rich.) Allan - kohukohu, black matipo - red magenta round (3-4mm) leafspot. Oratia, AK, NZ Dec 1991. From J.M. Young Or18c.
11555 *Nothofagus solandri* (Hook.f.) Oerst. var. *solandri* - black beech - red brown 2-3 mm irregular coalescing leaf lesion. Manapouri, FD, NZ Nov 1991. From J.M. Young M8b.
11408 *Parahebe* sp. Ashburton, MC, NZ Nov 1991. From J.M. Young As11d.
5521 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Warkworth, AK, NZ Jan 1967. From J.M. Dingley 677.
5525 *Phormium tenax* J.R. & G. Forst. - harakeke, New Zealand flax. Aratiatia, TO, NZ Oct 1967. From J.M. Dingley 65196 = PDD 24808.
11194 *Pseudopanax* sp. Waikanae, WN, NZ Aug 1979. From G. Laundon 15294.
3345 *Psidium littorale* Raddi var. *longipes* (O. Berg) Fosb. - red guava - leaf. Levin, WN, NZ Nov 1972. From G.F. Laundon LEV 6794.
12509 *Rhamnus cathartica* L. - common buckthorn - leafspot. Yugoslavia 1992. From M. Arsenijevic Rh5 - probably *S. rhamni-catharticae* or *S. blasdalei* (Arsenijevic).
12510 *Rhamnus cathartica* L. - common buckthorn - leafspot. Yugoslavia 1992. From M. Arsenijevic Rh6 - probably *S. rhamni-catharticae* or *S. blasdalei* (Arsenijevic).
12035 *Ulex europaeus* L. - gorse. Haast Beach, WD, NZ Mar 1992. From P.R. Johnston G238.
12036 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Aug 1993. From P.R. Johnston G302 = herb. PDD 62537.
12061 *Ulex europaeus* L. - gorse. Oroi Scenic Reserve, BP, NZ Dec 1991. From P.R. Johnston G232.
12062 *Ulex europaeus* L. - gorse. Reefton, BR, NZ Aug 1993. From P.R. Johnston G305 = herb. PDD 62537.
11208 *Vicia faba* L. - broad bean - leafspots. Palmerston North, WI, NZ Aug 1982. From G. Laundon 20068.
10986 From G. Laundon 17434.
- Septoria tritici* Roberge ex Desmazières
see *Mycosphaerella graminicola*.
- Septoria**-like sp.
11884 *Hebe* sp. cv. Waireka - light brown irregular leafspot. Ashburton, MC, NZ Dec 1992. From J.M. Young G20 - identified by E.H.C. McKenzie.
11885 *Nothofagus fusca* (Hook.f.) Oerst. - red beech - round magenta (1mm dia.) leafspor. Manapouri, FD, NZ Dec 1992. From J.M. Young K8.
- Sesquicillium asymmetricum* Samuels
see *Nectria sesquiiphalis*.
- Sesquicillium candelabrum** (Bonorden) W. Gams
8162 *Lolium perenne* L. - perennial ryegrass - root. NZ May 1983. From E.H.C. McKenzie ← M.J. Christensen 15-13.
- Sesquicillium** cf. *buxi* (Schmidt) Gams
anam. *Nectria sesquicillii* Samuels
7800 Bark. Brazil Nov 1977. From G.J. Samuels Br235A ← CBS 250-78.
- Sesquicillium pseudosetosum** Samuels
anam. *Nectria parvipiphalis* Samuels
7799 Bark. Colombia. From G.J. Samuels CO8971 - **ex Type specimen**.
- Sesquicillium* sp.
see *Nectria* sp.
- Setosphaeria monoceras** Alcorn
anam. *Exserohilum monoceras* (Drechslera) Leonard & Suggs
10094 *Echinochloa colona* (L.) Link - jungle rice - leaf streak. American Samoa. From E.H.C. McKenzie.
- Setosphaeria rostrata** Leonard
11196 *Allium cepa* L. - onion - bulbs. Australia Jun 1977. From G. Laundon 11870.
- Setosphaeria turcica** (Luttrell) Leonard & Suggs
syn. *Trichometasphaeria turcica* Luttrell
anam. *Exserohilum turcicum* (Passerini) Leonard & Suggs
anam. *Drechslera turcica* (Passerini) Subramanian & Jain
6886 *Sorghum X alimum* Parodi - Columbus grass - leaf spot. Gordonton, WO, NZ Apr 1980. From E.H.C. McKenzie.
6121 *Zea mays* L. - maize - leaf. Pukekohe, AK, NZ Mar 1977. From E.H.C. McKenzie 7772.
- Sphaceloma persea** Jenkins
10613 *Persea americana* Mill. - avocado cv. Hass - surface lesions of fruit. Pukekohe, AK, NZ Oct 1990. From W.F.T. Hartill.
- Sphaeronema** sp.
11197 *Acacia* sp. - seed. Australia Sep 1979. From G. Laundon 15490b.
- Sphaeropsis malorum* Peck
see *Botryosphaeria obtusa*
- Sphaeropsis sapinea** (Fries) Dyko & Sutton
syn. *Diplodia pinea* Desmazières Kickx

- 9954 *Picea abies* (L.) Karsten - Norway spruce - pycnidium on shoot. Netherlands Mar 1986. From M. de Kam Dsk 753 ← E. Vriezen 8622.
 9951 *Pinus nigra* Arnold subsp. *larico* (Poir.) Maire - Corsican pine. Netherlands May 1986. From M. de Kam Dsk 749 ← E. Vriezen 8614.
 9948 *Pinus nigra* Arnold subsp. *nigra* Arnold - Austrian pine - pycnidia on cones. Netherlands Jul 1985. From M. de Kam Dsk 704 ← B.C. van Dam 8550-1.
 9953 * *Pinus nigra* Arnold var. *maritima* (Ait.) Melville - Corsican pine - shoot. Netherlands Apr 1986. From M. de Kam 751 ← B.C. van Dam 8626 - *scots pine, Corsican pine (de Kam).
 5286 *Pinus radiata* D. Don - radiata pine, Monterey pine. Rotorua, BP, NZ Feb 1967. From J.M. Dingley 6749.
 9947 * *Pinus* sp. - shoot. Netherlands Jul 1985. From M. de Kam Dsk 103 ← B.C. van Dam 8548 - *scots pine (de Kam).
 9946 * *Pinus sylvestris* L. - scots pine - needle. Netherlands May 1985. From M. de Kam Dsk 699 ← E. Vriezen 8520 - *scots pine (de Kam).
 9949 *Pinus sylvestris* L. - scots pine - black needle base. Netherlands Jul 1985. From M. de Kam Dsk 708 ← B.C. van Dam 8558.
 9950 *Pinus sylvestris* L. - scots pine - conidia on a shoot. Netherlands Jul 1985. From M. de Kam Dsk 712 ← T.F.C. Smits 8560.
 9955 *Pinus sylvestris* L. - scots pine - aerial mycelium on necrosis. Netherlands Apr 1986. From M. de Kam Dsk 785 (8633).
 9952 *Pseudotsuga menziesii* (Mirb.) Franco - douglas fir - shoot. Netherlands Dec 1985. From M. de Kam Dsk 738 ← B.C. van Dam 8592.
 9956 From M. de Kam Dsk 759.
- Sphaerostilbe gracilipes* L.R. & C. Tulasne
 see *Nectria gracilipes*.
- Sphaerostilbe ochracea*** Patouillard
 anam. *Actinostilbe* sp.
 7910 Venezuela 1971. From G.J. Samuels 71-278 = NY-VE2012.
 7915 Jamaica Jan 1971. From G.J. Samuels 71-33.
- Sphaerostilbella lutea*** (Hennings) Saccardo
 anam. *Gliocladium aurifilum* (Gerard) Seifert, Samuels & W. Gams
 8237 Polypore. Gabon Apr 1983. From G.J. Samuels 83-277 ← G. Giles.
- Spilocaea pomi* Fries
 see *Venturia inaequalis*.
- Sporidesmium*** sp.
 10718 *Freycinetia arborea* Gaudich. - dead leaves. USA (Hawaii). From E.H.C. McKenzie.
- Stachybotrys atra*** Corda
 11209 *Trifolium* sp. Bahrain Nov 1980. From G. Laundon 17288.
- Stachybotrys chartarum*** (Ehrenberg) Hughes
 888 Wool. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H34 ← M.H. Dye.
 1162 Linoleum. Auckland, AK, NZ Nov 1961. From F.J. Morton H49.
 5483 Wool. Auckland, AK, NZ 1964. From J.M. Dingley 64148.
 6596 Japan 1970. From G.J. Samuels ← T. Yokoyama 4404-18-55 = IFO 9355.
 6600 Coal. Japan 1952. From G.J. Samuels ← Y. Sasaki = IFO 5369.
 6661 Japan 1962. From G.J. Samuels ← K. Tubaki TC63-1 = IFO 7222: ATCC 18836.
- Stachybotrys freycinetiae*** McKenzie
 11362 *Freycinetia baueriana* Endl. subsp. *banksii* (A. Cunn.) Stone - kiekie - dead leaves. Tangihua Reserve, ND, NZ May 1992. From E.H.C. McKenzie.
- Stachybotrys*** sp.
 10832 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka. NZ. From E.H.C. McKenzie ← J. Rees-George.
- Stagonospora curtisii*** (Berkeley) Saccardo
 8331 *Nerine sarniensis* (L.) Herb. - nerine. NZ 1983. From E.H.C. McKenzie ← D.W. Mossop.
- Stagonospora melloti* (Lasch) Petrak
 see *Leptosphaeria pratensis*.
- Stagonospora*** sp.
 11422 *Cortaderia toetoe* Zotov. - toetoe - black flecks and streaks (2-10mm) on leaf. Taupo, TO, NZ Nov 1991. From J.M. Young T25.
- Stagonosporopsis curtisii*** (Berkeley) Boerema
 syn. *Stagonospora curtisii* (Berkeley) Saccardo
 11354 *Amaryllis* sp. Ethiopia Jul 1976. From G. Laundon 10789.
 11491 *Nerine bowdenii* W. Wats. - nerine - leaf tip dieback (scorch). Mangere, AK, NZ Nov 1992. From P.G. Broadhurst.
- Staphylotrichum coccosporum*** Meyer & Nicot
 7890 Soil (maize-field). Roto-o-rangi, WO, NZ Dec 1982. From G.J. Samuels ← G.I. Robertson M94.
- Stemphylium botryosum* Wallroth
 see *Pleospora herbarum*; *P. tarda*.
- Stemphylium globuliferum*** (Vestergren) Simmons
 5542 From G. Singh = QM 8729.
 6965 From P.R. Johnston = QM 6965.
- Stemphylium lycopersici*** (Enjoji) Yamamoto
 8245 *Platycodon grandiflorus* (Jacq.) A. DC. Auckland, AK, NZ 1983. From C.F. Hill.
 11198 *Platycodon grandiflorus* (Jacq.) A. DC. Glenbrook, AK, NZ Dec 1982. From G. Laundon 20675.
- Stemphylium majusculum*** Simmons
 6964 From P.R. Johnston = QM 8382.
- Stemphylium*** sp.
 8719 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ 1983. From R.E. Beever ← S.A. Menzies 8365.
 9035 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-1.
 9036 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-2.
 9037 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-3.
 9038 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-4.
 9039 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-5.
 9040 *Allium cepa* L. - onion - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 114-6.
 11210 *Allium porrum* L. - leek - leafspots. Hastings, HB, NZ Apr 1979. From G. Laundon 14835b.
 8716 *Asparagus officinalis* L. - asparagus - stem. Mt Albert, AK, NZ 1973. From R.E. Beever ← S.A. Menzies 371.
 8717 *Asparagus officinalis* L. - asparagus - dead stem. Waikato, WO, NZ Jun 1984. From R.E. Beever ← S.A. Menzies 8441.
 8720 *Asparagus officinalis* L. - asparagus - dead stem. Taupari, WO, NZ 1983. From R.E. Beever ← S.A. Menzies 8366.
 8973 *Asparagus officinalis* L. - asparagus - spear. Waikato, WO, NZ Oct 1983. From S.A. Menzies 8376.
 8980 *Asparagus officinalis* L. - asparagus cv. Cito - stem. Rukuhia, WO, NZ Mar 1984. From R.E. Beever 94-15.
 9469 *Asparagus officinalis* L. - asparagus - leafspot. Hastings, HB, NZ 1985. From S.A. Menzies 8524.

- 9470 *Asparagus officinalis* L. - asparagus - leafspot. Pukekohe, AK, NZ 1984. From S.A. Menzies 8448.
 9471 *Asparagus officinalis* L. - asparagus - leafspot. Levin, WN, NZ 1985. From S.A. Menzies 8526.
 11199 *Asparagus* sp. - fern spots. Levin, WN, NZ May 1979. From G. Laundon 14980a.
 11200 *Asparagus* sp. - fern spots. Levin, WN, NZ Jun 1979. From G. Laundon 15042.
 11211 *Asparagus* sp. - fern spots. Hastings, HB, NZ May 1979. From G. Laundon 14857.
 11406 *Hebe* sp. cv. Waireka - dark sunken 1-2 lesion crateriform on lower side of leaf. Ashburton, MC, NZ Nov 1991. From J.M. Young As6b.
 9045 *Lactuca sativa* L. - lettuce - leaf. Pukekohe, AK, NZ Dec 1985. From R.E. Beever 115-1.
 8721 *Lycopersicon esculentum* Mill. - tomato - leaf. Pukekohe, AK, NZ 1984. From R.E. Beever ← S.A. Menzies 8430.
 8722 *Lycopersicon esculentum* Mill. - tomato - leaf. Pukekohe, AK, NZ 1984. From R.E. Beever ← S.A. Menzies 8433.
 8718 *Medicago sativa* L. - lucerne, alfalfa - leafspot. Pukekohe, AK, NZ 1983. From R.E. Beever ← S.A. Menzies 8364.
 9059 *Medicago sativa* L. - lucerne, alfalfa - small brown leafspot. Lincoln, MC, NZ Mar 1986. From R.E. Beever 116-1.
 9060 *Medicago sativa* L. - lucerne, alfalfa - small brown leafspot. Lincoln, MC, NZ Mar 1986. From R.E. Beever 116-2.
 9061 *Medicago sativa* L. - lucerne, alfalfa - small brown leafspot. Lincoln, MC, NZ Mar 1986. From R.E. Beever 116-3.
 9062 *Medicago sativa* L. - lucerne, alfalfa - small brown leafspot. Lincoln, MC, NZ Mar 1986. From R.E. Beever 116-4.
 9063 *Medicago sativa* L. - lucerne, alfalfa - small brown leafspot. Pukekohe, AK, NZ Mar 1986. From R.E. Beever 117-1.
- Stemphylium vesicarium* (Wallroth) Simmons**
 5506 *Amaryllis* sp. Auckland, AK, NZ Aug 1972. From J.M. Dingley 7298.
 9677 * *Asparagus officinalis* L. - asparagus cv. Limbras 10 - fern. Motueka, NN, NZ Sep 1986. From P.G. Falloon SVANZ009 - *asparagus (Falloon).
 9678 * *Asparagus officinalis* L. - asparagus cv. New Zealand Beacon - fern. Hastings, HB, NZ Oct 1986. From P.G. Falloon SvANZ017 - *asparagus (Falloon).
 9679 * *Asparagus officinalis* L. - asparagus cv. Frethey Selection - fern. Whakatane, BP, NZ Oct 1986. From P.G. Falloon SvANZ020 - *asparagus (Falloon).
 9680 * *Asparagus officinalis* L. - asparagus cv. Lucullus - fern debris. Rakaia, MC, NZ Oct 1986. From P.G. Falloon SvANZ023 - *asparagus (Falloon).
 9681 * *Asparagus officinalis* L. - asparagus cv. Larac - fern debris. Fielding, WI, NZ Oct 1986. From P.G. Falloon SvANZ036 - *asparagus (Falloon).
 9682 * *Asparagus officinalis* L. - asparagus cv. Larac - fern debris. Blenheim, MB, NZ Nov 1986. From P.G. Falloon SvANZ043 - *asparagus (Falloon).
 9683 * *Asparagus officinalis* L. - asparagus cv. Mary Washington 500 - fern. Winton, SL, NZ Nov 1986. From P.G. Falloon SvANZ045 - *asparagus (Falloon).
 9684 * *Asparagus officinalis* L. - asparagus cv. Mary Washington - fern. Kaiapoi, NC, NZ Nov 1986. From P.G. Falloon SvANZ048 - *asparagus (Falloon).
 9685 * *Asparagus officinalis* L. - asparagus cv. New Zealand Beacon - fern. Frankton, WO, NZ Oct 1986. From P.G. Falloon SvANZ051 - *asparagus (Falloon).
 9686 * *Asparagus officinalis* L. - asparagus cv. Limras 22 - fern. Arrowtown, OL, NZ Nov 1986. From P.G. Falloon SvANZ052 - *asparagus (Falloon).
 9687 a* *Asparagus officinalis* L. - asparagus - fern. USA Apr 1984. From P.G. Falloon SvACA015 - Phytopath. 77: 407-413, 1987 - *asparagus (Falloon).
 9688 a* *Asparagus officinalis* L. - asparagus - fern. USA Apr 1984. From P.G. Falloon SvACA017 - Phytopath. 77: 407-413, 1987 - *asparagus (Falloon).
 9689 a* *Asparagus officinalis* L. - asparagus - fern. USA Apr 1984. From P.G. Falloon SvACA022 - Phytopath. 77: 407-413, 1987 - *asparagus (Falloon).
 9690 a* *Asparagus officinalis* L. - asparagus - fern. USA Apr 1984. From P.G. Falloon SvACA030 - Phytopath. 77: 407-413, 1987 - *asparagus (Falloon).
 9691 * *Asparagus officinalis* L. - asparagus. Pukekohe, AK, NZ 1985. From P.G. Falloon SvANZ8241 ← S.A. Menzies 8241 - *asparagus (Falloon).
 10927 *Asparagus officinalis* L. - asparagus cv. Cito - pseudothecia on dead stems. Canterbury, NZ 1987. From S.A. Menzies 8702 ← R. Falloon - single spore isolate - P. Falloon Asparagus disease survey.
 10928 *Asparagus officinalis* L. - asparagus cv. New Zealand Beacon - pseudothecia on dead stem. BP, NZ 1987. From S.A. Menzies 8711 ← P. Falloon - single spore isolate - P. Falloon Asparagus disease survey.
 10929 *Asparagus officinalis* L. - asparagus cv. New Zealand Beacon - pseudothecia on dead stem. Manawatu, RI, NZ 1987. From S.A. Menzies 8724 ← P. Falloon - single spore isolate - P. Falloon Asparagus disease survey.
 10930 *Asparagus officinalis* L. - asparagus cv. Limbras - pseudothecia on dead stem. Nelson, NN, NZ 1987. From S.A. Menzies 8735 ← P. Falloon - single spore culture - P. Falloon Asparagus disease survey.
 10931 *Asparagus officinalis* L. - asparagus cv. Larac - pseudothecia on dead stem. MB, NZ 1987. From S.A. Menzies 8738 ← P. Falloon - single spore isolate - P. Falloon asparagus disease survey.
 10932 *Asparagus officinalis* L. - asparagus cv. New Zealand Beacon - pseudothecia on dead stem. Otago, NZ 1987. From S.A. Menzies 8747 ← P. Falloon - single spore isolate - P. Falloon asparagus disease survey.
 10933 *Asparagus officinalis* L. - asparagus cv. Mary Washington 500 - pseudothecia on dead stem. SL, NZ 1987. From S.A. Menzies 8749 ← P. Falloon - single spore culture - P. Falloon asparagus disease survey.
 5536 *Lupinus arboreus* Sims - tree lupin. Pukekohe, AK, NZ Oct 1973. From J.M. Dingley 7382.
 5503 *Lycopersicon esculentum* Mill. - tomato - leaf. Auckland, AK, NZ Mar 1972. From J.M. Dingley 7240.
 5498 *Musa X paradisiaca* L. - banana - fruit. Cook Is. Feb 1974. From J.M. Dingley 7412.
 6895 From P.R. Johnston = QM 9351.
 6896 From P.R. Johnston = QM 1484.
- Stereum purpureum* (Persoon) Fries
 see *Chondrostereum purpureum*.
- Stigmina carpophila* (Leveille) M.B. Ellis**
 11202 *Prunus persica* (L.) Batsch - peach - twigs. Masterton, WA, NZ Nov 1979. From G. Laundon 15828.
 2066 *Prunus* sp. - fruit. India Aug 1967. From G.F. Laundon LEV 1598.
- Stilbella clavulata* (Montagne) Seifert
 see *Nectria gracilipes*.
- Stilbella* sp.
 see *Nectria macrostoma*.
- Stilbum cinnabarinum* Montagne
 see *Thyronectria pseudotrichia*.
- Stromatinia gladioli* (Drayton) Whetzel**
 syn. *Sclerotinia gladioli* Drayton
 anam. *Sclerotium gladioli* Massey
 5638 *Gladiolus* sp. - gladiolus. Maketu, BP, NZ May 1966. From J.M. Dingley.
 10987 *Gladiolus* sp. - corms. Levin, WN, NZ Jun 1977. From G. Laundon 11850.
 10988 *Gladiolus* sp. - basal rot. Dannevirke, WA, NZ Jan 1981. From G. Laundon 17620.
- Syncephalastrum racemosum* Cohn**
 7912 Soil (maize-field). Hamilton, WO, NZ Dec 1982. From G.J. Samuels ← G.I. Robertson M78.
- Syncephalastrum* sp.**
 432 Wool. NZ Sep 1961. From M.H. Dye F24.
- Talaromyces flavus* (Klocker) Stolk & Samson**
 anam. *Penicillium dangeardii* Pitt
 9712 Fibre packing tray. Otahuhu, AK, NZ Jul 1988. From G.I. Robertson P384.

- Talaromyces luteus** (Zukal) C.R. Benjamin
anam. *Penicillium udagawae* Stolk & Samson
2719 Rubberised canvas. Devonport, AK, NZ Feb 1970. From J.M. Dingley 7011.
- Talaromyces wortmannii** (Klocker) C.R. Benjamin
anam. *Penicillium klockeri* Pitt
5683 Soil. Palmerston North, WI, NZ May 1976. From G.C.M. Latch S34.
- Taphrina deformans** (Berkeley) L.R. Tulasne
2924 *Prunus persica* (L.) Batsch - peacharine - leaf curl. Auckland, AK, NZ. From R.F. Elliott T38.
- Taphrina pruni** L.R. Tulasne
2914 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Oct 1966. From R.F. Elliott T9.
2915 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Oct 1966. From R.F. Elliott T10.
2916 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Oct 1966. From R.F. Elliott T11.
2917 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Oct 1966. From R.F. Elliott T13.
2918 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Oct 1966. From R.F. Elliott T14.
2919 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Nov 1966. From R.F. Elliott T16.
2920 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Nov 1966. From R.F. Elliott T18.
2921 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Nov 1966. From R.F. Elliott T20.
2922 *Prunus domestica* L. - European plum - fruit. Mt Albert, AK, NZ Nov 1966. From R.F. Elliott T21.
- Taphrina wiesneri** (Rathay) Mix
2925 *Prunus avium* (L.) L. - cherry - main axis of stem thickening with splitting & gummosis. Central Otago, CO, NZ Mar 1966. From R.F. Elliott T70.
2926 *Prunus avium* (L.) L. - cherry - main axis of stem thickening with splitting & gummosis. Central Otago, CO, NZ Mar 1966. From R.F. Elliott T76.
- Thanatephorus cucumeris** (Frank) Donk
anam. *Rhizoctonia solani* Kuehn
10183 *Lycopersicon esculentum* Mill. - tomato. Hastings, HB, NZ Jul 1980. From G. Laundon 16896.
- Thielaviopsis basicola* (Berkeley & Broome) Ferraris
see *Trichocladium basicola*.
- Thielaviopsis paradoxa* (de Seynes) Hohnel
see *Ceratocystis paradoxa*.
- Thielaviopsis** sp.
11355 From G. Laundon 21497.
- Thozetella tocklaiensis** (Agnihotrudu) Pirozynski & C.S. Hodges
12914 *Anthoxanthum odoratum* L. - sweet vernal - root. Whatawhata, WO, NZ Dec 1993. From N. Waipara.
- Thyronectria pseudotrichia** (Schweinitz) Seeler
anam. *Stilbum cinnabarinum* Montagne
2505 *Eucalyptus ficifolia* Muell. - red (scarlet) gum. Henderson, AK, NZ Jul 1968. From J.M. Dingley 68107 ← P.J. Brook.
2244 *Theobroma cacao* L. - cacao. Papua New Guinea 1968. From J.M. Dingley 6856.
2245 *Theobroma cacao* L. - cacao. Papua New Guinea 1968. From J.M. Dingley 6857.
7883 Venezuela 1971. From G.J. Samuels 71-9 = CUP-MJ743.
7884 Venezuela 1971. From G.J. Samuels 71-283 = NY-VE2667.
7885 Venezuela 1971. From G.J. Samuels 71-206 = NY-VE1083.
7886 Venezuela Jan 1971. From G.J. Samuels 71-234 = NY-VE1840.
7887 Venezuela 1971. From G.J. Samuels 71-220 = NY-VE1280.
7888 Bark. Venezuela Jun 1972. From G.J. Samuels 72-96 = NY-VE4531.
7889 Venezuela 1972. From G.J. Samuels 72-108 = NY-VE4632.
7898 Venezuela Jan 1971. From G.J. Samuels 71-301 = NY-VE1.
7899 Venezuela Jan 1971. From G.J. Samuels 71-184 = NY-VE1117.
7903 Venezuela Nov 1979. From G.J. Samuels 71-221 = NY-VE1.
7905 Venezuela 1971. From G.J. Samuels 71-317 = NY-VE1611.
7907 Bark. Venezuela 1972. From G.J. Samuels 72-87 = NY-VE3879.
7908 Bark. Venezuela Jan 1972. From G.J. Samuels 72-72 = NY-VE3658.
7913 Venezuela 1971. From G.J. Samuels 71-209 = NY-VE1100.
7914 Venezuela 1971. From G.J. Samuels 71-284 = NY-VE2876.
- Tilachlidium** sp.
940 Concrete sewer pipe. Mangere, AK, NZ Sep 1963. From F.J. Morton H191.
- Tolypocladium** sp.
5548 Glow-worm. Waitomo Caves, WO, NZ Jun 1977. From E.H.C. McKenzie.
5549 Glow-worm. Waitomo Caves, WO, NZ Jun 1977. From E.H.C. McKenzie.
7329 Glow-worm. Waitomo Caves, WO, NZ Dec 1981. From G.J. Samuels 81-399 ← J.S. Cole.
- Torula herbarum** (Persoon) Link
5615 *Foeniculum vulgare* Mill. - fennel. Mt Albert, AK, NZ Jan 1959. From J.M. Dingley 594.
- Trametes cinnabarina** (Jacquin) Fries
5481 Piha, AK, NZ Sep 1962. From J.M. Dingley 625.
- Trametes versicolor** (Linnaeus) Pilat
3069 *Prunus persica* (L.) Batsch - peach - root. Twyford, HB, NZ Sep 1966. From J.B. Taylor H2.
- Trematosphaeria circinans* (Saccardo) Winter
see *Byssothecium circinans*.
- Trichocladium basicola** (Berkeley & Broome) Carmichael
syn. *Thielaviopsis basicola* (Berkeley & Broome) Ferraris
syn. *Chalara elegans* Nag Raj & Kendrick
2047 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit. Auckland, AK, NZ Aug 1967. From G.F. Laundon LEV 1553.
11203 *Casurina* sp. Hastings, HB, NZ Jan 1980. From G. Laundon 16123.
11201 *Citrus* sp. - grapefruit - roots. Palmerston North, WI, NZ Apr 1981. From G. Laundon 13107.
1953 *Passiflora edulis* Sims - passionfruit - root. Blockhouse Bay, AK, NZ Jan 1967. From J.M. Dingley 6712.
1954 *Passiflora edulis* Sims - passionfruit - root. Blockhouse Bay, AK, NZ Jan 1967. From J.M. Dingley 6713.
2466 *Passiflora edulis* Sims - passionfruit. Mt Albert, AK, NZ Nov 1968. From J.M. Dingley 68151.
2460 *Pisum sativum* L. - garden pea. Hastings, HB, NZ Jan 1969. From J.M. Dingley 691 ← B.B. Till.
3352 *Telopea speciosissima* (Sm.) R. Br. X *T. oreades* Muell. - waratah - root. Ohau, WN, NZ Jan 1973. From G.F. Laundon LEV 6967.
2208 *Trifolium* sp. - clover. Mt Albert, AK, NZ Mar 1968. From J.M. Dingley 6824.
2209 *Trifolium* sp. - clover. Mt Albert, AK, NZ Mar 1968. From J.M. Dingley 6825.

- Trichoderma aureoviride*** Rifai
3090 *Pinus radiata* D. Don - radiata pine, Monterey pine. Auckland, AK, NZ 1965. From E.H.C. McKenzie J8 ← J. Varughese.
- Trichoderma harzianum*** Rifai
9818 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 1.
9819 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 2.
9820 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 3.
9821 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 5.
9822 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 6.
9823 *Cocos nucifera* L. - coconut - seednut. Western Samoa Sep 1988. From E.H.C. McKenzie 7.
3099 *Eucalyptus* sp. - blue gum - bark. Palmerston North, WI, NZ Jan 1971. From E.H.C. McKenzie 252b ← J.M. Dingley.
4208 Wood. Earnsclough, CO, NZ Jun 1973. From M.H. Dye F77.
10291 Polyester butcher's twine. Auckland, AK, NZ Mar 1990. From E.H.C. McKenzie.
- Trichoderma longibrachiatum*** Rifai
9477 Mushroom compost trays. Prebbleton, MC, NZ Mar 1988. From E.H.C. McKenzie.
- Trichoderma polysporum*** (Link) Rifai
5495 *Hypoxylon* sp. Kauaeranga Valley, CL, NZ Mar 1972. From J.M. Dingley 7249.
- Trichoderma pseudokoningii*** Rifai
9478 Mushroom compost trays. Prebbleton, MC, NZ Feb 1988. From E.H.C. McKenzie.
- Trichoderma reesei*** Simmons
6526 From M.W. Pritchard ← E.G. Simmons MYCO9414.
- Trichoderma*** sp.
5527 *Boletus* sp. Auckland, AK, NZ Mar 1966. From J.M. Dingley 6640.
5490 *Hypocrea* sp. Auckland, AK, NZ Dec 1969. From J.M. Dingley 69125 ← B.P. Segedin.
3083 Soil. NZ Oct 1970. From E.H.C. McKenzie 201.
3088 Soil. Palmerston North, WI, NZ. From E.H.C. McKenzie.
11212 Aerial contaminant. Levin, WN, NZ Jul 1973. From G. Laundon 7370.
- Trichoderma viride*** Persoon
see also *Hypocrea coprosma*; *H. rufa*; *H. schweinitzii*; *H. semiorbis*; *H. vinosa*.
1079 *Cyphomandra betacea* Cav. Sendtn. - tamarillo, tree tomato. NZ May 1962. From F.J. Morton H145.
1051 From F.J. Morton H91.
1073 From F.J. Morton H127.
3091 Soil. NZ. From E.H.C. McKenzie TG61.
3092 Soil. NZ. From E.H.C. McKenzie TG60.
- Trichometasphaeria turcica* Luttrell
see *Setosphaeria turcica*.
- Trichophyton ajelloi* (Vanbreuseghem) Ajello
see *Arthroderma uncinatum*.
- Trichothecium roseum*** (Persoon) Link
10837 * *Persea americana* Mill. - avocado cv. Hicks - ripening fruit. Tauranga, BP, NZ Feb 1991. From W.H.T. Hartill - *avocado (Hartill).
1069 Soil. Auckland, AK, NZ Mar 1962. From F.J. Morton H119.
2201 From J.M. Dingley 6817 ← Prof. Briggs 8685.
- Trichurus terrophilus*** Swift & Povah
1165 Cave wall. Mt Albert, AK, NZ Nov 1961. From F.J. Morton H56.
- Triscelophorus* sp.
see *Allophylaria* sp.
- Tritirachium*** sp.
8001 Cat - draining sinus of foot. New Plymouth, TK, NZ 1983. From G.J. Samuels 84-95.
- Truncatella angustata*** (Persoon) Hughes
7062 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit core. HB, NZ Mar 1981. From S.R. Pennycook 933.
11215 *Rubus ursinus* Cham. & Schlecht. Nelson, NN, NZ Sep 1977. From G. Laundon 12177.
- Truncatella conorum-piceae*** (Tubeuf) Steyaert
11213 *Cedrus deodara* (D. Don) G. Don - deodar. 1983. From G. Laundon 21261 ← C.F. Hill As19946.
- Truncatella laurocerasi*** (Westendorp) Steyaert
11214 *Prunus persica* (L.) Batsch - peach. New Plymouth, TK, NZ Jul 1977. From G. Laundon 11979b.
- Tyromyces falcatus*** G.H. Cunningham
11790 *Nothofagus fusca* (Hook.f.) Oerst. - red beech. Taupo, TO, NZ May 1989. From P.K. Buchanan 89-102 ← R.E. Beever.
- Ulocladium atrum*** Preuss
1142 *Cucumis sativus* L. - cucumber. Mangere, AK, NZ Oct 1963. From F.J. Morton A196.
1144 *Cucumis sativus* L. - cucumber. Whangarei, ND, NZ Jan 1964. From F.J. Morton A204.
1145 *Cucumis sativus* L. - cucumber. Kamo, ND, NZ Jan 1964. From F.J. Morton A205.
5634 *Glycine max* (L.) Merr. - soybean - leaf. Gisborne, GB, NZ Feb 1973. From J.M. Dingley 7326.
2002 *Narcissus* sp. - bulb. Netherlands Mar 1966. From G.F. Laundon LEV 605A.
2039 *Solanum tuberosum* L. - potato - tuber. Netherlands Jun 1967. From G.F. Laundon LEV 1478.
- Ulocladium botrytis*** Preuss
11234 *Fragaria* sp. - roots. Levin, WN, NZ Jul 1977. From G. Laundon 11924a.
- Ulocladium chartarum*** (Preuss) Simmons
5614 *Cucumis sativus* L. - cucumber - leaf. Otaki, WN, NZ May 1972. From J.M. Dingley 7247.
- Ulocladium consortiale*** (Thumen) Simmons
1129 *Brassica oleracea* L. var. *ramosa* Alef. - chou-moellier - seed. Palmerston North, WI, NZ Oct 1962. From F.J. Morton A98 ← D. Matthews.
1135 *Dianthus caryophyllus* L. - carnation. Levin, WN, NZ Apr 1963. From F.J. Morton A121 ← G.S. Grandison.
1147 *Kentia* sp. - palm. Auckland, AK, NZ Nov 1963. From F.J. Morton A215.
5607 *Phaseolus* sp. - bean - leaf. Gisborne, GB, NZ Feb 1973. From J.M. Dingley 7324.
1130 Orchid. Auckland, AK, NZ Oct 1962. From F.J. Morton A106.

Ulocladium cucurbitae (Letendre & Roumeguere) Simmons

- 11216 *Cucumis sativus* L. - cucumber - leafspots. Christchurch, MC, NZ Apr 1980. From G. Laundon 16500.
11217 *Cucumis sativus* L. - cucumber - leafspots. Hastings, HB, NZ Mar 1983. From G. Laundon 21026.

Ulocladium sp.

- 11218 *Raphanus sativus* L. - radish - seed. Palmerston North, WI, NZ Apr 1983. From G. Laundon 21135b

Unknown fungus - Basidiomycete

- 10159 *Rubus idaeus* L. - raspberry - root rot. 1966. From G.F. Laundon 1787

Unknown fungus from *Alectryon excelsus*

- 11699 *Alectryon excelsus* Gaertn. - titoki - (1-2mm) irregular leafspots with white pinpoint centres. Oratia, AK, NZ Nov 1991. From J.M. Young Or26c.
11700 *Alectryon excelsus* Gaertn. - titoki - irregular red (1-2mm) leafspots with white pinpoint centres. Oratia, AK, NZ Nov 1991. From J.M. Young Or26d

Unknown fungus from *Carex virgata*

- 11776 *Carex virgata* Sol. ex Boott. - swamp sedge - elliptical brown leaf streaks (2-3cm) with indiscrete margins. Taupo, TO, NZ Nov 1991. From J.M. Young T22

Unknown fungus from *Coprosma repens*

- 11562 *Coprosma repens* A. Rich. - taupata - tan round (3-5mm) leaf lesion with narrow dark margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or1c.
11563 *Coprosma repens* A. Rich. - taupata - tan round leaf lesion (3-5mm) with narrow dark margin. Oratia, AK, NZ Dec 1991. From J.M. Young Or1d

Unknown fungus from *Cordyline australis*

- 11694 *Cordyline australis* (Forst.f.) Endl. - cabbage tree, ti kauka - yellow-ochre elliptical leaf lesion. Manapouri, FD, NZ Nov 1991. From J.M. Young M4a

Unknown fungus from *Cordyline banksii*

- 11414 *Cordyline banksii* Hook. f. - ti ngahere - chocolate brown leaf streaks (0.5-3cm). Taupo, TO, NZ Nov 1991. From J.M. Young T9

Unknown fungus from *Cordyline indivisa*

- 11887 *Cordyline indivisa* (Forst.f.) Steud. - elliptical tan (2-5mm) leafspots. Manapouri, FD, NZ Nov 1992. From J.M. Young K27c

Unknown fungus from *Cordyline* sp.

- 11888 *Cordyline* sp. - tan elliptical (2-5mm) leafspots. Manapouri, FD, NZ Dec 1992. From J.M. Young K27d

Unknown fungus from *Cortaderia toetoe*

- 11777 *Cortaderia toetoe* Zotov. - toetoe - black leaf streak (2-10mm). Taupo, TO, NZ Nov 1991. From J.M. Young T25d

Unknown fungus from *Dianella nigra*

- 11481 *Dianella nigra* Colenso - turutu, Maori blueberry - red brown leaf streaks, expand to red purple lesions with elliptical margins, pale centres. Taupo, TO, NZ Dec 1991. From J.M. Young T93

Unknown fungus from *Dodonea viscosa*

- 12080 *Dodonea viscosa* Jacq. - akeake - papery (2-25mm) leaf blotches with darker surrounds. Ashburton, MC, NZ Nov 1993. From J.M. Young AA10a.
12081 *Dodonea viscosa* Jacq. - akeake - papery (2-25mm) leaf blotches with darker surrounds. Ashburton, MC, NZ Nov 1993. From J.M. Young AA10b

Unknown fungus from *Hebe (parviflora)* sp.

- 11458 *Hebe (parviflora)* sp. Taupo, TO, NZ Nov 1991. From J.M. Young T100

Unknown fungus from *Hebe hulkeana*

- 11434 *Hebe hulkeana* (F.J. Muell.) Cockayne ex Allan - leafspot. Taupo, TO, NZ Nov 1991. From J.M. Young T47

Unknown fungus from *Hebe stricta*

- 11423 *Hebe stricta* (Benth.) L.B. Moore - koromiko - black leaf spot (1mm) smaller underneath. Taupo, TO, NZ Nov 1991. From J.M. Young T26

Unknown fungus from *Leptospermum scoparium*

- 11426 *Leptospermum scoparium* J.R. & G. Forst. - manuka, red tea-tree - black (1mm) leaf spots. Taupo, TO, NZ Nov 1991. From J.M. Young T32.
11459 *Leptospermum scoparium* J.R. & G. Forst. - manuka, tea-tree - small (<1mm dia.) black leafspots. Taupo, TO, NZ Nov 1991. From J.M. Young T32

Unknown fungus from *Metrosideros excelsa*

- 11432 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - black leafspots (1mm dia.). Taupo, TO, NZ Nov 1991. From J.M. Young T43.
11480 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - small black leafspots. Taupo, TO, NZ Dec 1991. From J.M. Young T75.
12082 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - sunken black (1-2mm) leaf lesions. Albany, AK, NZ Oct 1993. From J.M. Young I17a.
12083 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - sunken black (1-2mm) leaf lesions. Albany, AK, NZ Oct 1993. From J.M. Young I17b.
11435 *Metrosideros robusta* A. Cunn. - northern rata - small brown black leafspots, expand to produce pale brown lesions (5-8mm dia.) with margin. Taupo, TO, NZ Nov 1991. From J.M. Young T50

Unknown fungus from *Myrsine australis*

- 11564 *Myrsine australis* (A. Rich.) Allan - kohukohu, black matipo - red magenta round (1-2 mm) leafspot. Oratia, AK, NZ Dec 1991. From J.M. Young Or17a.
11580 *Myrsine australis* (A. Rich.) Allan - kohukohu, black matipo - red magenta round (1-2mm) leafspots. Oratia, AK, NZ Dec 1991. From J.M. Young Or17b

Unknown fungus from *Olearia arborescens*

- 11427 *Olearia arborescens* (Forst.f.) Cockayne & Liang - tree daisy - purple-black round leaf spot with grey-brown centres on upper surface. Taupo, TO, NZ Nov 1991. From J.M. Young T36

Unknown fungus from *Oryzopsis lessoniana*

- 11797 *Oryzopsis lessoniana* (Steud.) Veldkamp - bright red elliptical leaf streaks. Waiora, MC, NZ Nov 1992. From J.M. Young F20a.
11798 *Oryzopsis lessoniana* (Steud.) Veldkamp - bright red elliptical leaf streaks. Waiora, MC, NZ Nov 1992. From J.M. Young F20b

Unknown fungus from *Pittosporum* sp.

- 11463 *Pittosporum* sp. - leafspot. Albany, AK, NZ Oct 1991. From J.M. Young CP3d -

Unknown fungus from *Pseudowintera colorata*

- 11695 *Pseudowintera colorata* (Raoul) Dandy - horopito - round dark lesion (1-3mm diam.) pale centre. Oratia, AK, NZ Nov 1991. From J.M. Young Or19b.
11696 *Pseudowintera colorata* (Raoul) Dandy - horopito - round dark lesion (1-3mm diam.) pale centre. Oratia, AK, NZ Nov 1991. From J.M. Young Or19c

Unknown fungus from *Rhopalostylis sapida*

- 11697 *Rhopalostylis sapida* Wendl. & Drude - nikau - brown black growing points. Oratia, AK, NZ Nov 1991. From J.M. Young Or25a.
11698 *Rhopalostylis sapida* Wendl. & Drude - nikau - brown black growing points. Oratia, AK, NZ Nov 1991. From J.M. Young Or25c

Unknown fungus from *Ripogonum scandens*

- 11479 *Ripogonum scandens* J.R. & G. Forst. - kareao, supplejack - round chocolate brown leafspots (3-5mm). Taupo, TO, NZ Dec 1991. From J.M. Young T73.

Ustilago maydis (de Candolle) Corda

- 11356 *Zea mays* L. - maize. Levin, WN, NZ Jul 1977. From G. Laundon 12072.

Valsa leucostoma (Persoon) Fries

see *Cytospora leucostoma*.

Venturia carpophila Fisher

anam. *Cladosporium carpophilum* Thumen

anam. *Fusicladium carpophilum* (Thumen) Oudemans

- 5402 *Prunus persica* (L.) Batsch var. *nucipersica* (Suckow) C.K. Schneid. - nectarine. USA Feb 1966. From J.M. Dingley 6625.

Venturia inaequalis (Cooke) Winter

anam. *Spilocaea pomi* Fries

- 4095 *Malus X domestica* Borkh. - apple cv. Dougherty. Oratia, AK, NZ Sep 1974. From G.J. Samuels 32572.
 7042 *Malus X domestica* Borkh. - apple - black spot of fruit. Motueka, NN, NZ Feb 1980. From K.A. Kane 865.
 9800 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Hastings, HB, NZ Aug 1987. From M. Fowler A23 - resistant to 1000ppm carbendazim.
 9801 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit. Henderson, AK, NZ Aug 1988. From M. Fowler A231 - resistant to 1000ppm carbendazim.
 9802 *Malus X domestica* Borkh. - apple cv. Red Dougherty - fruit. Hastings, HB, NZ Aug 1988. From M. Fowler A249 - resistant to 1000ppm carbendazim.
 9803 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Henderson, AK, NZ Sep 1988. From M. Fowler A274 - resistant to 1000ppm carbendazim.
 9804 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Henderson, AK, NZ Sep 1988. From M. Fowler A275 - resistant to 1000ppm carbendazim.
 11363 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Henderson, AK, NZ Sep 1991. From G.I. Robertson A1096 ← M. Fowler - sensitive to DMI fungicides.
 11364 *Malus X domestica* Borkh. - apple cv. Gala - fruit. Hastings, HB, NZ Apr 1992. From G.I. Robertson A1113 ← M. Fowler - sensitive to DMI fungicides.
 11365 *Malus X domestica* Borkh. - apple cv. Cox's Orange - fruit. Nelson, NN, NZ Dec 1987. From G.I. Robertson A83 ← M. Fowler - sensitive to DMI fungicides.
 11366 *Malus X domestica* Borkh. - apple - fruit. Hamilton, WO, NZ Jul 1988. From G.I. Robertson A146 ← M. Fowler - sensitive to DMI fungicides.
 11367 *Malus X domestica* Borkh. - apple cv. Braeburn - fruit. Hastings, HB, NZ Aug 1988. From G.I. Robertson A156 ← M. Fowler - sensitive to DMI fungicides.
 11368 *Malus X domestica* Borkh. - apple cv. Red Dougherty - fruit. Hastings, HB, NZ Aug 1988. From G.I. Robertson A249 ← M. Fowler - sensitive to DMI fungicides.
 11369 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Henderson, AK, NZ Sep 1988. From G.I. Robertson A323 ← M. Fowler - sensitive to DMI fungicides.
 11370 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Dec 1988. From G.I. Robertson A325 ← M. Fowler - sensitive to DMI fungicides.
 11371 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Dec 1988. From G.I. Robertson A346 ← M. Fowler - reduced sensitivity to bitertanol & fenarimol.
 11372 *Malus X domestica* Borkh. - apple cv. Granny Smith - fruit. Christchurch, MC, NZ Jun 1989. From G.I. Robertson A425 ← M. Fowler - reduced sensitivity to bitertanol, triadimefon, fenarimol & penconazole.
 11373 *Malus X domestica* Borkh. - apple cv. Fuji - fruit. Hastings, HB, NZ Apr 1991. From G.I. Robertson A935 ← M. Fowler - reduced sensitivity to fenarimol & triforine.
 11374 *Malus X domestica* Borkh. - apple cv. Gala - fruit. Hastings, HB, NZ Apr 1991. From G.I. Robertson A947 ← M. Fowler - sensitive to DMI fungicides.
 11375 *Malus X domestica* Borkh. - apple cv. Gala - fruit. Hastings, HB, NZ Apr 1991. From G.I. Robertson A950 ← M. Fowler - reduced sensitivity to bitertanol, fenarimol, triforine, & penionazole.
 11376 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Oct 1991. From G.I. Robertson A1049 ← M. Fowler - reduced sensitivity to bitertanol.
 11377 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Oct 1991. From G.I. Robertson A1057 ← M. Fowler - reduced sensitivity to bitertanol & fenarimol.
 11378 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Oct 1991. From G.I. Robertson A1058 ← M. Fowler - reduced sensitivity to bitertanol.
 11379 *Malus X domestica* Borkh. - apple - leaf. Hastings, HB, NZ Oct 1991. From G.I. Robertson A1079 ← M. Fowler - reduced sensitivity to bitertanol, fenarimol & triforine.
 11399 *Malus X domestica* Borkh. - apple cv. Braeburn - fruit. Nelson, NN, NZ Dec 1987. From G.I. Robertson A80 ← M. Fowler - sensitive to DMI fungicides.
 11400 *Malus X domestica* Borkh. - apple cv. Red Delicious - leaf. Nelson, NN, NZ Dec 1987. From G.I. Robertson A85 ← M. Fowler - sensitive to DMI fungicides.
 11401 *Malus X domestica* Borkh. - apple cv. Braeburn - fruit. Henderson, AK, NZ Jul 1988. From G.I. Robertson A212 ← M. Fowler - sensitive to DMI fungicides.
 11402 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit. Henderson, AK, NZ Aug 1988. From G.I. Robertson A236 ← M. Fowler - sensitive to DMI fungicides.
 11403 *Malus X domestica* Borkh. - apple cv. Gala - fruit. Pukekohe, AK, NZ Dec 1988. From G.I. Robertson A354 ← M. Fowler - sensitive to DMI fungicides.
 11404 *Malus X domestica* Borkh. - apple cv. Red Delicious - fruit. Hastings, HB, NZ Aug 1991. From G.I. Robertson A989 ← M. Fowler - sensitive to DMI fungicides.

Venturia pyrina Aderhold

- 11032 *Pyrus communis* L. - pear cv. Winter Nelis - fruit. Hastings, HB, NZ Aug 1990. From M. Fowler A777.
 11033 *Pyrus communis* L. - pear cv. Packham's Triumph - fruit. Hastings, HB, NZ Sep 1990. From M. Fowler A828.
 11380 *Pyrus communis* L. - pear cv. Winter Nelis - fruit. Hastings, HB, NZ Aug 1990. From G.I. Robertson A777 ← M. Fowler.
 11381 *Pyrus communis* L. - pear cv. Winter Nelis - fruit. Hastings, HB, NZ Aug 1990. From G.I. Robertson A784 ← M. Fowler.
 11382 *Pyrus communis* L. - pear cv. Packham Triumph - fruit. Hastings, HB, NZ Sep 1990. From G.I. Robertson A829 ← M. Fowler.
 11383 *Pyrus communis* L. - pear cv. Packham Triumph - fruit. Hastings, HB, NZ Sep 1990. From G.I. Robertson A836 ← M. Fowler.

Verticillium albo-atrum Reinke & Berthold

- 3816 *Cucumis sativus* L. - cucumber - root. Auckland, AK, NZ. From J.B. Taylor NZ102 ← C.H. Procter.
 5489 *Dianthus caryophyllus* L. - carnation. Auckland, AK, NZ May 1965. From J.M. Dingley 6593.
 9814 *Dianthus caryophyllus* L. - carnation. Henderson, AK, NZ 1988. From E.H.C. McKenzie 3609 ← C.F. Hill.
 3849 *Lycopersicon esculentum* Mill. - tomato. Ramarama, AK, NZ. From J.B. Taylor NZ148.
 3854 *Lycopersicon esculentum* Mill. - tomato. UK. From J.B. Taylor NZ155 = IMI 62131.
 3855 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor NZ156.
 5480 *Lycopersicon esculentum* Mill. - tomato. Gisborne, GB, NZ Aug 1969. From J.M. Dingley 6991.
 11220 *Lycopersicon esculentum* Mill. - tomato. Nelson, NN, NZ Oct 1978. From G. Laundon 13735.

- 2705 *Medicago sativa* L. - lucerne, alfalfa. Hawkes Bay, HB, NZ. From J.B. Taylor NZ163.
 2707 *Medicago sativa* L. - lucerne, alfalfa. Hawkes Bay, HB, NZ. From J.B. Taylor NZ165.
 3787 *Medicago sativa* L. - lucerne, alfalfa - root. Gore, SL, NZ. From J.B. Taylor NZ31.
 3795 *Medicago sativa* L. - lucerne, alfalfa - root. Lincoln, MC, NZ. From J.B. Taylor NZ58.
 7689 *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Central Otago, CO, NZ Apr 1980. From B.T. Hawthorne V15.
 7690 *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Central Otago, CO, NZ Apr 1980. From B.T. Hawthorne V17.
 8981 * *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Taupo, TO, NZ Jun 1979. From B.T. Hawthorne V7 - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne.
 8982 * *Medicago sativa* L. - lucerne, alfalfa - vascular system. Mid Canterbury, MC, NZ Nov 1979. From B.T. Hawthorne - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne (weak).
 8983 * *Medicago sativa* L. - lucerne, alfalfa - vascular system. CO, NZ Jan 1980. From B.T. Hawthorne V13 - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne.
 8984 * *Medicago sativa* L. - lucerne, alfalfa - vascular system. Taupo, TO, NZ May 1980. From B.T. Hawthorne V18 - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne.
 8986 * *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Taupo, TO, NZ Feb 1981. From B.T. Hawthorne 164 ← J. Rees-George - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne.
 8987 * *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Taupo, TO, NZ Feb 1981. From B.T. Hawthorne 174 ← J. Rees-George - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne (weak).
 8988 * *Medicago sativa* L. - lucerne, alfalfa - vascular system of root. Taupo, TO, NZ Feb 1981. From B.T. Hawthorne 175 ← J. Rees-George - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne.
 8989 * *Medicago sativa* L. - lucerne, alfalfa - vascular system. Rotorua, BP, NZ Feb 1978. From B.T. Hawthorne 42 ← Ministry of Agriculture - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne (weak).
 8990 * *Medicago sativa* L. - lucerne, alfalfa - vascular system of stem. Maketu, BP, NZ Mar 1981. From B.T. Hawthorne 176 - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne (weak).
 8991 * *Medicago sativa* L. - lucerne, alfalfa - vascular system. Lincoln, MC, NZ Apr 1981. From B.T. Hawthorne 180 - N.Z. J. Agric. Res. 26: 405-408, 1983 - *lucerne (weak).
 11219 *Medicago sativa* L. - lucerne, alfalfa - wilt. Hawera, TK, NZ May 1978. From G. Laundon 13227.
 3785 *Nicotiana tabacum* L. - tobacco - root. Riwaka, NN, NZ. From J.B. Taylor NZ21.
 3831 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ120.
 2225 *Solanum tuberosum* L. - potato - wilt. Alexandra, CO, NZ Jan 1968. From G.F. Laundon LEV 1919 ← S.J. Franklin.
 3845 *Solanum tuberosum* L. - potato - root. Invercargill, SL, NZ. From J.B. Taylor NZ142.
 877 Air. Mt Albert, AK, NZ Oct 1961. From F.J. Morton H18.

Verticillium balanoides (Drechsler) Dowsett et al.

- 12562 * *Ditylenchus dipsaci* (Kuhn.) Filipjev - stem nematode in white clover. Kaikohe, ND, NZ. From F.S. Hay - **Ditylenchus dipsaci*.

Verticillium bulbiliosum Gams & Malla

- 11221 *Adiantum* sp. - roots. Levin, WN, NZ Jun 1978. From G. Laundon 13399b.

Verticillium dahliae Klebahn

- 8139 *Actinidia deliciosa* (Chev.) Liang & Ferguson - kiwifruit cv. Hayward - stem. Richmond, NN, NZ Sep 1981. From G.I. Robertson P359 ← M. Braithwaite.
 11238 *Cinnamomum camphora* (L.) J. Presl. - camphor tree - wilt. Napier, HB, NZ Sep 1979. From G. Laundon 15553.
 2017 *Cotinus* sp. Palmerston North, WI, NZ Apr 1967. From G.F. Laundon LEV 1364.
 11236 *Erica* sp. Levin, WN, NZ Apr 1979. From G. Laundon 14792.
 12915 *Fagus sylvatica* L. - european beech. From S. Ganey 96-930.
 11239 *Fragaria* sp. - wilt. Levin, WN, NZ Dec 1980. From G. Laundon 15993a.
 2227 *Fragaria X ananassa* Duch. - cultivated strawberry - wilt. Katikati, BP, NZ Feb 1968. From G.F. Laundon LEV 2015 ← J. Todd.
 3809 *Fragaria X ananassa* Duch. - cultivated strawberry - root. Auckland, AK, NZ. From J.B. Taylor NZ90 ← B.A. Thorn.
 3818 *Fragaria X ananassa* Duch. - cultivated strawberry - root. Hastings, HB, NZ. From J.B. Taylor NZ104 ← F.J. Newhook 1402.
 11240 *Hebe* sp. - vascular stain. Palmerston North, WI, NZ Jan 1980. From G. Laundon 16069.
 3852 *Hebe* sp. Roxburgh, CO, NZ. From J.B. Taylor NZ152.
 12514 *Helianthus annuus* L. - sunflower - wilt. Yugoslavia 1977. From M. Arsenijevic Vs1.
 3833 *Humulus lupulus* L. - hop - root. Motueka, NN, NZ. From J.B. Taylor NZ122 ← T. Christie VAR8.
 3871 *Lathyrus odoratus* L. - sweet pea - stem. Palmerston North, WI, NZ Nov 1973. From G.F. Laundon LEV 7596 ← P.D. Whitwell.
 5484 *Lathyrus odoratus* L. - sweet pea - stem. Palmerston North, WI, NZ Nov 1973. From J.M. Dingley 7427.
 11235 *Lathyrus odoratus* L. - sweet pea - wilt. Palmerston North, WI, NZ Sep 1973. From G. Laundon 7596.
 2699 *Lycopersicon esculentum* Mill. - tomato - root. Wellington, WN, NZ. From J.B. Taylor NZ113.
 2702 *Lycopersicon esculentum* Mill. - tomato. Auckland, AK, NZ. From J.B. Taylor NZ156.
 3784 *Lycopersicon esculentum* Mill. - tomato - root. Titirangi, AK, NZ. From J.B. Taylor NZ19.
 3819 *Lycopersicon esculentum* Mill. - tomato - root. Wellington, WN, NZ. From J.B. Taylor NZ105 ← F.J. Newhook 1404.
 3820 *Lycopersicon esculentum* Mill. - tomato - root. Auckland, AK, NZ. From J.B. Taylor NZ106 ← F.J. Newhook 1409.
 3821 *Lycopersicon esculentum* Mill. - tomato - root. Auckland, AK, NZ. From J.B. Taylor NZ108 ← F.J. Newhook 1408.
 3822 *Lycopersicon esculentum* Mill. - tomato - root. Panmure, AK, NZ. From J.B. Taylor NZ109 ← F.J. Newhook 1392.
 3825 *Lycopersicon esculentum* Mill. - tomato - root. Wellington, WN, NZ. From J.B. Taylor NZ113.
 3827 *Lycopersicon esculentum* Mill. - tomato - root. Auckland, AK, NZ. From J.B. Taylor NZ115 ← F.J. Newhook 1406.
 3830 *Lycopersicon esculentum* Mill. - tomato - root. Auckland, AK, NZ. From J.B. Taylor NZ119 ← M. Brien AR122.
 3834 *Lycopersicon esculentum* Mill. - tomato - root. Nelson, NN, NZ. From J.B. Taylor NZ123 ← T. Christie var.9.
 5487 *Lycopersicon esculentum* Mill. - tomato. Gisborne, GB, NZ Mar 1969. From J.M. Dingley 6933.
 3824 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ112.
 3828 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ116 ← M. Heath.
 3829 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ117 ← E. Walker.
 3832 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ121 ← T. Fry.
 11237 *Nicotiana tabacum* L. - tobacco - wilt. Motueka, NN, NZ Apr 1977. From G. Laundon 11695.
 3799 *Paeonia* sp. - peony - root. Blenheim, MB, NZ. From J.B. Taylor NZ67.
 5479 *Pelargonium peltatum* (L.) L'Her. ex Ait. - ivy geranium. Auckland, AK, NZ Jan 1971. From J.M. Dingley 716.
 11241 *Phyllis* sp. Levin, WN, NZ Mar 1980. From G. Laundon 16348.
 11222 *Pimelia* sp. Levin, WN, NZ Mar 1980. From G. Laundon 16347a.
 3844 *Prunus persica* (L.) Batsch - peach - root. Hastings, HB, NZ. From J.B. Taylor NZ141.
 12511 *Prunus persica* (L.) Batsch - peach - tree wilting. Yugoslavia 1974. From M. Arsenijevic Vd2.
 12512 *Prunus persica* (L.) Batsch - peach - tree wilting. Yugoslavia 1974. From M. Arsenijevic Vd8.
 12513 *Prunus persica* (L.) Batsch - peach - tree wilting. Yugoslavia 1974. From M. Arsenijevic Vd11.
 3823 *Ribes uva-crispa* L. - gooseberry - root. Wellington, WN, NZ. From J.B. Taylor NZ110 ← F.J. Newhook 1395.
 3797 *Rosa* sp. - root. Auckland, AK, NZ. From J.B. Taylor NZ61.
 3801 *Rosa* sp. - root. Auckland, AK, NZ. From J.B. Taylor NZ76.
 3817 *Rubus ursinus* Cham. & Schlecht. var. *loganobaccus* (L.H. Bailey) L.H. Bailey - boysenberry - root. Hastings, HB, NZ. From J.B. Taylor NZ103.
 11677 *Scutellaria* sp. - affecting stem tissue causing wilt. Pukekohe, AK, NZ Feb 1993. From P.G. Broadhurst 9306.
 3835 *Solanum tuberosum* L. - potato - root. From J.B. Taylor NZ124 ← T. Christie Var10.
 2703 *Vitis rupestris* Scheele - bush grape cv. St George. Gisborne, GB, NZ. From J.B. Taylor NZ160.

- 5486 *Vitis vinifera* L. - grape. Taradale, HB, NZ Mar 1969. From J.M. Dingley 6932.
3812 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ96.
- Verticillium fungicola** (Preuss) Hassebrauk
3343 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Auckland, AK, NZ Jun 1965. From J.M. Dingley 65113 = IFO 30616.
3802 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - root. Auckland, AK, NZ. From J.B. Taylor NZ77.
3848 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - root. Auckland, AK, NZ. From J.B. Taylor NZ147.
3856 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Whangarei, ND, NZ. From J.B. Taylor NZ157.
5508 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Takanini, AK, NZ 1977. From G.J. Samuels 77-5.
5510 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Morrinsville, WO, NZ 1977. From G.J. Samuels 77-7 = IFO 30617.
5511 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Japan. From G.J. Samuels 77-8 ← IFO 6624.
5513 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Japan. From G.J. Samuels 77-10 ← IFO 6962.
10403 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap. Havelock North, HB, NZ May 1980. From E.H.C. McKenzie Vert7 - susceptible to octave (ED50 0.1-0.5ppm) and carbendazim (ED50 0.1-0.5ppm).
10404 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap. Havelock North, HB, NZ May 1990. From E.H.C. McKenzie Vert9 - susceptible to octave (ED50 0.1-0.5ppm) and carbendazim (ED50 0.1-0.5ppm).
10405 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap. Havelock North, HB, NZ May 1990. From E.H.C. McKenzie Vert12 - susceptible to octave (ED50 0.1-0.5ppm) and carbendazim (ED50 0.1-0.5ppm).
10833 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap. Morrinsville, WO, NZ. From E.H.C. McKenzie - ED50 carbendazim <100ppm - ED50 Octave 0.5ppm.
10834 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - cap. Morrinsville, WO, NZ. From E.H.C. McKenzie - ED50 carbendazim <100ppm - ED50 octave 0.5ppm.
- Verticillium insectorum** (Petch) W. Gams
8141 *Hyperodes bonariensis* (Kuschel) [Invertebrate] - Argentine stem weevil. Ruakura, WO, NZ Mar 1983. From G.J. Samuels 597-537.
- Verticillium intertextum** Isaac & Davies
3853 *Acer* sp. - maple. USA. From J.B. Taylor NZ153 = IMI 61295.
- Verticillium lecanii** (Zimmermann) Viegas
10119 *Cecidophyopsis ribis* (Westwood) [Invertebrate] - mite (dead). Pleasant Point, SC, NZ. From E.H.C. McKenzie ← W. Thomas.
10120 *Cecidophyopsis ribis* (Westwood) [Invertebrate] - mite. Pleasant Point, SC, NZ. From E.H.C. McKenzie ← W. Thomas.
11223 *Myzus persicae* (Sulz.) [Invertebrate] - aphid. Levin, WN, NZ Mar 1977. From G. Laundon 11607.
5546 Glow-worm. Waitomo Caves, WO, NZ Jun 1977. From E.H.C. McKenzie.
5547 Glow-worm. Waitomo Caves, WO, NZ Jun 1977. From E.H.C. McKenzie.
7787 Aphids on Chinese cabbage. Western Samoa Sep 1982. From E.H.C. McKenzie = PDD 43031.
8713 Whitefly. Australia 1984. From R. Milner F159.
11224 Plastic contact lens. Dunedin, DN, NZ Jul 1977. From G. Laundon 11892.
- Verticillium nigrescens** Pethybridge
3781 *Acer* sp. - maple. Richmond, NN, NZ. From J.B. Taylor NZ3.
11225 *Lupinus* sp. - wilt. Christchurch, MC, NZ Jan 1977. From G. Laundon 11353.
7057 *Lycopersicon esculentum* Mill. - tomato - stem rot. Ardmore, AK, NZ Feb 1981. From C.F. Hill AS5961.
3588 *Pastinaca sativa* L. - parsnip - root. Wellington, WN, NZ Apr 1969. From G.F. Laundon 3269 ← A.F. Rainbow.
3841 *Solanum tuberosum* L. - potato - root. UK. From J.B. Taylor NZ130 ← IMI 44575.
3803 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ79.
7892 Soil (maize-field). Te Awamutu, WO, NZ Dec 1982. From G.J. Samuels ← G.I. Robertson M136.
- Verticillium nubilum** Pethybridge
3842 Soil. UK. From J.B. Taylor NZ131 ← IMI 46339.
- Verticillium psalliotae** Treschow
2492 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. NZ Oct 1968. From J.M. Dingley 68125 ← D.R.W. Watson.
5509 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Ohaupo, WO, NZ 1977. From G.J. Samuels 77-6 = IFO 30619.
5512 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom. Japan. From G.J. Samuels 77-9 = IFO 8578.
- Verticillium** sp.
2237 *Agaricus bisporus* (Lange) Imbach - cultivated mushroom - stalk. Auckland, AK, NZ. From J.M. Dingley 6841.
11227 *Citrus lanatus* (Thunb.) Matsum. & Nakai - watermelon. Hastings, HB, NZ Feb 1977. From G. Laundon 11467.
11226 *Dianthus caryophyllus* L. - carnation - flower rot. Ashhurst, WI, NZ Aug 1980. From G. Laundon 10859.
3792 *Nicotiana tabacum* L. - tobacco - root. Riwaka, NN, NZ. From J.B. Taylor NZ51.
3813 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ97.
- Verticillium sphaerosporum** Goodey
9459 *Ditylenchus dipsaci* (Kuhn.) Filipjev - stem nematode - endoparasite of nematode. NZ Aug 1987. From P.G. Broadhurst ← G.S. Grandison.
- Verticillium tenerum* (Nees) Link
see *Nectria inventa*.
- Verticillium theobromae** (Turconi) Mason & Hughes
11228 *Musa* sp. - fruit rot. Cook Is. Mar 1979. From G. Laundon 14667.
2704 *Musa X paradisiaca* L. - banana - fruit. Western Samoa. From J.B. Taylor 162.
5792 *Musa X paradisiaca* L. - banana - finger stalk. NZ May 1977. From T.W. Canter-Visscher 797.
- Verticillium tricorpus** Isaac
3843 *Cucumis melo* L. - rock melon - root. USA. From J.B. Taylor NZ137 ← S. Wilhelm 1387.
3850 *Cucumis sativus* L. - cucumber. Whangarei, ND, NZ. From J.B. Taylor NZ149.
3798 *Cyphomandra betacea* Cav. Sendtn. - tamarillo, tree tomato - root. Oratia, AK, NZ. From J.B. Taylor NZ62.
3794 *Lycopersicon esculentum* Mill. - tomato - root. Oratia, AK, NZ. From J.B. Taylor NZ57.
3840 *Lycopersicon esculentum* Mill. - tomato - root. UK. From J.B. Taylor NZ129 ← IMI 51602.
11229 *Lycopersicon esculentum* Mill. - tomato - fruit lesions. Levin, WN, NZ Apr 1979. From G. Laundon 14813.
2706 *Medicago sativa* L. - lucerne, alfalfa. Hawkes Bay, HB, NZ. From J.B. Taylor NZ164.
2700 *Nicotiana tabacum* L. - tobacco. Motueka, NN, NZ. From J.B. Taylor NZ114.
3789 *Nicotiana tabacum* L. - tobacco - root. Riwaka, NN, NZ. From J.B. Taylor NZ44.
3790 *Nicotiana tabacum* L. - tobacco - root. Riwaka, NN, NZ. From J.B. Taylor NZ47.
3826 *Nicotiana tabacum* L. - tobacco - root. Motueka, NN, NZ. From J.B. Taylor NZ114 ← B. Jackson.
11230 *Persea americana* Mill. - avocado. Hastings, HB, NZ May 1980. From G. Laundon 16600.
3783 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ18.
3796 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ59.
3806 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ85.
3807 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ86.
3814 Soil. Havelock North, HB, NZ. From J.B. Taylor NZ100.

Verticillium vilmorinii (Guéguen) Westerdijk & Luijk11231 *Aster* sp. UK 1955. From G. Laundon 11881 ← IMI 62679.**Volutella ciliata** Albertini & Schweinitz6593 *Medicago sativa* L. - lucerne, alfalfa - root. Taupo, TO, NZ 1979. From P.R. Johnston ← J.R. Rees-George 164-12-1-1.

Volutella sp.

6031 *Arachis hypogaea* L. - groundnut, peanut - wilt. Fiji Jun 1980. From E.H.C. McKenzie.

6890 Turtle - lesion on stomach. Auckland, AK, NZ May 1980. From G.J. Samuels.

Waydora typica (Rodway) Sutton12584 *Metrosideros excelsa* Sol. ex Gaertn. - pohutukawa - fruiting bodies on fallen leaves. Port Charles, CL, NZ Nov 1995. From P.R. Johnston = PDD 64984.**Zetiaspizna thuemenii** (Spegazzini) Nag Raj10828 *Malus X domestica* Borkh. - apple. Palmerston North, WI, NZ Mar 1979. From G. Laundon 14664.**Zythia fragariae** Laibachsee *Gnomonia comari*, *Gnomonia fructicola*

PLANT MICRO-ORGANISM INDEX

- Abelmoschus esculentus** (L.) Moench
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Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *esculenti*
- Abrus precatorius** L.
Pseudomonas putida
- Acacia dealbata** Link
Rhizobium sp.
- Acacia koa** A. Gray
Auricularia cornea
Rhizobium sp.
- Acacia leprosa** Sieb. ex DC.
Pythium ultimum
- Acacia moutforeiae** Specht
Ralstonia solanacearum
- Acacia** sp.
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Phomopsis sp.
Sphaeronema sp.
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- Acca sellowiana** (O. Berg) Burret
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Phoma sp.
- Acer buergeranum** Miq.
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- Acer rubrum** L.
Pseudomonas syringae
- Acer** sp.
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Verticillium nigrescens
- Acmena smithii** (Poir.) Merr. & L.M. Perry
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- Actinidia chinensis** Planch.
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- Actinidia deliciosa** (Chev.) Liang & Ferguson
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Agrobacterium sp. (tumourigenic strain)
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Agrobacterium tumefaciens
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Botryosphaeria parva
Botryosphaeria stevensii
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Colletotrichum acutatum
Colletotrichum fructigenum
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Cylindrocarpon didymum
Diaporthe sp.
Endomyces geotrichum
Fusicoccum luteum
Geotrichum sp.
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Gibberella cyanogena
Glomerella cingulata
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Phialophora sp.
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Phoma glomerata
Phoma huancayensis
Phoma macrostoma var. *incolorata*
Phoma macrostoma var. *macrostoma*
Phoma macrostoma
- Phoma nigricans*
Phoma plurivora
Phomopsis sp.
Phytophthora cinnamomi
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Pseudomonas marginalis
Pseudomonas sp.
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Pseudomonas syringae
Pseudomonas viridiflava
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Selenosporella sp.
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- Actinidia** sp.
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- Adesmia lotooides** Hook.f.
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- Adiantum** sp.
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- Aegle marmelos** (L.) Correa.
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- Aenetus virescens** (Doubleday) [Invertebrate]
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- Aeschynomene falcata** (Poir.) DC.
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- Aesculus indica** Colebr.
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- Agaricus bisporus** (Lange) Imbach
Pseudomonas aeruginosa
Pseudomonas agarici
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas tolaasii
Verticillium fungicola
Verticillium psalliotae
Verticillium sp.
- Agaricus bitorquis** (Quelet) Saccardo
Pseudomonas gladioli pv. *agaricicola*
- Agathis australis** (D. Don) Lindl.
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- Agathis macrophylla** (Lindl.) Masters
Phoma chrysanthemicola
- Agathis vitiensis** (Seem.) Benth. & Hook.f. ex Drake
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- Ageratum conyzoides** L.
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- Aglaonema commutatum** Schott
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- Aglaonema commutatum** Schott. cv. *treubii*
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- Aglaonema** sp.
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- Agropyron repens** (L.) Beauv.
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Xanthomonas sp.
- Agropyron riparium** Scribn. & Smith
Clavibacter sp.
- Agropyron smithii** Rydb.
Clavibacter sp.
- Agropyron** sp.
Microdochium dimerum
- Agropyron trachycaulum** (Link) Malte
Clavibacter sp.
- Agrostis capillaris** L.
Curvularia trifolii
Gibberella avenacea
Leptosphaerulina australis
Myrothecium verrucaria

- Pyrenophora erythrospila*
- Agrostis** sp.
Microdochium bolleyi
Monographella nivalis
Pseudomonas syringae pv. *atropurpurea*
- Aira caryophyllea** L.
Drechslera biseptata
Drechslera dematioidea
- Alangium salviifolium** (L.f.) Wanger.
Xanthomonas campestris pv. *alangii*
- Albizia distachya** (Venten.) Macbr.
Rhizobium sp.
- Albizia julibrissin** Durazz.
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- Albizia lophantha** (Willd.) Benth.
Rhizobium sp.
- Albizia** sp.
Fusarium oxysporum f. sp. *perniciosum*
- Alectryon excelsus** Gaertn.
Colletotrichum sp.
Phoma sp.
- Aleurites moluccana** (L.) Willd.
Auricularia polytricha
- Allium cepa** L.
Acetobacter sp.
Athelia rolfsii
Botryotinia squamosa
Botrytis allii
Botrytis byssoidea
Botrytis cinerea
Botrytis sp.
Burkholderia cepacia
Burkholderia gladioli pv. *allii*
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Erwinia herbicola
Fusarium oxysporum f. sp. *cepae*
Fusarium oxysporum f. sp. *redolens*
Fusarium oxysporum
Gibberella fujikuroi
Lactobacillus plantarum
Penicillium janthinellum
Penicillium purpurogenum
Pseudomonas aeruginosa
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Pseudomonas viridiflava
Sclerotium cepivorum
Serratia marcescens
Setosphaeria rostrata
Stemphylium sp.
Xanthomonas sp.
- Allium porrum** L.
Alternaria porri
Pseudomonas marginalis
Pseudomonas syringae
Stemphylium sp.
- Allium sativum** L.
Botryotinia porri
Embellisia allii
Pseudomonas fluorescens
Pseudomonas sp.
- Alnus cordata** (Loisel.) Duby
Erwinia alni
Pseudomonas syringae pv. *syringae*
- Alnus glutinosa** (L.) Gaertn.
Erwinia alni
- Alternanthera phylloxeroides** (Mart.) Griseb.
Alternaria alternantherae
- Amaranthus powellii** S. Wats.
Athelia rolfsii
- Amaranthus** sp.
Gibberella flacca
- Amaranthus viridis** L.
Xanthomonas campestris pv. *amaranthicola*
- Amaryllis** sp.
Fusarium anthophilum
Stagonosporopsis curtisii
Stemphylium vesicarium
- Ambrosia artemisiifolia** L.
Xylella fastidiosa
- Ammania multiflora** Roxb.
Xanthomonas campestris pv. *lawsoniae*
- Ammophila arenaria** (L.) Link
Gibberella cyanogena
- Amorphophallus campanulatus** (Roxb.) Blume ex Decne.
Xanthomonas campestris pv. *amorphophalli*
- Amorphophallus rivieri** Durieu
Acidovorax konjaci
- Anagallis arvensis** L.
Pseudomonas viridiflava
- Ananas comosus** (L.) Merr.
Erwinia ananas pv. *ananas*
Erwinia chrysanthemi
Fusarium semitectum
- Andropogon gaynus** Kunth
Leptosphaerulina chartarum
- Andropogon** sp.
Leptosphaerulina chartarum
- Angelica** sp.
Phoma sp.
- Anthoxanthum odoratum** L.
Drechslera dematioidea
Pyrenophora erythrospila
Thozetella tocklaiensis
- Anthurium andraeanum** Linden.
Xanthomonas campestris pv. *dieffenbachiae*
- Anthurium scherzeranum** Schott.
Xanthomonas campestris pv. *dieffenbachiae*
- Anthurium** sp.
Plectosphaerella cucumerina
Xanthomonas campestris pv. *dieffenbachiae*
- Antirrhinum majus** L.
Colletotrichum coccodes
Pseudomonas syringae pv. *antirrhini*
- Aphelandra squarrosa** Nees
Nectriella pironii
- Apis mellifera** L. [Invertebrate]
Ascospaera apis
- Apium australe** Thouars
Septoria apiicola
- Apium graveolens** L. var. *dulce* (Mill.) Pers.
Colletotrichum orbiculare
Erwinia carotovora subsp. *carotovora*
Erwinia carotovora subsp. *odorifera*
Erwinia chrysanthemi
Pseudomonas cichorii
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas syringae pv. *apii*
Pseudomonas viridiflava
Septoria apiicola
- Arachis hypogaea** L.
Aspergillus flavus
Botrytis cinerea
Bradyrhizobium sp. (Arachis)
Fusarium oxysporum
Pestalotiopsis sp.
Ralstonia solanacearum
Rhizobium sp.
Volutella sp.
- Aralia** sp.
Pythium splendens
Xanthomonas sp.
- Araucaria bidwillii** Hook.
Heterobasidion araucariae
- Araucaria columnaris** (Forst.f.) Hook.
Leptosphaeria coniothyrium
- Araucaria cunninghamii** D. Don
Heterobasidion araucariae

- Araucaria heterophylla** (Salisb.) Franco.
Pleurotus opuntiae
- Arctotheca calendula** (L.) Levyns
Septoria perforans
- Areca catechu** L.
Xanthomonas campestris pv. *arecae*
- Argemone mexicana** L.
Xanthomonas campestris pv. *argemones*
- Argemone** sp.
Xanthomonas campestris pv. *papavericola*
- Armillaria** sp.
Cladobotryum apiculatum
- Armoracia rusticana** P. Gaertn., B. Mey. & Schreb.
Nectria radicola
Xanthomonas campestris pv. *armoraciae*
- Arracacia xanthorrhiza** E.N. Bancr.
Xanthomonas campestris pv. *arracaciae*
- Arrhenatherum elatius** (L.) Beauv. ex J. & C. Presl
Phoma nigricans
Pseudomonas syringae pv. *atropurpurea*
Xanthomonas campestris pv. *arrhenatheri*
- Arrhenatherum** sp.
Xanthomonas campestris pv. *arrhenatheri*
- Arthropodium cirrhatum** (Forst.f.) R. Br.
Alternaria alternata
Alternaria sp.
Botrytis sp.
- Artocarpus altilis** (Parkins.) Fosb.
Monilia sp.
- Arundo** sp.
Gibberella intricans
- Asclepias syriaca** L.
Xanthomonas campestris pv. *asclepiadis*
- Asparagus officinalis** L.
Cylindrocladium parvum
Epicoccum nigrum
Fusarium anthophilum
Fusarium oxysporum f. sp. *redolens*
Fusarium oxysporum
Fusarium redolens
Gibberella fujikuroi var. *subglutinans*
Nectria ochroleuca
Phomopsis asparagi
Phytophthora cryptogea
Phytophthora megasperma var. *sojiae*
Phytophthora megasperma
Phytophthora sp.
Stemphylium sp.
Stemphylium vesicarium
- Asparagus** sp.
Gibberella intricans
Stemphylium sp.
- Asplenium nidus** L.
Pseudomonas asplenii
- Astelia** sp.
Nectria sp.
- Aster novi-belgii** L.
Phialophora asteris
- Aster** sp.
Phialophora asteris
Verticillium vilmorinii
- Astragalus cicer** L.
Rhizobium sp.
- Astragalus glycyphyllos** L.
Rhizobium sp.
- Astragalus onobrychis** L. Pers.
Rhizobium sp.
- Astragalus sinicus** L.
Rhizobium huakuii
Rhizobium sp.
- Atriplex prostrata** DC.
Ascochyta caulina
- Atriplex** sp.
Ascochyta caulina
- Aucuba** sp.
Colletotrichum dematium
Glomerella cingulata
- Avena byzantina** K. Koch
Rhizoctonia sp.
- Avena fatua** L.
Corynebacterium sp.
- Avena sativa** L.
Erwinia herbicola
Fusarium poae
Pseudomonas syringae pv. *coronafaciens*
Pseudomonas syringae pv. *striaefaciens*
Pseudomonas syringae
Pyrenophora avenae
Pyrenophora semeniperda
- Axonopus affinis** Chase
Bipolaris sacchari
Cochliobolus cynodontis
Curvularia trifolii
- Axonopus scoparius** Kuhlms.
Xanthomonas axonopodis
- Azadirachta indica** A. Juss.
Xanthomonas campestris pv. *azadirachtae*
- Bactrocera meganotus** (Coquillett) [Invertebrate]
Enterobacter cloacae
Klebsiella oxytoca
- Bambusa oldhamii** Munro
Apiospora setosa
- Bambusa** sp.
Apiospora montagnei
Apiospora setosa
Apiospora tintinnabula
Arthrinium phaeospermum
Aspergillus niger
Cladosporium herbarum
Gliomastix sp.
Penicillium expansum
- Banksia collina** R. Br.
Colletotrichum acutatum
- Banksia** sp.
Colletotrichum sp.
- Barbarea vulgaris** R. Br.
Xanthomonas campestris pv. *barbareae*
- Bauhinia racemosa** Lam.
Xanthomonas campestris pv. *bauhiniae*
- Begonia X hiemalis** Fotsch
Botrytis cinerea
Xanthomonas campestris pv. *begoniae*
- Begonia X rex-cultorum** L.H. Bailey
Xanthomonas campestris pv. *begoniae*
- Begonia X tuberhybrida** Voss
Xanthomonas campestris pv. *begoniae*
- Begonia** sp.
Botrytis cinerea
Rhodococcus fascians
Xanthomonas campestris pv. *begoniae*
- Beilschmiedia tawa** (A. Cunn.) Benth. & Hook.f. ex Kirk
Armillaria limonea
Armillaria novae-zelandiae
Ganoderma cf. *applanatum*
Glomerella cingulata
Nectria ochroleuca
Nectria sp.
Nectria tawa
Phacidium sp.
- Bellis perennis** L.
Pseudomonas syringae pv. *syringae*
- Berberis X ottawensis** C.K. Schneid.
Pseudomonas syringae pv. *berberidis*
- Berberis gagnepainii** C.K. Schneid.
Pseudomonas syringae pv. *berberidis*
- Berberis julianae** C.K. Schneid.
Pseudomonas syringae pv. *berberidis*
- Berberis** sp.
Pseudomonas syringae pv. *berberidis*

- Berberis thunbergii** DC.
Pseudomonas sp.
Pseudomonas syringae pv. *berberidis*
- Berberis vulgaris** L.
Pseudomonas sp.
- Beta vulgaris** L.
Clavibacter michiganensis subsp. *sepedonicus*
Curtobacterium flaccumfaciens pv. *betae*
Erwinia carotovora subsp. *betavascularum*
Erwinia herbicola
Gibberella intricans
Microdochium dimerum
Pleospora bjoerlingii
Pseudomonas syringae pv. *aptata*
Septoria betae
Xanthomonas campestris pv. *betae*
- Beta vulgaris** L. subsp. *cicla* (L.) Koch
Pseudomonas syringae pv. *syringae*
- Beta vulgaris** L. var. *hortensis* Hort.
Xanthomonas campestris pv. *betae*
- Betula pendula** Roth
Pseudomonas syringae
Pseudomonas viridiflava
- Biophytum sensitivum** (L.) DC.
Xanthomonas campestris pv. *biophyti*
- Blechnum (capense)** sp.
Alternaria sp.
Phoma sp.
- Blechnum procerum** (Forst.f.) Swartz
Colletotrichum sp.
- Blechnum** sp.
Mycosphaerella sp.
- Blepharis boerhaaviaefolia** Pers.
Xanthomonas campestris pv. *blepharidis*
- Blepharis molluginifolia** Pers.
Xanthomonas campestris pv. *blepharidis*
- Boerhaavia repens** L.
Xanthomonas campestris pv. *boerhaaviae*
- Boletus** sp.
Trichoderma sp.
- Borago officinalis** L.
Erwinia carotovora subsp. *carotovora*
- Bougainvillea** sp.
Burkholderia andropogonis
- Bougainvillea spectabilis** Willd
Burkholderia andropogonis
- Brachiaria decumbens** Stapf
Leptosphaerulina chartarum
- Brachiaria mutica** (Forsk.) Stapf
Curvularia sp.
- Brachiaria ruziziensis** Germain
Erwinia chrysanthemi
- Brachiaria** sp.
Leptosphaerulina chartarum
- Brachyglottis greyii** (Hook.f.) B. Nordenst.
Phoma sp.
- Brachyglottis monroi** (Hook.f.) B. Nordenst.
Alternaria sp.
- Brachyglottis repanda** J.R. & G. Forst.
Nectria sp.
- Brassaia actinophylla** Endl.
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- Brassica juncea** (L.) Czern.
Xanthomonas campestris pv. *campestris*
- Brassica napus** L.
Alternaria alternata
Alternaria brassicae
Leptosphaeria maculans
Pseudomonas syringae
Xanthomonas campestris pv. *campestris*
- Brassica napus** L. var. *napobrassica* (L.) Reichen.
Alternaria alternata
Doratomyces microsporus
Erwinia carotovora subsp. *carotovora*
Fusarium oxysporum f. sp. *conglutinans*
Xanthomonas campestris pv. *campestris*
- Brassica nigra** (L.) W.D.J. Koch
Pseudomonas syringae pv. *maculicola*
- Brassica oleracea** L.
Erwinia carotovora subsp. *carotovora*
Pseudomonas syringae pv. *maculicola*
Rhodococcus fascians
- Brassica oleracea** L. var. *botrytis* L.
Alternaria brassicicola
Erwinia sp.
Leptosphaeria maculans
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas sp.
Pseudomonas syringae pv. *maculicola*
Pseudomonas viridiflava
Pyrenopeziza brassicae
Xanthomonas campestris pv. *aberrans*
Xanthomonas campestris pv. *campestris*
- Brassica oleracea** L. var. *capitata* L.
Alternaria brassicicola
Erwinia carotovora subsp. *carotovora*
Fusarium oxysporum
Mycosphaerella brassicicola
Pseudomonas cichorii
Pseudomonas fluorescens
Pseudomonas syringae pv. *maculicola*
Pseudomonas viridiflava
Pyrenopeziza brassicae
Ralstonia solanacearum
Xanthomonas campestris pv. *aberrans*
Xanthomonas campestris pv. *campestris*
- Brassica oleracea** L. var. *gemmifera* Zenk.
Xanthomonas campestris pv. *campestris*
- Brassica oleracea** L. var. *gongylodes* L.
Xanthomonas campestris pv. *campestris*
- Brassica oleracea** L. var. *italica* Plenck
Pseudomonas marginalis
- Brassica oleracea** L. var. *ramosa* Alef.
Alternaria brassicicola
Ulocladium consortiale
Xanthomonas campestris pv. *campestris*
- Brassica rapa** L.
Alternaria alternata
Alternaria brassicae
Alternaria raphani
Erwinia carotovora subsp. *carotovora*
Pseudomonas marginalis pv. *marginalis*
Pseudomonas syringae pv. *maculicola*
Pseudomonas viridiflava
Xanthomonas campestris pv. *campestris*
- Brassica rapa** L. subsp. *rapa* L.
Xanthomonas campestris pv. *campestris*
- Brassica rapa** L. subsp. *sylvestris* (L.) Janchen
Xanthomonas campestris pv. *campestris*
- Brassica** sp.
Cladosporium herbarum
Erwinia carotovora subsp. *carotovora*
Rhizoctonia sp.
- Briza maxima** L.
Bipolaris brizae
Drechslera brizae
- Briza minor** L.
Bipolaris brizae
Drechslera brizae
- Brodiaea laxa** L.
Rhodococcus fascians
- Bromus carinatus** Hook. & Arn.
Xanthomonas sp.
- Bromus fonkii** Philippi
Xanthomonas bromi
- Bromus inermis** Leyss.
Xanthomonas campestris pv. *cerealis*
- Bromus marginatus** Nees ex Steud.
Xanthomonas campestris pv. *graminis*

- Bromus** sp.
Epicoccum purpurascens
Pseudomonas syringae pv. *atropurpurea*
Xanthomonas campestris pv. *graminis*
- Bromus willdenowii** Kunth
Ascochyta leptospora
Cochliobolus sativus
Cochliobolus spicifer
Colletotrichum graminicola
Pseudomonas syringae pv. *syringae*
Pyrenophora erythrospila
Xanthomonas campestris pv. *graminis*
- Broussonetia papyrifera** (L.) Venten.
Pseudomonas syringae
- Bupleurum** sp.
Phoma sp.
- Cajanus cajan** (L.) Huth
Rhizobium sp.
Xanthomonas campestris pv. *cajani*
- Caladium** sp.
Aspergillus ochraceus
- Calendula officinalis** L.
Pseudomonas viridiflava
Xanthomonas sp.
- Callistemon viminalis** (Soland. ex Gaertn.) Cheel.
Pseudomonas syringae
- Calopogonium caeruleum** Hemsl.
Rhizobium sp.
- Camellia japonica** L.
Colletotrichum acutatum
- Camellia sinensis** (L.) O. Kuntze
Glomerella cingulata
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae pv. *theae*
Xanthomonas campestris pv. *theicola*
- Camellia** sp.
Colletotrichum acutatum
Colletotrichum sp.
Glomerella cingulata
Leptosphaeria coniothyrium
Monochaetia karstenii
- Canna** X **generalis** L.H. Bailey
Xanthomonas campestris pv. *cannae*
- Canna indica** L.
Acidovorax avenae subsp. *avenae*
- Canna paniculata** Ruiz. & Pav.
Acidovorax avenae subsp. *avenae*
- Canna** sp.
Cochliobolus lunatus
- Cannabis sativa** L.
Pseudomonas syringae pv. *cannabina*
Xanthomonas campestris pv. *cannabis*
- Capsicum annuum** L.
Clavibacter michiganensis subsp. *michiganensis*
Colletotrichum coccodes
Erwinia carotovora subsp. *carotovora*
Glomerella cingulata
Pseudomonas corrugata
Pseudomonas syringae
Ralstonia solanacearum
Xanthomonas campestris pv. *campestris*
Xanthomonas campestris pv. *vesicatoria*
Xanthomonas sp.
- Capsicum frutescens** L.
Colletotrichum acutatum
Glomerella cingulata
Pseudomonas viridiflava
Ralstonia solanacearum
Xanthomonas campestris pv. *vesicatoria*
- Capsicum** sp.
Cochliobolus lunatus
Colletotrichum acutatum
Colletotrichum dematium
Erwinia carotovora subsp. *carotovora*
Fusarium semitectum
Pseudomonas syringae
- Xanthomonas campestris* pv. *vesicatoria*
- Caragana arborescens** Lam.
Rhizobium sp.
- Caragana sinica** (Buc'hoz) Rehd.
Rhizobium sp.
- Carex "ventosa"**
Phialophora sp.
- Carex secta** Boott. in Hook.f.
Nimbya sp.
- Carex virgata** Sol. ex Boott.
Dactylaria sp.
- Carica** X **heilbornii** Badillo nm. **pentagona** (Heilborn) Badillo
Rhodococcus fascians
- Carica papaya** L.
Colletotrichum acutatum
Didymella bryoniae
Endomyces geotrichum
Erwinia carotovora subsp. *atroseptica*
Erwinia carotovora subsp. *carotovora*
Fusarium proliferatum
Gibberella intricans
Glomerella cingulata
Pseudomonas caricapapayae
- Carica pubescens** Lenne & C. Koch
Rhodococcus fascians
- Carica** sp.
Glomerella cingulata var. *minor*
- Carissa carandas** L.
Xanthomonas campestris pv. *carissae*
- Carmichaelia aligera** Simpson
Rhizobium sp.
- Carmichaelia angustata** Kirk
Rhizobium sp.
- Carmichaelia cunninghamii** Raoul
Rhizobium sp.
- Carmichaelia ensyia** T. Kirk
Rhizobium sp.
- Carmichaelia exsul** F. Muell.
Rhizobium sp.
- Carmichaelia flagelliformis** Col. ex Hook.f.
Rhizobium sp.
- Carmichaelia monroi** Hook.f.
Rhizobium sp.
- Carmichaelia odorata** Col. ex Hook.f.
Rhizobium sp.
- Carmichaelia orbiculata** Col.
Rhizobium sp.
- Carmichaelia ovata** Simpson
Rhizobium sp.
- Carmichaelia petriei** Kirk
Rhizobium sp.
- Carmichaelia robusta** Kirk
Rhizobium sp.
- Carmichaelia** sp.
Bradyrhizobium sp. (Carmichaelia)
Rhizobium sp.
- Carmichaelia violacea** Kirk
Rhizobium sp.
- Carmichaelia williamsii** Kirk
Pseudomonas syringae
- Carnegiea gigantea** (Engelm.) Britt. & Rose
Erwinia cacticida
Erwinia sp.
Klebsiella pneumoniae
- Carthamus tinctorius** L.
Pseudomonas cichorii
- Carum carvi** L.
Pseudomonas syringae
- Carya illinoensis** (Wangenh.) C. Koch
Phytophthora cinnamomi
- Carya** sp.
Gibberella stilboides

- Cassia** sp.
Erwinia ananas pv. *ananas*
Pleurotus pulmonarius
- Cassia tora** L.
Xanthomonas campestris pv. *cassiae*
- Castanea crenata** Sieb. & Zucc.
Pseudomonas syringae pv. *castaneae*
- Castanea** sp.
Phytophthora cinnamomi
- Casuarina equisetifolia** J.R. & G. Forst.
Ralstonia solanacearum
- Casurina** sp.
Rhizoctonia sp.
Trichocladium basicola
- Catalpa bignonioides** Walt.
Pseudomonas syringae
- Catharanthus roseus** (L.) G. Don
Xylella fastidiosa
- Cattleya** sp.
Acidovorax avenae subsp. *cattleyae*
Erwinia carotovora subsp. *carotovora*
Pseudomonas syringae
- Cayratia carnosae** Gagnep.
Xanthomonas sp.
- Ceanothus** sp.
Nectria tawa
- Cecidophyopsis ribis** (Westwood) [Invertebrate]
Verticillium lecanii
- Cedrus deodara** (D. Don) G. Don
Truncatella conorum-piceae
- Celmisia armstrongii** Petrie
Alternaria sp.
Phoma sp.
- Celmisia semicordata** Petrie
Alternaria sp.
- Centaurea cyanus** L.
Pseudomonas cichorii
- Centella asiatica** (L.) Urb.
Xanthomonas campestris pv. *centellae*
- Centrosema pubescens** Benth.
Bradyrhizobium sp. (*Centrosema*)
Pseudomonas syringae pv. *syringae*
- Centrosema** sp.
Pseudomonas sp.
Rhizobium sp.
- Ceratonia siliqua** L.
Pseudomonas syringae pv. *ciccaronei*
- Chaenomeles japonica** (Thunb.) Lindl. ex Spach
Monilinia laxa
- Chaenomeles** sp.
Erwinia amylovora
- Chamaecyparis lawsoniana** (Murr.) Parl.
Lepteutypa cupressi
- Chamaecytisus palmensis** (Christ) Bisby & Nicholls
Bradyrhizobium sp. (*Chamaecytisus*)
Rhizobium sp.
- Cheiranthus cheiri** L.
Alternaria cheiranthi
Xanthomonas sp.
- Chrysanthemum X morifolium** Ramat.
Agrobacterium sp. (saprophytic strain)
Agrobacterium sp. (tumorigenic strain)
Agrobacterium tumefaciens (tumorigenic strain)
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi pv. *chrysanthemi*
Macrophomina phaseolina
Pseudomonas cichorii
Rhodococcus fascians
Xanthomonas sp.
- Chrysanthemum indicum** L.
Phoma chrysanthemicola
Septoria chrysanthemella
- Chrysanthemum** sp.
Agrobacterium tumefaciens (tumorigenic strain)
Dendryphon nanum
Mycosphaerella ligulicola
Phialophora chrysanthemi
Phoma chrysanthemicola
Phoma leveillei
Plectosphaerella cucumerina
Pseudomonas aeruginosa
- Cicer arietinum** L.
Ascochyta rabei
Burkholderia andropogonis
Phytophthora megasperma f. sp. *medicaginis*
Rhizobium sp.
- Cichorium endivia** L.
Pseudomonas cichorii
- Cichorium intybus** L.
Erwinia carotovora subsp. *carotovora*
Erwinia carotovora subsp. *odorifera*
Erwinia chrysanthemi
Pseudomonas marginalis pv. *marginalis*
- Cinnamomum camphora** (L.) J. Presl.
Verticillium dahliae
- Cissus japonica** Willd.
Agrobacterium sp.
Xanthomonas sp.
- Citrullus lanatus** (Thunb.) Matsum. & Nakai
Acidovorax avenae subsp. *citulli*
Colletotrichum orbiculare
Fusarium oxysporum f. sp. *niveum*
Pseudomonas syringae pv. *syringae*
Verticillium sp.
- Citrus X paradisi** Macfadyen
Glomerella cingulata
Xanthomonas campestris pv. *citri* (Group A)
Xanthomonas campestris pv. *citri* (Group E)
Xanthomonas campestris pv. *citri*
- Citrus X tangelo** J. Ingram & H.E. Moore
Alternaria citri
Glomerella cingulata
Guignardia citricarpa
Phoma exigua
- Citrus aurantiifolia** (Christm.) Swingle
Lasiodiplodia theobromae
Xanthomonas campestris pv. *citri* (Group A)
Xanthomonas campestris pv. *citri* (Group B)
Xanthomonas campestris pv. *citri* (Group C)
Xanthomonas campestris pv. *citri* (Group D)
Xanthomonas campestris pv. *citri*
- Citrus aurantium** L.
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
- Citrus limon** (L.) Burm.f.
Cladosporium herbarum
Colletotrichum fructigenum
Glomerella cingulata
Guignardia citricarpa
Nectria haematococca
Penicillium digitatum
Penicillium expansum
Penicillium italicum
Phoma exigua
Phomopsis sp.
Phytophthora citrophthora
Phytophthora hibernalis
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Xanthomonas campestris pv. *citri* (Group B)
Xanthomonas campestris pv. *citri*
- Citrus macrophylla** Wester
Pseudomonas viridiflava
- Citrus maxima** (Burm.) Merr.
Xanthomonas campestris pv. *citri*
- Citrus paradisi** Macfadyen
Xanthomonas campestris pv. *citri* (Group A)
- Citrus reticulata** Blanco
Diaporthe citri
Glomerella cingulata
Guignardia citricarpa
Pseudomonas syringae pv. *syringae*

- Xanthomonas campestris* pv. *citri* (Group A)
Xanthomonas campestris pv. *citri*
- Citrus sinensis** (L.) Osbeck
Alternaria citri
Cochliobolus geniculatus
Cochliobolus intermedius
Diaporthe citri
Endomyces geotrichum
Gibberella baccata var. *longum*
Glomerella cingulata
Guignardia citricarpa
Penicillium digitatum
Phoma tropica
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Xanthomonas campestris pv. *citri* (Group A)
Xanthomonas campestris pv. *citri* (Group E)
Xanthomonas campestris pv. *citri*
- Citrus** sp.
Alternaria citri
Cochliobolus geniculatus
Colletotrichum coccodes
Cryptosporiopsis sp.
Diaporthe citri
Gibberella stilboides
Gliocladium sp.
Glomerella cingulata
Guignardia citricarpa
Penicillium digitatum
Phoma macra
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Pythium ultimum
Septoria citri
Trichocladium basicola
Xanthomonas campestris pv. *citri* (Group E)
Xanthomonas campestris pv. *citri*
Xanthomonas campestris
Xanthomonas sp.
- Clerodendron phlomoides** L.f.
Xanthomonas campestris pv. *clerodendri*
- Clianthus formosus** (G. Don) Ford & Vickery
Rhizobium sp.
- Clianthus puniceus** (G. Don) Sol. ex Lindl.
Rhizobium sp.
- Clianthus puniceus** (G. Don) Sol. ex Lindl.
Rhizobium sp.
- Clitoria biflora** Dalz.
Xanthomonas campestris pv. *clitoriae*
- Clivia miniata** Regel
Erwinia carotovora subsp. *carotovora*
- Cocos nucifera** L.
Dactylaria ampulliformis
Trichoderma harzianum
- Codiaeum variegatum** (L.) Blume var. *picatum* (C. & G. Lodd.) Mull.-Arg.
Nectriella pironii
Xanthomonas campestris pv. *poinsetticola*
- Coffea arabica** L.
Burkholderia andropogonis
Nectria haematococca
Pseudomonas cichorii
Pseudomonas syringae pv. *garcae*
- CollospERMUM hastatum** (Col.) Skottsbo.
Nectria coprosmae
- CollospERMUM** sp.
Acremonium sp.
- Colocasia esculenta** (L.) Schott
Athelia rolfsii
Ceratocystis fimbriata
Cladosporium colocasiae
Conidiocarpus sp.
Dicyma pulvinata
Erwinia chrysanthemi
Erwinia sp.
Fusarium oxysporum
Phytophthora colocasiae
Xanthomonas campestris pv. *aracearum*
- Colocasia** sp.
Cylindrocarpon tenue
- Colutea arborescens** L.
Rhizobium sp.
- Consolida** sp.
Erwinia carotovora subsp. *carotovora*
- Convolvulus arvensis** L.
Pyrenochaeta sp.
Xanthomonas campestris pv. *convolvuli*
- Coprosma areolata** Cheesem.
Gibberella sp.
- Coprosma australis** (A. Rich.) Robinson
Cladosporium sp.
- Coprosma grandiflora** Hook.f.
Nectria sp.
- Coprosma lucida** J.R. & G. Forst.
Hypocrea ascoboloides
- Coprosma robusta** Raoul
Alternaria sp.
Nectria sulcispora
Phoma sp.
- Coprosma** sp.
Nectria cf. *tawa*
Nectria sp.
Phoma sp.
- Corallospartium crassicaule** (Hook.f.) J.B. Armst.
Rhizobium sp.
- Corchorus acutangulus** Lam.
Xanthomonas campestris pv. *nakataecorchori*
- Corchorus fascicularis** Lam.
Xanthomonas campestris pv. *fascicularis*
- Corchorus olitorius** L.
Xanthomonas campestris pv. *olitorii*
- Cordia goeldiana** Huber
Xanthomonas campestris
Xanthomonas sp.
- Cordyline australis** (Forst.f.) Endl.
Alternaria sp.
Botrytis sp.
Cladorrhinum sp.
Colletotrichum sp.
Gliomastix murorum var. *felina*
Glomerella cingulata
Phoma sp.
Pleurotus opuntiae
Stachybotrys sp.
- Cordyline banksii** Hook.f.
Hypoderma sp.
- Cordyline** sp.
Colletotrichum sp.
Glomerella cingulata
- Coriandrum sativum** L.
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas syringae pv. *coriandricola*
Pseudomonas syringae
Xanthomonas campestris pv. *coriandri*
- Cornus mas** L.
Pseudomonas syringae
- Corokia** sp.
Ascochyta sp.
- Coronilla varia** L.
Rhizobium sp.
- Cortaderia conspicua** (Forst.f.) Stapf
Gibberella intricans
- Cortaderia fulvida** (Buchan.) Zotov
Gibberella intricans
- Cortaderia jubata** (Lem.) Stapf
Fusarium culmorum
Pyrenophora semeniperda
- Cortaderia richardii** (Endl.) Zotov
Gibberella intricans
- Cortaderia** sp.
Cryptocline sp.

- Drechslera dematioidea*
Drechslera sp.
Gibberella baccata
Gibberella intricans
Gibberella zeae
Periconia sp.
- Cortaderia toetoe** Zotov
Stagonospora sp.
- Corylus avellana** L.
Pseudomonas syringae pv. *avellanae*
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *corylina*
- Corylus maxima** Mill.
Xanthomonas campestris pv. *corylina*
- Corynocarpus laevigatus** J.R. & G. Forst.
Fusarium solani f. sp. *eumartii*
Phomopsis sp.
Phyllosticta sp.
Ramularia sp.
- Cosmos sulphureus** Cav.
Erwinia herbicola
- Costelytra zealandica** (White) [Invertebrate]
Enterobacter agglomerans
Hafnia alvei
Janthinobacterium lividum
Metarhizium anisopliae var. *anisopliae*
Serratia entomophila
Serratia liquefaciens
Serratia marcescens
Serratia proteamaculans
Serratia sp.
- Cotinus** sp.
Verticillium dahliae
- Cotoneaster X crispus** Exell
Erwinia amylovora
- Cotoneaster buxifolius** Wallich ex Lindl.
Erwinia amylovora
- Cotoneaster melanocarpus** Lodd.
Erwinia amylovora
- Cotoneaster salicifolius** Franch.
Erwinia amylovora
- Cotoneaster salicifolius** Franch. var. *floccosus* Rehd. & E.H. Wils
Erwinia amylovora
- Cotoneaster** sp.
Erwinia amylovora
Pseudomonas syringae pv. *syringae*
- Cotula dioica** Hook.f.
Gibberella avenacea
- Coxella dieffenbachii** (F. Muell.) Cheesm. & Hensl.
Sclerotinia sclerotiorum
- Crataegus monogyna** Jacq.
Erwinia amylovora
Pseudomonas sp.
- Crataegus** sp.
Pseudomonas syringae
- Crinum** sp.
Colletotrichum dematium
- Crocus** sp.
Penicillium funiculosum
- Crotalaria juncea** L.
Rhizobium sp.
Xanthomonas campestris pv. *patelii*
- Crotalaria sagittalis** L.
Bradyrhizobium sp. (*Crotalaria*)
- Croton** sp.
Drechslera sp.
- Ctenochiton** sp. [Invertebrate]
Acremonium sp.
- Cucumis melo** L.
Acidovorax avenae subsp. *citrulli*
Alternaria alternata
Alternaria cucumerina
Bacillus licheniformis
Colletotrichum orbiculare
Colletotrichum sp.
- Didymella bryoniae*
Enterobacter agglomerans
Erwinia carotovora subsp. *carotovora*
Fusarium oxysporum
Penicillium brevicompactum
Penicillium citrinum
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Verticillium tricorpus
Xanthomonas campestris pv. *melonis*
- Cucumis melo** L. var. *reticulatus* Ser.
Acidovorax avenae subsp. *citrulli*
- Cucumis melo** L. var. *reticulatus* Ser.
Erwinia tracheiphila
Fusarium oxysporum f. sp. *melonis*
- Cucumis sativus** L.
Alternaria cucumerina
Alternaria pluriseptata
Botrytis cinerea
Cladosporium sp.
Colletotrichum orbiculare
Corynespora cassiicola
Didymella bryoniae
Erwinia carotovora subsp. *carotovora*
Erwinia tracheiphila
Fusarium oxysporum f. sp. *cucumerina*
Fusarium oxysporum
Gibberella avenacea
Glomerella cingulata
Nectria haematococca
Phoma exigua
Pseudomonas fluorescens
Pseudomonas syringae pv. *lachrymans*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Pseudomonas viridiflava
Ulocladium atrum
Ulocladium chartarum
Ulocladium cucurbitae
Verticillium albo-atrum
Verticillium tricorpus
Xanthomonas campestris pv. *cucurbitae*
- Cucumis** sp.
Plectosphaerella cucumeris
- Cucurbita maxima** Duch.
Arthrobotrys oligospora
Athelia rolfsii
Cladosporium herbarum
Colletotrichum sp.
Didymella bryoniae
Fusarium semitectum
Fusarium solani f. sp. *cucurbitae*
Gibberella cyanogena
Glomerella cingulata
Nectria haematococca
Phoma sp.
Pseudomonas fluorescens
Pseudomonas putida
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Septoria cucurbitacearum
Xanthomonas campestris pv. *cucurbitae*
- Cucurbita moschata** (Duch.) Poir
Cochliobolus sativus
- Cucurbita pepo** L.
Didymella bryoniae
Erwinia carotovora subsp. *carotovora*
Ralstonia solanacearum
- Cucurbita** sp.
Athelia rolfsii
Colletotrichum coccodes
Colletotrichum sp.
Fusarium concolor
Nectria haematococca var. *cucurbitae*
Nectria haematococca
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Cunninghamia lanceolata** Hook.
Pseudomonas syringae pv. *cunninghamiae*

- X **Cupressocyparis leylandii** (A.B. Jacks & Dallim.) Dallim.
Lepteutypa cupressi
Pestalotiopsis funerea
Seiridium cardinale
- Curcuma domestica** Val.
Cochliobolus lunatus
Ralstonia solanacearum
- Cyamopsis tetragonolobus** (L.) Taub.
Xanthomonas campestris pv. *cyamopsidis*
- Cyathea** sp.
Nectria sp.
Ombrophila microspora
- Cyathodes robusta** Hook.f.
Pestalotiopsis sp.
- Cyclamen persicum** Mill.
Erwinia carotovora subsp. *carotovora*
Glomerella cingulata
Pseudomonas marginalis
Pseudomonas viridiflava
- Cyclamen** sp.
Botrytis cinerea
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Septoria cyclaminis
- Cydonia oblonga** Mill.
Agrobacterium rhizogenes (tumourigenic strain)
Colletotrichum acutatum
Colletotrichum fructigenum
Erwinia amylovora
- Cydonia** sp.
Erwinia amylovora
- Cymbidium** sp.
Colletotrichum sp.
Fusarium anthophilum
Fusarium sacchari
Gibberella fujikuroi var. *subglutinans*
Gibberella fujikuroi
Glomerella cingulata
- Cynara scolymus** L.
Phoma exigua
Xanthomonas sp.
- Cynodon dactylon** (L.) Pers.
Clavibacter xyli subsp. *cynodontis*
Cochliobolus cynodontis
Cochliobolus sativus
Cochliobolus spicifer
- Cynosurus cristatus** L.
Cochliobolus cynodontis
Cochliobolus sativus
Cochliobolus spicifer
- Cyperus haspan** L.
Pythium spinosum
- Cyperus** sp.
Pythium irregulare
Pythium spinosum
- Cyphomandra betacea** (Cav.) Sendtn.
Clavibacter michiganensis subsp. *michiganensis*
Colletotrichum acutatum
Glomerella cingulata
Penicillium aurantiogriseum
Penicillium claviforme
Phoma exigua
Trichoderma viride
Verticillium tricorpus
- Cyphomandra** sp.
Ralstonia solanacearum
- Cypripedium** sp.
Erwinia cypripedii
- Cyrtosperma chamissonis** (Schott) Merr.
Fusarium longipes
Lasioidiplodia theobromae
- Cytisus scoparius** (L.) Link
Botryosphaeria dothidea
Colletotrichum acutatum
Gibberella avenacea
Gibberella baccata
- Gibberella pulicaris*
Gibberella tumida
Microsphaeropsis sp.
Phoma exigua
Phomopsis sp.
Pythium spinosum
Rhizobium sp.
Septoria slaptonensis
- Cytisus** sp.
Pythium middletonii
- Dacrydium cupressinum** Sol. ex Lamb.
Alternaria sp.
Dictyotrichiella sp.
Hypocrea atro-gelatinosa
Hypocrea schweinitzii
Nectria tawa
Phoma sp.
- Dactylis glomerata** L.
Ascochyta sorghi
Cercosporidium graminis
Clavibacter rathayi
Cochliobolus cynodontis
Cochliobolus spicifer
Curvularia trifolii
Drechslera sp.
Drechslera triseptata
Fusarium culmorum
Gibberella zeae
Phoma glomerata
Phoma huancayensis
Phoma medicaginis
Phoma paspali
Phoma pratensis
Xanthomonas campestris pv. *graminis*
- Dactyloctenium aegyptium** (L.) Beauv.
Curvularia sp.
Drechslera sp.
- Dahlia** sp.
Agrobacterium tumefaciens
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Gluconobacter oxydans
Pseudomonas fluorescens
Pseudomonas putida
Ralstonia solanacearum
Rhodococcus fascians
Sclerotinia sclerotiorum
- Danthonia spicata** (L.) Beauv. ex Roem. & Schult.
Ephelis sp.
- Daphne odora** Thunb.
Marssonina daphnes
Septoria daphnes
- Daphniphyllum teijsmanni** Zoll.
Pseudomonas syringae pv. *daphniphylli*
- Datura metel** L.
Xanthomonas campestris pv. *daturae*
- Daucus carota** L. var. **sativus** Hoffm.
Alternaria alternata
Alternaria dauci
Alternaria radicina
Athelia rolfsii
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Fusarium redolens
Gibberella avenacea
Mycocentrospora acerina
Nectria haematococca
Nectria radicola
Paecilomyces variotii
Pleospora tarda
Pseudomonas marginalis
Pythium coloratum
Rhizobacter daucus
Xanthomonas campestris pv. *carotae*
- Declana floccosa** (Walker) [Invertebrate]
Beauveria bassiana
- Delphinium X cultorum** Voss
Athelia rolfsii
- Delphinium elatum** L.
Pseudomonas sp.

- Pseudomonas syringae* pv. *delphinii*
- Delphinium** sp.
Phoma sp.
Pseudomonas syringae pv. *delphinii*
Pseudomonas syringae pv. *delphinii*
- Dendranthema hypargyrum** (Diels) [Invertebrate]
Xanthomonas sp.
- Dendrobium** sp.
Ramularia sp.
Septoria orchidearum
Septoria selenophomoides
- Dendropanax trifidus** (Thunb.) Mak. ex Hara
Pseudomonas syringae pv. *dendropanacis*
- Desmodium canum** Schinz & Thellung
Pseudomonas syringae pv. *tabaci*
- Desmodium diffusum** DC.
Xanthomonas campestris pv. *desmodii*
- Desmodium gangeticum** DC.
Xanthomonas campestris pv. *desmodii*gangetici
- Desmodium intortum** (Mill.) Fawc. & Rendle
Bradyrhizobium sp. (Desmodium)
Leptosphaerulina chartarum
- Desmodium laxiflorum** DC.
Xanthomonas campestris pv. *desmodii*laxiflori
- Desmodium rotundifolium** DC.
Xanthomonas campestris pv. *desmodii*rotundifolii
- Desmodium** sp.
Bradyrhizobium sp. (Desmodium)
- Desmodium uncinatum** (Jacq.) DC.
Rhizobium sp.
- Desmoschoenus spiralis** (A. Rich.) Hook.f.
Tiarosporella paludosa
- Dianella nigra** Colenso
Leptosphaerulina chartarum
- Dianthus barbatus** L.
Burkholderia andropogonis
Fusarium oxysporum f. sp. *dianthi*
- Dianthus caryophyllus** L.
Alternaria dianthicola
Burkholderia andropogonis
Burkholderia caryophylli
Cylindrocarpon didymum
Erwinia chrysanthemi pv. *dianthicola*
Erwinia chrysanthemi pv. *zeae*
Fusarium culmorum
Fusarium oxysporum f. sp. *dianthi*
Fusarium oxysporum f. sp. *redolens*
Fusarium poae
Fusarium redolens
Fusarium semitectum
Gibberella acuminata
Gibberella avenacea
Gibberella baccata
Gibberella fujikuroi
Gibberella intricans
Gibberella zeae
Phialophora cinerescens
Ulocladium consortiale
Verticillium albo-atrum
Verticillium sp.
Xanthomonas sp.
- Dianthus** sp.
Burkholderia andropogonis
Burkholderia caryophylli
Erwinia chrysanthemi pv. *dianthicola*
Gibberella avenacea
Rhizoctonia sp.
- Dichelachne crinita** (L.f.) Hook.f.
Drechslera sp.
Pyrenophora avenae
- Dichondra repens** J.R. & G. Forst.
Alternaria dichondrae
- Dicksonia squarrosa** (Forst.f.) Swartz
Allophylaria sp.
Ombrophila microspora
Ombrophila violacea
- Dieffenbachia maculata** (C. & G. Lodd.) G. Don
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi pv. *dieffenbachiae*
Erwinia sp.
- Dieffenbachia** sp.
Erwinia chrysanthemi pv. *dieffenbachiae*
Xanthomonas campestris pv. *dieffenbachiae*
- Digitalis lanata** J.F. Ehrh.
Colletotrichum fuscum
- Digitalis purpurea** L.
Colletotrichum fuscum
Pestalotiopsis adusta
- Digitaria decumbens** Stent
Azospirillum brasiliense
- Digitaria sanguinalis** (L.) Scop.
Curvularia brachyspora
- Digitaria setivalva** Stent
Curvularia trifolii
- Digitaria smutsii** Stent
Drechslera biseptata
Pyrenophora erythrospila
- Digitaria** sp.
Cochliobolus cynodontis
Cochliobolus intermedius
- Dioscorea bulbifera** L.
Phoma sp.
- Diospyros kaki** L.f.
Acetobacter liquefaciens
Botryosphaeria dothidea
Colletotrichum acutatum
Gloeosporium kaki
Glomerella cingulata
Phomopsis sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Xanthomonas campestris
Xanthomonas sp.
- Diospyros** sp.
Botryosporium pulchrum
- Ditylenchus dipsaci** (Kuhn.) Filipjev
Verticillium balanoides
Verticillium sphaerosporum
- Dodonaea** sp.
Phomopsis sp.
- Dodonaea viscosa** Jacq.
Phoma sp.
Pythium inflatum
Ramularia sp.
- Dolichos biflorus** L. auct. non L.
Bradyrhizobium sp. (Dolichos)
- Dolichos** sp.
Pseudomonas savastanoi pv. *phaseolicola*
- Dracaena deremensis** Engl.
Erwinia carotovora subsp. *carotovora*
- Dracaena** sp.
Guignardia dracena
- Duranta repens** L.
Xanthomonas campestris pv. *durantae*
- Dysoxylum spectabile** (Forst.f.) Hook.f.
Hypocrea manuka
Mariannaea elegans var. *elegans*
Pseudomonas syringae pv. *dysoxylifera*
Pseudomonas vindiflava
- Earina mucronata** Lindl.
Glomerella cingulata
- Echinochloa colona** (L.) Link
Setosphaeria monoceras
- Echinochloa crus-galli** (L.) Beauv.
Curvularia trifolii
- Eclipta erecta** L.
Ralstonia solanacearum
- Elaeocarpus dentatus** (J.R. & G. Forst.) Vahl
Endothia tropicalis

- Elettaria cardamomum** (L.) Maton
Erwinia chrysanthemi
- Eleusine coracana** (L.) Gaertn.
Acidovorax avenae subsp. *avenae*
Xanthomonas campestris pv. *coracanae*
- Eleusine indica** (L.) Gaertn.
Cochliobolus sativus
Drechslera sp.
- Eleusine** sp.
Cochliobolus nodulosus
- Emilia sonchifolia** (L.) DC.
Phoma sp.
- Ensete ventricosum** (Welw.) E.E. Cheesm.
Ralstonia solanacearum
Xanthomonas campestris pv. *musacearum*
- Entelia arborescens** R. Br.
Phoma sp.
- Ephestia kuhniella** Zeller [Invertebrate]
Bacillus thuringiensis
- Epipremnum aureum** (Linden & Andre) Bunt.
Xanthomonas campestris pv. *dieffenbachiae*
- Eragrostis simplex** Scribn.
Cochliobolus australiensis
- Erica** sp.
Penicillium expansum
Phytophthora cinnamomi
Verticillium dahliae
- Eriobotrya japonica** (Thunb.) Lindl.
Agrobacterium sp. (saprophytic strain)
Pseudomonas syringae pv. *erobotryae*
- Eriostemon myoporoides** DC.
Pseudomonas sp.
Pseudomonas viridiflava
Xanthomonas campestris
Xanthomonas sp.
- Erythrina crista-galli** L.
Colletotrichum fructigenum
- Erythrina** sp.
Xanthomonas campestris pv. *erythrinae*
- Erythrina variegata** L.
Bradyrhizobium sp. (*Erythrina*)
Xanthomonas campestris pv. *erythrinae*
- Eucalyptus citriodora** Hook.
Xanthomonas campestris pv. *eucalypti*
- Eucalyptus erythrocorys** Muell.
Calonectria kyotensis
Phoma exigua
- Eucalyptus ficifolia** Muell.
Ceratocystis sp.
Thyronectria pseudotrichia
- Eucalyptus grandis** W. Hill ex Maiden
Ralstonia solanacearum
- Eucalyptus grandis** W. Hill ex Maiden X **E. urophylla** S.T. Blake
Ralstonia solanacearum
- Eucalyptus leucoxylo**n F.J. Muell. var. *rosea* Hortorum
Septoria eucalypti
- Eucalyptus pellita** F. Muell.
Ralstonia solanacearum
- Eucalyptus** sp.
Mycosphaerella pinodes
Phoma fimeti
Phyllosticta sp.
Pythium aquatile
Ralstonia solanacearum
Trichoderma harzianum
Xanthomonas sp.
- Eucalyptus urophylla** S.T. Blake
Ralstonia solanacearum
- Euonymus japonica** Thunb.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Euonymus** sp.
Erwinia herbicola
- Pseudomonas syringae*
- Eupatorium glandulosum** HBK
Phaeoramularia eupatorii-odorati
- Euphorbia acalyphoides** Hochst. ex Boiss.
Xanthomonas campestris pv. *euphorbiae*
- Euphorbia pulcherrima** Willd. ex Klotsch
Curtobacterium flaccumfaciens pv. *poinsettiae*
Erwinia chrysanthemi
Pseudomonas syringae
Xanthomonas campestris pv. *poinsettiicola*
- Eutrema wasabi** (Sieb.) Maxim.
Erwinia carotovora subsp. *wasabiae*
Phoma wasabiae
- Excoecaria bicolor** Hassk.
Agrobacterium tumefaciens (saprophytic strain)
- Fagus sylvatica** L.
Verticillium dahliae
- X **Fatsyhedera lizei** (Cochet) Guillaum.
Xanthomonas campestris pv. *hederae*
- Ferocactus wislizenii** (Engelm.) Britt. & Rose
Erwinia cacticida
- Festuca arundinacea** Schreb.
Acremonium coenophialum
Acremonium sp.
Acremonium uncinatum
Monographella nivalis
Phialophora-like sp.
Xanthomonas campestris pv. *graminis*
- Festuca nigrescens** Schreb.
Epichloe cf. *typhina*
- Festuca** sp.
Cochliobolus sativus
- Ficus benjamina** L.
Xanthomonas campestris pv. *fici*
- Ficus carica** L.
Colletotrichum coccodes
Colletotrichum fructigenum
Glomerella cingulata
- Ficus erecta** Thunb.
Pseudomonas ficuserectae
- Ficus microcarpa** L.f. var. *hillii* Corner
Xanthomonas campestris pv. *fici*
- Ficus palmata** Forsk.
Pseudomonas sp.
- Ficus religiosa** L.
Xanthomonas campestris pv. *fici*
- Ficus** sp.
Septoria sp.
Xanthomonas campestris pv. *fici*
- Fittonia verschaaffeltii** (Lem.) Coem.
Xanthomonas sp.
- Foeniculum vulgare** Mill.
Torula herbarum
- Fomes** sp.
Nectria sp.
- Forsythia** sp.
Pseudomonas syringae pv. *syringae*
- Forsythia suspensa** (Thunb.) Vahl
Pseudomonas viridiflava
- Fragaria** X **ananassa** Duch.
Alternaria sp.
Botrytis cinerea
Colletotrichum acutatum
Fusarium sp.
Gibberella avenacea
Glomerella miyabeana
Gluconobacter oxydans
Gnomonia comari
Mycosphaerella fragariae
Nectria lucida
Phoma exigua
Phoma leveillei
Phomopsis obscurans
Pyrenochaeta lycopersici

- Pyrenochaeta* sp.
Pythium mastophorum
Rhodococcus fascians
Verticillium dahliae
Xanthomonas fragariae
- Fragaria** sp.
Aspergillus cervinus
Colletotrichum acutatum
Fusarium culmorum
Fusarium oxysporum
Glomerella cingulata
Gnomonia comari
Monodictys levis
Mortierella ramanniana
Pezizella oenotherae
Phialocephala sp.
Phomopsis obscurans
Rhizoctonia sp.
Ulocladium botrytis
Verticillium dahliae
Xanthomonas fragariae
- Fraxinus excelsior** L.
Pseudomonas savastanoi pv. *savastanoi*
- Fraxinus** sp.
Pseudomonas savastanoi pv. *savastanoi*
- Freesia** sp.
Gibberella baccata
Pseudomonas fluorescens
Sclerotinia draytonii
- Freycinetia arborea** Gaudich.
Mucor sp.
Repetophragma cambrense
- Freycinetia baueriana** Endl. subsp. **banksii** (A. Cunn.) Stone
Nectria coprosmae
Ombrophila microspora
Ombrophila sp.
Stachybotrys freycinetiae
- Freycinetia** sp.
Colletotrichum dematium
- Fuchsia excorticata** (J.R. & G. Forst.) L.f.
Endothia fluens
Phomopsis sp.
- Fuchsia** sp.
Botrytis cinerea
Discohainesia oenotherae
Pythium debaryanum
- Galega officinalis** L.
Rhizobium sp.
- Galega orientalis** Lam.
Rhizobium sp.
- Gardenia** sp.
Colletotrichum acutatum
Xanthomonas campestris pv. *maculifoliogardeniae*
- Gastrodia cunninghamii** Hook.f.
Botrytis cinerea
- Geniostoma** sp.
Glomerella cingulata
Nectria peziza
- Geoglossum** sp.
Peckiella geoglossi
- Geranium pratense** L.
Xanthomonas campestris pv. *pelargonii*
- Geranium sanguineum** L.
Xanthomonas campestris pv. *pelargonii*
- Geranium** sp.
Xanthomonas campestris pv. *pelargonii*
- Geranium traversii** Hook.f.
Pseudomonas sp.
- Gerbera jamesonii** H. Bolus ex Hook.f.
Pseudomonas cichorii
Septoria gerberae
- Gladiolus** sp.
Burkholderia gladioli pv. *gladioli*
Curvularia trifolii f. sp. *gladioli*
Curvularia trifolii
Gibberella fujikuroi var. *subglutinans*
Penicillium sp.
- Pseudomonas* sp.
Rhizoctonia sp.
Rhodococcus fascians
Sclerotinia draytonii
Stromatinia gladioli
Xanthomonas campestris pv. *gummisudans*
- Gleditsia triacanthos** L.
Phoma jolyana
- Glycine hispida** Maxim.
Xanthomonas campestris pv. *glycines*
- Glycine max** (L.) Merr.
Alternaria alternata
Bradyrhizobium japonicum
Erwinia herbicola
Fusarium oxysporum
Fusarium sp.
Phytophthora megasperma f. sp. *glycines*
Pseudomonas putida
Pseudomonas sp.
Pseudomonas savastanoi pv. *glycinea*
Pseudomonas syringae pv. *tabaci*
Pseudomonas syringae
Rhizobium japonicum
Rhizobium sp.
Sclerotinia minor
Sinorhizobium fredii
Sinorhizobium xinjiangensis
Ulocladium atrum
Xanthomonas campestris pv. *glycines*
- Glycine wightii** (Graph. ex Wight & Arn.) Verac.
Pseudomonas savastanoi pv. *glycinea*
- Glycyrrhiza** sp.
Phoma sp.
- Gnidia polycephala** (C.A. Mey.) Gily
Pithomyces karoo
- Goodia lotifolia** Salisbury
Rhizobium sp.
- Gossypium barbadense** L.
Fusarium oxysporum f. sp. *vasinfectum*
- Gossypium hirsutum** L.
Xanthomonas campestris pv. *malvacearum*
- Gossypium** sp.
Erwinia carotovora subsp. *carotovora*
Xanthomonas campestris pv. *malvacearum*
- Graphognathus leucoloma** (Boheman) [Invertebrate]
Beauveria bassiana
- Grifola berkeleyi** (Fr.) Merr.
Hypocrea atro-gelatinosa
- Griselinia littoralis** Raoul
Alternaria sp.
- Griselinia** sp.
Alternaria sp.
- Guizotia abyssinica** (L.f.) Cass.
Xanthomonas campestris pv. *guizotiae*
- Guzmania** sp.
Phoma tropica
- Gypsophila paniculata** L.
Erwinia herbicola pv. *gypsophilae*
Rhizoctonia solani
- Gypsophila** sp.
Burkholderia andropogonis
- Halimione portulacoides** (L.) Aellen
Ascochyta obiones
- Hardenbergia** sp.
Xanthomonas sp.
- Hebe** sp.
Verticillium dahliae
- Hebe elliptica** (Forst.f.) Pennell
Alternaria sp.
Phoma sp.
- Hebe obtusata** (Cheesem.) Ckn. & Allan
Phoma sp.
- Hebe** sp.
Botryosphaeria dothidea
Cladosporium sp.
Microsphaeropsis sp.

- Verticillium dahliae*
- Hebe** sp. (cultivated)
Cladosporium sp.
- Hebe** sp. cv. Waireka
Phoma sp.
Septoria-like sp.
Stemphylium sp.
- Hebe speciosa** (A. Cunn.) Cockayne & Allan
Septoria sp.
- Hebe stricta** (Benth.) L.B. Moore
Phoma sp.
Scoleciasis atkinsonii
- Hedera helix** L.
Colletotrichum trichellum
Xanthomonas campestris pv. *hederae*
- Hedysarum boreale** Nutt.
Rhizobium sp.
- Hedysarum coronarium** L.
Rhizobium sp.
- Helianthus annuus** L.
Erwinia carotovora subsp. *atroseptica*
Erwinia carotovora subsp. *carotovora*
Pseudomonas marginalis-like
Pseudomonas syringae pv. *helianthi*
Septoria helianthi
Septoria helianthina
Verticillium dahliae
- Helianthus tuberosus** L.
Colletotrichum coccodes
Glomerella cingulata
- Heliconia** sp.
Ralstonia solanacearum
- Heliotropium eichwaldi** Steud.
Xanthomonas campestris pv. *heliotropii*
- Heliotropium sudanicum** F.W. Andrews
Xanthomonas campestris pv. *heliotropii*
- Hemerocallis** sp.
Glomerella phacidiomorpha
- Hemiberlesia lataniae** (Signoret) [Invertebrate]
Nectria aurantiicola
- Hemiberlesia rapax** (Comst.) [Invertebrate]
Gibberella intricans
- Hemiberlesia rapax** (Comst.) [Invertebrate]
Gibberella stilboides
- Hemiberlesia** sp. [Invertebrate]
Gibberella stilboides
- Heteronychus arator** (Fabricius) [Invertebrate]
Metarhizium anisopliae var. *anisopliae*
- Hibiscus rosa-sinensis** L.
Pseudomonas hibiscicola
Pseudomonas sp.
Pseudomonas syringae pv. *hibisci*
Xanthomonas campestris pv. *malvacearum*
- Hibiscus** sp.
Pseudomonas syringae
- Hierochloe redolens** (Sol. ex Vahl) Roemer & Schultes
Colletotrichum graminicola
- Hirudo** sp. [Invertebrate]
Pseudomonas vesicularis
- Hoheria populnea** A. Cunn.
Hypocrea vinosa
Nectria grammicospora
Nectria sp.
Penicillium griseoroseum
Phoma sp.
Pseudomonas sp.
Pseudomonas syringae
Xanthomonas campestris
- Hoheria** sp.
Fusarium oxysporum
- Holcus lanatus** L.
Cochliobolus sativus
Dilophospora alopecuri
- Drechslera dematioidea*
Drechslera triseptata
Leptosphaerulina chartarum
- Holcus** sp.
Leptosphaerulina chartarum
- Hordeum distichon** L.
Cochliobolus sativus
- Hordeum murinum** L.
Cochliobolus sativus
Rhynchosporium secalis
- Hordeum vulgare** L.
Alternaria solani
Alternaria sp.
Cochliobolus sativus
Gibberella fujikuroi
Leptosphaerulina australis
Nectria ochroleuca
Preussia fleischhაკii
Pseudomonas syringae pv. *atrofaciens*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringa
Pyrenophora graminea
Pyrenophora teres
Rhynchosporium secalis
Xanthomonas campestris pv. *hordei*
Xanthomonas campestris pv. *translucens*
- [**Hosackia** sp.]
Rhizobium sp.
- Hosta plantaginea** (Lam.) Asch.
Pseudomonas sp.
- Hoya carnosa** (L.f.) R. Br.
Glomerella cingulata
- Humulus lupulus** L.
Agrobacterium tumefaciens
Pythium debaryanum
Verticillium dahliae
- Hyacinthus orientalis** L.
Erwinia carotovora subsp. *carotovora*
Erwinia rhapontici
Xanthomonas campestris pv. *hyacinthi*
- Hyacinthus** sp.
Aspergillus niger
Erwinia carotovora subsp. *carotovora*
- Hydrangea** sp.
Phoma exigua
- Hyperodes bonariensis** (Kuschel) [Invertebrate]
Beauveria bassiana
Verticillium insectorum
- Hyphantria cunea** (Drury) [Invertebrate]
Pseudomonas putida
- Hypocrea** sp.
Trichoderma sp.
- Hypoxylon deustum** (Hoffm. : Fr.) Greville
Nectria puiggari
- Hypoxylon** sp.
Acremonium sp.
Trichoderma polysporum
- Iberis** sp.
Xanthomonas campestris pv. *armoraciae*
- Idesia polycarpa** Maxim.
Phytophthora sp.
Pseudomonas syringae
- Ileostylis micranthus** (Hook.f.) Tiegh.
Diaporthe sp.
Gibberella baccata
- Illex opaca** Ait.
Arthrobacter ilicis
- Illicium** sp.
Xanthomonas sp.
- Impatiens balsamina** L.
Erwinia herbicola
- Inga fagifolia** Willd. ex Benth.
Agrobacterium sp. (tumourigenic strain)

- Ionidium heterophyllum*** Vent.
Xanthomonas campestris pv. *ionidii*
- Ionidium*** sp.
Xanthomonas campestris pv. *ionidii*
- Ipomoea batatas*** (L.) Lam.
Ceratocystis fimbriata
Coleophoma sp.
Cylindrocarpon sp.
Erwinia chrysanthemi
Fusarium oxysporum
Fusarium semitectum
Fusarium sp.
Gibberella zeae
Monilochaetes infuscans
Nectria haematococca
Rhizopus stolonifer
Sclerotinia minor
Sclerotinia sclerotiorum
- Ipomoea muricata*** (L.) Jacq.
Xanthomonas campestris pv. *uppalii*
- Ipomoea obscura*** (L.) Ker-Gawl.
Xanthomonas campestris pv. *obscurae*
- Iris*** sp.
Athelia rolfsii
Bipolaris iridis
Colletotrichum sp.
Erwinia carotovora subsp. *carotovora*
Fusarium oxysporum f. sp. *gladioli*
Gibberella fujikuroi var. *subglutinans*
Gibberella stilboides
Mycosphaerella macrospora
Penicillium hirsutum
Phaeostalogmus sp.
Phoma jolyana
Phoma nigricans
Pseudomonas fluorescens
Sclerotinia draytonii
- Iris spuria*** L.
Erwinia carotovora subsp. *carotovora*
- Iris tectorum*** Maxim.
Xanthomonas campestris pv. *tardicrescens*
- Ischaemum indicum*** (Houtt.) Merr.
Curvularia ischaemi
- Ixia polystachya*** L.
Sclerotinia draytonii
- Ixia*** sp.
Pythium acanthicum
Pythium gracile
Sclerotinia draytonii
- Ixora coccinea*** L.
Xanthomonas campestris pv. *maculifoliogardeniae*
- Jasminum mesnyi*** Hance
Colletotrichum acutatum
- Jasminum*** sp.
Pseudomonas savastanoi pv. *savastanoi*
- Juglans regia*** L.
Agrobacterium sp. (saprophytic strain)
Diaporthe eres
Diaporthe sp.
Erwinia nigrifluens
Erwinia rubrifaciens
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *juglandis*
- Juglans*** sp.
Colletotrichum sp.
Gibberella baccata
- Juniperus chinensis*** L.
Pythium acanthicum
Pythium monospermum
- Juniperus communis*** L. var. *depressa* Pursh
Colletotrichum sp.
Gibberella avenacea
Pythium irregulare
- Justicia brandegeana*** Wassh. & L.B. Sm.
Rhodococcus fascians
- Kalanchoe blossfeldiana*** Poelln.
Erwinia chrysanthemi
- Kentia*** sp.
Ulocladium consortiale
- Khaya senegalensis*** (Desr.) A. Juss.
Xanthomonas campestris pv. *khayae*
- Knightia excelsa*** R. Br.
Colletotrichum sp.
Fusicoccum sp.
Pestalotiopsis sp.
Phoma macrostoma var. *incolorata*
- Lachenalia*** sp.
Botrytis galanthina
- Lactuca sativa*** L.
Erwinia carotovora subsp. *carotovora*
Leptosphaerulina chartarum
Marssonina panattoniana
Microdochium panattoniana
Pseudomonas cichorii
Pseudomonas fluorescens
Pseudomonas marginalis pv. *marginalis*
Pseudomonas marginalis
Pseudomonas putida
Pseudomonas sp.
Pseudomonas syringae pv. *aptata*
Pseudomonas viridiflava
Sclerotinia minor
Stemphylium sp.
Xanthomonas campestris pv. *vitians*
- Lactuca serriola*** L.
Pseudomonas cichorii
- Lactuca*** sp.
Xanthomonas campestris pv. *vitians*
- Lantana camara*** L.
Xanthomonas campestris pv. *lantanae*
- Larix decidua*** Mill.
Pythium undulatum
- Lathyrus japonicus*** Willd.
Rhizobium sp.
- Lathyrus latifolius*** L.
Rhizobium sp.
- Lathyrus odoratus*** L.
Colletotrichum acutatum
Rhodococcus fascians
Verticillium dahliae
- Lathyrus sativa*** L.
Rhizobium sp.
- Lathyrus*** sp.
Rhizobium leguminosarum
- Laurelia novae-zelandiae*** A. Cunn.
Xanthomonas campestris pv. *laureliae*
- Lavatera*** sp. cv. Mont Blanc
Colletotrichum malvarum
- Lawsonia inermis*** L.
Xanthomonas campestris pv. *lawsoniae*
- Leea edgeworthii*** Sant.
Xanthomonas campestris pv. *leeana*
- Leersia hexandra*** Swartz
Xanthomonas campestris pv. *leersiae*
- Legularia*** sp.
Alternaria cinerariae
- Lemaireocereus gummosus*** (Engelm.) Britt. & Rose
Erwinia cacticida
- Lemaireocereus thurberi*** (Engelm.) Britt. & Rose
Erwinia cacticida
- Lens culinaris*** Medic.
Ascochyta fabae f. sp. *lentis*
Gibberella avenacea
Rhizobium sp.
- Leptinella dioica*** Hook.f.
Athelia rolfsii
Erbellisia novae-zelandiae
Rhizoctonia like species - non basidiomycete
- Leptinella maniototo*** (Petrie) Lloyd & C. Webb
Erbellisia novae-zelandiae
- Leptinella*** sp.
Leptosphaerulina australis

- Limonomyces roseipellis*
- Leptospermum scoparium** J.R. & G. Forst.
Chaetomella sp.
Guignardia sp.
Phyllosticta sp.
Pyrenochaeta sp.
Seimatosporium leptospermi
- Leptospermum** sp.
Pleurotus australis
- Lespedeza** sp.
Xanthomonas campestris pv. *lespedezae*
- Leucaena glauca** (L.) Benth.
Pseudomonas fluorescens
Rhizobium sp.
- Leucaena insularum** (Guillaumin) Daniker
Rhizobium sp.
- Leucaena leucocephala** (Lam.) de Wit
Rhizobium sp.
- Leucodendron** sp.
Chondrostereum purpureum
Glomerella cingulata
Phoma sp.
- Leucophyllum frutescens** (Berland.) I.M. Johnston.
Nectriella pironii
- Libocedrus plumosa** (D. Don) Sarg.
Fusicoccum sp.
Pestalotiopsis sp.
- Ligularia** sp.
Alternaria sp.
- Ligustrum japonicum** Thunb.
Pseudomonas savastanoi pv. *savastanoi*
- Ligustrum lucidum** Ait.
Pseudomonas syringae
- Lilium auratum** Lindl.
Gluconobacter oxydans
- Lilium** sp.
Botrytis elliptica
Fusarium oxysporum
Fusarium sp.
Rhizoctonia sp.
- Limonium sinuatum** (L.) Mill.
Burkholderia andropogonis
Burkholderia caryophylli
- Linum** sp.
Schizophyllum commune
- Linum usitatissimum** L.
Erwinia herbicola
- Liquidambar** sp.
Cylindrocladium floridanum
Nectria radicola
Xanthomonas sp.
- Liquidambar styraciflua** L.
Pleurotus opuntiae
- Liriodendron tulipifera** L.
Nectria haematococca
- Litchi chinensis** Sonn.
Colletotrichum acutatum
- Lolium multiflorum** Lam.
Bipolaris sacchari
Cochliobolus australiensis
Cochliobolus cynodontis
Cochliobolus intermedius
Cochliobolus spicifer
Drechslera triseptata
Pseudomonas syringae pv. *atropurpurea*
Xanthomonas campestris pv. *graminis*
Xanthomonas campestris pv. *translucens*
- Lolium multiflorum** Lam. X. **L. perenne** L.
Cochliobolus cynodontis
Cochliobolus intermedius
Cochliobolus sativus
Cochliobolus spicifer
Curvularia trifolii
Drechslera triseptata
Pyrenophora dictyoides
- Lolium perenne** L.
Acremonium lolii
Acremonium sp.
Alternaria alternata
Arthroderma uncinatum
Ascochyta sorghi
Bipolaris sp.
Cladosporium herbarum
Cochliobolus sativus
Dictyosporium elegans
Drechslera biseptata
Drechslera siccans
Epicoccum purpurascens
Fusarium culmorum
Gibberella pulicaris
Gliocladium-like sp.
Leptosphaerulina chartarum
Monilia? sp.
Penicillium brevicompactum
Penicillium crustosum
Penicillium decumbens
Penicillium janthinellum
Penicillium spinulosum
Penicillium thomii
Penicillium waksmanii
Periconia macrospinoso
Phoma exigua
Phoma fimeti
Phoma glomerata
Phoma herbarum
Phoma lotivora
Phoma macrostoma var. *incolorata*
Phoma macrostoma var. *macrostoma*
Phoma nigricans
Phoma paspali
Phoma pomorum
Phoma pratorum
Pseudomonas syringae
Pyrenochaeta lycopersici
Pyrenophora dictyoides
Pyrenophora erythrospila
Sesquicillium candelabrum
Xanthomonas campestris pv. *graminis*
- Lolium rigidum** Gaudin
Clavibacter toxicus
Corynebacterium sp.
- Lolium** sp.
Cochliobolus sativus
Cochliobolus spicifer
Drechslera siccans
Gibberella gordonii
Microdochium bolleyi
Penicillium lolense
Penicillium miczynskii
Penicillium novae-zeelandiae
Penicillium verruculosum
Pseudomonas syringae
Pyrenophora teres
Xanthomonas campestris pv. *graminis*
- Lonicera japonica** Thunb.
Phoma sp.
- Lophomyrtus** sp.
Septoria sp.
- Lotononis bainesii** Baker
Bradyrhizobium sp. (*Lotononis*)
Sclerotinia minor
- Lotus angustissimus** L.
Bradyrhizobium sp. (*Lotus*)
Rhizobium loti
Rhizobium sp.
- Lotus corniculatus** L.
Bradyrhizobium sp. (*Lotus*)
Pseudomonas viridiflava
Rhizobium loti
Rhizobium sp.
- Lotus divaricatus** Boiss.
Rhizobium loti
- Lotus hybrid**
Rhizobium sp.
- Lotus maroccanus** Ball

- Rhizobium loti*
- Lotus pedunculatus** Cav.
Bradyrhizobium sp. (Lotus)
Colletotrichum destructivum
Phoma lotivora
Rhizobium loti
Rhizobium sp.
- Lotus pedunculatus** Cav. X **L. corniculatus** L.
Rhizobium loti
- Lotus** sp.
Bradyrhizobium sp. (Lotus)
Phoma nigricans
Rhizobium sp.
- Lotus suaveolens** Pers.
Bradyrhizobium sp. (Lotus)
Rhizobium loti
- Lotus tenuis** Waldst. & Kit. ex Willd.
Phoma lotivora
Rhizobium loti
- Luffa aegyptiaca** Mill.
Pseudomonas sp.
- Lupinus albus** L.
Fusarium culmorum
Glomerella cingulata
Phoma eupyrena
- Lupinus angustifolius** L.
Bradyrhizobium sp. (Lupinus)
Pseudomonas viridiflava
Rhizobium sp.
- Lupinus arboreus** Sims
Bradyrhizobium sp. (Lupinus)
Colletotrichum acutatum
Gibberella baccata
Nectria ochroleuca
Phoma exigua
Pleospora tarda
Rhizobium loti
Rhizobium sp.
Stemphylium vesicarium
- Lupinus densiflorus** Benth.
Rhizobium sp.
- Lupinus luteus** L.
Leptosphaerulina trifolii
Rhizobium sp.
- Lupinus nanus** Dougl.
Rhizobium sp.
- Lupinus** sp.
Bradyrhizobium sp. (Lupinus)
Glomerella cingulata
Pleiochaeta setosa
Pseudomonas marginalis
Pseudomonas syringae
Rhizobium loti
Verticillium nigrescens
- Lupinus vavilicola** A. Heller.
Rhizobium sp.
- Lycoperdon** sp.
Pseudomonas tolaasii
- Lycopersicon esculentum** Mill.
Agrobacterium sp. (tumourigenic strain)
Agrobacterium tumefaciens
Alternaria alternata
Alternaria solani
Alternaria sp.
Botrytis cinerea
Burkholderia cepacia
Ceratocystis fimbriata
Cladosporium sp.
Clavibacter michiganensis subsp. *michiganensis*
Colletotrichum acutatum
Colletotrichum coccodes
Colletotrichum fructigenum
Colletotrichum sp.
Didymella lycopersici
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Erwinia persicinus
Fulvia fulva
Fusarium oxysporum f. sp. *lycopersici*
Fusarium oxysporum
- Fusarium semitectum*
Fusarium sp.
Gibberella gordonii
Gibberella pulicaris
Glomerella cingulata
Glomerella phomoides
Glomerella sp.
Nectria haematococca
Penicillium sp.
Phoma destructiva
Phoma exigua
Phoma macrostoma
Pleospora tarda
Pseudomonas cichorii
Pseudomonas corrugata
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas putida
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae pv. *tomato*
Pseudomonas syringae
Pseudomonas viridiflava
Pythium butleri
Ralstonia solanacearum
Rhizoctonia sp.
Sclerotinia minor
Stemphylium sp.
Stemphylium vesicarium
Thanatephorus cucumeris
Verticillium albo-atrum
Verticillium dahliae
Verticillium nigrescens
Verticillium tricorpus
Xanthomonas campestris pv. *vesicatoria*
- Maclaerina sinclairii** (Hook.f.) Koyama
Colletotrichum sp.
- Macropiper excelsum** (Forst.f.) Miq.
Fusarium solani f. sp. *eumartii*
Glomerella cingulata
- Macroptilium atropurpureum** (DC.) Urb.
Bradyrhizobium sp. (Macroptilium)
Pseudomonas savastanoi pv. *phaseolicola*
- Macrotyloma africanum** (R. Wilczek) Verdc.
Bradyrhizobium sp. (Macrotyloma)
- Macrotyloma uniflorum** (Lam.) Verdc.
Rhizobium sp.
- Magnolia** sp.
Pseudomonas syringae
- Magnolia X soulangiana** Soul.
Pseudomonas cichorii
- Magnolia quinquepeta** (Buc'hoz) Dandy
Colletotrichum acutatum
Pseudomonas syringae
- Magnolia** sp.
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Xanthomonas campestris
Xanthomonas sp.
- Magnolia stellata** (Sieb. & Zucc.) Maxim.
Pseudomonas syringae
Xanthomonas campestris
Xanthomonas sp.
- Mahonia lomariifolia** Takeda
Pseudomonas syringae
Xanthomonas campestris
Xanthomonas sp.
- Mahonia** sp.
Pseudomonas syringae
- Mallotus japonicus** (Thunb.) Muell.-Arg.
Erwinia mallotivora
Xanthomonas campestris pv. *mallotii*
- Malus X domestica** Borkh.
Acetobacter pasteurianus
Agrobacterium rhizogenes (rhizogenic strain)
Agrobacterium sp.
Agrobacterium tumefaciens (tumourigenic strain)
Alternaria alternata
Amylostereum sacratum
Aureobasidium pullulans

- Botryosphaeria obtusa*
Botryosphaeria parva
Botryosphaeria stevensii
Botrytis cinerea
Bullera alba
Bullera pyricola
Chondrostereum purpureum
Cladosporium macrocarpum
Clethridium corticola
Colletotrichum acutatum
Colletotrichum sp.
Cylindrocarpon sp.
Diaporthe eres
Diaporthe perniciososa
Epicoccum nigrum
Erwinia amylovora
Erwinia herbicola
Fusarium oxysporum
Fusicoccum luteum
Gibberella acuminata
Gibberella avenacea
Glomerella cingulata
Glomerella sp.
Leptodontidium elatius
Leptodontidium elatius
Leptosphaerulina chartarum
Monilinia laxa
Mycosphaerella pomi
Nectria galligena
Nodulisporium sp.
Penicillium decumbens
Penicillium expansum
Pestalotiopsis sp.
Pezicula alba
Pezicula malicorticis
Phoma cava
Phoma exigua
Phoma glomerata
Phoma macrostoma var. *macrostoma*
Phoma macrostoma
Phomopsis sp.
Phytophthora cactorum
Phytophthora nicotianae var. *parasitica*
Pleospora herbarum
Pleospora sp.
Pseudomonas sp.
Pseudomonas syringae pv. *papulans*
Pseudomonas syringae pv. *syringae*
Rhinocladiella sp.
Rhizoctonia sp.
Selenosporella sp.
Stenotrophomonas maltophilia
Truncatella angustata
Venturia inaequalis
Zetiaspizna thuemenii
- Mangifera indica*** L.
Erwinia herbicola
Glomerella cingulata
Xanthomonas campestris pv. *mangiferaeindicae*
- Mangifera*** sp.
Lasiodiplodia theobromae
Xanthomonas sp.
- Manihot esculenta*** Crantz
Xanthomonas campestris pv. *cassavae*
Xanthomonas campestris pv. *manihotis*
- Manihot*** sp.
Xanthomonas campestris pv. *cassavae*
Xanthomonas campestris pv. *manihotis*
- Maranta arundinacea*** L.
Xanthomonas sp.
- Martynia diandra*** Gloxin
Xanthomonas campestris pv. *martyniicola*
- Matthiola incana*** (L.) R. Br.
Alternaria raphani
Pleospora tarda
Pseudomonas syringae
Xanthomonas campestris pv. *incanae*
Xanthomonas sp.
- Medicago falcata*** L.
Rhizobium meliloti
- Medicago laciniata*** (L.) Mill.
Rhizobium meliloti
- Medicago polymorpha*** L.
Phoma medicaginis
Phoma plurivora
Phoma pomorum
- Medicago rugosa*** Desr.
Rhizobium meliloti
- Medicago sativa*** L.
Byssothecium circinans
Clavibacter michiganensis subsp. *insidiosus*
Codinaea fertilis
Colletotrichum coccodes
Colletotrichum dematium
Colletotrichum destructivum
Colletotrichum sp.
Colletotrichum trifolii
Fusarium oxysporum
Glomerella cingulata
Leptosphaerulina chartarum
Leptosphaerulina trifolii
Myrothecium verrucaria
Nectria haematococca
Penicillium janthinellum
Phacidium sp.
Phoma chrysanthemicola
Phoma fimeti
Phoma glomerata
Phoma leveillei
Phoma macrostoma var. *incolorata*
Phoma medicaginis
Phoma pinodella
Phoma pomorum
Phytophthora megasperma f. sp. *medicaginis*
Phytophthora sp.
Pithomyces sacchari
Pleospora herbarum
Pleospora tarda
Pseudomonas corrugata
Pseudomonas marginalis pv. *alfalfae*
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Pythium irregulare
Rhizobium meliloti
Sclerotinia trifoliorum
Serratia marcescens
Stemphylium sp.
Verticillium albo-atrum
Verticillium tricorpus
Volutella ciliata
Xanthomonas campestris pv. *alfalfae*
- Medicago scutellata*** (L.) Mill.
Phoma chrysanthemicola
Rhizobium meliloti
- Medicago*** sp.
Gibberella pulicaris
Rhizobium meliloti
- Melampodium perfoliatum***
Ralstonia solanacearum
- Melasphaerula ramosa*** (L.) N.E. Br.
Pseudomonas viridiflava
- Melia azedarach*** L.
Pseudomonas meliae
- Melicytus ramiflorus*** J.R. & G. Forst.
Fusarium solani f. sp. *eumartii*
Gibberella cyanogena
Gibberella intricans
Glomerella cingulata
Nectria aureo-fulva
Nectria illudens
Nectria ochroleuca
Nectria stenosporea
Nectria vilior
- Melilotus alba*** Desr.
Rhizobium meliloti
- Melilotus*** sp.
Gibberella baccata
Mycosphaerella davisii
- Merremia gangetica*** (L.) Cuf.
Xanthomonas campestris pv. *merremiae*
- Meryta sinclairii*** (Hook.f.) Seem.
Alternaria panax

- Colletotrichum* sp.
Phoma sp.
- Mespilus germanica** L.
Erwinia amylovora
- Metrosideros excelsa** Sol. ex Gaertn.
Septoria sp.
Waydora typica
Xanthomonas sp.
- Metrosideros** sp.
Coccomyces sp.
Colletotrichum acutatum
Lophodermium sp.
Nectria illudens
Phacidium sp.
- Microlaena stipoides** (Lab.) R. Br.
Cochliobolus spicifer
Pyrenophora tetrarhenae
- Mimosa invisa** C. Mart.
Rhizobium sp.
- Mirabilis jalapa** L.
Xanthomonas campestris pv. *mirabilis*
- Modiola caroliniana** G. Don
Colletotrichum dematium
Colletotrichum sp.
- Momordica charantia** L.
Xanthomonas sp.
- Monstera** sp.
Fusarium semitectum
- Montanoa** sp.
Fusarium semitectum
- Morus alba** L.
Pseudomonas syringae pv. *mori*
- Morus bombycis** Koidzumi
Pseudomonas syringae pv. *mori*
- Morus** sp.
Fusarium solani f. sp. *mori*
Pseudomonas syringae pv. *mori*
Pseudomonas syringae
- Mucuna deeringiana** (Bort) Merr.
Burkholderia andropogonis
Rhizobium sp.
- Muntingia calabura** L.
Pythium irregulare
- Murraya koenigii** (L.) K. Spreng.
Colletotrichum dematium
- Musa X paradisiaca** L.
Ceratocystis paradoxa
Colletotrichum musae
Erwinia chrysanthemi pv. *paradisiaca*
Fusarium sp.
Glomerella sp.
Lasiodiplodia theobromae
Stemphylium vesicarium
Ralstonia solanacearum
Verticillium theobromae
- Musa acuminata** Colla
Ralstonia solanacearum
Xanthomonas campestris pv. *celebensis*
- Musa** sp.
Colletotrichum musae
Erwinia chrysanthemi pv. *paradisiaca*
Erwinia chrysanthemi
Erwinia herbicola
Fusarium sacchari
Fusarium semitectum
Fusarium verticillioides
Pseudomonas sp.
Pseudomonas syringae
Ralstonia solanacearum
Verticillium theobromae
- Muscari** sp.
Colletotrichum dematium
- Myrica rubra** Sieb. & Zucc.
Acetobacter hansenii
Gluconobacter oxydans
Pseudomonas syringae pv. *myricae*
- Myrica** sp.
Xanthomonas sp.
- Myristica fragrans** Houltt.
Aspergillus flavus
Aspergillus glaucus
Aspergillus niger
- Myrsine australis** (A. Rich.) Allan
Phoma sp.
Septoria sp.
- Myzus persicae** (Sulz.) [Invertebrate]
Verticillium lecanii
- Nandina domestica** Thunb.
Phomopsis sp.
- Narcissus** sp.
Aureobasidium pullulans
Erwinia rhapontici
Fusarium oxysporum f. sp. *narcissi*
Gibberella avenacea
Phoma macrostoma
Ulocladium atrum
- Neocicindela tuberculata** (Fabricius) [Invertebrate]
Beauveria brongniartii
- Neopanax** sp.
Pythium aquatile
- Neptunia gracilis** Benth.
Rhizobium sp.
- Nerine bowdenii** W. Wats.
Athelia rolfsii
Stagonosporopsis curtisii
- Nerine sarniensis** (L.) Herb.
Stagonosporopsis curtisii
- Nerine** sp.
Fusarium oxysporum
- Nerium oleander** L.
Pseudomonas sp.
Pseudomonas savastanoi pv. *savastanoi*
Pseudomonas syringae
- Nerium** sp.
Phoma exigua
Pseudomonas sp.
- Nestegis** sp.
Lophodermium sp.
- Nicandra physalodes** (L.) Gaertn.
Xanthomonas sp.
- Nicotiana rustica** L.
Pseudomonas viridiflava
- Nicotiana tabacum** L.
Alternaria longipes
Cladosporium cladosporioides
Cladosporium herbarum
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi
Fusarium sp.
Nectria haematococca
Phoma exigua
Phytophthora nicotianae var. *nicotianae*
Pseudomonas cichorii
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas syringae pv. *mellea*
Pseudomonas syringae pv. *tabaci*
Ralstonia solanacearum
Sclerotinia sclerotiorum
Verticillium albo-atrum
Verticillium dahliae
Verticillium sp.
Verticillium tricorpus
Xanthomonas campestris pv. *vesicatoria*
- Northfagus fusca** (Hook.f.) Oerst.
Septoria-like sp.
- Nothofagus cunninghamii** (Hook.f.) Oerst.
Piptoporus cretaceus
- Nothofagus fusca** (Hook.f.) Oerst.
Hypocrea schweinitzii
Tyromyces falcatus
- Nothofagus solandri** (Hook.f.) Oerst. var. **cliffortioides** (Hook.f.) Poole
Pleurotus purpureo-olivaceus

- Nothofagus solandri** (Hook.f.) Oerst. var. **solandri**
Pleurotus purpureo-olivaceus
Septoria sp.
- Nothofagus** sp.
Hypholoma brunnea
Hypocrea semiorbis
Panellus longinquus
Pleurotus purpureo-olivaceus
- Nothofagus?** sp.
Ganoderma cf. *applanatum*
- Ochrocydus huttoni** Pascoe
Beauveria sp.
- Ocimum basilicum** L.
Fusarium oxysporum
Pseudomonas viridiflava
- Odontoglossum** sp.
Gibberella fujikuroi
- Olea europaea** L.
Pseudomonas savastanoi pv. *savastanoi*
- Olea** sp.
Phoma fallens
- Olearia arborescens** (Forst.f.) Cockayne & Liang
Phoma sp.
- Olearia avicenniaefolia** (Raoul) Hook.f.
Phoma sp.
- Olearia chatamica** Kirk
Alternaria sp.
- Olearia furfuracea** (A. Rich.) Hook.f.
Alternaria sp.
- Olearia paniculata** (J.R. & G. Forst.) Druce
Phytophthora citricola
- Olearia rani** (A. Cunn.) Druce
Nectria ochroleuca
- Olearia traversii** (F. Muell.) Hook.f.
Alternaria sp.
Myrioconium sp.
Pseudomonas sp.
- Onobrychis vicifolia** Scop.
Colletotrichum destructivum
Erwinia amylovora
Pseudomonas syringae
Rhizobium sp.
- Oplismenus imbecillus** (R. Br.) Roem. & Schult.
Bipolaris sacchari
- Opuntia fulgida** Engelm.
Erwinia cacticida
- Opuntia phaeacantha** Engelm.
Erwinia cacticida
Erwinia sp.
- Opuntia phaeacantha** Engelm. var. **discata** (Griffiths) L. Bens. & Walk.
Erwinia cacticida
- Ornithopus compressus** L.
Bradyrhizobium sp. (Ornithopus)
- Ornithopus isthmocarpus** Cross.
Bradyrhizobium sp. (Ornithopus)
- Ornithopus perpallidus** L.
Rhizobium sp.
- Ornithopus pinnatus** (Miller) Druce
Bradyrhizobium sp. (Ornithopus)
Rhizobium sp.
- Ornithopus sativus** Brot.
Bradyrhizobium sp. (Ornithopus)
Cochliobolus sativus
Rhizobium sp.
- Oryza sativa** L.
Acidovorax avenae subsp. *avenae*
Alternaria padwickii
Burkholderia glumae
Burkholderia plantarii
Cochliobolus bicolor
Cochliobolus lunatus
Cochliobolus miyabeanus
Cochliobolus pallescens
Cochliobolus spicifer
- Cochliobolus verruculosus*
Curvularia lunata var. *aeria*
Drechslera sp.
Erwinia chrysanthemi pv. *zeae*
Erwinia chrysanthemi
Gibberella fujikuroi var. *subglutinans*
Gibberella fujikuroi
Gibberella pulicaris
Leptosphaerulina chartarum
Menispora sp.
Pseudomonas fuscovaginae
Pseudomonas syringae pv. *oryzae*
Pseudomonas syringae pv. *syringae*
Sclerotinia sp.
Sclerotium hydrophilum
Xanthomonas campestris pv. *brunneovaginae*
Xanthomonas campestris pv. *oryzae*
Xanthomonas campestris pv. *oryzicola*
- Oxycanus** sp. [Invertebrate]
Metarhizium anisopliae var. *anisopliae*
- Pachyrhizus erosus** (L.) Urb.
Rhizobium sp.
- Pachystachys lutea** Nees
Xanthomonas campestris pv. *viegasii*
- Paeonia lactiflora** Pall.
Botrytis cinerea
- Paeonia** sp.
Cladosporium chlorocephalum
Glomerella cingulata
Verticillium dahliae
- Panax pseudoginseng** Wallich var. **notoginseng**
Erwinia sp.
- Pandanus** sp.
Cochliobolus lunatus
- Panicum miliaceum** L.
Acidovorax avenae subsp. *avenae*
Curvularia sp.
Pseudomonas syringae pv. *syringae*
- Papaver nudicaule** L.
Pleospora papaveracea
Pseudomonas viridiflava
- Papaver rhoeas** L.
Pseudomonas cichorii
Xanthomonas campestris pv. *papavericola*
- Papaver somniferum** L.
Erwinia carotovora subsp. *carotovora*
Pseudomonas fluorescens
Pseudomonas viridiflava
- Parahebe** sp.
Septoria sp.
- Parochetus communis** Buch. - Ham. ex D. Don
Rhizobium sp.
- Parrotia persica** C.A. Mey
Pseudomonas syringae
- Parthenium argentatum** Gray
Erwinia chrysanthemi pv. *parthenii*
- Parthenium hysterophorus** L.
Xanthomonas sp.
- Paspalum conjugatum** Berg.
Cochliobolus cynodontis
- Paspalum dilatatum** Poir.
Ascochyta paspali
Bipolaris sacchari
Curvularia trifolii
Phoma huancayensis
Phoma paspali
Phoma sp.
Xanthomonas albilineans
- Paspalum distichum** L.
Curvularia trifolii
- Paspalum** sp.
Colletotrichum graminicola
Gibberella gordonii
- Passiflora alata** Dryand.
Xanthomonas campestris pv. *passiflorae*

- Passiflora edulis** Sims
Alternaria passiflorae
Alternaria sp.
Alternaria zinniae
Cochliobolus geniculatus
Colletotrichum acutatum
Colletotrichum sp.
Dendryphion nanum
Fusarium oxysporum
Fusarium sp.
Gibberella baccata
Gibberella cyanogena
Gibberella fujikuroi
Gibberella pulicaris
Gibberella stilboides
Glomerella cingulata
Myrothecium gramineum
Nectria haematococca
Phoma macrostoma var. *incolorata*
Pseudomonas sp.
Pseudomonas syringae pv. *passiflorae*
Pseudomonas syringae
Pseudomonas viridiflava
Trichocladium basicola
Xanthomonas campestris pv. *passiflorae*
- Passiflora mollissima** (HBK) Bailey
Nectria haematococca
Pseudomonas syringae pv. *passiflorae*
- Passiflora** sp.
Alternaria passiflorae
Fusarium culmorum
Fusarium sp.
- Passiflora subpeltata** Ort.
Alternaria passiflorae
- Pastinaca sativa** L.
Itersonilia sp.
Pseudomonas marginalis pv. *pastinacae*
Pythium coloratum
Verticillium nigrescens
- Paullinia cupana** Kunth var. **sorbilis** (Mart.) Ducke
Xanthomonas campestris pv. *paullinae*
- Pedaliium murex** L.
Xanthomonas campestris pv. *pedalii*
- Pelargonium X hortorum** L.H. Bailey
Rhodococcus fascians
Xanthomonas campestris pv. *pelargonii*
- Pelargonium X peltatum** Ait.
Rhodococcus fascians
- Pelargonium capitatum** (L.) L'Her. ex Ait.
Erwinia chrysanthemi
Ralstonia solanacearum
- Pelargonium peltatum** (L.) L'Her. ex Ait.
Pseudomonas syringae
Pseudomonas viridiflava
Verticillium dahliae
Xanthomonas campestris pv. *pelargonii*
- Pelargonium 'sonata'** cv. Orange Ricard
Rhodococcus fascians
- Pelargonium** sp.
Botrytis sp.
Xanthomonas campestris pv. *pelargonii*
- Pelargonium zonale** (L.) L'Her. ex Ait.
Rhodococcus fascians
Xanthomonas campestris pv. *pelargonii*
- Pellionia pulchra** N.E. Br.
Xanthomonas sp.
- Pennisetum americanum** (L.) K. Schum.
Erwinia herbicola
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *pennamericanum*
- Pennisetum clandestinum** Hochst. ex Chiov.
Bipolaris sacchari
Phoma fimeti
Phoma huancayensis
Phoma nigricans
Phoma plurivora
- Peraxilla colensoi** (Hook.f.) Tiegh.
Diaporthe sp.
- Peraxilla tetrapetala** (L.f.) Tiegh.
Coelomycete - unidentified genus
Diaporthe sp.
- Persea americana** Mill.
Agrobacterium sp. (tumourigenic strain)
Botryosphaeria dothidea
Botryosphaeria parva
Colletotrichum acutatum
Colletotrichum sp.
Epicoccum nigrum
Erwinia carotovora subsp. *carotovora*
Fusarium crookwellense
Fusarium oxysporum
Fusarium semitectum
Fusarium sp.
Fusicoccum luteum
Gibberella intricans
Gibberella zeae
Glomerella cingulata var. *minor*
Glomerella cingulata
Nectria haematococca
Phomopsis sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Sphaceloma persea
Trichothecium roseum
Verticillium tricorpus
- Petroselinum crispum** (Mill.) Nyman ex A.W. Hill
Alternaria petroselini
Sclerotinia sclerotiorum
- Petunia X hybrid** Hort. Vilm.-Andr.
Rhodococcus fascians
- Phalaenopsis** sp.
Acidovorax avenae subsp. *cattleyae*
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi pv. *zeae*
Erwinia chrysanthemi
Pseudomonas putida
- Phalaris minor** Retz.
Corynebacterium sp.
- Phalaris paradoxa** L.
Corynebacterium sp.
- Phaseolus acutifolius** A. Gray
Rhizobium sp.
- Phaseolus coccineus** L.
Fusarium culmorum
Phoma exigua
Pseudomonas marginalis
Pseudomonas savastanoi pv. *phaseolicola*
Pseudomonas viridiflava
Rhizobium leguminosarum biovar *phaseoli*
- Phaseolus limensis** MacFady.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Phaseolus lunatus** L.
Pseudomonas syringae pv. *syringae*
- Phaseolus** sp.
Alternaria sp.
Bradyrhizobium sp. (Phaseolus)
Curtobacterium flaccumfaciens pv. *flaccumfaciens*
Fusarium oxysporum f. sp. *redolens*
Fusarium oxysporum var. *redolens*
Fusarium oxysporum
Fusarium solani f. sp. *eumartii*
Fusarium solani f. sp. *phaseoli*
Pseudomonas savastanoi pv. *glycinea*
Pseudomonas savastanoi pv. *phaseolicola*
Pseudomonas viridiflava
Ulocladium consortiale
Xanthomonas campestris pv. *phaseoli*
- Phaseolus vulgaris** L.
Alternaria alternata
Botrytis cinerea
Colletotrichum lindemuthianum
Curtobacterium flaccumfaciens pv. *flaccumfaciens*
Cylindrocladium sp.
Erwinia herbicola
Erwinia persicinus
Fusarium solani f. sp. *phaseoli*
Phoma eupyrena
Phoma exigua
Phoma pomorum

- Pseudomonas blatchfordae*
Pseudomonas flectens
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas savastanoi pv. *phaseolicola*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae pv. *tabaci*
Pseudomonas viridiflava
Pythium debaryanum
Rhizobium leguminosarum biovar *phaseoli*
Rhizobium sp.
Xanthomonas campestris pv. *glycines*
Xanthomonas campestris pv. *phaseoli*
Xanthomonas campestris
- Phialophora** sp.
Erwinia sp.
- Philadelphus coronarius** L.
Pseudomonas syringae pv. *philadelphii*
Pseudomonas syringae
- Philodendron floridus** Beadle
Erwinia carotovora subsp. *carotovora*
- Philodendron scandens** C. Koch & H. Sello. subsp. **oxycardium** (Schott)
 Bunt.
Erwinia chrysanthemi
Xanthomonas campestris pv. *dieffenbachiae*
- Philodendron** sp.
Erwinia chrysanthemi
Phoma multirostrata
Xanthomonas campestris pv. *dieffenbachiae*
- Pheum pratense** L.
Cochliobolus spicifer
Curvularia trifolii
Drechslera phlei
Pseudomonas syringae pv. *coronafaciens*
Xanthomonas campestris pv. *phlei*
Xanthomonas campestris pv. *phleipratensis*
- Phlox paniculata** L.
Septoria drummondii
- Phormium cookianum** Le Jolis
Colletotrichum sp.
- Phormium** sp.
Colletotrichum sp.
Microsphaeropsis sp.
Phoma sp.
- Phormium tenax** J.R. & G. Forst.
Ascochyta sp.
Colletotrichum sp.
Gibberella intricans
Glomerella phacidioromorpha
Glomerella sp.
Periconiella phormii
Phoma glomerata
Phoma sp.
Septoria sp.
Xanthomonas campestris pv. *phormiicola*
- Photinia glabra** (Thunb.) Maxim.
Pseudomonas syringae pv. *photiniae*
Xanthomonas sp.
- Photinia** sp.
Pestalotia photiniae
- Phytica** sp.
Verticillium dahliae
- Phyllanthus niruri** L.
Xanthomonas campestris pv. *phyllanthi*
- Phyllocladus glaucus** Carr.
Fusicoccum sp.
Pestalotiopsis sp.
- Phyllocladus trichomanoides** D. Don
Pestalotiopsis sp.
- Physalis alkekengi** L.
Xanthomonas campestris pv. *physalidicola*
- Physalis angulata** L.
Ralstonia solanacearum
- Physalis minima** L.
Xanthomonas campestris pv. *physalidis*
- Physalis** sp.
Xanthomonas campestris pv. *physalidis*
- Phytolacca octandra** L.
Rhodococcus fascians
- Picea abies** (L.) Karsten
Sphaeropsis sapinea
- Picea glauca** (Moench) Voss
Heterobasidion annosum
- Picea** sp.
Heterobasidion annosum
- Pilea cadierei** Gagnep. & Guillaum
Xanthomonas sp.
- Pilea spruceana** Wedd.
Xanthomonas sp.
- Pimelia** sp.
Verticillium dahliae
- Pinus contorta** Dougl.
Colletotrichum acutatum f. sp. *pineum*
- Pinus nigra** Arnold subsp. **larico** (Poir.) Maire
Sphaeropsis sapinea
- Pinus nigra** Arnold subsp. **nigra** Arnold
Sphaeropsis sapinea
- Pinus nigra** Arnold var. **maritima** (Ait.) Melville
Sphaeropsis sapinea
- Pinus patula** Schlecht. & Cham.
Leucogyrophana mollusca
- Pinus pinaster** Ait.
Colletotrichum acutatum f. sp. *pineum*
Heterobasidion annosum
- Pinus radiata** D. Don
Calonectria kyotensis
Colletotrichum acutatum f. sp. *pineum*
Erwinia sp.
Ganoderma cf. *applanatum*
Gibberella fujikuroi
Hypocrea rufa
Nectria ochroleuca
Nectria pinea
Pestalosphaeria hansenii
Pseudomonas syringae pv. *syringae*
Rhinocladia sp.
Sphaeropsis sapinea
Trichoderma aureoviride
- Pinus** sp.
Cylindrocarpon sp.
Fusarium solani f. sp. *eumartii*
Gibberella fujikuroi var. *subglutinans*
Sphaeropsis sapinea
- Pinus sylvestris** L.
Heterobasidion annosum
Sphaeropsis sapinea
- Pinus taeda** L.
Heterobasidion araucariae
- Piper betle** L.
Pseudomonas betle
Xanthomonas campestris pv. *betlicola*
- Piper methysticum** Forst.f.
Colletotrichum capsici
Curvularia eragrostidis
Glomerella cingulata
- Piper nigrum** L.
Pseudomonas syringae
Xanthomonas sp.
- Piper** sp.
Glomerella cingulata
- Pisum hortense** Aschers. & Graebn.
Rhizobium sp.
- Pisum sativum** L.
Aphanomyces euteiches
Ascochyta pisi
Botryosphaeria stevensii
Erwinia rhapontici
Fusarium concolor
Fusarium oxysporum f. sp. *pisii*
Fusarium oxysporum

- Fusarium solani* f. sp. *pisi*
Fusarium sp.
Gibberella tricineta
Mycosphaerella pinodes
Nectria haematococca
Neosartorya fischeri
Phoma pinodella
Pseudomonas sp.
Pseudomonas syringae pv. *pisi*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Pseudomonas viridiflava
Rhizobium leguminosarum biovar *viciae*
Rhizobium sp.
Sclerotinia minor
Trichocladium basicola
Xanthomonas campestris pv. *pisi*
- Pisum sativum** L. var. *arvense* (L.) Poir.
Pseudomonas syringae pv. *pisi*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Rhizobium leguminosarum biovar *viciae*
- Pittosporum colensoi** Hook.f.
Microsphaeropsis sp.
- Pittosporum crassifolium** Banks & Sol. ex A. Cunn.
Microsphaeropsis sp.
- Pittosporum eugenioides** A. Cunn.
Microsphaeropsis sp.
Phoma sp.
- Pittosporum** sp.
Alternaria sp.
Cladosporium sp.
Nectria sp.
Penicillium brevicompactum
Penicillium roseopurpureum
- Pittosporum** sp. cv. *ralphsii*
Microsphaeropsis sp.
- Pittosporum tennifolium** Sol. ex Gaertn.
Alternaria sp.
Colletotrichum sp.
Microsphaeropsis sp.
- Pittosporum tenuifolium** Sol. ex Gaertn.
Microsphaeropsis sp.
- Plagianthus** sp.
Agrocybe parasitica
- Plantago lanceolata** L.
Athelia rolfsii
Diaporthe adunca
Phomopsis subordinaria
Ramularia rhabdospora
Xanthomonas campestris pv. *plantaginis*
- Platanus occidentalis** L.
Xylella fastidiosa
- Platanus orientalis** L.
Apiognomonina veneta
- Platycladus orientalis** (L.) Franco
Colletotrichum coccodes
Colletotrichum sp.
- Platycodon grandiflorus** (Jacq.) A. DC.
Stemphylium lycopersici
- Poa anceps** Forst.f. subsp. *polyphylla* (Hackel) Edgar
Bipolaris sp.
- Poa annua** L.
Gibberella avenacea
Monographella nivalis
- Poa pratensis** L.
Drechslera poae
- Poa** sp.
Fusarium culmorum
Monographella nivalis
- Poa trivialis** L.
Xanthomonas campestris pv. *poae*
- Podocarpus** sp.
Hypocrea rufa
- Podocarpus totara** Bennett ex D. Don
Botrytis sp.
Pestalotiopsis sp.
- Pogostemon heyneanus** Benth.
Pseudomonas syringae
- Polianthes tuberosa** L.
Erwinia carotovora subsp. *carotovora*
- Polygonum** sp.
Acremonium sp.
- Poncirus trifoliata** (L.) Raf.
Fusarium oxysporum
Nectria haematococca
- Poncirus trifoliata** (L.) Raf. X **C. paradisi** Macfadyen
Xanthomonas campestris pv. *citri* (Group E)
- Poncirus trifoliata** (L.) Raf. X **C. sinensis** (L.) Osbeck
Xanthomonas campestris pv. *citri* (Group E)
- Populus** X **P. tremula** L. X **P. alba** L.
Agrobacterium rhizogenes (saprophytic strain)
Agrobacterium tumefaciens
- Populus** X **berolinensis** Dipp.
Marssonina populi
- Populus** X **canescens** Smith
Erwinia herbicola
- Populus** X **euramericana** (Dode) Guinier
Erwinia cancerogena
Erwinia salicis
Marssonina brunnea f. sp. *brunnea*
Phoma exigua
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *populi*
Xanthomonas populi
- Populus** X **generosa** A. Henry
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *populi*
- Populus** X **interamericana** Brockh.
Enterobacter sp.
Xanthomonas campestris pv. *populi*
Xanthomonas populi
- Populus alba** L.
Marssonina castagnei
Xanthomonas campestris pv. *populi*
Xanthomonas campestris
- Populus alba** L. var. *tomentosa* Westm.
Agrobacterium sp.
Pseudomonas syringae
- Populus balsamifera** Duroi non L.
Xanthomonas populi
- Populus deltoides** Bartr. ex Marsh
Marssonina brunnea f. sp. *brunnea*
Pleurotus cystidiosus
Xanthomonas campestris pv. *populi*
- Populus deltoides** Bartr. ex Marsh. X **P. ciliata** L.
Pseudomonas syringae pv. *syringae*
- Populus koreana** Rehder X **P. trichocarpa** Torrey & A.Gray
Xanthomonas populi
- Populus maximowiczii** Henry X **P. berolinensis** Dipp.
Xanthomonas campestris pv. *populi*
- Populus nigra** L.
Botryosphaeria dothidea
Botryosphaeria parva
Marssonina populi
- Populus** sp.
Agrobacterium sp. (tumourigenic strain)
Enterobacter sp.
Erwinia herbicola
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Xanthomonas campestris pv. *populi*
Xanthomonas campestris
Xanthomonas populi
- Populus tremula** L.
Xanthomonas populi
- Populus tremula** L. X **P. tremuloides** Mich.
Xanthomonas populi
- Populus tremuloides** Mich.
Marssonina brunnea f. sp. *trepdiae*

- Populus trichocarpa** Torr. & A. Gray
Pseudomonas syringae pv. *syringae*
- Populus yunnanensis** Dode
Xanthomonas campestris pv. *populi*
- Porphyrella** sp.
Hypomyces chrysospermus
- Portulaca** sp.
Ralstonia solanacearum
- Primula X polyantha** Hort.
Pseudomonas cichorii
Pseudomonas syringae pv. *primulae*
Pseudomonas syringae
- Primula obconica** Hance
Pseudomonas fluorescens
Pseudomonas sp.
- Primula** sp.
Erwinia carotovora subsp. *carotovora*
Pseudomonas syringae pv. *primulae*
- Primula vulgaris** Huds.
Erwinia carotovora subsp. *carotovora*
Xanthomonas sp.
- Prosopis chilensis** (Mol.) Stuntz.
Rhizobium sp.
- Protea barbiger** Meissn.
Colletotrichum sp.
- Protea cynaroides** L.
Colletotrichum acutatum
Colletotrichum sp.
Pseudomonas syringae
Serratia proteamaculans
- Protea** sp.
Colletotrichum orbiculare
Colletotrichum sp.
Phoma pomorum
Seimatosporium grevilleae
- Protea susanna** E.P. Phillips
Colletotrichum sp.
- Prunus armeniaca** L.
Agrobacterium sp. (saprophytic strain)
Botryosphaeria obtusa
Botryosphaeria parva
Botrytis cinerea
Cytospora leucostoma
Erwinia herbicola
Fusarium oxysporum
Fusarium sp.
Monilinia fructicola
Monilinia laxa
Pseudomonas syringae pv. *morsprunorum*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Pseudomonas viridiflava
Xanthomonas campestris pv. *pruni*
- Prunus avium** (L.) L.
Agrobacterium sp. (tumourigenic strain)
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas syringae pv. *morsprunorum*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Taphrina wiesneri
Xanthomonas campestris pv. *pruni*
- Prunus cerasifera** J.F. Ehrh.
Pseudomonas syringae pv. *persicae*
Pseudomonas syringae
- Prunus cerasus** L.
Phoma macrostoma var. *macrostoma*
Pseudomonas syringae pv. *morsprunorum*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Prunus domestica** L.
Monilinia laxa
Pestalotia sp.
Pseudomonas sp.
Pseudomonas syringae pv. *morsprunorum*
Pseudomonas syringae pv. *syringae*
Taphrina pruni
Xanthomonas campestris pv. *pruni*
- Prunus dulcis** (Mill.) D.A. Webb
Pseudomonas amygdali
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *pruni*
Xylella fastidiosa
Zymomonas sp.
- Prunus glandulosa** Thunb.
Monilinia laxa
- Prunus laurocerasus** L.
Ceuthospora laurocerasi
Pseudomonas syringae pv. *syringae*
- Prunus mahaleb** L.
Phytophthora citricola
- Prunus persica** (L.) Batsch
Agrobacterium rhizogenes (saprophytic strain)
Agrobacterium rhizogenes (tumourigenic strain)
Agrobacterium rhizogenes
Agrobacterium sp. (saprophytic strain)
Agrobacterium sp. (tumourigenic strain)
Agrobacterium sp.
Apiospora montagnei
Chondrostereum purpureum
Cylindrocarpon sp.
Fusarium culmorum
Fusarium oxysporum
Gibberella avenacea
Gibberella baccata
Monilinia fructicola
Monilinia laxa
Phoma macrostoma
Phoma pomorum
Pseudomonas fluorescens
Pseudomonas sp.
Pseudomonas syringae pv. *dysoxyl*
Pseudomonas syringae pv. *persicae*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae pv. *tomato*
Pseudomonas syringae
Pseudomonas viridiflava
Rhizoctonia sp.
Stigmia carpophila
Taphrina deformans
Trametes versicolor
Truncatella laurocerasi
Verticillium dahliae
Xanthomonas campestris pv. *phaseoli*
Xanthomonas campestris pv. *pruni*
Xylella fastidiosa
- Prunus persica** (L.) Batsch X **P. dulcis** (Mill.) D.A. Webb
Agrobacterium tumefaciens (tumourigenic strain)
- Prunus persica** (L.) Batsch var. **nucipersica** (Suckow) C.K. Schneid.
Colletotrichum acutatum
Cytospora leucostoma
Monilinia laxa
Pseudomonas sp.
Pseudomonas syringae pv. *persicae*
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
Venturia carpophila
Xanthomonas campestris pv. *pruni*
- Prunus salicina** Lindl.
Monilinia fructicola
Pseudomonas syringae pv. *persicae*
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *pruni*
Xylella fastidiosa
- Prunus** sp.
Alternaria sp.
Gluconobacter oxydans
Monilinia fructicola
Monilinia laxa
Penicillium claviforme
Penicillium expansum
Pseudomonas syringae pv. *morsprunorum*
Pseudomonas syringae pv. *syringae*
Stigmia carpophila
Unknown yeast
Xanthomonas campestris pv. *pruni*
- Prunus tomentosa** Thunb.
Agrobacterium rhizogenes (tumourigenic strain)

- Gluconobacter oxydans*
Pythium monospermum
- Pseudopanax arboreus** (Murray) Philipson
Alternaria sp.
Colletotrichum sp.
- Pseudopanax laetus** (Kirk) Philipson
Alternaria sp.
Colletotrichum trichellum
Phoma sp.
- Pseudopanax** sp.
Alternaria alternata
Alternaria sp.
Cylindrocarpon sp.
Nectria radiculicola
Pseudomonas viridiflava
Septoria sp.
- Pseudotsuga menziesii** (Mirb.) Franco
Arthro bacter sp.
Polyporus tomentosus var. *circinatus*
Sphaeropsis sapinea
- Pseudowintera colorata** (Raoul) Dandy
Nectria egmontensis
- Pseudowintera** sp.
Pestalotiopsis sp.
- Psidium guajava** L.
Erwinia psidii
Kramasamuha sibika
Lasiodiplodia theobromae
Nectria rigidiuscula
- Psidium littorale** Raddi var. **longipes** (O. Berg) Fosb.
Botrytis cinerea
Glomerella cingulata
Septoria sp.
- Psidium** sp.
Phoma nigricans
- Psophocarpus tetragonolobus** (L.) DC.
Bradyrhizobium sp. (*Psophocarpus*)
Rhizobium sp.
- Psoralea pinnata** L.
Rhizobium sp.
- Pterocarpus indicus** Willd.
Fusarium oxysporum
Nectria haematococca
- Puccinellia fasciculata** (Torrey) Bicknell
Bipolaris sp.
Drechslera sp.
- Puccinia graminis** Pers. f. sp. **tritici** Erikss. & Henn.
Erwinia ananas pv. *uredovora*
- Pueraria montana** (Lour.) Merr. = **Glycine javanica** auct. non L.
Pseudomonas savastanoi pv. *phaseolicola*
Pseudomonas syringae
- Punica granatum** L.
Xanthomonas campestris pv. *punicae*
- Pyracantha** sp.
Erwinia amylovora
- Pyrus calleryana** Decne.
Pseudomonas syringae pv. *syringae*
- Pyrus communis** L.
Agrobacterium rhizogenes (tumourigenic strain)
Colletotrichum acutatum
Colletotrichum fructigenum
Erwinia amylovora
Erwinia herbicola
Erwinia sp.
Fusicoccum luteum
Penicillium expansum
Phoma macrostoma var. *incolorata*
Pseudomonas putida
Pseudomonas sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Venturia pyrina
- Pyrus pyrifolia** (Burm.f.) Nakai
Botrytis cinerea
Enterobacter pyrinus
Erwinia amylovora
Erwinia sp.
- Glomerella miyabeana*
Xanthomonas sp.
- Quercus nuttallii** Palmer
Pleurotus cystidiosus
- Quercus** sp.
Erwinia quercina
Pseudomonas syringae
- Quintinia serrata** A. Cunn.
Hypocrea coprosma
- Ranunculus acris** L.
Pseudomonas cichorii
- Ranunculus repens** L.
Colletotrichum dematium
Micronectriella cucumeris
Plectosphaerella cucumerina
- Ranunculus sardous** Crantz
Phoma exigua
Plectosphaerella cucumerina
Septoria ranunculacearum
- Raphanus sativus** L.
Alternaria sp.
Pseudomonas syringae pv. *maculicola*
Ulocladium sp.
Xanthomonas campestris pv. *campestris*
Xanthomonas campestris pv. *raphani*
- Rhamnus cathartica** L.
Septoria sp.
- Rhaphiolepis umbellata** Makino
Pseudomonas syringae pv. *rhaphiolepidis*
- Rheum rhabarbarum** L.
Cylindrocladium parvum
Erwinia rhapontici
Phialophora sp.
Phoma sp.
- Rheum** sp.
Acremonium sp.
Cylindrocladium parvum
- Rheum undulatum** L.
Gluconobacter oxydans
- Rhododendron** sp.
Colletotrichum acutatum
Phoma macrostoma var. *incolorata*
Septoria azaleae
- Rhopalostylis sapida** Wendl. & Drude
Bisporella discedens
Catabotrys deciduum
Colletotrichum sp.
Hypocrea rufa
Nectria coprosmae
Nectria ochroleuca
Nectria suffulta
Pestalotiopsis sp.
- Rhus** sp.
Pseudomonas syringae
- Rhynchosia memnonia** DC.
Xanthomonas campestris pv. *rhynchosiae*
- Rhynchosia phaseoloides** DC.
Xanthomonas campestris pv. *rhynchosiae*
- Ribes aureum** Pursh
Pseudomonas syringae pv. *ribicola*
- Ribes nigrum** L.
Botryosphaeria dothidea
Fusicoccum sp.
- Ribes sativum** (Rchb.) Syme
Calonectria kyotensis
- Ribes uva-crispa** L.
Armillaria? sp.
Botryosphaeria dothidea
Verticillium dahliae
- Ricinus communis** L.
Pseudomonas syringae
Xanthomonas campestris pv. *ricini*
- Ripogonum scandens** J.R. & G. Forst.
Colletotrichum coccodes
Nectria cf. *coprosmae*

- Robina pseudoacacia** L.
Rhizobium sp.
- Robinia pseudoacacia** L.
Fusarium solani f. sp. *robiniae*
Rhizobium sp.
- Rosa multiflora** Thunb. ex Murr.
Agrobacterium rhizogenes (tumourigenic strain)
Agrobacterium sp. (tumourigenic strain)
Pythium middletonii
- Rosa** sp.
Agrobacterium rhizogenes (rhizogenic strain)
Agrobacterium rhizogenes (tumourigenic strain)
Emericella nidulans
Fusarium sp.
Leptosphaeria coniothyrium
Nectria lucida
Penicillium expansum
Penicillium griseofulvum
Phoma herbarum
Pseudomonas marginalis
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
Rosellinia caudata
Verticillium dahliae
- Roystonea regia** (Kunth) O.F. Cook
Xanthomonas campestris pv. *vasculorum*
- Rubus fruticosus** L.
Gibberella acuminata
Gnomonia rostellata
Phomopsis sp.
Septocytia ruborum
- Rubus idaeus** L.
Agrobacterium sp. (tumourigenic strain)
Agrobacterium sp.
Collybia sp.
Didymella appianata
Erwinia sp.
Pseudomonas syringae
- Rubus** sp.
Agrobacterium rubi
Erwinia sp.
- Rubus ursinus** Cham. & Schlecht.
Agrobacterium sp. (saprophytic strain)
Clethridium corticola
Truncatella angustata
- Rubus ursinus** Cham. & Schlecht. var. **loganobaccus** (L.H. Bailey) L.H. Bailey
Agrobacterium rhizogenes (tumourigenic strain)
Agrobacterium rubi
Agrobacterium sp. (tumourigenic strain)
Botrytis cinerea
Phoma sp.
Pseudomonas syringae
Verticillium dahliae
- Rumex obtusifolius** L.
Athelia rolfsii
Phoma rumicicola
- Rumex pulcher** L.
Colletotrichum destructivum
Cylindrocladium sp.
Fusarium trichothecioides
- Rytidosperma racemosum** (R. Br.) Connor & Edgar
Pyrenophora semeniperda
- Rytidosperma** sp.
Pyrenophora semeniperda
- Saccharum officinarum** L.
Acidovorax avenae subsp. *avenae*
Acidovorax avenae subsp. *cattleyae*
Clavibacter xyli subsp. *xyli*
Erwinia carotovora subsp. *carotovora*
Herbaspirillum rubrisubalbicans
Erwinia chrysanthemi
Phoma sorghina
Pseudomonas sp.
Pseudomonas syringae
Xanthomonas albilineans
Xanthomonas campestris pv. *vasculorum*
- Saccharum** sp.
Erwinia ananas pv. *ananas*
Xanthomonas albilineans
- Sagina apetala** Ard.
Cercospora sp.
- Saintpaulia** sp.
Erwinia chrysanthemi
- Salix** X **dasyclados** Wimm.
Xanthomonas populi
- Salix** X **erythroflexuosa** Rag. & Alberti
Pseudomonas syringae pv. *syringae*
- Salix alba** L.
Erwinia salicis
Xanthomonas campestris pv. *populi*
- Salix alba** L. X **S. matsudana** G. Koidz.
Colletotrichum fructigenum
- Salix alba** L. subsp. **vitellina** Stokes
Erwinia salicis
- Salix fragilis** L.
Erwinia sp.
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Salix matsudana** G. Koidz.
Pezicula alba
Pseudomonas syringae pv. *syringae*
Pseudomonas syringae
- Salix matsudana** G. Koidz. X **S. alba** L.
Erwinia sp.
- Salix purpurea** L.
Agrobacterium tumefaciens (tumourigenic strain)
- Salix** sp.
Colletotrichum acutatum
Erwinia salicis
Glomerella miyabeana
Hypocrea vinosa
Pseudomonas sp.
Pseudomonas syringae
- Salix viminalis** L.
Agrobacterium tumefaciens (tumourigenic strain)
- Salvia** sp.
Xanthomonas sp.
- Sandersonia aurantiaca** Hook.
Fusarium oxysporum
Penicillium sp.
- Sandersonia** sp.
Pseudomonas syringae
- Sanseverina** sp.
Glomerella cingulata
- Schefflera arboricola** Hayata ex Kanehira
Xanthomonas campestris pv. *hederae*
- Schefflera digitata** J.R. & G. Forst.
Fusarium solani f. sp. *eumartii*
Phoma sp.
- Scleroderma** sp.
Pseudomonas tolaasii
- Sclerotinia sclerotiorum** (Libert) de Bary
Coniothyrium minitans
- Scolypopa** sp. [Invertebrate]
Phoma sp.
- Scutellaria** sp.
Verticillium dahliae
- Secale cereale** L.
Gibberella avenacea
Pseudomonas syringae pv. *atrofaciens*
Pseudomonas syringae pv. *coronafaciens*
Pseudomonas syringae
Rhynchosporium secalis
Xanthomonas campestris pv. *secalis*
- Secium edule** (Jacq.) Swartz
Fusarium culmorum
Fusarium trichothecioides
- Senecio cruentus** (Masson) de Candolle
Alternaria cinerariae

- Senecio jacobea** L.
Phoma senecionis
- Senecio vulgaris** L.
Itersonila pastinacae
- Sequoia sempervirens** (D. Don) Endl.
Potebniamyces coniferarum
- Sesamum indicum** L.
Pseudomonas syringae pv. *sesami*
Xanthomonas campestris pv. *sesami*
- Sesbania aculeata** Poir.]
Rhizobium sp.
- Sesbania sesban** (L.) Merr.
Xanthomonas campestris pv. *sesbaniae*
- Sesbania** sp.
Xanthomonas campestris pv. *sesbaniae*
- Setaria glauca** (auct. non L.) Beauv.
Bipolaris sacchari
Curvularia trifolii
- Setaria italica** (L.) Beauv.
Acidovorax avenae subsp. *avenae*
Erwinia herbicola
Pseudomonas syringae
- Setaria** sp.
Curvularia cf. *clavata*
Phoma plurivora
- Setcreasea pallida** Rose
Burkholderia andropogonis
- Sieglingia decumbens** (L.) Bernh.
Pyrenophora semeniperda
- Siteroptes avenae** (Muller)
Fusarium poae
- Solanum americanum** Mill.
Ralstonia solanacearum
- Solanum mauritianum** Scop.
Pseudomonas syringae pv. *tomato*
- Solanum melongena** L. var. *esculentum* Nees
Alternaria solani
Colletotrichum acutatum
Fusarium oxysporum f. sp. *melongenae*
Phoma sp.
Pseudomonas cichorii
Ralstonia solanacearum
- Solanum muricatum** Ait.
Alternaria solani
Clavibacter michiganensis subsp. *michiganensis*
Phytophthora citricola
Pseudomonas syringae pv. *tomato*
- Solanum nigrum** L.
Alternaria alternata
Clavibacter michiganensis subsp. *michiganensis*
Myrothecium leucotrichum
Penicillium digitatum
Pseudomonas sp.
Pseudomonas viridiflava-like
Pyrenochaeta lycopersici
Pyrenochaeta sp.
Ralstonia solanacearum
- Solanum quitoense** Lam.
Colletotrichum coccodes
Fusarium sambucinum var. *coeruleum*
- Solanum sisymbriifolium** Lam.
Ralstonia solanacearum
- Solanum** sp.
Pyrenochaeta sp.
Xanthomonas campestris pv. *vesicatoria*
- Solanum tuberosum** L.
Acremonium murorum
Alternaria porri
Alternaria solani
Arthrobotrys oligospora
Aspergillus niger
Aspergillus sp.
Athelia rolfsii
Clavibacter michiganensis subsp. *sepedonicus*
Colletotrichum coccodes
Doratomyces microsporus
Endomyces geotrichum
Erwinia carotovora subsp. *atroseptica*
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi pv. *zeae*
Erwinia chrysanthemi
Fusarium culmorum
Fusarium oxysporum f. sp. *redolens*
Fusarium oxysporum
Fusarium solani var. *coeruleum*
Fusarium sp.
Gibberella baccata
Gibberella cyanogena
Gibberella fujikuroi
Helminthosporium solani
Nectria haematococca
Nectria ochroleuca
Penicillium janthinellum
Phoma exigua var. *exigua*
Phoma exigua var. *foveata*
Phomopsis tuberivora
Pseudomonas marginalis pv. *marginalis*
Pseudomonas marginalis
Pseudomonas sp.
Ralstonia solanacearum
Streptomyces acidiscabies
Streptomyces scabies
Streptomyces setonii
Streptomyces sp.
Ulocladium atrum
Verticillium albo-atrum
Verticillium dahliae
Verticillium nigrescens
- Soliva sessilis** R. & P.
Pyrenochaeta lycopersici
- Sonchus oleraceus** L.
Alternaria sonchi
- Sophora angustifolia** Sieb. & Zucc.
Rhizobium sp.
- Sophora formosa** Kearney & Peebles
Rhizobium sp.
- Sophora howinsula** (W.R.B. Oliver) P.S. Green
Rhizobium sp.
- Sophora microphylla** Ait.
Bradyrhizobium sp. (*Sophora*)
Fusarium solani f. sp. *eumartii*
Nectria kowhai
Nectria ochroleuca
Rhizobium sp.
- Sophora prostrata** Buchanan
Rhizobium sp.
- Sophora secundiflora** (Ort.) Lag. ex DC.
Rhizobium sp.
- Sophora tetraptera** Mill.
Rhizobium sp.
- Sophora tomentosa** L.
Rhizobium sp.
- Sorbus aria** (L.) Crantz
Erwinia amylovora
- Sorghum** X *almum* Parodi
Setosphaeria turcica
- Sorghum bicolor** (L.) Moench
Burkholderia andropogonis
Curvularia sp.
Erwinia herbicola
Fusarium culmorum
Fusarium oxysporum
Fusarium sp.
Gibberella zeae
Herbaspirillum rubrisubalbicans
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *holcicola*
- Sorghum** sp.
Burkholderia andropogonis
Pseudomonas syringae pv. *syringae*
Xanthomonas campestris pv. *holcicola*
- Sorghum sudanense** (Piper) Stapf
Pseudomonas syringae
- Spartium junceum** L.
Rhizobium sp.

- Spergula arvensis** L.
Athelia rolfsii
- Spermacoce hispida** L.
Xanthomonas campestris pv. *spermacoces*
- Spinacia oleracea** L.
Ascochyta caulina
Phytophthora cryptogea
- Spondias cytherea** Sonn.
Xanthomonas sp.
- Sporobolus africanus** (Poir.) Robyns & Tournay
Cochliobolus ravenelii
Curvularia trifolii
Gibberella acuminata
Gibberella avenacea
- Sporobolus** sp.
Cochliobolus ravenelii
- Stenotaphrum secundatum** (Walt.) O. Kuntze
Drechslera dematioidea
- Stereum** sp.
Hypomyces aureo-nitens
Hypomyces rosellus
- Stethaspis longicornis** (Arrow) [Invertebrate]
Metarhizium anisopliae var. *anisopliae*
- Stranvaesia** sp.
Erwinia amylovora
- Strelitzia reginae** Ait.
Ralstonia solanacearum
Xanthomonas sp.
- Stylosanthes guianensis** Aubl.
Glomerella cingulata
Rhizobium sp.
- Styphnolobium japonicum** Schott
Rhizobium sp.
- Sutherlandia frutescens** (L.) R. Br.
Rhizobium sp.
- Swainsona canescens** (Benth.) F. Muell.
Rhizobium sp.
- Swainsona galegifolia** (Andr.) R. Br.
Rhizobium sp.
- Swainsona novae-zelandiae** Hook.f.
Rhizobium sp.
- Symphytum** sp.
Ralstonia solanacearum
- Symplocos lucida** Sieb. & Zucc. var. *nakaharae* Mak. & Nemoto
Pseudomonas symploci
- Syngonium podophyllum** Schott.
Xanthomonas campestris pv. *syngonii*
- Syngonium** sp.
Glomerella cingulata
Myrothecium roridum
- Syringa vulgaris** L.
Pseudomonas syringae pv. *syringae*
Pseudomonas viridiflava
- Syzygium aqueum** (Burm.f.) Alston
Pseudomonas sp.
- Syzygium aromaticum** (L.) Merr. & L.M. Perry
Pseudomonas syzygii
Ralstonia solanacearum
Xanthomonas sp.
- Tagetes erecta** L.
Agrobacterium rhizogenes (tumourigenic strain)
Agrobacterium sp. (tumourigenic strain)
Erwinia herbicola
Pseudomonas syringae pv. *tagetis*
- Tagetes** sp.
Pseudomonas syringae pv. *tagetis*
- Tamarindus indica** L.
Xanthomonas campestris pv. *tamarindi*
- Taraxacum kok-saghyz** Rodin
Xanthomonas campestris pv. *taraxaci*
- Taxus** sp.
Pythium mamillatum
- Tectona grandis** L.f.
Ralstonia solanacearum
Xanthomonas campestris pv. *melhusii*
- Teloepa** sp.
Glomerella cingulata
Nectria radicularis
- Teloepa speciosissima** (Sm.) R. Br. X *T. oreades* Muell.
Trichocladium basicola
- Teramnus uncinatus** Sw.
Rhizobium sp.
- Theobroma cacao** L.
Lasiodiplodia theobromae
Nectria rigidiuscula
Thyronectria pseudotrichia
- Thespesia populnea** (L.) Sol. ex Corr.
Xanthomonas campestris pv. *malvacearum*
Xanthomonas campestris pv. *thespesiae*
- Thuja** sp.
Pseudomonas syringae pv. *syringae*
- Thysanolaena maxima** (Roxb.) O. Kuntze
Xanthomonas campestris pv. *vasculorum*
- Thysanoplusia orichalcea** (Fabricius) [Invertebrate]
Nomuraea rileyi
- Tilia cordata** Mill.
Elsinoe tiliae
- Tilia** sp.
Pseudomonas syringae
- Trema orientalis** Blume
Pseudomonas syringae pv. *tremae*
- Tribulus terrestris** L.
Drechslera multiformis
Xanthomonas campestris pv. *tribuli*
- Trichodesma zeylanicum** R. Br.
Xanthomonas campestris pv. *trichodesmae*
- Trifolium africanum** Ser.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium ambiguum** Bieb.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium ambiguum** Bieb. X *T. repens* L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium beckwithii** Brewer
Rhizobium leguminosarum biovar *trifolii*
- Trifolium burchellianum** Ser.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium carolinianum** Michx.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium dasyphyllum** Torr. & Gray
Rhizobium leguminosarum biovar *trifolii*
- Trifolium fragiferum** L.
Phoma macrostoma var. *incolorata*
- Trifolium hybridum** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium hybridum** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium lupinaster** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium neglectum** C.A. Mey.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium pallescens** Schreb.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium pallidum** Waldst. & Kit.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium polymorphum** Poir.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium pratense** L.
Pseudomonas syringae
Rhizobium leguminosarum biovar *trifolii*
- Trifolium procumbens** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium purpureum** Loisel.
Phoma exigua

- Trifolium repens** L.
Botrytis cinerea
Burkholderia andropogonis
Cercospora zebrina
Chrysosporium sp.
Colletotrichum coccodes
Colletotrichum destructivum
Curvularia trifolii
Dictyochoaeta fertilis
Fusarium oxysporum
Gibberella avenacea
Macrophomina phaseolina
Nectria radiculicola
Phoma leveillei
Pleospora tarda
Rhinocladiella sp.
Rhizobium leguminosarum biovar *trifolii*
Rhizoctonia sp.
- Trifolium repens** L. X **T. ambiguum** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium rueppellianum** Fresen.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium rydbergii** Greene
Rhizobium leguminosarum biovar *trifolii*
- Trifolium semipilosum** Fresen.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium** sp.
Burkholderia andropogonis
Chromobacterium violaceum
Codinaea fertilis
Curvularia trifolii
Leptosphaeria pratensis
Phoma macrostoma var. *incolorata*
Rhizobium leguminosarum biovar *trifolii*
Stachybotrys atra
Trichocladium basicola
- Trifolium subterraneum** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium subterraneum** L. subsp. **yannicum** Katzn. & Morley
Rhizobium leguminosarum biovar *trifolii*
- Trifolium tembense** Fresen.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium uniflorum** L.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium usambarense** Taub ex Engl.
Rhizobium leguminosarum biovar *trifolii*
- Trifolium vesiculosum** Savi
Rhizobium leguminosarum biovar *trifolii*
- Trigonella suavissima** Lindl.
Bradyrhizobium sp. (*Trigonella*)
Rhizobium meliloti
Rhizobium sp.
- Triplaris filipensis** Wedd.
Burkholderia andropogonis
- Tripsacum laxum** Nash
Xanthomonas campestris
Xanthomonas sp.
- X **Triticosecale** sp.
Pseudomonas syringae pv. *striaefaciens*
Pseudomonas syringae
- Triticum aestivum** L.
Bacillus megaterium pv. *cerealis*
Ceratocystis paradoxa
Clavibacter iranicus
Clavibacter michiganensis subsp. *tessellarius*
Clavibacter tritici
Erwinia herbicola
Erwinia rhapontici
Fusarium sambucinum var. *coeruleum*
Gaeumannomyces graminis var. *tritici* (new name)
Gibberella acuminata
Gibberella zeae
Microdochium dimerum
Monographella nivalis
Mycosphaerella graminicola
Penicillium aurantiogriseum
Pseudomonas cichorii
Pseudomonas fuscovaginatae
Pseudomonas syringae pv. *atrofaciens*
Pseudomonas syringae pv. *syringae*
- Pseudomonas syringae*
Pyrenophora avenae
Pyrenophora japonica
Pyrenophora teres
Clavibacter iranicus
Xanthomonas campestris pv. *cerealis*
Xanthomonas campestris pv. *translucens*
Xanthomonas campestris pv. *undulosa*
- Triticum monococcum** L.
Pseudomonas fluorescens
- Triticum turgidum** L.
Pseudomonas syringae pv. *atrofaciens*
Xanthomonas campestris pv. *undulosa*
- Triticum turgidum** L. X **Secale cereale** L.
Xanthomonas campestris pv. *translucens*
- Triumfetta pilosa** Roth
Xanthomonas campestris pv. *thirumalacharii*
- Tropaeolum majus** L.
Acroconidiella tropaeoli
Pseudomonas syringae
- Tropaeolum** sp.
Pseudomonas syringae
- Tsuga heterophylla** (Raf.) Sarg.
Heterobasidium annosum
- Tulipa gesnerana** L.
Curtobacterium flaccumfaciens pv. *oortii*
- Ulex europaeus** L.
Ascochyta sp.
Botryosphaeria sp.
Bradyrhizobium sp. (*Ulex*)
Cladosporium cladosporioides
Colletotrichum sp.
Drechslera biseptata
Fusarium gramineum
Gibberella avenacea
Gibberella baccata
Gibberella pulicaris
Gibberella tumida
Microsphaeropsis sp.
Pestalotiopsis sp.
Phomopsis sp.
Pleiochaeta setosa
Pleospora herbarum
Rhizobium sp.
Septoria slaptonensis
Septoria sp.
- Ulmus americana** L.
Xylella fastidiosa
- Ulmus pumila** L.
Pseudomonas syringae
- Ulmus** sp.
Chalara thielavioides
Erwinia herbicola
Erwinia nimipressuralis
Phoma macrostoma var. *macrostoma*
Phoma putaminum
Pseudomonas syringae pv. *ulmi*
- Urtica dioica** L.
Phoma nebulosa
- Urtica urens** L.
Sclerotinia sclerotiorum
- Vaccinium ashei** Reade
Botryosphaeria dothidea
Botryosphaeria stevensii
Phyllosticta sp.
Seimatosporium vaccinii
- Vaccinium corymbosum** L.
Botryosphaeria dothidea
Botrytis cinerea
Colletotrichum acutatum
Fusarium oxysporum
Glomerella cingulata
Phoma huancayensis
Phoma nigricans
Phoma sp.
Phomopsis sp.
Pseudomonas viridiflava
Sclerotinia sclerotiorum
Seimatosporium vaccinii

- Vaccinium** sp.
Burkholderia andropogonis
Cylindrocladium floridanum
Nocardia vaccinii
Pestalotia vaccinii
Pseudomonas syringae
- Vanda** sp.
Pithomyces maydicus
- Vanilla planifolia** Andr.
Nectria rigidiuscula
- Verbascum nigrum** L.
Rhodococcus fascians
- Vernonia cinerea** (L.) Less.
Xanthomonas campestris pv. *vernoniae*
- Veronica** sp.
Pyrenochaeta lycopersici
- Veronica tournefortii** C.C. Gmel.
Discogloeum veroniae
- Vesputia germanica** (Fabricius) [Invertebrate]
Beauveria bassiana
Paecilomyces farinosus
- Viburnum** sp.
Pseudomonas syringae pv. *viburni*
- Vicia faba** L.
Alternaria solani
Gibberella acuminata
Pseudomonas syringae
Rhizobium sp.
Septoria sp.
- Vicia sativa** L. subsp. *nigra* (L.) Ehrh.
Rhizobium leguminosarum biovar *viciae*
- Vicia villosa** Roth
Pseudomonas syringae
- Vigna angularis** (Willd.) Ohwi & Ohashi
Bradyrhizobium sp. (Vigna)
Curtobacterium flaccumfaciens pv. *flaccumfaciens*
Fusarium oxysporum
Pseudomonas savastanoi pv. *phaseolicola*
Xanthomonas campestris pv. *vignicola*
- Vigna marina** (Burm.f.) Merr.
Bradyrhizobium sp. (Vigna)
- Vigna radiata** (L.) R. Wilcz.
Curtobacterium flaccumfaciens pv. *flaccumfaciens*
Pseudomonas savastanoi pv. *phaseolicola*
Pseudomonas syringae
Rhizobium sp.
Xanthomonas campestris pv. *vignaeradiatae*
- Vigna schimperii** Baker
Bradyrhizobium sp. (Vigna)
- Vigna** sp.
Rhizobium sp.
- ? **Vigna** sp.
Xanthomonas campestris
Xanthomonas sp.
- Vigna unguiculata** (L.) Walp.
Rhizobium sp.
Xanthomonas campestris pv. *vignicola*
- Vigna unguiculata** (L.) Walp. subsp. *cylindrica* (L.) van Eselt. ex Verdc.
Xanthomonas campestris pv. *vignicola*
- Vigna unguiculata** (L.) Walp. subsp. *unguiculata*
Botryosphaeria xanthocephala
- Viola** sp.
Cladosporium cladosporioides
Cladosporium sphaerospermum
- Viola** X **Wittrockiana** Gams
Mycocentrospora acerina
- Vitex lucens** Kirk
Glomerella cingulata
Phoma sp.
Pseudomonas sp.
- Vitis carnosa** Wall.
Xanthomonas campestris pv. *vitiscairosae*
- Vitis champinii** Planch.
Agrobacterium vitis
- Vitis rupestris** Scheele
Verticillium dahliae
- Vitis** sp.
Agrobacterium tumefaciens
Botrytis cinerea
Gluconobacter oxydans
Phomopsis sp.
Xanthomonas campestris pv. *viticola*
Xylella fastidiosa
- Vitis trifolia** L.
Xanthomonas campestris pv. *vitrifoliae*
- Vitis vinifera** L.
Agrobacterium sp. (saprophytic strain)
Agrobacterium sp. (tumourigenic strain)
Agrobacterium sp.
Agrobacterium tumefaciens
Agrobacterium vitis (saprophytic strain)
Agrobacterium vitis (tumourigenic strain)
Agrobacterium vitis
Aphanocladium sp.
Botrytis cinerea
Eutypa lata
Fusicoccum luteum
Gibberella cyanogena
Glomerella cingulata
Leptosphaerulina chartarum
Phoma glomerata
Phoma negriana
Phoma sp.
Phomopsis viticola
Pseudomonas sp.
Pseudomonas syringae
Pseudomonas viridiflava
Verticillium dahliae
Xanthomonas campestris pv. *vitiswoodrowii*
Xylella fastidiosa
Xylophilus ampelinus
- Vitis vinifera** L. X **V. labrusca** L.
Botrytis cinerea
- Vitis woodrowii** Stapf
Xanthomonas campestris pv. *vitiswoodrowii*
- Vogtia** sp. [Invertebrate]
Aspergillus flavus
- Vulpia bromoides** (L.) S.F. Gray
Drechslera bisepitata
- Watsonia meriana** (L.) Mill.
Pestalotia watsoniae
- Weinmannia racemosa** L.f.
Coccoomyces sp.
Hypocrea coprosma
Hypocrea schweinitzii
Phoma sp.
Pseudomonas sp.
Pseudomonas syringae
- Wellingtonia** sp.
Phoma exigua
- Wintera** sp.
Nectria fragilis
- Wiseana** sp.
Metarhizium anisopliae var. *anisopliae*
- Wisteria floribunda** (Willd.) DC.
Erwinia herbicola pv. *millettiae*
Pseudomonas syringae
- Xanthium strumarium** L.
Xanthomonas campestris pv. *badrii*
- Xanthosoma sagittifolium** (L.) Schott
Xanthomonas campestris pv. *aracearum*
- Xylosma** sp.
Colletotrichum acutatum
- Yucca elephantipes** Regel
Erwinia chrysanthemi pv. *zeae*
- Zantedeschia aethiopica** (L.) Spreng.
Erwinia carotovora subsp. *carotovora*
Phoma sp.

- Xanthomonas campestris* pv. *zantedeschiae*
Zantedeschia elliotiana (W. Wats.) Engl.
Erwinia carotovora subsp. *carotovora*
Pythium myriotylum
- Zantedeschia elliotiana** (W. Wats) Engl. X **pentlandii** (Whyte ex Wats.) Wittm.
Athelia rolfsii
- Zantedeschia** sp.
Erwinia carotovora subsp. *carotovora*
Erwinia sp.
Nectria inventa
Nectria ochroleuca
- Zanthoxylum piperitum** DC.
Fusarium solani f. sp. *xanthoxyli*
- Zea mays** L.
Acidovorax avenae subsp. *avenae*
Aureobasidium zeae
Burkholderia andropogonis
Clavibacter michiganensis subsp. *nebraskensis*
Cochliobolus heterostrophus
Cochliobolus sativus
Curvularia cf. *clavata*
Diplodia zeae
Erwinia carotovora subsp. *carotovora*
Erwinia chrysanthemi pv. *zeae*
Erwinia dissolvens
Erwinia herbicola
Erwinia sp.
Erwinia stewartii
Fusarium crookwellense
Fusarium culmorum
Fusarium oxysporum
Fusarium poae
Fusarium semitectum
Fusarium subglutinans
Gibberella avenacea
Gibberella baccata
Gibberella fujikuroi var. *subglutinans*
Gibberella fujikuroi
Gibberella intricans
Gibberella stilboides
Gibberella zeae
Mycosphaerella zeae-maydis
Nectria haematococca
Penicillium spinulosum
Pseudomonas aeruginosa
Pseudomonas fluorescens
Pseudomonas marginalis
Pseudomonas sp.
- Pseudomonas syringae* pv. *coronafaciens*
Pseudomonas syringae
Rhizoctonia solani
Setosphaeria turcica
Ustilago maydis
Xanthomonas campestris pv. *vasculorum*
- Zea mays** L. var. **indentata** (Sturtev.) L.H. Bailey
Erwinia stewartii
- Zea mays** L. var. **praecox** Bonaf.
Cochliobolus heterostrophus
- Zea mays** L. var. **rugosa** Bonaf.
Acidovorax avenae subsp. *avenae*
Erwinia chrysanthemi pv. *zeae*
Erwinia dissolvens
Herbaspirillum rubrisubalbicans
Erwinia stewartii
Pseudomonas fluorescens
Pseudomonas sp.
- Zea mexicana** (Schrad.) Reeves & Mangelsd.
Acidovorax avenae subsp. *avenae*
- Zea** sp.
Pseudomonas syringae pv. *lapsa*
- Zingiber mioga** Rosc.
Ralstonia solanacearum
Xanthomonas campestris pv. *zingibericola*
- Zingiber officinale** Rosc.
Aeromonas sp.
Fusarium oxysporum var. *zingiberi*
Gibberella fujikuroi var. *subglutinans*
Nectria haematococca
Ralstonia solanacearum
Xanthomonas campestris pv. *zingibericola*
- Zingiber** sp.
Cylindrocladium sp.
- Zinnia elegans** Jacq.
Arthrobotrys sp.
Xanthomonas campestris pv. *nigromaculans*
Xanthomonas campestris pv. *zinniae*
- Zinnia** sp.
Xanthomonas campestris pv. *zinniae*
- Zizania aquatica** L.
Pseudomonas syringae pv. *zizaniae*
- Zoysia** sp.
Drechslera sp.

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14	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>	109	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
15	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica rapa</i> su	110	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
16	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Raphanus sativu</i>	111	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
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20	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus</i> sp.	115	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
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26	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus</i> sp.	121	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
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28	<i>Xanthomonas campestris</i> pv. <i>citri</i>	125	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
29	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus</i> sp.	126	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
30	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus</i> sp.	127	<i>Pseudomonas flectens</i> - <i>Phaseolus vulgaris</i>
31	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus limon</i>	128	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
32	<i>Xanthomonas campestris</i> pv. <i>citri</i>	129	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
33	<i>Xanthomonas campestris</i> pv. <i>citri</i>	130	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
34	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	131	<i>Streptomyces michiganensis</i>
35	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	132	<i>Streptomyces tendae</i>
36	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	134	<i>Streptomyces prasinopilosus</i>
37	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	136	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
38	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	137	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
39	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	138	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
40	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	139	<i>Pseudomonas syringae</i> - <i>Passiflora edulis</i>
41	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	140	<i>Pseudomonas</i> sp.
42	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	141	<i>Streptomyces ipomoeae</i>
43	<i>Streptomyces</i> sp. - Soil (Conroy's)	142	<i>Streptomyces galliaeus</i>
44	<i>Streptomyces</i> sp. - Soil (Taitapu)	143	<i>Streptomyces ramulosus</i>
45	<i>Streptomyces</i> sp. - Soil (black loam)	144	<i>Streptomyces prasinus</i>
46	<i>Streptomyces</i> sp. - Soil (Waikare)	145	<i>Streptomyces pilosus</i>
47	<i>Streptomyces</i> sp. - Soil (Papakauri)	146	<i>Paecilomyces variotii</i> - Wool
48	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	147	<i>Paecilomyces farinosus</i> - Insect
49	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	148	<i>Penicillium glabrum</i> - Air
50	<i>Xanthomonas axonopodis</i> - <i>Axonopus scoparius</i>	149	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Oxycanus</i> sp.
51	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>	151	<i>Endomyces geotrichum</i> - <i>Solanum tuberosum</i>
52	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>	153	<i>Streptomyces viridochromogenes</i>
53	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	154	<i>Streptomyces chartreusis</i>
54	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	155	<i>Streptomyces fulvissimus</i>
55	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	156	<i>Streptomyces parvullus</i>
56	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>	157	<i>Streptomyces purpurascens</i>
57	<i>Xanthomonas campestris</i> pv. <i>pruni</i>	158	<i>Streptomyces</i> sp.
58	<i>Xanthomonas campestris</i> pv. <i>pruni</i>	159	<i>Streptomyces echinatus</i>
59	<i>Xanthomonas campestris</i> pv. <i>pruni</i>	160	<i>Streptomyces</i> sp.
60	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus domestica</i>	161	<i>Streptomyces antibioticus</i>
61	<i>Xanthomonas campestris</i> pv. <i>pruni</i>	162	<i>Streptomyces reticuli</i>
62	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	163	<i>Streptomyces griseus</i>
63	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>	164	<i>Streptomyces chrysomallus</i>
64	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>	165	<i>Aeromonas</i> sp. - <i>Zingiber officinale</i>
65	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>	166	<i>Xanthomonas campestris</i> pv. <i>patellii</i> - <i>Crotalaria juncea</i>
66	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>	167	<i>Xanthomonas campestris</i> pv. <i>patellii</i> - <i>Crotalaria juncea</i>
67	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	168	<i>Xanthomonas campestris</i> pv. <i>desmodirotundifolii</i> - <i>Desmodi</i>
74	<i>Xanthomonas axonopodis</i> - <i>Axonopus scoparius</i>	169	<i>Streptomyces olivaceus</i>
76	Unknown bacterium - rec. as <i>Xanthomonas cyamopsidis</i>	171	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
77	<i>Erwinia herbicola</i> - <i>Setaria italica</i>	172	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
78	Unknown bacterium - rec. as <i>Xanthomonas eleusineae</i> - <i>Ele</i>	173	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
80	<i>Xanthomonas campestris</i> pv. <i>niptomaculans</i>	174	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
81	<i>Erwinia herbicola</i> - <i>Setaria italica</i>	175	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
82	<i>Xanthomonas campestris</i> pv. <i>martyiniicola</i> - <i>Martynia diandra</i>	176	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
83	<i>Erwinia herbicola</i> - <i>Triticum aestivum</i>	178	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
84	<i>Xanthomonas campestris</i> pv. <i>laureliae</i> - <i>Laurelia novae-zela</i>	179	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
85	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus avium</i>	180	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
86	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>	181	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
87	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>	182	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
88	<i>Xanthomonas campestris</i> pv. <i>laureliae</i> - <i>Laurelia novae-zela</i>	183	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
89	<i>Erwinia herbicola</i> - <i>Pennisetum americanum</i>	184	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
90	<i>Xanthomonas campestris</i> pv. <i>vitiscarnosae</i> - <i>Vitis carnosae</i>	185	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annu</i>
91	<i>Erwinia herbicola</i>	186	<i>Xanthomonas</i> sp. - <i>Nicandra physalodes</i>
92	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	187	<i>Xanthomonas campestris</i> pv. <i>hyacinthi</i>
94	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum</i> sp.	188	<i>Xanthomonas campestris</i> pv. <i>hyacinthi</i> - <i>Hyacinthus orientali</i>

- 189 *Xanthomonas campestris* pv. *hyacinthi* - *Hyacinthus orientalis*
190 *Xanthomonas campestris* pv. *hyacinthi* - *Hyacinthus orientalis*
191 *Xanthomonas campestris* pv. *begoniae* - *Begonia* sp.
192 *Xanthomonas campestris* pv. *begoniae* - *Begonia* sp.
193 *Xanthomonas campestris* pv. *begoniae* - *Begonia* sp.
194 *Xanthomonas campestris* pv. *begoniae* - *Begonia* X *tuberhy*
195 *Xanthomonas campestris* pv. *begoniae* - *Begonia* sp.
196 *Xanthomonas albilineans* - *Saccharum officinarum*
197 *Xanthomonas campestris* pv. *officinarum*
199 *Xanthomonas campestris* pv. *carotae*
200 *Xanthomonas campestris* pv. *carotae*
201 *Xanthomonas campestris* pv. *vitians*
202 *Xanthomonas campestris* pv. *cucurbitae*
203 *Xanthomonas campestris* pv. *cucurbitae* - *Cucumis sativus*
204 *Xanthomonas campestris* pv. *cassavae* - *Manihot esculenta*
205 *Xanthomonas campestris* pv. *carotae* - *Daucus carota* var.
206 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
207 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
208 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
209 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
210 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
211 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
212 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
214 *Xanthomonas campestris* pv. *manihotis* - *Manihot esculenta*
216 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
217 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
218 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
219 *Xanthomonas campestris* pv. *papavericola* - *Argemone* sp.
220 *Xanthomonas campestris* pv. *papavericola* - *Papaver rhoeas*
221 *Xanthomonas campestris* pv. *papavericola* - *Papaver rhoeas*
222 *Xanthomonas campestris* pv. *manihotis*
223 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium* sp.
224 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium zonal*
225 *Xanthomonas campestris* pv. *pelargonii* - *Geranium pratense*
226 *Xanthomonas campestris* pv. *pelargonii* - *Geranium pratense*
227 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium* sp.
228 *Xanthomonas campestris* pv. *pelargonii* - *Geranium sanguineum*
229 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium* sp.
230 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium* sp.
231 *Streptomyces lavendulae*
232 *Streptomyces californicus*
233 *Streptomyces* sp.
234 *Streptomyces bikiniensis*
236 *Xanthomonas campestris* pv. *phaseoli*
237 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus* sp.
238 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus* sp.
239 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus* sp.
240 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
241 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium* sp.
242 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus* sp.
243 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus* sp.
244 *Xanthomonas campestris* pv. *glycines* - *Glycine max*
245 *Xanthomonas campestris* pv. *glycines* - *Glycine max*
246 *Xanthomonas campestris* pv. *glycines* - *Glycine max*
247 *Xanthomonas campestris* pv. *ricini*
248 *Xanthomonas campestris* pv. *ricini* - *Ricinus communis*
250 *Xanthomonas campestris* pv. *ricini*
251 *Acidovorax avenae* subsp. *avenae* - *Saccharum officinarum*
252 *Acidovorax avenae* subsp. *avenae* - *Saccharum officinarum*
253 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
254 *Acidovorax avenae* subsp. *avenae* - *Saccharum officinarum*
255 *Acidovorax avenae* subsp. *avenae* - *Saccharum officinarum*
256 *Erwinia stewartii* - *Zea mays*
257 *Erwinia stewartii* - *Zea mays* var. *rugosa*
258 *Erwinia stewartii* - *Zea mays* var. *rugosa*
262 *Erwinia herbicola*
263 *Erwinia herbicola*
264 *Erwinia herbicola*
265 *Erwinia herbicola*
266 *Erwinia herbicola*
267 *Erwinia herbicola*
268 *Erwinia herbicola*
269 *Erwinia herbicola*
270 *Erwinia stewartii* - *Zea mays* var. *rugosa*
271 *Erwinia stewartii* - *Zea mays* var. *rugosa*
272 *Erwinia herbicola*
273 *Erwinia herbicola*
274 *Erwinia herbicola*
275 *Erwinia herbicola*
276 *Erwinia herbicola*
277 *Erwinia herbicola*
278 *Erwinia herbicola*
279 *Erwinia herbicola*
280 *Erwinia herbicola*
281 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
282 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
284 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
286 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
288 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
293 *Xanthomonas campestris* pv. *secalis* - *Secale cereale*
294 *Xanthomonas campestris* pv. *secalis* - *Secale cereale*
295 *Xanthomonas campestris* pv. *hordei* - *Hordeum vulgare*
297 *Xanthomonas campestris* pv. *undulosa* - *Triticum aestivum*
299 *Xanthomonas campestris* pv. *uppalii* - *Ipomoea muricata*
300 *Xanthomonas campestris* pv. *uppalii*
301 *Xanthomonas campestris* pv. *uppalii*
302 *Xanthomonas campestris* pv. *vasculorum* - *Roystonea regia*
303 *Xanthomonas campestris* pv. *vasculorum* - *Roystonea regia*
304 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
305 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
306 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
307 *Xanthomonas campestris* pv. *vasculorum* - *Thysanolaena*
308 *Xanthomonas campestris* pv. *zinniae* - *Zinnia* sp.
312 *Xanthomonas campestris* pv. *betlicola* - *Piper betle*
313 *Xanthomonas campestris* pv. *vasculorum* - *Cassia tora*
314 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
315 *Xanthomonas campestris* pv. *desmodii* - *Desmodium diffusum*
317 *Xanthomonas campestris* pv. *olitorii* - *Corchorus olitorius*
318 *Xanthomonas campestris* pv. *maculifoliogardeniae* - *Gardenia*
319 *Xanthomonas campestris* pv. *lawsoniae* - *Lawsonia inermis*
320 *Streptomyces albosporus*
322 *Streptomyces alboniger* - Soil
323 *Streptomyces diastaticus*
324 *Streptomyces lipmanii*
325 *Streptomyces olivaceus*
326 *Xanthomonas campestris* pv. *vasculorum* - *Zea mays*
327 *Xanthomonas campestris* pv. *vasculorum* - *Thysanolaena*
328 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
329 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
330 *Xanthomonas campestris* pv. *alfalfae* - *Medicago sativa*
331 *Xanthomonas campestris* pv. *betlicola* - *Piper betle*
332 *Xanthomonas campestris* pv. *poinsetticola*
333 *Xanthomonas campestris* pv. *vignicola* - *Vigna unguiculata*
334 *Xanthomonas campestris* pv. *vignicola*
335 *Xanthomonas campestris* pv. *vignicola* - *Vigna unguiculata*
336 *Xanthomonas campestris* pv. *vitians* - *Lactuca* sp.
337 *Xanthomonas campestris* pv. *vitians* - *Lactuca* sp.
350 *Erwinia ananas* pv. *uredovora* - *Puccinia graminis* f. sp. *tritici*
351 *Erwinia ananas* pv. *uredovora* - *Puccinia graminis* f. sp. *tritici*
352 *Erwinia ananas* pv. *uredovora* - *Puccinia graminis* f. sp. *tritici*
353 *Erwinia ananas* pv. *uredovora* - *Puccinia graminis* f. sp. *tritici*
354 *Xanthomonas campestris* pv. *maculifoliogardeniae* - *Gardenia*
355 *Xanthomonas campestris* pv. *vitians* - *Lactuca sativa*
356 *Xanthomonas campestris* pv. *vasculorum* - *Thysanolaena*
358 *Xanthomonas campestris* pv. *cassiae* - *Cassia tora*
359 *Xanthomonas campestris* pv. *olitorii* - *Corchorus olitorius*
360 *Xanthomonas campestris* pv. *punicae* - *Punica granatum*
361 *Xanthomonas campestris* pv. *punicae* - *Punica granatum*
362 *Xanthomonas campestris* pv. *vasculorum* - *Saccharum officinarum*
363 *Xanthomonas campestris* pv. *oryzae* - *Oryza sativa*
364 *Xanthomonas campestris* pv. *oryzae* - *Oryza sativa*
365 *Xanthomonas campestris* pv. *trichodesmae* - *Trichodesma*
366 *Xanthomonas campestris* pv. *sesbaniae* - *Sesbania* sp.
367 *Xanthomonas campestris* pv. *sesbaniae* - *Sesbania sesban*
368 *Bacillus subtilis*
369 *Agrobacterium tumefaciens* (tumourigenic strain)
371 *Agrobacterium* sp. (tumourigenic strain) - *Populus* sp.
372 *Pseudomonas viridiflava* - *Passiflora edulis*
392 *Streptomyces flaveolus*
393 *Pseudomonas viridiflava* - *Dysoxylum spectabile*
395 *Pseudomonas syringae* pv. *dysoxylifera* - *Dysoxylum spectabile*
396 *Pseudomonas syringae* pv. *dysoxylifera*
397 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
398 *Pseudomonas marginalis* - *Rosa* sp.
399 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
401 *Pseudomonas viridiflava* - *Rosa* sp.
403 *Pseudomonas marginalis* - *Rosa* sp.
404 *Pseudomonas marginalis* - *Rosa* sp.
405 *Pseudomonas* sp. - *Pisum sativum*
406 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
407 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
408 *Pseudomonas viridiflava* - *Prunus armeniaca*
409 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
410 *Pseudomonas syringae* pv. *syringae* - *Prunus avium*
411 *Pseudomonas viridiflava* - *Lycopersicon esculentum*
414 *Pseudomonas cichorii* - *Lycopersicon esculentum*
415 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculentum*
419 *Aspergillus sydowi* - Wool
421 *Aspergillus niger* - Air
422 *Chaetomium globosum* - Rotting fabric
425 *Penicillium chrysogenum*
426 *Paecilomyces* sp. - Wool
427 *Aspergillus terreus* - Wool (slipemaster)
428 *Leptosphaerulina chartarum* - Air

430	<i>Aspergillus micro-virido-citrinus</i> - Wool	537	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>
431	<i>Aspergillus terreus</i> - Wool	539	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.
432	<i>Syncephalastrum</i> sp. - Wool	540	<i>Pseudomonas fluorescens</i>
433	<i>Eurotium chevalieri</i> - Wool	542	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
434	<i>Aspergillus fumigatus</i> - Wool	543	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
437	<i>Xanthomonas campestris</i> pv. <i>barbareae</i> - <i>Barbarea vulgaris</i>	544	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
438	<i>Xanthomonas campestris</i> pv. <i>barbareae</i> - <i>Barbarea vulgaris</i>	545	<i>Pseudomonas syringae</i> pv. <i>dysoxyl</i> - <i>Dysoxylum spectabile</i>
439	<i>Xanthomonas campestris</i> pv. <i>lespedezae</i> - <i>Lespedeza</i> sp.	546	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus domestica</i>
440	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	548	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
441	<i>Xanthomonas campestris</i> pv. <i>amaranthicola</i> - <i>Amaranthus</i>	549	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
442	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	550	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
443	<i>Xanthomonas campestris</i> pv. <i>oryzae</i>	551	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
444	<i>Xanthomonas campestris</i> pv. <i>cajani</i> - <i>Cajanus cajan</i>	552	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var. <i>nu</i>
445	<i>Xanthomonas campestris</i> pv. <i>clerodendri</i> - <i>Clerodendron phil</i>	553	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
446	<i>Xanthomonas campestris</i> pv. <i>erythrinae</i> - <i>Erythrina variegat</i>	554	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.
448	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus maxima</i>	555	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>
449	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>	556	<i>Pseudomonas syringae</i> pv. <i>mori</i>
451	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>	557	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
452	<i>Xanthomonas campestris</i> pv. <i>hederae</i> - <i>Hedera helix</i>	558	<i>Pseudomonas</i> sp.
453	<i>Xanthomonas campestris</i> pv. <i>hederae</i> - <i>Hedera helix</i>	559	<i>Pseudomonas</i> sp. - <i>Prunus domestica</i>
454	<i>Xanthomonas campestris</i> pv. <i>hederae</i> - <i>Hedera helix</i>	560	<i>Pseudomonas fluorescens</i>
455	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>	561	<i>Pseudomonas</i> sp. - <i>Prunus avium</i>
456	<i>Pseudomonas syringae</i> - <i>Rubus idaeus</i>	562	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
457	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Malus X domestica</i>	563	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
458	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Persea americana</i>	564	<i>Pseudomonas</i> sp. - <i>Prunus persica</i>
459	<i>Pseudomonas syringae</i> pv. <i>aptata</i> - <i>Beta vulgaris</i>	565	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus armeni</i>
460	<i>Pseudomonas</i> sp. - <i>Prunus persica</i>	566	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
461	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus salicina</i>	567	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
462	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	568	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
463	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Salix fragilis</i>	569	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
464	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	570	<i>Xanthomonas campestris</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
465	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	571	<i>Xanthomonas campestris</i> pv. <i>badrii</i> - <i>Xanthium strumarium</i>
466	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>	572	<i>Xanthomonas campestris</i> pv. <i>tamarindi</i> - <i>Tamarindus indica</i>
467	<i>Streptomyces venezuelae</i>	573	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>
468	<i>Streptomyces olivaceus</i>	574	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>
469	<i>Streptomyces</i> sp.	576	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i>
470	<i>Streptomyces</i> sp.	577	<i>Xanthomonas campestris</i> pv. <i>desmodiigangetici</i> - <i>Desmodiu</i>
472	<i>Streptomyces bikiniensis</i>	579	<i>Xanthomonas campestris</i> pv. <i>taraxaci</i> - <i>Taraxacum kok-sag</i>
473	<i>Streptomyces coelicolor</i>	582	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica rapa</i>
474	<i>Streptomyces griseus</i>	583	<i>Xanthomonas campestris</i> pv. <i>alangii</i> - <i>Alangium salviifolium</i>
475	<i>Penicillium</i> sp. - Bark	584	<i>Xanthomonas campestris</i> pv. <i>coriandri</i>
477	<i>Aspergillus terreus</i> - Wool	585	<i>Xanthomonas campestris</i> pv. <i>durantae</i> - <i>Duranta repens</i>
478	<i>Aspergillus sydowi</i> - Wool	586	<i>Xanthomonas campestris</i> pv. <i>physalidicola</i> - <i>Physalis alkeke</i>
479	<i>Streptomyces flavidoviensis</i>	587	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>
480	<i>Streptomyces halstedii</i>	589	<i>Xanthomonas campestris</i> pv. <i>lantanae</i> - <i>Lantana camara</i>
481	<i>Streptomyces lavendulae</i>	590	<i>Xanthomonas campestris</i> pv. <i>vignicola</i> - <i>Vigna unguiculata</i>
482	<i>Streptomyces microflavus</i>	591	<i>Xanthomonas campestris</i> pv. <i>spermacoces</i> - <i>Spermacoce</i>
483	<i>Streptomyces phaeochromogenes</i>	592	<i>Xanthomonas campestris</i> pv. <i>tribuli</i> - <i>Tribulus terrestris</i>
484	<i>Streptomyces venezuelae</i>	593	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica rapa</i>
485	<i>Streptomyces albobrisesolus</i>	594	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus</i> sp.
486	<i>Streptomyces albus</i>	607	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus</i> sp.
487	<i>Streptomyces albus</i>	608	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus avium</i>
488	<i>Streptomyces lipmanii</i>	609	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus avium</i>
489	<i>Streptomyces achromogenes</i>	610	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus avium</i>
490	<i>Streptomyces rochei</i>	613	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus avium</i>
491	<i>Streptomyces nitrosporeus</i>	614	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>
493	<i>Streptomyces scabies</i>	615	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>
495	<i>Streptomyces roseochromogenus</i>	616	<i>Xanthomonas campestris</i> pv. <i>cyamopsidis</i> - <i>Cyamopsis tetr</i>
496	<i>Streptomyces hygrosopicus</i>	618	<i>Xanthomonas campestris</i> pv. <i>khayae</i> - <i>Khaya senegalensis</i>
497	<i>Streptomyces</i> sp.	619	<i>Xanthomonas campestris</i> pv. <i>melhusi</i> - <i>Tectona grandis</i>
498	<i>Streptomyces olivaceus</i>	621	<i>Xanthomonas campestris</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>
499	<i>Streptomyces aureofaciens</i>	622	<i>Xanthomonas campestris</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>
500	<i>Streptomyces diastaticus</i>	623	Unknown bacterium - rec. as <i>Xanthomonas panic</i>
501	<i>Streptomyces matensis</i>	625	<i>Erwinia herbicola</i> - <i>Sorghum bicolor</i>
502	<i>Streptomyces canus</i>	626	<i>Erwinia herbicola</i> - <i>Zea mays</i>
503	<i>Streptomyces</i> sp. - Soil (Tokomaru silt loam)	627	<i>Erwinia herbicola</i>
504	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	629	<i>Erwinia herbicola</i>
505	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	631	Unknown bacterium - rec. as <i>Xanthomonas arsenoxydans-q</i>
508	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	632	Unknown bacterium - rec. as <i>Xanthomonas arsenoxydans-q</i>
509	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	634	<i>Xanthomonas campestris</i> pv. <i>oryzae</i>
512	<i>Burkholderia caryophylli</i> - <i>Dianthus caryophyllus</i>	636	<i>Xanthomonas campestris</i> pv. <i>barbareae</i> - <i>Barbarea vulgaris</i>
514	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i> var.	637	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
515	<i>Pseudomonas viridiflava</i> - <i>Prunus armeniaca</i>	638	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
516	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus salicina</i>	639	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var. <i>nu</i>
518	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	640	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var. <i>nu</i>
519	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	641	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i> var.
520	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	642	<i>Pseudomonas cichorii</i> - <i>Lycopersicon esculentum</i>
521	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	643	<i>Streptomyces cacaoi</i>
522	<i>Pseudomonas syringae</i> pv. <i>cannabina</i>	644	<i>Streptomyces reticuli</i>
523	<i>Pseudomonas syringae</i> pv. <i>delphinii</i> - <i>Delphinium</i> sp.	647	<i>Streptomyces cellulosa</i>
524	<i>Pseudomonas syringae</i> pv. <i>delphinii</i>	648	<i>Streptomyces</i> sp.
525	<i>Pseudomonas syringae</i> pv. <i>delphinii</i> - <i>Delphinium</i> sp.	650	<i>Streptomyces fradiae</i>
529	<i>Pseudomonas syringae</i> pv. <i>delphinii</i> - <i>Delphinium</i> sp.	651	<i>Streptomyces naganishii</i>
535	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.	652	<i>Streptomyces griseoruber</i>
536	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	653	<i>Streptomyces griseoflavus</i>

- 654 *Streptomyces narbonensis*
656 *Streptomyces purpeofuscus*
657 *Streptomyces* sp.
658 *Streptomyces niveus*
659 *Xanthomonas fragariae*
661 *Xanthomonas fragariae*
662 Unknown bacterium - rec. as *Xanthomonas campestris* pv.
664 Unknown bacterium - rec. as *Xanthomonas campestris* pv.
666 *Pseudomonas cichorii* - *Lycopersicon esculentum*
667 *Pseudomonas cichorii* - *Lycopersicon esculentum*
668 *Pseudomonas syringae* - *Lycopersicon esculentum*
669 *Pseudomonas cichorii* - *Lycopersicon esculentum*
670 *Pseudomonas viridiflava* - *Lycopersicon esculentum*
671 *Xanthomonas campestris* pv. *khayae* - *Khaya senegalensis*
672 Unknown bacterium - rec. as *Xanthomonas arsenoxydans*-q
674 *Xanthomonas campestris* pv. *laureliae* - *Laurelia novae-zela*
675 *Xanthomonas campestris* pv. *laureliae* - *Laurelia novae-zela*
676 *Xanthomonas campestris* pv. *laureliae* - *Laurelia novae-zela*
677 *Xanthomonas campestris* pv. *laureliae* - *Laurelia novae-zela*
678 *Pseudomonas cichorii* - *Lycopersicon esculentum*
680 *Pseudomonas cichorii* - *Lycopersicon esculentum*
681 *Pseudomonas cichorii* - *Lycopersicon esculentum*
682 *Pseudomonas cichorii* - *Lycopersicon esculentum*
688 *Actinomyces* sp. - Wool
690 *Actinomyces* sp. - Wool
693 *Pseudomonas syringae* - *Prunus armeniaca*
694 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
696 *Xanthomonas campestris* pv. *vesicatoria* - *Lycopersicon esc*
698 *Xanthomonas axonopodis* - *Axonopus scoparius*
708 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
709 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
710 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
711 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
714 *Pseudomonas cichorii* - *Lycopersicon esculentum*
716 *Pseudomonas syringae* pv. *syringae* - *Rosa* sp.
717 *Pseudomonas syringae* - *Matthiola incana*
718 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
719 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulgi*
720 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulgi*
721 *Erwinia stewartii* - *Zea mays* var. *rugosa*
722 *Erwinia stewartii* - Beetle
724 *Erwinia stewartii*
726 *Agrobacterium rhizogenes* (tumourigenic strain) - *Prunus per*
727 *Agrobacterium* sp. (tumourigenic strain) - *Prunus persica*
728 *Agrobacterium tumefaciens* (tumourigenic strain) - *Malus X*
731 *Escherichia coli*
732 *Bacillus megaterium*
733 *Streptomyces* sp.
734 *Streptomyces violaceoniger*
739 *Streptomyces antibioticus*
740 *Streptomyces cellulosae*
741 *Streptomyces flaveolus*
742 *Streptomyces* sp.
744 *Pseudomonas flectens* - *Phaseolus vulgaris*
745 *Pseudomonas flectens* - *Phaseolus vulgaris*
748 *Burkholderia solanacearum* - *Solanum tuberosum*
749 *Burkholderia solanacearum* - *Solanum tuberosum*
750 *Burkholderia solanacearum* - *Lycopersicon esculentum*
751 *Burkholderia solanacearum* - *Lycopersicon esculentum*
752 *Burkholderia solanacearum* - *Solanum tuberosum*
753 *Burkholderia solanacearum* - *Solanum tuberosum*
755 *Burkholderia solanacearum* - *Zingiber officinale*
756 *Burkholderia solanacearum* - *Symphytum* sp.
757 *Burkholderia solanacearum* - *Solanum tuberosum*
758 *Burkholderia solanacearum* - *Lycopersicon esculentum*
759 *Burkholderia solanacearum* - *Solanum melongena* var. *escul*
760 *Pseudomonas syringae* pv. *delphinii* - *Delphinium elatum*
761 *Pseudomonas syringae* pv. *delphinii* - *Delphinium elatum*
762 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
763 *Pseudomonas syringae* pv. *sesami*
764 *Pseudomonas syringae* pv. *sesami*
766 *Burkholderia solanacearum* - *Lycopersicon esculentum*
767 *Burkholderia solanacearum* - *Musa* sp.
768 *Burkholderia solanacearum* - *Musa* sp.
769 *Burkholderia solanacearum* - *Pelargonium capitatum*
770 *Burkholderia solanacearum* - *Arachis hypogaea*
771 *Burkholderia solanacearum* - *Casuarina equisetifolia*
773 *Burkholderia solanacearum* - *Zingiber officinale*
774 *Burkholderia solanacearum* - *Dahlia* sp.
775 *Burkholderia solanacearum* - *Solanum tuberosum*
776 *Burkholderia solanacearum* - *Solanum tuberosum*
777 *Burkholderia solanacearum* - *Lycopersicon esculentum*
779 *Burkholderia solanacearum* - *Physalis angulata*
780 *Burkholderia solanacearum* - *Eclipta erecta*
781 *Burkholderia solanacearum* - *Tectona grandis*
782 *Burkholderia solanacearum* - *Solanum tuberosum*
783 *Burkholderia solanacearum* - *Brassica oleracea* var. *capitata*
784 *Burkholderia solanacearum* - *Solanum tuberosum*
786 *Erwinia herbicola* - *Mangifera indica*
787 *Erwinia herbicola* - *Musa* sp.
788 *Erwinia herbicola* - *Phaseolus vulgaris*
789 *Erwinia herbicola* - *Phaseolus vulgaris*
790 *Pseudomonas* sp. - *Nerium oleander*
791 *Pseudomonas savastanoi* pv. *savastanoi* - *Nerium oleander*
792 *Pseudomonas rubrisubalbicans* - *Saccharum officinarum*
793 *Pseudomonas rubrisubalbicans* - *Saccharum officinarum*
794 *Pseudomonas* sp. - *Nicotiana tabacum*
795 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
797 *Pseudomonas viridiflava*
799 *Pseudomonas syringae* pv. *coronafaciens*
805 Unknown bacterium - rec. as *Pseudomonas viridilivida*
806 *Pseudomonas syringae* pv. *mori* - *Morus* sp.
807 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
808 *Pseudomonas viridiflava* - *Dysoxylum spectabile*
809 *Pseudomonas syringae* pv. *helianthi* - *Helianthus esculent*
815 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
822 *Pseudomonas syringae* pv. *passiflorae* - *Passiflora edulis*
823 *Pseudomonas syringae* pv. *passiflorae* - *Passiflora edulis*
824 *Pseudomonas fluorescens*
826 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
827 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
828 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
829 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
834 *Pseudomonas savastanoi* pv. *phaseolicola*
837 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculent*
838 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculent*
842 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculent*
847 *Pseudomonas syringae* pv. *syringae* - *Prunus avium*
848 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
849 *Pseudomonas syringae* pv. *syringae* - *Prunus avium*
850 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
852 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
855 *Pseudomonas* sp. - *Glycine max*
859 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
860 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
862 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
863 *Pseudomonas syringae* pv. *tomato*
864 *Pseudomonas syringae* pv. *tomato*
867 *Pseudomonas* sp. - *Glycine max*
868 *Pseudomonas syringae* pv. *tomato*
875 *Eurotium chevalieri* - Wool
877 *Verticillium albo-atrum* - Air
878 *Penicillium brevicompactum* - Air
879 *Aspergillus candidus* - Wool
880 *Penicillium expansum* - *Malus X domestica*
883 *Penicillium miczynskii* - Air
884 *Penicillium purpurogenum* - *Allium cepa*
885 *Aspergillus* sp. - Wool
886 *Cladosporium herbarum* - Air
887 *Penicillium glabrum*
888 *Stachybotrys chartarum* - Wool
890 *Penicillium capsulatum* - Wool
891 *Penicillium expansum* - Wool
892 *Aspergillus micro-virido-citrinus* - Wool
893 *Aspergillus versicolor* - Wool
894 *Ceratocystis fimbriata* - *Ipomoea batatas*
895 *Penicillium expansum* - Straw basket
896 *Aspergillus wentii* - Straw basket
897 *Nectria inventa* - Grass
898 *Bacillus subtilis*
899 *Escherichia coli*
901 *Escherichia coli*
902 *Arthrinium phaeospermum* - *Bambusa* sp.
904 *Periconia minutissima* - Air
906 *Cladosporium herbarum* - *Citrus limon*
907 *Cladosporium herbarum* - *Bambusa* sp.
908 *Streptomyces* sp. - Soil (Matapiro)
909 *Streptomyces* sp. - Soil (Conroy's)
910 *Streptomyces* sp. - Soil (Steward stony loam)
911 *Streptomyces* sp. - Soil (Belmont)
912 *Streptomyces* sp. - Soil (Waiaieka clay loam)
914 *Streptomyces* sp. - Soil (Steward stony loam)
916 *Streptomyces lavendulae* - Soil (Egmont black loam)
917 *Streptomyces lavendulae* - Soil (Egmont black loam)
919 *Streptomyces rimosus*
920 *Pseudomonas marginalis* - *Brassica oleracea* var. *botrytis*
921 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
922 *Pseudomonas fluorescens* - *Brassica oleracea* var. *botrytis*
923 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
927 *Streptomyces griseoflavus*
928 *Streptomyces venezuelae* - Soil (Waikakahi silt loam)
929 *Streptomyces antibioticus* - Soil (Waiaieka silt loam)
930 *Streptomyces viridochromogenes* - Soil (Lismore silt loam)
931 *Streptomyces* sp. - Soil (Egmont black loam)

932	<i>Streptomyces</i> sp. - Soil (Waiareka clay loam)	1084	<i>Rhinochadiella</i> sp. - <i>Pinus radiata</i>
933	<i>Cladosporium</i> sp. - Wood	1086	<i>Aspergillus</i> sp. - Air
934	<i>Cladosporium</i> sp. - Wood	1087	<i>Paecilomyces</i> sp. - Soil
935	<i>Cladosporium</i> sp. - Wood	1088	<i>Dendryphon nanum</i> - <i>Passiflora edulis</i>
939	<i>Aspergillus ochraceus</i> - Insect	1090	<i>Aspergillus</i> sp. - Cellulose sponge
940	<i>Tilachlidium</i> sp. - Concrete sewer pipe	1091	<i>Aspergillus</i> sp. - Cellulose sponge
941	<i>Penicillium griseoroseum</i> - <i>Hoheria populnea</i>	1092	<i>Aspergillus</i> sp. - Cellulose sponge
942	<i>Penicillium janthinellum</i> - Concrete sewer pipe	1093	<i>Acremonium</i> sp. - <i>Hypoxylon</i> sp.
943	<i>Acremonium</i> sp. - Concrete sewer pipe	1094	<i>Doratomyces microsporus</i> - <i>Brassica napus</i> var. <i>napobrassi</i>
944	<i>Streptomyces griseoflavus</i> - Soil (Ahuriri)	1099	<i>Alternaria alternata</i> - <i>Lolium perenne</i>
945	<i>Streptomyces griseoflavus</i> - Soil (Atua)	1100	<i>Alternaria alternata</i> - <i>Solanum nigrum</i>
946	<i>Streptomyces griseoflavus</i> - Soil (Timaru silt loam)	1101	<i>Alternaria citri</i> - <i>Citrus</i> sp.
947	<i>Streptomyces griseoflavus</i> - Soil (Barrhill)	1102	<i>Alternaria alternata</i> - <i>Arthropodium cirrhatum</i>
948	<i>Streptomyces griseoflavus</i> - Soil (Papakauri)	1103	<i>Alternaria brassicicola</i> - <i>Brassica oleracea</i> var. <i>ramosa</i>
949	<i>Streptomyces griseoflavus</i> - Soil (Waimatenui)	1104	<i>Alternaria alternata</i> - <i>Cucumis melo</i>
950	<i>Streptomyces arenae</i>	1105	<i>Alternaria alternata</i> - <i>Lycopersicon esculentum</i>
951	<i>Streptomyces albosporeus</i>	1107	<i>Alternaria alternata</i> - <i>Arthropodium cirrhatum</i>
952	<i>Streptomyces antibioticus</i>	1109	<i>Alternaria alternata</i> - <i>Cucumis melo</i>
953	<i>Streptomyces argenteolus</i>	1111	<i>Alternaria citri</i> - <i>Citrus sinensis</i>
954	<i>Streptomyces bellus</i>	1112	<i>Alternaria alternata</i> - <i>Brassica napus</i> var. <i>napobrassica</i>
955	<i>Streptomyces flaveolus</i>	1115	<i>Alternaria alternata</i> - <i>Abelmoschus esculentus</i>
956	<i>Streptomyces violascens</i>	1116	<i>Alternaria alternata</i> - <i>Cucumis melo</i>
961	<i>Streptomyces</i> sp. - Peat Rhizobium culture	1117	<i>Alternaria alternata</i> - <i>Daucus carota</i> var. <i>sativus</i>
981	<i>Xanthomonas campestris</i> pv. <i>plantaginis</i> - <i>Plantago lanceola</i>	1120	<i>Alternaria brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
987	<i>Xanthomonas campestris</i> pv. <i>plantaginis</i> - <i>Plantago lanceola</i>	1121	<i>Alternaria sonchi</i> - <i>Sonchus oleraceus</i>
993	<i>Xanthomonas campestris</i> pv. <i>plantaginis</i> - <i>Plantago lanceola</i>	1126	<i>Alternaria cucumerina</i>
999	<i>Streptomyces</i> sp.	1128	<i>Alternaria brassicicola</i> - <i>Brassica oleracea</i> var. <i>ramosa</i>
1000	<i>Streptomyces</i> sp.	1129	<i>Ulocladium consortiale</i> - <i>Brassica oleracea</i> var. <i>ramosa</i>
1008	<i>Streptomyces exfoliatus</i>	1130	<i>Ulocladium consortiale</i> - Orchid
1010	<i>Streptomyces olivaceus</i>	1135	<i>Ulocladium consortiale</i> - <i>Dianthus caryophyllus</i>
1011	<i>Streptomyces</i> sp. - Soil (Matapiro)	1140	<i>Alternaria alternata</i> - <i>Arthropodium cirrhatum</i>
1012	<i>Streptomyces</i> sp. - Soil (Ahuriri)	1142	<i>Ulocladium atrum</i> - <i>Cucumis sativus</i>
1013	<i>Streptomyces</i> sp. - Soil (Judgeford)	1143	<i>Alternaria citri</i> - <i>Citrus</i> sp.
1014	<i>Streptomyces</i> sp. - Soil (Paremata)	1144	<i>Ulocladium atrum</i> - <i>Cucumis sativus</i>
1015	<i>Streptomyces</i> sp. - Soil (Ahuriri)	1145	<i>Ulocladium atrum</i> - <i>Cucumis sativus</i>
1016	<i>Streptomyces</i> sp. - Soil (Lowburn)	1146	<i>Alternaria citri</i> - <i>Citrus sinensis</i>
1020	<i>Streptomyces</i> sp. - Soil (Cluden)	1147	<i>Ulocladium consortiale</i> - <i>Kentia</i> sp.
1022	<i>Pseudomonas cichorii</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	1148	<i>Penicillium thomii</i> - Beer bottle
1023	<i>Pseudomonas cichorii</i> - <i>Chrysanthemum X morifolium</i>	1149	<i>Penicillium expansum</i> - <i>Bambusa</i> sp.
1024	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>	1155	<i>Penicillium expansum</i> - <i>Malus X domestica</i>
1025	<i>Xanthomonas campestris</i> pv. <i>plantaginis</i> - <i>Plantago lanceola</i>	1156	<i>Penicillium expansum</i> - Cream bottle
1028	<i>Xanthomonas campestris</i> pv. <i>plantaginis</i> - <i>Plantago lanceola</i>	1160	<i>Penicillium expansum</i> - <i>Citrus limon</i>
1029	<i>Streptomyces</i> sp. - Soil (Matapiro)	1162	<i>Stachybotrys chartarum</i> - Linoleum
1030	<i>Streptomyces</i> sp. - Soil (Ahuriri)	1165	<i>Trichurus terreophilus</i> - Cave wall
1031	<i>Streptomyces</i> sp. - Soil (Mamakau)	1167	<i>Penicillium minioluteum</i> - Air
1032	<i>Streptomyces</i> sp. - Soil (Lismore silt loam)	1169	<i>Penicillium brevicompactum</i> - Mushroom compost
1033	<i>Streptomyces</i> sp. - Soil (Papakauri)	1170	<i>Penicillium expansum</i> - Mushroom compost
1034	<i>Streptomyces</i> sp. - Soil (Waimatenui)	1172	<i>Penicillium brevicompactum</i> - Straw basket
1035	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Heteronychus arator</i>	1173	<i>Penicillium janthinellum</i> - Soil
1036	<i>Aspergillus</i> sp. - Air	1174	<i>Penicillium brevicompactum</i> - Air
1038	<i>Aspergillus</i> sp. - Wool	1175	<i>Penicillium chrysogenum</i> - Wool
1041	<i>Gliocladium</i> sp. - <i>Citrus</i> sp.	1176	<i>Penicillium italicum</i> - <i>Citrus limon</i>
1043	<i>Aspergillus niger</i> - <i>Solanum tuberosum</i>	1177	<i>Penicillium italicum</i> - <i>Citrus limon</i>
1044	<i>Scopulariopsis brevicaulis</i> - Air	1178	<i>Penicillium digitatum</i> - <i>Citrus limon</i>
1045	<i>Aspergillus</i> sp. - <i>Solanum tuberosum</i>	1179	<i>Penicillium corylophilum</i> - Air
1046	<i>Aspergillus fumigatus</i> - Wool	1182	<i>Penicillium corylophilum</i> - Air
1047	<i>Aspergillus</i> sp. - Air	1183	<i>Penicillium</i> sp. - Cave wall
1048	<i>Aspergillus</i> sp. - Wool	1184	<i>Penicillium janthinellum</i> - <i>Allium cepa</i>
1049	<i>Aspergillus flavus</i> - Wool	1185	<i>Penicillium minioluteum</i> - Air
1050	<i>Aspergillus versicolor</i> - Wool	1187	<i>Penicillium glabrum</i> - Wool
1051	<i>Trichoderma viride</i>	1188	<i>Penicillium digitatum</i> - <i>Solanum nigrum</i>
1053	<i>Aspergillus niger</i> - <i>Bambusa</i> sp.	1189	<i>Penicillium spinulosum</i> - <i>Lolium perenne</i>
1054	<i>Doratomyces microsporus</i> - <i>Solanum tuberosum</i>	1191	<i>Penicillium roseopurpureum</i> - <i>Pittosporum</i> sp.
1056	<i>Aspergillus versicolor</i> - High-nitrogen <i>Streptomyces</i> medium	1192	<i>Penicillium brevicompactum</i> - <i>Pittosporum</i> sp.
1057	<i>Aspergillus flavus</i> - High-nitrogen <i>Streptomyces</i> medium	1193	<i>Penicillium expansum</i> - <i>Erica</i> sp.
1058	<i>Aspergillus niger</i>	1194	<i>Penicillium expansum</i> - <i>Malus X domestica</i>
1059	<i>Aspergillus</i> sp. - Air	1195	<i>Penicillium chrysogenum</i> - Air
1060	<i>Aspergillus</i> sp. - Air	1196	<i>Penicillium aurantiogriseum</i> - <i>Cyphomandra betacea</i>
1061	<i>Aspergillus fumigatus</i> - Wool	1197	<i>Penicillium claviforme</i> - <i>Cyphomandra betacea</i>
1063	<i>Aspergillus</i> sp. - Air	1198	<i>Penicillium janthinellum</i> - Sewage water
1064	<i>Aspergillus</i> sp. - Air	1199	<i>Penicillium glabrum</i> - Stored timber
1065	<i>Penicillium claviforme</i> - Rat faeces	1203	<i>Penicillium spinulosum</i> - Dead rat
1068	<i>Botrytis cinerea</i> - <i>Trifolium repens</i>	1204	<i>Penicillium</i> sp. - Dead rat
1069	<i>Trichothecium roseum</i> - Soil	1205	<i>Penicillium citrinum</i> - <i>Cucumis melo</i>
1070	<i>Acremonium</i> sp. - <i>Ctenochiton</i> sp.	1206	<i>Penicillium expansum</i> - Soil
1071	<i>Gliomastix</i> sp. - <i>Bambusa</i> sp.	1207	<i>Penicillium expansum</i> - Soil
1073	<i>Trichoderma viride</i>	1208	<i>Penicillium brevicompactum</i> - Soil
1074	<i>Myrothecium leucotrichum</i> - <i>Solanum nigrum</i>	1209	<i>Penicillium griseofulvum</i> - <i>Rosa</i> sp.
1075	<i>Arthrobotrys</i> sp. - <i>Zinnia elegans</i>	1210	<i>Penicillium expansum</i> - <i>Rosa</i> sp.
1076	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Abelmoschus escul</i>	1211	<i>Penicillium</i> sp. - Wool
1079	<i>Trichoderma viride</i> - <i>Cyphomandra betacea</i>	1212	<i>Penicillium janthinellum</i> - <i>Medicago sativa</i>
1080	<i>Gliomastix</i> sp. - Timber	1219	<i>Penicillium janthinellum</i> - <i>Solanum tuberosum</i>
1081	<i>Acremonium</i> sp. - Wool	1223	<i>Penicillium puberulum</i> - Dead wood
1082	<i>Paecilomyces variotii</i> - <i>Daucus carota</i> var. <i>sativus</i>	1224	<i>Penicillium expansum</i> - <i>Prunus</i> sp.
1083	<i>Cunninghamella</i> sp. - Soil	1225	<i>Penicillium claviforme</i> - <i>Prunus</i> sp.

1226	<i>Penicillium puberulum</i> - Bread	1369	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
1227	<i>Penicillium chrysogenum</i> - Bread	1373	<i>Erwinia herbicola</i> - <i>Impatiens balsamina</i>
1228	<i>Penicillium spinulosum</i> - <i>Zea mays</i>	1374	<i>Erwinia herbicola</i> - <i>Impatiens balsamina</i>
1233	<i>Penicillium spinulosum</i> - Air	1375	<i>Erwinia herbicola</i> - <i>Tagetes erecta</i>
1234	<i>Penicillium brevicompactum</i> - Air	1376	<i>Erwinia herbicola</i> - <i>Cosmos sulphureus</i>
1235	<i>Penicillium digitatum</i> - <i>Citrus limon</i>	1377	<i>Erwinia herbicola</i> - <i>Abelmoschus esculentus</i>
1236	<i>Penicillium italicum</i> - <i>Citrus limon</i>	1378	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Nicotiana tabacum</i>
1237	<i>Penicillium aurantiogriseum</i> - Mushroom compost	1379	<i>Erwinia salicis</i> - <i>Salix alba</i>
1238	<i>Penicillium aurantiogriseum</i> - <i>Triticum aestivum</i>	1380	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Daucus carota</i> var.
1239	<i>Penicillium</i> sp. - Dead aphid and deposits	1381	<i>Erwinia cacticola</i> - <i>Opuntia phaeacantha</i>
1240	<i>Penicillium brevicompactum</i> - <i>Lolium perenne</i>	1382	<i>Erwinia</i> sp. - <i>Carnegiea gigantea</i>
1241	<i>Penicillium decumbens</i> - <i>Malus X domestica</i>	1383	<i>Erwinia carotovora</i> subsp. <i>carotovora</i>
1242	<i>Paecilomyces lilacinus</i> - Sodium malonate solution 2M, pH 5	1384	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Gossypium</i> sp.
1243	<i>Cladosporium herbarum</i> - <i>Lolium perenne</i>	1386	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
1244	<i>Cladosporium herbarum</i> - Air	1387	<i>Erwinia chrysanthemi</i> - <i>Dahlia</i> sp.
1246	<i>Cladosporium herbarum</i> - <i>Citrus limon</i>	1388	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Capsicum</i> sp.
1247	<i>Periconiella phormii</i> - <i>Phormium tenax</i>	1389	<i>Erwinia rhapontici</i> - <i>Rheum rhabarbarum</i>
1251	<i>Cladosporium herbarum</i> - <i>Cucurbita maxima</i>	1390	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1253	<i>Cladosporium herbarum</i> - Five-year-old sodium malonate sol	1391	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>
1255	<i>Cladosporium</i> sp. - <i>Lycopersicon esculentum</i>	1392	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
1259	<i>Periconiella phormii</i> - <i>Phormium tenax</i>	1393	<i>Erwinia amylovora</i> - <i>Pyraecantha</i> sp.
1262	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1394	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
1264	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1395	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i> var. <i>rugosa</i>
1266	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1396	<i>Erwinia tracheiphila</i> - <i>Cucumis sativus</i>
1268	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1397	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
1270	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1398	<i>Erwinia herbicola</i>
1271	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	1399	<i>Erwinia herbicola</i>
1274	<i>Leptosphaerulina chartarum</i> - Air	1400	<i>Erwinia herbicola</i>
1276	<i>Pithomyces</i> sp. - Chalky rubble	1401	<i>Erwinia herbicola</i>
1277	<i>Pithomyces</i> sp.	1402	<i>Erwinia herbicola</i> - <i>Linum usitatissimum</i>
1278	<i>Leptosphaerulina chartarum</i> - Pasture	1403	<i>Erwinia herbicola</i> - <i>Linum usitatissimum</i>
1279	<i>Pseudomonas fluorescens</i>	1404	<i>Xanthomonas campestris</i> pv. <i>raphani</i> - <i>Raphanus sativus</i>
1281	<i>Aspergillus oryzae</i> - Peanut butter	1405	<i>Xanthomonas campestris</i> pv. <i>hyacinthi</i> - <i>Hyacinthus orientalis</i>
1282	<i>Alternaria raphani</i> - <i>Matthiola incana</i>	1406	<i>Xanthomonas campestris</i> pv. <i>hederae</i> - <i>Hedera helix</i>
1291	<i>Bradyrhizobium</i> sp. (<i>Centrosema</i>) - <i>Centrosema pubescens</i>	1407	<i>Xanthomonas campestris</i> pv. <i>carotae</i> - <i>Daucus carota</i> var.
1293	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus</i> sp.	1408	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>
1294	<i>Bradyrhizobium</i> sp. (<i>Lotononis</i>) - <i>Lotononis bainesii</i>	1409	<i>Xanthomonas campestris</i> pv. <i>cerealis</i> - <i>Bromus inermis</i>
1295	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneanum</i>	1410	<i>Pseudomonas viridiflava</i>
1297	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium hybridum</i>	1411	<i>Pseudomonas syringae</i> pv. <i>savastanoi</i> - <i>Olea europaea</i>
1298	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i>	1413	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.
1299	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i>	1414	<i>Erwinia herbicola</i> - <i>Phaseolus vulgaris</i>
1300	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1415	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>
1301	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1416	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>
1302	<i>Bradyrhizobium</i> sp. (<i>Desmodium</i>) - <i>Desmodium</i> sp.	1417	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>
1304	<i>Rhizobium</i> sp. - <i>Mucuna deeringiana</i>	1418	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>
1306	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	1419	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1307	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	1420	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1309	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneanum</i>	1421	<i>Erwinia herbicola</i> pv. <i>milletiae</i> - <i>Wisteria floribunda</i>
1310	<i>Bradyrhizobium</i> sp. (<i>Crotalaria</i>) - <i>Crotalaria sagittalis</i>	1422	<i>Xanthomonas campestris</i> pv. <i>citri</i>
1311	<i>Bradyrhizobium</i> sp. (<i>Vigna</i>) - <i>Vigna marina</i>	1423	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium</i> sp.
1312	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1424	<i>Alternaria cucumerina</i> - <i>Cucumis sativus</i>
1313	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium semipilosum</i>	1425	<i>Xanthomonas campestris</i> pv. <i>beticola</i> - <i>Piper betle</i>
1314	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus sativus</i>	1426	<i>Xanthomonas campestris</i> pv. <i>ricini</i> - <i>Ricinus communis</i>
1316	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	1427	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus</i> sp.
1317	<i>Bradyrhizobium</i> sp. (<i>Erythrina</i>) - <i>Erythrina variegata</i>	1428	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>
1318	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1429	<i>Xanthomonas campestris</i> pv. <i>lespedezae</i> - <i>Lespedeza</i> sp.
1320	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1430	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>
1322	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1431	<i>Agrobacterium tumefaciens</i> - <i>Vitis vinifera</i>
1323	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1436	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
1325	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1437	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
1326	<i>Rhizobium loti</i> - <i>Lotus divaricatus</i>	1438	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
1327	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1440	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
1328	<i>Rhizobium</i> sp. - <i>Leucaena glauca</i>	1441	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
1329	<i>Bradyrhizobium</i> sp. (<i>Desmodium</i>) - <i>Desmodium intortum</i>	1442	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
1330	<i>Bradyrhizobium</i> sp. (<i>Arachis</i>) - <i>Arachis hypogaea</i>	1443	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
1335	<i>Xanthomonas campestris</i> pv. <i>begoniae</i> - <i>Begonia X tuberhy</i>	1444	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
1336	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	1445	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Syringa vulgaris</i>
1344	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1446	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
1345	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	1447	<i>Pseudomonas cichorii</i> - <i>Ranunculus acris</i>
1346	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus angustifolius</i>	1448	<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>
1347	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	1449	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
1349	<i>Streptomyces</i> sp.	1450	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
1350	<i>Streptomyces</i> sp.	1451	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica napus</i> var.
1351	<i>Streptomyces</i> sp.	1452	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cucumis sativus</i>
1352	<i>Streptomyces</i> sp.	1453	<i>Erwinia carotovora</i> subsp. <i>carotovora</i>
1353	<i>Streptomyces</i> sp.	1454	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1354	<i>Streptomyces</i> sp.	1455	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
1356	<i>Streptomyces</i> sp.	1456	<i>Erwinia carotovora</i> subsp. <i>carotovora</i>
1357	<i>Streptomyces</i> sp.	1457	<i>Erwinia carotovora</i> subsp. <i>carotovora</i>
1358	<i>Streptomyces</i> sp.	1458	<i>Erwinia carotovora</i> subsp. <i>carotovora</i>
1362	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1459	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1363	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1460	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
1364	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1468	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i>
1365	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1469	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Polianthes tuberosa</i>
1366	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1470	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Polianthes tuberosa</i>
1367	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1471	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Polianthes tuberosa</i>
1368	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>	1472	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Apium graveolens</i> var.

1473	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Apium graveolens</i> va	1562	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> ma
1474	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Apium graveolens</i> va	1563	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> ma
1475	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Lactuca sativa</i>	1564	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> ma
1476	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Lactuca sativa</i>	1565	<i>Erwinia chrysanthemi</i> - <i>Philodendron</i> sp.
1477	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica napus</i> var.	1566	<i>Erwinia chrysanthemi</i> - <i>Philodendron scandens</i> subsp. <i>oxyc</i>
1478	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	1567	<i>Erwinia cyripedii</i> - <i>Cyripedium</i> sp.
1479	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	1568	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> sp.
1480	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	1569	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> sp.
1481	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	1570	<i>Erwinia dissolvens</i> - <i>Zea mays</i>
1482	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora mollissim</i>	1571	<i>Erwinia dissolvens</i> - <i>Zea mays</i> var. <i>rugosa</i>
1483	<i>Pseudomonas syringae</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	1572	<i>Erwinia dissolvens</i> - <i>Zea mays</i> var. <i>rugosa</i>
1484	<i>Xanthomonas campestris</i> pv. <i>celebensis</i> - <i>Musa acuminata</i>	1573	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i> var. <i>rugosa</i>
1486	<i>Xanthomonas campestris</i> pv. <i>celebensis</i> - <i>Musa acuminata</i>	1574	<i>Erwinia herbicola</i> pv. <i>millettiae</i>
1487	<i>Xanthomonas campestris</i> pv. <i>celebensis</i> - <i>Musa acuminata</i>	1575	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>
1488	<i>Xanthomonas campestris</i> pv. <i>celebensis</i> - <i>Musa acuminata</i>	1576	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>
1490	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Festuca arundinace</i>	1577	<i>Erwinia nimipressuralis</i> - <i>Ulmus</i> sp.
1491	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Festuca arundinaca</i>	1578	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>
1492	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1579	<i>Erwinia chrysanthemi</i> - <i>Dahlia</i> sp.
1493	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1580	<i>Erwinia</i> sp. - <i>Brassica oleracea</i> var. <i>botrytis</i>
1494	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1581	<i>Erwinia rhapontici</i> - <i>Rheum rhabarbarum</i>
1495	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1582	<i>Erwinia rhapontici</i> - <i>Rheum rhabarbarum</i>
1496	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1583	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i> var. <i>rugosa</i>
1497	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1584	<i>Erwinia tracheiphila</i>
1498	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1585	<i>Erwinia tracheiphila</i> - <i>Cucumis sativus</i>
1499	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1586	<i>Erwinia tracheiphila</i>
1500	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1587	<i>Erwinia salicis</i> - <i>Salix alba</i>
1501	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1588	<i>Erwinia salicis</i> - <i>Salix alba</i>
1502	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1589	<i>Erwinia dissolvens</i> - <i>Zea mays</i>
1503	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1590	<i>Xanthomonas albilineans</i> - <i>Paspalum dilatatum</i>
1504	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>	1591	<i>Erwinia cyripedii</i> - <i>Cyripedium</i> sp.
1505	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>	1592	<i>Streptomyces</i> sp.
1506	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>	1593	<i>Streptomyces</i> sp.
1507	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>	1594	<i>Streptomyces</i> sp.
1508	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1595	<i>Streptomyces</i> sp.
1509	<i>Xanthomonas</i> sp. - <i>Tripsacum laxum</i>	1596	<i>Streptomyces</i> sp.
1512	<i>Erwinia herbicola</i> - <i>Phaseolus vulgaris</i>	1597	<i>Streptomyces</i> sp.
1513	<i>Erwinia herbicola</i> - <i>Mangifera indica</i>	1598	<i>Streptomyces</i> sp.
1514	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>	1599	<i>Streptomyces</i> sp.
1515	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>	1600	<i>Streptomyces</i> sp.
1516	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>	1601	<i>Streptomyces</i> sp.
1517	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>	1602	<i>Streptomyces</i> sp. - Turnip seed baits
1518	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Ananas comosus</i>	1605	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Borago officinalis</i>
1519	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - Soil	1606	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Saccharum officinar</i>
1520	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Persea americana</i>	1607	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
1521	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Zea mays</i>	1608	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>
1522	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Zantedeschia aethio</i>	1609	<i>Xanthomonas campestris</i> pv. <i>lantanae</i> - <i>Lantana camara</i>
1523	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Dahlia</i> sp.	1610	<i>Xanthomonas campestris</i> pv. <i>bauhiniae</i> - <i>Bauhinia racemos</i>
1524	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	1611	<i>Xanthomonas campestris</i> pv. <i>ionidii</i> - <i>Ionidium heterophyllum</i>
1525	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica</i> sp.	1612	<i>Xanthomonas campestris</i> pv. <i>ionidii</i> - <i>Ionidium</i> sp.
1526	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	1613	<i>Xanthomonas campestris</i> pv. <i>thirumalacharii</i> - <i>Triumfetta pilo</i>
1527	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	1614	<i>Xanthomonas campestris</i> pv. <i>vitistrifoliae</i> - <i>Vitis trifolia</i>
1528	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	1615	<i>Xanthomonas campestris</i> pv. <i>blepharidis</i> - <i>Blepharis mollugin</i>
1529	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - Soil	1616	<i>Xanthomonas</i> sp.
1530	<i>Erwinia amylovora</i> - <i>Cotoneaster salicifolius</i>	1617	<i>Xanthomonas campestris</i> pv. <i>argemones</i> - <i>Argemone mexic</i>
1531	<i>Erwinia amylovora</i> - <i>Sorbus aria</i>	1618	<i>Xanthomonas campestris</i> pv. <i>physalidis</i> - <i>Physalis</i> sp.
1532	<i>Erwinia amylovora</i> - <i>Cotoneaster melanocarpus</i>	1619	<i>Xanthomonas campestris</i> pv. <i>physalidis</i> - <i>Physalis minima</i>
1533	<i>Erwinia amylovora</i> - <i>Cotoneaster X crisp</i>	1620	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
1534	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>	1621	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>
1535	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1622	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>
1536	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1623	<i>Xanthomonas campestris</i> pv. <i>zinniae</i> - <i>Zinnia</i> sp.
1537	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>	1624	<i>Xanthomonas campestris</i> pv. <i>nakataecorchori</i> - <i>Corchorus</i>
1538	<i>Erwinia</i> sp. - <i>Rubus idaeus</i>	1625	<i>Xanthomonas campestris</i> pv. <i>cajani</i> - <i>Cajanus cajan</i>
1539	<i>Erwinia</i> sp. - <i>Rubus idaeus</i>	1626	<i>Xanthomonas campestris</i> pv. <i>uppalii</i>
1540	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	1630	<i>Chromobacterium iodinum</i>
1541	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cucumis sativus</i>	1631	<i>Janthinobacterium lividum</i>
1542	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>	1632	<i>Janthinobacterium lividum</i>
1543	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Saccharum officinar</i>	1633	<i>Streptomyces</i> sp. - Soil (methyl bromide fumigated)
1544	<i>Erwinia chrysanthemi</i> - <i>Pelargonium capitatum</i>	1638	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
1545	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	1639	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica juncea</i>
1546	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - Soil	1640	<i>Xanthomonas campestris</i> pv. <i>raphani</i> - <i>Raphanus sativus</i>
1547	<i>Erwinia chrysanthemi</i> pv. <i>parthenii</i>	1641	<i>Xanthomonas campestris</i> pv. <i>raphani</i> - <i>Raphanus sativus</i>
1548	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	1642	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Solanum</i> sp.
1549	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	1643	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
1550	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Dracaena deremens</i>	1644	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
1551	<i>Erwinia cacticida</i> - <i>Carnegiea gigantea</i>	1645	<i>Xanthomonas campestris</i> pv. <i>raphani</i> - <i>Raphanus sativus</i>
1552	<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i> - <i>Chrysanthemum X</i>	1646	<i>Xanthomonas campestris</i> pv. <i>raphani</i> - <i>Raphanus sativus</i>
1553	<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i>	1647	<i>Pseudomonas cichorii</i> - <i>Cichorium endivia</i>
1554	<i>Erwinia chrysanthemi</i> - <i>Ananas comosus</i>	1648	<i>Pseudomonas cichorii</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
1555	<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i>	1649	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>
1556	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	1650	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>
1557	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	1651	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>
1558	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	1652	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>
1559	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	1653	<i>Pseudomonas viridiflava</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
1560	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	1654	<i>Pseudomonas viridiflava</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
1561	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> ma	1655	<i>Pseudomonas viridiflava</i> - <i>Brassica oleracea</i> var. <i>capitata</i>

- 1656 *Acidovorax avenae* subsp. *avenae* - *Zea mays* var. *rugosa*
1657 *Pseudomonas syringae* pv. *apii* - *Apium graveolens* var. *dulc*
1658 *Pseudomonas syringae* pv. *apii* - *Apium graveolens* var. *dulc*
1659 *Pseudomonas syringae* pv. *apii* - *Apium graveolens* var. *dulc*
1661 *Xanthomonas campestris* pv. *hederae* - *Hedera helix*
1662 *Xanthomonas campestris* pv. *hederae* - *Hedera helix*
1663 *Xanthomonas campestris* pv. *hederae* - *Hedera helix*
1664 *Xanthomonas campestris* pv. *hederae* - *Hedera helix*
1665 *Rhizobium leguminosarum* biovar *viciae* - *Pisum sativum*
1666 *Rhizobium melliloti* - *Medicago sativa*
1667 *Rhizobium melliloti* - *Medicago sativa*
1668 *Acetobacter acetii* subsp. *ascendens*
1669 *Acetobacter acetii*
1670 *Xanthomonas campestris* pv. *hordei* - *Hordeum vulgare*
1671 *Xanthomonas campestris* pv. *hordei* - *Hordeum vulgare*
1673 *Colletotrichum acutatum* - *Malus X domestica*
1674 *Colletotrichum acutatum* - *Carica papaya*
1676 *Colletotrichum acutatum* - *Persea americana*
1677 *Colletotrichum acutatum* f. sp. *pineum* - *Pinus radiata*
1679 *Colletotrichum musae* - *Musa X paradisiaca*
1680 *Colletotrichum acutatum* - *Passiflora edulis*
1681 *Glomerella cingulata* - *Passiflora edulis*
1682 *Botrytis allii* - *Allium cepa*
1683 *Xanthomonas campestris* pv. *campestris* - *Raphanus sativu*
1684 *Xanthomonas campestris* pv. *campestris* - *Raphanus sativu*
1685 *Xanthomonas campestris* pv. *campestris* - *Raphanus sativu*
1686 *Xanthomonas campestris* pv. *campestris* - *Raphanus sativu*
1687 *Leptosphaerulina chartarum* - *Grass*
1689 *Gibberella intricans* - *Arundo* sp.
1691 *Marssonina daphnes* - *Daphne odora* Thunb.
1692 *Hypocrea ascoboloides* - *Coprosmia lucida*
1693 *Hypocrea semiorbis* - *Nothofagus* sp.
1694 *Hypocrea schweinitzii* - *Nothofagus fusca*
1695 *Hypocrea rufa* - *Rhopalostylis sapida*
1696 *Hypocrea rufa* - *Podocarpus* sp.
1697 *Hypocrea rufa* - *Pinus radiata*
1698 *Colletotrichum acutatum* - *Capsicum frutescens*
1700 *Septoria daphnes* - *Daphne odora*
1701 *Colletotrichum acutatum* - *Fragaria X ananassa*
1702 *Colletotrichum coccodes* - *Lycopersicon esculentum*
1704 *Colletotrichum coccodes* - *Citrus* sp.
1706 *Hypomyces aurantium* - *Polypore*
1709 *Gibberella flacca* - *Amaranthus* sp.
1710 *Nectria kowhai* - *Sophora microphylla*
1711 *Cladosporium* sp. - *Cucumis sativus*
1712 *Cladosporium* sp. - *Cucumis sativus*
1713 *Cladosporium* sp. - *Cucumis sativus*
1715 *Botrytis allii* - *Allium cepa*
1716 *Botrytis allii* - *Allium cepa*
1717 *Aspergillus sulphureus*
1718 *Botrytis cinerea* - *Allium cepa*
1719 *Botrytis allii* - *Allium cepa*
1720 *Microascus trigonosporus*
1721 *Penicillium simplicissimum* - *Sheep dung*
1722 *Aspergillus terreus*
1723 *Penicillium griseofulvum*
1724 *Serratia proteamaculans* - *Protea cynaroides*
1726 *Burkholderia solanacearum* - *Lycopersicon esculentum*
1727 *Burkholderia solanacearum* - *Lycopersicon esculentum*
1728 *Burkholderia solanacearum* - *Lycopersicon esculentum*
1730 *Penicillium diversum* - *Human spinal fluid*
1731 *Ceratocystis fimbriata* - *Ipomoea batatas*
1732 *Epicoccum purpurascens* - *Air*
1733 *Bradyrhizobium japonicum* - *Glycine max*
1734 *Bradyrhizobium japonicum* - *Glycine max*
1736 *Rhizobium* sp. - *Glycine max*
1743 *Xanthomonas campestris* pv. *hederae* - *Hedera helix*
1744 *Xanthomonas campestris* pv. *ricini* - *Ricinus communis*
1745 *Erwinia carotovora* subsp. *carotovora* - *Solanum tuberosum*
1746 *Gibberella cyanogena* - *Passiflora edulis*
1749 *Gibberella cyanogena* - *Passiflora edulis*
1750 *Gibberella cyanogena* - *Passiflora edulis*
1751 *Gibberella cyanogena* - *Passiflora edulis*
1752 *Gibberella cyanogena* - *Passiflora edulis*
1753 *Gibberella cyanogena* - *Passiflora edulis*
1754 *Gibberella cyanogena* - *Passiflora edulis*
1755 *Gibberella cyanogena* - *Passiflora edulis*
1756 *Gibberella cyanogena* - *Vitis vinifera*
1757 *Gibberella cyanogena* - *Vitis vinifera*
1758 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1759 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1760 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1761 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1763 *Colletotrichum fructigenum* - *Lycopersicon esculentum*
1764 *Colletotrichum acutatum* - *Malus X domestica*
1765 *Colletotrichum acutatum* - *Malus X domestica*
1766 *Colletotrichum acutatum* - *Acca sellowiana*
1767 *Colletotrichum acutatum* - *Cyphomandra betacea*
1768 *Glomerella cingulata* - *Lycopersicon esculentum*
1769 *Colletotrichum acutatum* - *Jasminum mesnyi*
1770 *Glomerella cingulata* - *Citrus* sp.
1771 *Glomerella cingulata* - *Passiflora edulis*
1772 *Colletotrichum acutatum* - *Capsicum frutescens*
1773 *Colletotrichum acutatum* - *Lycopersicon esculentum*
1774 *Colletotrichum orbiculare* - *Apium graveolens* var. *dulce*
1778 *Glomerella cingulata* var. *minor* - *Carica* sp.
1780 *Glomerella cingulata* var. *minor* - *Carica* sp.
1781 *Glomerella cingulata* var. *minor* - *Persea americana*
1782 *Colletotrichum acutatum* - *Persea americana*
1783 *Colletotrichum acutatum* - *Carica papaya*
1784 *Colletotrichum acutatum* - *Capsicum frutescens*
1785 *Colletotrichum acutatum* - *Capsicum* sp.
1786 *Glomerella phacidiomorpha* - *Phormium tenax*
1787 *Glomerella phacidiomorpha* - *Phormium tenax*
1788 *Colletotrichum* sp. - *Protea* sp.
1789 *Gibberella cyanogena* - *Passiflora edulis*
1790 *Gibberella cyanogena* - *Passiflora edulis*
1791 *Colletotrichum acutatum* - *Malus X domestica*
1793 *Gibberella cyanogena* - *Passiflora edulis*
1795 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1796 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1797 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus pin*
1798 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus co*
1799 *Gibberella baccata* - *Passiflora edulis*
1803 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
1806 *Rhizobium melliloti* - *Medicago sativa*
1808 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1809 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1810 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1811 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1812 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1813 *Clavibacter michiganensis* subsp. *michiganensis* - *Cyphoma*
1814 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
1817 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
1820 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
1829 *Erwinia chrysanthemi* - *Ananas comosus*
1830 *Erwinia carotovora* subsp. *carotovora* - *Solanum tuberosum*
1831 *Erwinia carotovora* subsp. *carotovora* - *Capsicum annum*
1832 *Erwinia carotovora* subsp. *carotovora* - *Daucus carota* var.
1833 *Erwinia carotovora* subsp. *carotovora* - *Brassica rapa*
1834 *Erwinia carotovora* subsp. *carotovora* - *Papaver somniferum*
1835 *Erwinia carotovora* subsp. *carotovora* - *Solanum tuberosum*
1836 *Erwinia chrysanthemi* - *Cyclamen* sp.
1837 *Erwinia chrysanthemi* - *Cyclamen* sp.
1838 *Erwinia carotovora* subsp. *carotovora* - *Cattleya* sp.
1839 *Erwinia carotovora* subsp. *carotovora* - *Consolida* sp.
1841 *Erwinia* sp. - *Rubus idaeus*
1842 *Erwinia chrysanthemi* pv. *parthenii* - *Parthenium argentatum*
1843 *Erwinia chrysanthemi* - *Dahlia* sp.
1844 *Erwinia chrysanthemi* - *Dahlia* sp.
1845 *Erwinia quercina* - *Quercus* sp.
1846 *Erwinia quercina* - *Quercus* sp.
1847 *Erwinia* sp. - *Carnegieia gigantea*
1848 *Erwinia cyripedii* - *Cyripedium* sp.
1850 *Erwinia ananas* pv. *ananas* - *Ananas comosus*
1851 *Erwinia tracheiphila*
1852 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
1855 *Pseudomonas viridiflava* - *Cucurbita maxima*
1856 *Pseudomonas viridiflava* - *Cucurbita maxima*
1857 *Pseudomonas viridiflava* - *Cucurbita maxima*
1858 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
1859 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
1861 *Pyrenochaeta lycopersici* - *Fragaria X ananassa*
1864 *Pyrenochaeta* sp. - *Solanum* sp.
1878 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1879 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
1881 *Alternaria* sp.
1883 *Colletotrichum coccodes* - *Trifolium repens*
1885 *Colletotrichum coccodes* - *Trifolium repens*
1886 *Glomerella* sp. - *Malus X domestica*
1888 *Fusarium oxysporum* - *Ipomoea batatas*
1889 *Fusarium oxysporum* - *Ipomoea batatas*
1890 *Nectria ochroleuca* - *Pinus radiata*
1891 *Nectria ochroleuca* - *Pinus radiata*
1892 *Pyrenochaeta lycopersici* - *Veronica* sp.
1893 *Pyrenochaeta lycopersici* - *Veronica* sp.
1896 *Pyrenochaeta lycopersici* - *Solanum nigrum*
1909 *Pyrenochaeta lycopersici* - *Lolium perenne*
1912 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
1913 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
1914 *Erwinia rhapontici* - *Rheum rhabarbarum*
1915 *Erwinia rubrifaciens* - *Juglans regia*
1916 *Erwinia rubrifaciens* - *Juglans regia*
1917 *Erwinia rubrifaciens* - *Juglans regia*

1921	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	2089	<i>Penicillium digitatum</i> - Paper
1925	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	2090	<i>Penicillium brevicompactum</i> - Paper
1926	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	2091	<i>Alternaria attenuata</i> - Paper
1927	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	2092	<i>Cladosporium herbarum</i> - Paper
1931	<i>Colletotrichum acutatum</i> - <i>Cyphomandra betacea</i>	2093	<i>Fusarium</i> sp. - <i>Passiflora</i> sp.
1932	<i>Nectria ochroleuca</i> - <i>Lupinus arboreus</i>	2094	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
1953	<i>Trichocladium basicola</i> - <i>Passiflora edulis</i>	2095	<i>Bradyrhizobium</i> sp.
1954	<i>Trichocladium basicola</i> - <i>Passiflora edulis</i>	2096	<i>Botryosphaeria dothidea</i> - <i>Ribes uva-crispa</i>
1955	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2097	<i>Leptosphaeria coniothyrium</i> - <i>Rosa</i> sp.
1956	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2098	<i>Penicillium funiculosum</i> - <i>Crocus</i> sp.
1957	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2099	<i>Gibberella pulicaris</i> - <i>Lycopersicon esculentum</i>
1958	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2100	<i>Didymella bryoniae</i> - <i>Cucumis sativus</i>
1959	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2101	<i>Xanthomonas campestris</i> pv. <i>carissae</i> - <i>Carissa carandas</i>
1960	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2103	<i>Xanthomonas campestris</i> pv. <i>coracanae</i> - <i>Eleusine coracana</i>
1961	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2105	<i>Xanthomonas campestris</i> pv. <i>cyamopsidis</i> - <i>Cyamopsis tetr</i>
1962	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2106	<i>Xanthomonas campestris</i> pv. <i>cyamopsidis</i> - <i>Cyamopsis tetr</i>
1963	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2107	<i>Erwinia herbicola</i>
1964	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2108	<i>Xanthomonas campestris</i> pv. <i>lawsoniae</i> - <i>Ammania multiflora</i>
1965	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2109	<i>Xanthomonas campestris</i> pv. <i>nakataecorchori</i> - <i>Corchorus</i>
1967	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2110	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Thespesia pop</i>
1968	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2111	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>
1970	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2113	<i>Metarhizium</i> sp. - Caterpillar
1971	<i>Gibberella intricans</i> - <i>Cortaderia</i> sp.	2114	<i>Colletotrichum</i> sp. - <i>Platyclusus orientalis</i>
1974	<i>Colletotrichum orbiculare</i> - <i>Cucumis sativus</i>	2116	<i>Chalara thielavioides</i> - <i>Ulmus</i> sp.
1978	<i>Colletotrichum acutatum</i> Simmonds f. sp. <i>pineum</i> - <i>Pinus rad</i>	2117	<i>Colletotrichum coccodes</i> - <i>Platyclusus orientalis</i>
1981	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	2118	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
1985	<i>Pyrenochaeta</i> sp. - <i>Solanum nigrum</i>	2119	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium hybridum</i>
1993	<i>Pyrenochaeta</i> sp. - <i>Convolvulus arvensis</i>	2120	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterranea</i>
1997	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>	2121	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterranea</i>
1998	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>	2122	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
1999	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>	2123	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2000	<i>Phoma glomerata</i> - Wool	2124	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2001	<i>Lasioidiplodia theobromae</i> - <i>Musa X paradisiaca</i>	2126	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus salicina</i>
2002	<i>Ulocladium atrum</i> - <i>Narcissus</i> sp.	2127	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>
2003	<i>Didymella bryoniae</i> - <i>Cucurbita maxima</i>	2128	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>
2004	<i>Fusarium oxysporum</i> - <i>Lilium</i> sp.	2129	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
2005	<i>Didymella appianata</i> - <i>Rubus idaeus</i>	2132	<i>Pseudomonas</i> sp. - <i>Magnolia</i> sp.
2007	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>	2133	<i>Pseudomonas syringae</i> - <i>Tropaeolum</i> sp.
2009	<i>Embellisia allii</i> - <i>Allium sativum</i>	2140	<i>Phoma exigua</i> var. <i>foveata</i> - <i>Solanum tuberosum</i>
2010	<i>Leptosphaerulina chartarum</i> - <i>Lactuca sativa</i>	2141	<i>Phomopsis</i> sp. - <i>Vitis</i> sp.
2012	<i>Mycosphaerella ligulicola</i> - <i>Chrysanthemum</i> sp.	2142	<i>Mycosphaerella pinodes</i> - <i>Pisum sativum</i>
2013	<i>Phoma exigua</i> - <i>Lycopersicon esculentum</i>	2145	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
2015	<i>Alternaria citri</i> - <i>Citrus</i> sp.	2146	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
2017	<i>Verticillium dahliae</i> - <i>Cotinus</i> sp.	2147	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
2020	<i>Cylindrocarpon didymum</i> - <i>Dianthus caryophyllus</i>	2148	<i>Pseudomonas syringae</i> - <i>Salix fragilis</i>
2021	<i>Fusarium oxysporum</i> - <i>Poncirus trifoliata</i>	2149	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>
2022	<i>Nectria haematococca</i> - <i>Poncirus trifoliata</i>	2150	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
2023	<i>Alternaria dianthicola</i> - <i>Dianthus caryophyllus</i>	2151	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
2024	<i>Gibberella intricans</i> - <i>Dianthus caryophyllus</i>	2152	<i>Pseudomonas fluorescens</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
2025	<i>Gibberella fujikuroi</i> - <i>Dianthus caryophyllus</i>	2153	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2027	<i>Fusarium semitectum</i> - <i>Dianthus caryophyllus</i>	2155	<i>Pseudomonas fluorescens</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
2028	<i>Acremonium murorum</i> - <i>Solanum tuberosum</i>	2156	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>
2029	<i>Phialophora cinerescens</i> - <i>Dianthus caryophyllus</i>	2157	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
2031	<i>Septoria citri</i> - <i>Citrus</i> sp.	2158	<i>Pseudomonas viridiflava</i> - <i>Cucurbita maxima</i>
2036	<i>Ceratocystis paradoxa</i> - <i>Musa X paradisiaca</i>	2160	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
2038	<i>Phoma exigua</i> - <i>Citrus limon</i>	2161	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2039	<i>Ulocladium atrum</i> - <i>Solanum tuberosum</i>	2162	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2040	<i>Fusarium poae</i> - <i>Dianthus caryophyllus</i>	2163	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2043	<i>Aspergillus ochraceus</i> - <i>Caladium</i> sp.	2164	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
2044	<i>Aspergillus flavus</i> - <i>Arachis hypogaea</i>	2166	<i>Pseudomonas viridiflava</i> - <i>Cucurbita maxima</i>
2045	<i>Nectria lucida</i> - <i>Fragaria X ananassa</i>	2167	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>
2047	<i>Trichocladium basicola</i> - <i>Actinidia deliciosa</i>	2168	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus salicina</i>
2048	<i>Epicoccum purpurascens</i> - <i>Bromus</i> sp.	2172	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>
2052	<i>Itersonilia</i> sp. - <i>Pastinaca sativa</i>	2173	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium semipilosu</i>
2058	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>	2174	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterranea</i>
2059	<i>Nectria haematococca</i> - <i>Cucumis sativus</i>	2179	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>
2060	<i>Nectria haematococca</i> - <i>Cucumis sativus</i>	2180	<i>Pseudomonas viridiflava</i> - <i>Cucurbita maxima</i>
2063	<i>Fusarium</i> sp. - <i>Lycopersicon esculentum</i>	2183	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
2064	<i>Fusarium semitectum</i> - <i>Lycopersicon esculentum</i>	2184	<i>Pseudomonas syringae</i> - <i>Tilia</i> sp.
2065	<i>Gibberella avenacea</i> - <i>Dianthus caryophyllus</i>	2185	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
2066	<i>Stigmina carpophila</i> - <i>Prunus</i> sp.	2186	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
2068	<i>Phoma destructiva</i> - <i>Lycopersicon esculentum</i>	2188	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
2069	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>	2189	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
2070	<i>Ceratocystis fimbriata</i> - <i>Lycopersicon esculentum</i>	2190	<i>Septoria cucurbitacearum</i> - <i>Cucurbita maxima</i>
2071	<i>Phoma destructiva</i> - <i>Lycopersicon esculentum</i>	2191	<i>Septoria cucurbitacearum</i> - <i>Cucurbita maxima</i>
2072	<i>Didymella lycopersici</i> - <i>Lycopersicon esculentum</i>	2192	<i>Alternaria</i> sp. - <i>Lycopersicon esculentum</i>
2073	<i>Diaporthe pernicioza</i> - <i>Malus X domestica</i>	2193	<i>Alternaria</i> sp. - <i>Lycopersicon esculentum</i>
2074	<i>Colletotrichum acutatum</i> - <i>Persea americana</i>	2196	<i>Septoria gerberae</i> - <i>Gerbera jamesonii</i>
2075	<i>Colletotrichum acutatum</i> - <i>Magnolia quinquepeta</i>	2197	<i>Ceuthospora laurocerasi</i> - <i>Prunus laurocerasus</i>
2080	<i>Beauveria bassiana</i> - <i>Declana floccosa</i>	2198	<i>Septoria cucurbitacearum</i> - <i>Cucurbita maxima</i>
2084	<i>Gibberella cyanogena</i> - <i>Passiflora edulis</i>	2199	<i>Septoria cucurbitacearum</i> - <i>Cucurbita maxima</i>
2085	<i>Ceratocystis fimbriata</i> - <i>Ipomoea batatas</i>	2200	<i>Myrothecium gramineum</i> - <i>Passiflora edulis</i>
2086	<i>Colletotrichum acutatum</i> - <i>Camellia japonica</i>	2201	<i>Trichothecium roseum</i>
2087	<i>Cladosporium</i> sp. - Paper	2203	<i>Gibberella avenacea</i> - <i>Secale cereale</i>
2088	<i>Alternaria attenuata</i> - Paper	2204	<i>Phoma</i> sp. - <i>Vitis vinifera</i>

- 2205 *Menisporrella* sp. - *Oryza sativa*
2207 *Paecilomyces variotii* - Poultry mash
2208 *Trichocladium basicola* - *Trifolium* sp.
2209 *Trichocladium basicola* - *Trifolium* sp.
2210 *Colletotrichum acutatum* - *Lathyrus odoratus*
2212 *Colletotrichum musae* - *Musa X paradisiaca*
2214 *Phoma exigua* - *Phaseolus coccineus*
2215 *Phoma exigua* - *Lycopersicon esculentum*
2216 *Alternaria* sp. - *Passiflora edulis*
2217 *Alternaria* sp. - *Passiflora edulis*
2219 *Fusarium oxysporum* - *Arachis hypogaea*
2220 *Fusarium semitectum*
2225 *Verticillium albo-atrum* - *Solanum tuberosum*
2227 *Verticillium dahliae* - *Fragaria X ananassa*
2229 *Beauveria brongniartii* - *Neocicindela tuberculata*
2232 *Septoria perforans* - *Arctotheca calendula*
2233 *Septoria apiicola* - *Apium graveolens* var. *dulce*
2236 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
2237 *Verticillium* sp. - *Agaricus bisporus*
2238 *Aspergillus* sp. - Fowl feed
2240 *Glomerella cingulata* - *Citrus* sp.
2241 *Botrytis cinerea* - *Actinidia deliciosa*
2244 *Thyronectria pseudotrichia* - *Theobroma cacao*
2245 *Thyronectria pseudotrichia* - *Theobroma cacao*
2250 *Nectria rigidiuscula* - *Theobroma cacao*
2251 *Nectria rigidiuscula* - *Theobroma cacao*
2252 *Nectria rigidiuscula* - *Theobroma cacao*
2253 *Nectria rigidiuscula* - *Theobroma cacao*
2254 *Nectria rigidiuscula* - *Theobroma cacao*
2255 *Nectria rigidiuscula* - *Theobroma cacao*
2256 *Nectria rigidiuscula* - *Theobroma cacao*
2257 *Nectria rigidiuscula* - *Theobroma cacao*
2260 *Nectria rigidiuscula* - *Theobroma cacao*
2261 *Nectria rigidiuscula* - *Theobroma cacao*
2262 *Nectria haematococca* - *Passiflora mollissima*
2263 *Nectria haematococca* - *Passiflora edulis*
2264 *Gibberella fujikuroi* - *Passiflora edulis*
2268 *Mycosphaerella pinodes* - *Pisum sativum*
2270 *Mycosphaerella ligulicola* - *Chrysanthemum* sp.
2271 *Fusarium oxysporum* - *Lycopersicon esculentum*
2282 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
2283 *Pseudomonas tolaasii* - *Agaricus bisporus*
2284 *Leptosphaeria coniothyrium* - *Araucaria columnaris*
2286 *Phoma exigua* - *Fragaria X ananassa*
2287 *Mycosphaerella ligulicola* - *Chrysanthemum* sp.
2288 *Phoma exigua* - *Actinidia deliciosa*
2290 *Pseudomonas tolaasii* - *Agaricus bisporus*
2293 *Pseudomonas fluorescens* - *Cucurbita maxima*
2296 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2297 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2299 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2300 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2302 *Pseudomonas viridiflava* - *Cucurbita maxima*
2303 *Pseudomonas viridiflava* - *Cucurbita maxima*
2304 *Pseudomonas putida* - *Cucurbita maxima*
2306 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2307 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
2308 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2309 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2310 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2311 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
2312 *Pseudomonas viridiflava* - *Eriostemon myoporoides*
2314 *Pseudomonas cichorii* - *Lycopersicon esculentum*
2319 *Xanthomonas campestris* pv. *pruni* - *Prunus armeniaca*
2323 *Phoma glomerata* - *Malus X domestica*
2324 *Phoma pomorum* - *Protea* sp.
2325 *Phoma macrostoma* var. *macrostoma* - *Malus X domestica*
2326 *Phoma macrostoma* var. *macrostoma* - *Malus X domestica*
2328 *Pseudomonas marginalis* - *Zea mays*
2329 *Pseudomonas fluorescens* - *Agaricus bisporus*
2331 *Xanthomonas* sp. - *Eriostemon myoporoides*
2336 *Xanthomonas campestris* pv. *glycines* - *Glycine max*
2337 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2338 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2339 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2340 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2341 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2342 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2343 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2344 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
2346 *Erwinia chrysanthemi* - *Grass*
2347 *Erwinia chrysanthemi* - *Grass*
2348 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa X paradisiaca*
2349 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa X paradisiaca*
2350 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa X paradisiaca*
2354 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
2355 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
2356 *Pseudomonas fluorescens* - *Lycopersicon esculentum*
2357 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays* var. *rugosa*
2358 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays*
2359 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays*
2360 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays*
2361 *Erwinia herbicola*
2362 *Erwinia herbicola*
2363 *Xanthomonas campestris* pv. *populi* - *Populus yunnanensis*
2364 *Xanthomonas campestris* pv. *populi* - *Populus yunnanensis*
2367 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
2368 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
2370 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterranean*
2372 *Xanthomonas campestris* pv. *zantedeschiae* - *Zantedeschia*
2374 *Xanthomonas* sp. - *Aralia* sp.
2375 *Xanthomonas* sp. - *Aralia* sp.
2376 *Xanthomonas* sp. - *Aralia* sp.
2377 *Pseudomonas syringae* pv. *syringae* - *Citrus* sp.
2378 *Pseudomonas syringae* pv. *syringae* - *Citrus* sp.
2379 *Pseudomonas syringae* pv. *syringae* - *Citrus limon*
2381 *Xanthomonas* sp. - *Eriostemon myoporoides*
2383 *Pseudomonas fluorescens* - *Papaver somniferum*
2384 *Pseudomonas syringae* - *Magnolia* sp.
2385 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
2387 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
2390 *Pseudomonas viridiflava* - *Brassica oleracea* var. *botrytis*
2392 *Pseudomonas syringae* pv. *syringae* - *Malus X domestica*
2394 *Pseudomonas* sp. - *Glycine max*
2400 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
2401 *Xanthomonas campestris* pv. *citri* - *Citrus limon*
2402 *Pseudomonas syringae* pv. *syringae* - *Prunus persica* var.
2403 *Pseudomonas fluorescens* - *Dahlia* sp.
2408 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
2414 *Pseudomonas syringae* - *Betula pendula*
2415 *Pseudomonas syringae* pv. *dysoxyli* - *Dysoxylum spectabile*
2420 *Pseudomonas viridiflava* - *Papaver somniferum*
2424 *Pseudomonas fluorescens* - *Papaver somniferum*
2428 *Pseudomonas* sp. - *Solanum tuberosum*
2430 *Pseudomonas syringae* pv. *syringae* - *Cucumis sativus*
2431 *Pseudomonas fluorescens* - *Prunus avium*
2432 *Pseudomonas syringae* pv. *syringae* - *Rosa* sp.
2435 *Xanthomonas campestris* pv. *pruni* - *Prunus persica*
2436 *Xanthomonas* sp. - *Eriostemon myoporoides*
2437 *Pseudomonas syringae* - *Passiflora edulis*
2438 *Pseudomonas syringae* - *Quercus* sp.
2440 Unknown bacterium - rec. as *Pseudomonas* sp. - *Agaricus*
2441 *Pseudomonas fluorescens* - *Agaricus bisporus*
2442 *Pseudomonas* sp. - *Agaricus bisporus*
2443 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
2445 *Xanthomonas* sp. - *Eriostemon myoporoides*
2447 *Xanthomonas campestris* pv. *citri* - *Citrus limon*
2448 *Pseudomonas syringae* - *Hordeum vulgare*
2449 *Pseudomonas fluorescens* - *Populus* sp.
2451 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
2452 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
2453 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2454 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2455 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2456 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2457 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2458 *Colletotrichum acutatum* Simmonds f. sp. *pineum* - *Pinus rad*
2460 *Trichocladium basicola* - *Pisum sativum*
2462 *Nectria ochroleuca* - *Meliccytus ramiflorus*
2463 *Nectria illudens* - *Meliccytus ramiflorus*
2466 *Trichocladium basicola* - *Passiflora edulis*
2470 *Colletotrichum acutatum* - *Lupinus arboreus*
2473 *Colletotrichum acutatum* - *Lupinus arboreus*
2474 *Colletotrichum acutatum* - *Lupinus arboreus*
2487 *Alternaria* sp. - *Fragaria X ananassa*
2488 *Clethridium corticola* - *Rubus ursinus*
2490 *Fusarium solani* var. *coeruleum* - *Solanum tuberosum*
2492 *Verticillium psalliotae* - *Agaricus bisporus*
2493 *Leptosphaerulina chartarum* - *Holcus* sp.
2494 *Leptosphaerulina chartarum* - *Grass*
2495 *Aphanocladium* sp. - *Vitis vinifera*
2496 *Amorphotheca resiniae* - *Plastic*
2497 *Colletotrichum* sp. - *Malus X domestica*
2500 *Codinaea fertilis* - *Medicago sativa*
2501 *Codinaea fertilis* - *Trifolium* sp.
2504 *Phoma macrostoma* var. *macrostoma* - *Malus X domestica*
2505 *Thyronectria pseudotrichia* - *Eucalyptus ficifolia*
2506 *Glomerella cingulata* - *Cordyline australis*
2507 *Colletotrichum acutatum* - *Banksia collina*
2508 *Glomerella cingulata* - *Cyphomandra betacea*
2509 *Colletotrichum acutatum* - *Lathyrus odoratus*
2510 *Colletotrichum* sp. - *Passiflora edulis*
2513 *Phomopsis viticola* - *Vitis vinifera*
2514 *Colletotrichum acutatum* - *Lupinus arboreus*

2516	<i>Colletotrichum acutatum</i> - <i>Lupinus arboreus</i>	2612	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2520	<i>Alternaria dianthicola</i> - <i>Dianthus caryophyllus</i>	2613	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2521	<i>Aspergillus flavus</i> - <i>Myristica fragrans</i>	2614	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2522	<i>Aspergillus glaucus</i> - <i>Myristica fragrans</i>	2615	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2523	<i>Aspergillus niger</i> - <i>Myristica fragrans</i>	2616	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>
2524	<i>Colletotrichum</i> sp. - <i>Banksia</i> sp.	2617	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2525	<i>Potrebniomyces coniferarum</i> - <i>Sequoia sempervirens</i>	2618	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2527	<i>Gibberella avenacea</i> - <i>Juniperus communis</i> var. <i>depressa</i>	2619	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>
2529	<i>Colletotrichum acutatum</i> - <i>Gardenia</i> sp.	2620	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2531	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2621	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2532	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2623	<i>Clavibacter tritici</i> - <i>Triticum aestivum</i>
2534	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2624	<i>Clavibacter tritici</i> - <i>Triticum aestivum</i>
2535	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2625	<i>Clavibacter tritici</i> - <i>Triticum aestivum</i>
2536	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2626	<i>Clavibacter tritici</i> - <i>Triticum aestivum</i>
2537	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2628	<i>Clavibacter tritici</i> - <i>Triticum aestivum</i>
2538	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	2632	<i>Curtobacterium flaccumfaciens</i> pv. <i>oortii</i> - <i>Tulipa gesnerana</i>
2539	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2633	<i>Aspergillus oryzae</i>
2540	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	2634	<i>Aspergillus oryzae</i>
2541	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2636	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2542	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2637	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2543	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2639	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium pratense</i>
2544	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2641	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2545	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2642	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2546	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2646	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2547	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2647	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2548	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2649	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pisum sativum</i> var.
2549	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2650	<i>Pseudomonas syringae</i> pv. <i>ptisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
2550	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2651	<i>Pseudomonas syringae</i> pv. <i>ptisi</i> - <i>Pisum sativum</i>
2551	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2652	<i>Pseudomonas syringae</i> pv. <i>ptisi</i> - <i>Pisum sativum</i>
2552	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2653	<i>Pseudomonas syringae</i> pv. <i>ptisi</i> - <i>Pisum sativum</i>
2553	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2654	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2554	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2656	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2556	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2658	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2558	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2660	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
2559	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2661	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2560	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	2663	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2561	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2666	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2562	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2667	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2563	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2668	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2564	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2669	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2565	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2671	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i>
2566	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2672	<i>Rhizobium leguminosarum</i> biovar <i>phaseoli</i> - <i>Phaseolus vulga</i>
2567	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2674	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2568	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2675	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>
2569	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2677	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2570	<i>Curtobacterium flaccumfaciens</i> pv. <i>poinsettiae</i> - <i>Euphorbia</i>	2678	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2571	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2681	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2572	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2682	<i>Monilinia laxa</i> - <i>Chaenomeles japonica</i>
2573	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2683	<i>Monilinia laxa</i> - <i>Prunus</i> sp.
2574	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2684	<i>Monilinia laxa</i> - <i>Prunus glandulosa</i>
2575	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2686	<i>Monilinia laxa</i> - <i>Prunus persica</i>
2576	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2687	<i>Monilinia laxa</i> - <i>Prunus domestica</i>
2577	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2688	<i>Monilinia laxa</i> - <i>Prunus persica</i> var. <i>nucipersica</i>
2579	<i>Clavibacter rathayi</i> - <i>Dactylis glomerata</i>	2689	<i>Monilinia laxa</i> - <i>Prunus</i> sp.
2580	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2690	<i>Monilinia laxa</i> - <i>Prunus persica</i>
2581	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2692	<i>Monilinia laxa</i> - <i>Prunus glandulosa</i>
2582	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2693	<i>Monilinia laxa</i> - <i>Chaenomeles japonica</i>
2583	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2696	<i>Erwinia herbicola</i> - <i>Prunus armeniaca</i>
2584	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2697	<i>Erwinia herbicola</i> - <i>Pyrus communis</i>
2585	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2698	<i>Erwinia herbicola</i> - <i>Malus X domestica</i>
2586	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2699	<i>Verticillium dahliae</i> - <i>Lycopersicon esculentum</i>
2587	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2700	<i>Verticillium tricorpus</i> - <i>Nicotiana tabacum</i>
2588	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Vigna</i>	2702	<i>Verticillium dahliae</i> - <i>Lycopersicon esculentum</i>
2589	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>	2703	<i>Verticillium dahliae</i> - <i>Vitis rupestris</i>
2590	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Vigna</i>	2704	<i>Verticillium theobromae</i> - <i>Musa X paradisiaca</i>
2591	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	2705	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
2592	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	2706	<i>Verticillium tricorpus</i> - <i>Medicago sativa</i>
2593	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	2707	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
2594	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	2708	<i>Penicillium expansum</i> - <i>Malus X domestica</i>
2595	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	2709	<i>Monilinia fructicola</i> - <i>Prunus armeniaca</i>
2596	<i>Rhodococcus fascians</i> - <i>Fragaria X ananassa</i>	2710	<i>Monilinia fructicola</i> - <i>Prunus armeniaca</i>
2597	<i>Rhodococcus fascians</i> - <i>Fragaria X ananassa</i>	2711	<i>Monilinia laxa</i>
2598	<i>Rhodococcus fascians</i> - <i>Fragaria X ananassa</i>	2712	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2599	<i>Rhodococcus fascians</i> - <i>Fragaria X ananassa</i>	2713	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2600	<i>Rhodococcus fascians</i> - <i>Chrysanthemum X morifolium</i>	2714	<i>Phoma exigua</i> - <i>Actinidia deliciosa</i>
2601	<i>Rhodococcus fascians</i> - <i>Justicia brandegeana</i>	2715	<i>Phoma macrostoma</i> Montagne var. <i>incolorata</i> - <i>Actinidia deli</i>
2602	<i>Rhodococcus fascians</i>	2716	<i>Phoma exigua</i> - <i>Actinidia deliciosa</i>
2603	<i>Rhodococcus fascians</i>	2717	<i>Phoma exigua</i> - <i>Actinidia deliciosa</i>
2604	<i>Rhodococcus fascians</i> - <i>Lathyrus odoratus</i>	2718	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>
2605	<i>Rhodococcus fascians</i>	2719	<i>Talaromyces luteus</i> - Rubberised canvas
2606	<i>Rhodococcus fascians</i>	2720	<i>Penicillium aurantiogriseum</i> - Rubberised canvas
2607	<i>Arthrobacter ilicis</i> - <i>Ilex opaca</i>	2721	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
2608	<i>Arthrobacter ilicis</i> - <i>Ilex opaca</i>	2722	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
2609	<i>Arthrobacter ilicis</i> - <i>Ilex opaca</i>	2723	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
2611	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>	2725	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>

2729	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	2844	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>
2731	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	2845	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>
2732	<i>Pseudomonas syringae</i> pv. <i>primulae</i> - <i>Primula</i> X <i>polyantha</i>	2846	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>
2733	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	2848	<i>Pseudomonas viridiflava</i> - <i>Phaseolus vulgaris</i>
2734	<i>Pseudomonas syringae</i> pv. <i>delphinii</i> - <i>Delphinium</i> sp.	2849	<i>Pseudomonas viridiflava</i> - <i>Phaseolus</i> sp.
2735	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> - <i>Brassica oleracea</i>	2850	<i>Pseudomonas rubrisubalbicans</i> - <i>Zea mays</i> var. <i>rugosa</i>
2736	<i>Pseudomonas cichorii</i> - <i>Chrysanthemum</i> X <i>morifolium</i>	2851	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>
2737	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>	2854	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>
2738	<i>Pseudomonas syringae</i> pv. <i>antirrhini</i> - <i>Antirrhinum majus</i>	2855	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>
2739	<i>Pseudomonas syringae</i> pv. <i>antirrhini</i> - <i>Antirrhinum majus</i>	2856	<i>Pseudomonas cichorii</i> - <i>Chrysanthemum</i> X <i>morifolium</i>
2740	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	2858	<i>Pseudomonas viridiflava</i> - <i>Phaseolus vulgaris</i>
2742	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	2860	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2743	<i>Pseudomonas viridiflava</i> - <i>Phaseolus coccineus</i>	2862	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2744	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> - <i>Brassica nigra</i>	2863	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2745	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sati</i>	2864	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2746	<i>Pseudomonas marginalis</i> - <i>Coriandrum sativum</i>	2867	<i>Sclerotinia minor</i> - <i>Lactuca sativa</i>
2747	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>	2870	<i>Xanthomonas campestris</i> pv. <i>musacearum</i> - <i>Ensete ventrico</i>
2748	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	2871	<i>Pseudomonas syringae</i> pv. <i>antirrhini</i> - <i>Antirrhinum majus</i>
2749	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	2876	<i>Pseudomonas viridiflava</i> - <i>Papaver nudicaule</i>
2750	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	2881	<i>Chondrostereum purpureum</i> - <i>Prunus persica</i>
2751	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	2882	<i>Rhizobium</i> sp. - <i>Glycine max</i>
2752	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	2883	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2753	<i>Rhizobium meliloti</i> - <i>Medicago lacinata</i>	2884	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2754	<i>Rhizobium meliloti</i> - <i>Trigonella suavissima</i>	2885	<i>Pseudomonas</i> sp. - <i>Passiflora edulis</i>
2755	<i>Rhizobium meliloti</i> - <i>Trigonella suavissima</i>	2887	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>
2758	<i>Pseudomonas putida</i> - Soil	2888	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>
2759	<i>Xanthomonas campestris</i> pv. <i>leeana</i> - <i>Leea edgeworthii</i>	2914	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2760	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.	2915	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2762	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Vigna angularis</i>	2916	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2764	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.	2917	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2766	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.	2918	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2768	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.	2919	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2770	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Vigna angularis</i>	2920	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2772	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus</i> sp.	2921	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2779	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>	2922	<i>Taphrina pruni</i> - <i>Prunus domestica</i>
2780	<i>Xanthomonas campestris</i> pv. <i>biophyti</i> - <i>Biophytum sensitivu</i>	2924	<i>Taphrina deformans</i> - <i>Prunus persica</i>
2781	<i>Rhizobium leguminosarum</i> biovar <i>phaseoli</i> - <i>Phaseolus cocc</i>	2925	<i>Taphrina wiesneri</i> - <i>Prunus avium</i>
2782	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	2926	<i>Taphrina wiesneri</i> - <i>Prunus avium</i>
2783	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>	2928	<i>Colletotrichum coccodes</i> - <i>Trifolium repens</i>
2786	<i>Botrytis cinerea</i> - <i>Fragaria</i> X <i>Ananassa</i>	2929	<i>Cercosporidium graminis</i> - <i>Dactylis glomerata</i>
2787	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2930	<i>Cercospora zebrina</i> - <i>Trifolium repens</i>
2788	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2931	<i>Epicoccum purpurascens</i> - <i>Lolium perenne</i>
2789	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2933	<i>Leptosphaerulina chartarum</i> - <i>Lolium perenne</i>
2790	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2934	<i>Pleospora tarda</i> - <i>Trifolium repens</i>
2791	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2935	<i>Alternaria alternata</i> - <i>Lolium perenne</i>
2792	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2936	<i>Cladosporium herbarum</i> - <i>Lolium perenne</i>
2793	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2937	<i>Drechslera siccans</i> - <i>Lolium perenne</i>
2794	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2939	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
2795	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2940	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium pratense</i>
2796	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pisum sativum</i>	2941	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium pratense</i>
2797	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	2942	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2802	<i>Pseudomonas syringae</i> pv. <i>aceris</i> - <i>Acer</i> sp.	2943	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
2804	<i>Burkholderia gladioli</i> pv. <i>alliiicola</i> - <i>Allium cepa</i>	2945	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
2805	<i>Burkholderia gladioli</i> pv. <i>alliiicola</i> - <i>Allium cepa</i>	2948	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2806	<i>Burkholderia andropogonis</i> - <i>Zea mays</i>	2949	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2807	<i>Burkholderia andropogonis</i> - <i>Sorghum bicolor</i>	2950	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2808	<i>Burkholderia andropogonis</i> - <i>Zea mays</i>	2951	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2809	<i>Burkholderia andropogonis</i> - <i>Sorghum bicolor</i>	2952	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2810	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2953	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2811	<i>Pseudomonas fluorescens</i> - <i>Nicotiana tabacum</i>	2954	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
2812	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2955	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
2813	<i>Pseudomonas syringae</i> pv. <i>antirrhini</i> - <i>Antirrhinum majus</i>	2956	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
2814	<i>Pseudomonas syringae</i> pv. <i>apii</i> - <i>Apium graveolens</i> var. <i>dulc</i>	2957	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
2820	<i>Pseudomonas betle</i> - <i>Piper betle</i>	2958	<i>Pythium acanthicum</i> - <i>Juniperus chinensis</i>
2821	<i>Pseudomonas syringae</i> pv. <i>cannabina</i> - <i>Cannabis sativa</i>	2959	<i>Pythium acanthicum</i> - River sand
2822	<i>Pseudomonas syringae</i> pv. <i>cannabina</i> - <i>Cannabis sativa</i>	2960	<i>Pythium acanthicum</i> - Soil
2823	<i>Pseudomonas syringae</i> pv. <i>cannabina</i> - <i>Cannabis sativa</i>	2962	<i>Pythium spinosum</i> - <i>Cyperus</i> sp.
2824	<i>Burkholderia caryophylli</i> - <i>Dianthus caryophyllus</i>	2963	<i>Pythium spinosum</i> - <i>Cytisus scoparius</i>
2825	<i>Burkholderia caryophylli</i> - <i>Dianthus</i> sp.	2964	<i>Pythium spinosum</i> - <i>Cyperus haspan</i>
2826	<i>Acidovorax avenae</i> subsp. <i>cattleyae</i>	2967	<i>Pythium torulosum</i> - River sand
2827	<i>Pseudomonas cichorii</i> - <i>Lactuca sativa</i>	2968	<i>Pythium torulosum</i> - River sand
2828	<i>Pseudomonas cichorii</i> - <i>Nicotiana tabacum</i>	2969	<i>Pythium torulosum</i> - Pumice
2829	<i>Pseudomonas cichorii</i> - <i>Chrysanthemum</i> X <i>morifolium</i>	2973	<i>Pythium inflatum</i> - <i>Dodonaea viscosa</i>
2830	<i>Pseudomonas cichorii</i> - <i>Apium graveolens</i> var. <i>dulce</i>	2974	<i>Pythium middletonii</i> - <i>Rosa multiflora</i>
2831	<i>Burkholderia cepacia</i>	2975	<i>Pythium middletonii</i> - <i>Cytisus</i> sp.
2832	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2976	<i>Pythium aquatile</i> - <i>Neopanax</i> sp.
2833	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2977	<i>Pythium aquatile</i> - Soil
2834	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2978	<i>Pythium echinulatum</i> - River sand
2835	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2979	<i>Pythium echinulatum</i> - Soil
2836	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	2980	<i>Pythium irregulare</i> - <i>Juniperus communis</i> var. <i>depressa</i>
2837	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	2981	<i>Pythium ultimum</i> - <i>Acacia leprosa</i>
2838	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	2982	<i>Pythium ultimum</i> - Soil
2839	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	2983	<i>Pythium ultimum</i> - Soil
2840	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	2984	<i>Pythium irregulare</i> - <i>Muntingia calabura</i>
2841	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>	2985	<i>Pythium irregulare</i> - <i>Cyperus</i> sp.
2842	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Lycopersicon esculen</i>	2987	<i>Pythium debaryanum</i> - <i>Fuchsia</i> sp.
2843	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>	2992	<i>Pythium monospermum</i> - <i>Prunus tomentosa</i>

2997	<i>Pythium rostratum</i> - Soil	3136	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>
2998	<i>Pythium rostratum</i> - Soil	3137	<i>Xanthomonas campestris</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>
2999	<i>Pythium rostratum</i> - River sand	3138	<i>Xanthomonas campestris</i> pv. <i>punicae</i> - <i>Punica granatum</i>
3014	<i>Penicillium digitatum</i> - <i>Citrus limon</i>	3139	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Saccharum officinarum</i>
3016	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>	3142	<i>Agaricus bisporus</i> - Cultivated mushroom
3018	<i>Pseudomonas viridiflava</i> - <i>Phaseolus vulgaris</i>	3143	<i>Agaricus bisporus</i> - Cultivated mushroom
3019	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3146	<i>Agaricus bisporus</i> - Cultivated mushroom
3020	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3147	<i>Agaricus bisporus</i> - Cultivated mushroom
3021	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3148	<i>Agaricus bisporus</i> - Cultivated mushroom
3022	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus sp.</i>	3150	<i>Agaricus bisporus</i> - Cultivated mushroom
3023	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Syringa vulgaris</i>	3151	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>
3025	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>	3153	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>
3026	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3154	<i>Bradyrhizobium sp.</i> (<i>Lotus</i>) - <i>Lotus suaveolens</i>
3027	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3155	<i>Rhizobium loti</i> - <i>Lotus angustissimus</i>
3028	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus lunatus</i>	3156	<i>Rhizobium sp.</i> - <i>Caragana arborescens</i>
3029	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Syringa vulgaris</i>	3157	<i>Rhizobium sp.</i> - <i>Nitragin inoculant</i>
3030	<i>Xanthomonas campestris</i> pv. <i>pedalii</i> - <i>Pedaliium murex</i>	3158	<i>Xanthomonas campestris</i> pv. <i>arracaciae</i> - <i>Arracacia xanthor</i>
3031	<i>Xanthomonas campestris</i> pv. <i>ricini</i> - <i>Ricinus communis</i>	3159	<i>Bradyrhizobium sp.</i> (<i>Desmodium</i>) - <i>Desmodium intortum</i>
3032	<i>Xanthomonas campestris</i> pv. <i>heliotropii</i> - <i>Heliotropium eichw</i>	3160	<i>Bradyrhizobium sp.</i> (<i>Macroptilium</i>) - <i>Macroptilium atropurpur</i>
3033	<i>Xanthomonas campestris</i> pv. <i>amorphophalli</i> - <i>Amorphophall</i>	3161	<i>Bradyrhizobium sp.</i> (<i>Dolichos</i>) - <i>Dolichos biflorus</i>
3034	<i>Xanthomonas campestris</i> pv. <i>carissae</i> - <i>Carissa carandas</i>	3162	<i>Bradyrhizobium sp.</i> (<i>Vigna</i>) - <i>Vigna schimperi</i>
3035	<i>Xanthomonas campestris</i> pv. <i>carissae</i> - <i>Carissa carandas</i>	3163	<i>Bradyrhizobium japonicum</i> - <i>Glycine max</i>
3036	<i>Xanthomonas campestris</i> pv. <i>fici</i> - <i>Ficus religiosa</i>	3165	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
3057	<i>Aureobasidium pullulans</i> - <i>Malus X domestica</i>	3166	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3060	<i>Aureobasidium pullulans</i> - <i>Malus X domestica</i>	3167	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3061	<i>Bradyrhizobium sp.</i> (<i>Vigna</i>) - <i>Vigna angularis</i>	3168	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mexicana</i>
3062	<i>Pestalotia sp.</i> - <i>Prunus domestica</i>	3169	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterrane</i>
3063	<i>Alternaria sp.</i> - <i>Prunus sp.</i>	3170	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium sp.</i>
3064	<i>Alternaria sp.</i> - <i>Prunus sp.</i>	3171	<i>Phoma putaminum</i> - Soil
3069	<i>Trametes versicolor</i> - <i>Prunus persica</i>	3172	<i>Phoma fimeti</i> - Wood
3074	<i>Rhizoctonia sp.</i> - <i>Malus X domestica</i>	3173	<i>Phoma macrostoma</i> var. <i>macrostoma</i> - <i>Prunus cerasus</i>
3078	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	3174	<i>Phoma macrostoma</i> var. <i>incolorata</i> - <i>Pyrus communis</i>
3079	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus sp.</i>	3175	<i>Phoma chrysanthemicola</i> - <i>Chrysanthemum indicum</i>
3080	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Syringa vulgaris</i>	3176	<i>Phoma pomorum</i> - <i>Phaseolus vulgaris</i>
3081	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>	3177	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>
3082	<i>Pseudomonas syringae</i>	3178	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3083	<i>Trichoderma sp.</i> - Soil	3179	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3084	<i>Pyrenophora teres</i> - <i>Lolium sp.</i>	3180	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3085	<i>Myrothecium verrucaria</i> - <i>Agrostis capillaris</i>	3181	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mexicana</i>
3086	<i>Leptosphaerulina chartarum</i> - Pasture litter	3182	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mexicana</i>
3087	<i>Berkleasmiium sp.</i> - Pasture litter	3183	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3088	<i>Trichoderma sp.</i> - Soil	3184	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3089	<i>Gliocladium virens</i> - Soil	3185	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
3090	<i>Trichoderma aureoviride</i> - <i>Pinus radiata</i>	3186	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mexicana</i>
3091	<i>Trichoderma viride</i> - Soil	3187	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium sp.</i>
3092	<i>Trichoderma viride</i> - Soil	3188	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium sp.</i>
3093	<i>Myrothecium carmichaelii</i> - Pasture litter	3189	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
3094	<i>Myrothecium verrucaria</i> - Pasture litter	3190	<i>Pseudomonas viridiflava</i> - <i>Pisum sativum</i>
3095	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Costelytra zealandica</i>	3191	<i>Pseudomonas viridiflava</i> - <i>Pisum sativum</i>
3096	<i>Bipolaris sp.</i> - <i>Lolium perenne</i>	3192	<i>Pseudomonas viridiflava</i> - <i>Pisum sativum</i>
3097	<i>Cercospora sp.</i> - <i>Sagina apetala</i>	3193	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus dulcis</i>
3098	<i>Myrothecium verrucaria</i> - <i>Medicago sativa</i>	3198	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
3099	<i>Trichoderma harzianum</i> - <i>Eucalyptus sp.</i>	3199	<i>Pseudomonas viridiflava</i> - <i>Lupinus angustifolius</i>
3100	<i>Xanthomonas campestris</i> pv. <i>hordei</i> - <i>Hordeum vulgare</i>	3250	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
3101	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	3253	<i>Colletotrichum fuscum</i> - <i>Digitalis lanata</i>
3102	<i>Xanthomonas campestris</i> pv. <i>azadirachtae</i> - <i>Azadirachta ind</i>	3254	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mexicana</i>
3103	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>	3255	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
3106	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>	3256	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
3107	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>	3257	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
3108	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>	3258	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Wiseana sp.</i>
3109	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>	3259	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> - <i>Heteronychus arator</i>
3110	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>	3261	<i>Rhizobium melliloti</i> - <i>Mellilotus alba</i>
3111	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	3263	<i>Pseudomonas syringae</i> pv. <i>helianthi</i> - <i>Helianthus annuus</i>
3112	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>	3265	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3113	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>	3266	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3114	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>	3267	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3116	<i>Aureobasidium zeae</i> - <i>Zea mays</i>	3268	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3117	<i>Aureobasidium zeae</i> - <i>Zea mays</i>	3269	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i> var. <i>praecox</i>
3118	<i>Aureobasidium zeae</i> - <i>Zea mays</i>	3270	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3119	<i>Aureobasidium zeae</i> - <i>Zea mays</i>	3271	<i>Cochliobolus heterostrophus</i> - <i>Zea mays</i>
3120	<i>Erwinia sp.</i> - <i>Salix fragilis</i>	3272	<i>Pseudomonas sp.</i> - <i>Actinidia deliciosa</i>
3121	<i>Erwinia sp.</i> - <i>Salix fragilis</i>	3273	<i>Pseudomonas sp.</i> - <i>Actinidia deliciosa</i>
3123	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3274	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
3124	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3275	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
3125	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3276	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus sp.</i>
3126	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3277	<i>Glomerella cingulata</i> - <i>Earina mucronata</i>
3127	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3278	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>
3128	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	3279	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>
3129	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3280	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>
3130	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3281	<i>Xanthomonas sp.</i> - <i>Cheiranthus cheiri</i>
3131	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3282	<i>Bacillus subtilis</i>
3132	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3283	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
3133	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3284	<i>Pseudomonas syringae</i> - <i>Callistemon viminalis</i>
3134	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3285	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
3135	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	3286	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>

- 3287 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
3289 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
3290 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
3291 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
3292 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium hybridum*
3293 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium pratense*
3294 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3295 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3296 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3298 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3299 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3300 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3301 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3302 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3303 *Clavibacter michiganensis* subsp. *nebraskensis* - *Zea mays*
3304 *Xanthomonas fragariae* - *Fragaria* X *Ananassa*
3305 *Bradyrhizobium* sp. (*Phaseolus*) - *Phaseolus* sp.
3307 *Phomopsis obscurans* - *Fragaria* X *Ananassa*
3308 *Phomopsis obscurans* - *Fragaria* X *Ananassa*
3309 *Phomopsis obscurans* - *Fragaria* X *Ananassa*
3310 *Erwinia chrysanthemi* pv. *dianthicola* - *Dianthus caryophyllus*
3311 *Erwinia chrysanthemi* pv. *dianthicola* - *Dianthus caryophyllus*
3313 *Pseudomonas syringae* pv. *Callistemon viminalis*
3314 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
3315 *Pseudomonas syringae* - *Pisum sativum*
3316 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
3317 *Pseudomonas syringae* - *Pisum sativum*
3319 *Pseudomonas syringae* pv. *syringae* - *Pisum sativum*
3325 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum* var. *arvens*
3326 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum* var. *arvens*
3327 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum* var. *arvens*
3332 *Pythium acanthicum* - Soil
3333 *Pythium aferile* - Soil
3334 *Pythium aquatile* - *Eucalyptus* sp.
3335 *Pythium irregulare* - Pumice
3336 *Pythium monospermum* - *Juniperus chinensis*
3337 *Pythium rostratum* - Soil
3339 *Pythium splendens* - *Aralia* sp.
3340 *Pythium torulosum* - Soil
3341 *Pythium ultimum* - *Citrus* sp.
3343 *Verticillium fungicola* - *Agaricus bisporus*
3344 *Elsinoe tiliae* - *Tilia cordata*
3345 *Septoria* sp. - *Psidium littorale* var. *longipes*
3346 *Septoria chrysanthemella* - *Chrysanthemum indicum*
3347 *Botrytis cinerea* - *Vaccinium corymbosum*
3348 *Phoma exigua* - *Fragaria* X *Ananassa*
3349 *Erwinia chrysanthemi* - *Dahlia* sp.
3350 *Pseudomonas putida* - *Abrus precatorius*
3352 *Trichocladium basicola* - *Telopea speciosissima*
3353 *Pseudomonas cichorii* - *Lycopersicon esculentum*
3354 *Pseudomonas cichorii* - *Lycopersicon esculentum*
3355 *Pseudomonas cichorii* - *Lycopersicon esculentum*
3356 *Pseudomonas cichorii* - *Lycopersicon esculentum*
3357 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
3358 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
3359 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
3362 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
3374 *Xanthomonas campestris* pv. *clerodendri* - *Clerodendron phil*
3375 *Xanthomonas campestris* pv. *clerodendri* - *Clerodendron phil*
3376 *Xanthomonas campestris* pv. *alfalfae* - *Medicago sativa*
3377 *Burkholderia andropogonis* - *Trifolium repens*
3378 *Pseudomonas syringae* pv. *tabaci* - *Glycine max*
3379 *Agrobacterium rhizogenes* (saprophytic strain) - Soil
3380 *Xanthomonas campestris* pv. *cyamopsidis* - *Cyamopsis tetr*
3381 *Xanthomonas campestris* pv. *vesicatoria* - *Capsicum annuu*
3382 *Xanthomonas campestris* pv. *malvacearum* - *Gossypium* sp.
3383 *Xanthomonas campestris* pv. *amaranthicola* - *Amaranthus*
3384 *Xanthomonas campestris* pv. *sesami* - *Sesamum indicum*
3385 *Xanthomonas campestris* pv. *sesami* - *Sesamum indicum*
3386 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
3387 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
3388 *Xanthomonas campestris* pv. *azadirachtae* - *Azadirachta*
3389 *Xanthomonas campestris* pv. *vignicola* - *Vigna unguiculata*
3394 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3396 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3399 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3400 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3401 *Pseudomonas syringae* - *Cucumis sativus*
3402 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3403 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3406 *Pseudomonas syringae* pv. *syringae* - *Sorghum* sp.
3410 *Burkholderia gladioli* pv. *alliiicola* - *Allium cepa*
3411 *Burkholderia gladioli* pv. *alliiicola* - *Allium cepa*
3412 *Burkholderia gladioli* pv. *alliiicola* - *Allium cepa*
3413 *Pseudomonas syringae* - *Allium porrum*
3414 *Pseudomonas syringae* - *Allium cepa*
3417 *Pseudomonas syringae* - *Mahonia* sp.
3419 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3420 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3421 *Pseudomonas syringae* - *Prunus persica*
3422 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3423 *Pseudomonas syringae* - *Prunus persica*
3424 *Pseudomonas syringae* - *Euphorbia pulcherrima*
3425 *Pseudomonas syringae* - *Euphorbia pulcherrima*
3426 *Pseudomonas syringae* - *Euphorbia pulcherrima*
3427 *Xanthomonas campestris* pv. *pruni* - *Prunus persica* var.
3428 *Xanthomonas campestris* pv. *pruni* - *Prunus persica*
3429 *Pseudomonas syringae* - *Prunus avium*
3430 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3431 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3432 *Pseudomonas syringae* pv. *tabaci* - *Glycine max*
3433 *Pseudomonas syringae* pv. *tabaci* - *Glycine max*
3434 *Xanthomonas campestris* pv. *glycines* - *Glycine max*
3435 *Pseudomonas syringae* pv. *tomato* - *Solanum mauritianum*
3438 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3443 *Pseudomonas syringae* pv. *tomato* - *Solanum mauritianum*
3449 *Pseudomonas syringae* pv. *tomato* - *Solanum mauritianum*
3455 *Pseudomonas syringae* pv. *tomato* - *Solanum mauritianum*
3461 *Glomerella cingulata* - *Macropiper excelsum*
3462 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3467 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
3470 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
3472 *Xanthomonas campestris* pv. *graminis* - *Dactylis glomerata*
3473 *Xanthomonas campestris* pv. *graminis* - *Lolium multiflorum*
3475 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3476 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3477 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3478 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3479 *Xanthomonas campestris* pv. *vignicola* - *Vigna unguiculata*
3481 *Pseudomonas fluorescens* - *Lactuca sativa*
3482 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
3485 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3490 *Xanthomonas campestris* pv. *holcicola* - *Sorghum* sp.
3491 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3492 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
3493 *Mycosphaerella zeae-maydis* - *Zea mays*
3495 *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* - *Phaseol*
3496 *Clavibacter iranicus* - *Triticum aestivum*
3497 *Curtobacterium flaccumfaciens* pv. *oortii* - *Tulipa gesnerana*
3498 *Curtobacterium flaccumfaciens* pv. *oortii* - *Tulipa gesnerana*
3499 *Curtobacterium flaccumfaciens* pv. *oortii* - *Tulipa gesnerana*
3500 *Curtobacterium flaccumfaciens* pv. *poinsettiae* - *Euphorbia*
3502 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
3503 *Pseudomonas cichorii* - *Papaver rhoeas*
3504 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
3506 *Pseudomonas syringae* pv. *syringae* - *Citrus lanatus*
3507 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3508 *Pseudomonas putida* - *Lycopersicon esculentum*
3509 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3511 *Pseudomonas putida* - *Hyphantria cunea*
3512 *Pseudomonas fluorescens* - Pre-filter tanks
3520 *Pseudomonas fluorescens*
3521 *Pseudomonas cichorii* - *Apium graveolens* var. *dulce*
3523 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
3524 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
3525 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3529 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3530 *Phoma exigua* - *Populus* X *euramericana*
3534 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
3543 *Pseudomonas syringae* pv. *syringae* - *Pisum sativum*
3544 *Pseudomonas viridiflava* - *Phaseolus vulgaris*
3547 *Pseudomonas syringae* - *Musa* sp.
3548 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
3549 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
3550 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3552 *Pseudomonas marginalis* pv. *marginalis* - *Lactuca sativa*
3553 *Pseudomonas marginalis* pv. *marginalis* - *Cichorium intybus*
3554 *Pseudomonas marginalis* - *Phaseolus coccineus*
3555 *Pseudomonas marginalis* pv. *marginalis* - *Lactuca sativa*
3556 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3557 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
3558 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3559 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3560 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3561 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3562 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3563 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3566 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3567 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3568 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3569 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3570 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3572 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
3573 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*

3575	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	3697	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus dulcis</i>
3576	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i> var. <i>arvense</i>	3699	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus</i> sp.
3580	<i>Penicillium brevicompactum</i> - <i>Cucumis melo</i>	3700	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus</i> sp.
3581	<i>Erwinia herbicola</i> - <i>Avena sativa</i>	3701	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
3582	<i>Erwinia herbicola</i>	3702	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
3583	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>	3703	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
3587	<i>Pseudomonas cichorii</i> - <i>Lycopersicon esculentum</i>	3706	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus cerasifera</i>
3588	<i>Verticillium nigrescens</i> - <i>Pastinaca sativa</i>	3707	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus cerasifera</i>
3589	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> - <i>Lycopersicon esculentum</i>	3708	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus cerasifera</i>
3590	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.	3709	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus cerasifera</i>
3591	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	3710	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus cerasifera</i>
3592	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	3712	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
3593	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	3714	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
3594	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	3715	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
3595	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	3716	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
3603	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3717	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus domestica</i>
3604	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3718	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus domestica</i>
3605	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3719	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus domestica</i>
3606	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3720	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus avium</i>
3607	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3722	<i>Bradyrhizobium</i> sp. (<i>Vigna</i>) - <i>Vigna angularis</i>
3608	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3724	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>
3611	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3727	<i>Burkholderia glumae</i> - <i>Oryza sativa</i>
3612	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3728	<i>Burkholderia glumae</i> - <i>Oryza sativa</i>
3613	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3729	<i>Burkholderia glumae</i> - <i>Oryza sativa</i>
3614	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3730	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>
3615	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3731	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>
3616	<i>Pseudomonas marginalis</i> pv. <i>marginalis</i> - <i>Lactuca sativa</i>	3732	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3617	<i>Pseudomonas fluorescens</i> - <i>Lactuca sativa</i>	3733	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3618	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	3734	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>
3619	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	3735	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>
3620	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3736	<i>Nectria haematococca</i> - <i>Cucumis sativus</i>
3621	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3737	<i>Nectria haematococca</i> - <i>Cucumis sativus</i>
3622	<i>Pseudomonas syringae</i> - <i>Musa</i> sp.	3738	<i>Fusarium</i> sp. - <i>Lycopersicon esculentum</i>
3623	<i>Pseudomonas syringae</i> - <i>Vitis vinifera</i>	3739	<i>Fusarium</i> sp. - <i>Lycopersicon esculentum</i>
3625	<i>Pseudomonas viridiflava</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	3740	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3627	<i>Pseudomonas viridiflava</i> - <i>Phaseolus vulgaris</i>	3741	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3628	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>	3742	<i>Fusarium oxysporum</i> - <i>Ipomoea batatas</i>
3633	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	3743	<i>Fusarium oxysporum</i> - <i>Phaseolus</i> sp.
3634	<i>Pseudomonas viridiflava</i> - <i>Cucurbita maxima</i>	3744	<i>Nectria haematococca</i> - <i>Lycopersicon esculentum</i>
3635	<i>Pseudomonas viridiflava</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	3745	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> - <i>Lycopersicon esculentum</i>
3636	<i>Pseudomonas fluorescens</i> - <i>Actinidia deliciosa</i>	3746	<i>Fusarium oxysporum</i> f. sp. <i>pisi</i> - <i>Pisum sativum</i>
3637	<i>Pseudomonas viridiflava</i> - <i>Vitis vinifera</i>	3747	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i>
3638	<i>Pseudomonas viridiflava</i> - <i>Cucurbita maxima</i>	3748	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3639	<i>Pseudomonas</i> sp. - <i>Berberis vulgaris</i>	3749	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3640	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis thunbergii</i>	3750	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3641	<i>Pseudomonas</i> sp. - <i>Berberis thunbergii</i>	3751	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3642	<i>Pseudomonas syringae</i> - <i>Allium porrum</i>	3752	<i>Fusarium</i> sp. - <i>Passiflora edulis</i>
3643	<i>Pseudomonas syringae</i> - <i>Allium porrum</i>	3753	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3644	<i>Pseudomonas syringae</i> - <i>Allium porrum</i>	3754	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>
3645	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Allium cepa</i>	3755	<i>Gibberella avenacea</i> - <i>Wool</i>
3646	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Allium cepa</i>	3756	<i>Fusarium</i> sp. - <i>Pisum sativum</i>
3647	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>	3757	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>
3648	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>	3758	<i>Fusarium</i> sp. - <i>Prunus armeniaca</i>
3649	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>	3759	<i>Fusarium oxysporum</i> - <i>Prunus armeniaca</i>
3655	<i>Burkholderia glumae</i> - <i>Oryza sativa</i>	3760	<i>Fusarium oxysporum</i> - <i>Soil</i>
3660	<i>Dactylaria ampulliformis</i> - <i>Cocos nucifera</i>	3761	<i>Fusarium oxysporum</i> - <i>Soil</i>
3661	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i> var.	3762	<i>Fusarium oxysporum</i> - <i>Soil</i>
3663	<i>Rhizobium loti</i> - <i>Lupinus</i> sp.	3763	<i>Fusarium</i> sp. - <i>Fragaria X ananassa</i>
3664	<i>Bacillus thuringiensis</i> - <i>Thuricide HP</i> product	3765	<i>Fusarium</i> sp. - <i>Prunus armeniaca</i>
3665	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i>	3766	<i>Fusarium</i> sp. - <i>Rosa</i> sp.
3666	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Pisum sativum</i>	3767	<i>Nectria haematococca</i> - <i>Citrus limon</i>
3667	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Rosa multiflora</i>	3768	<i>Fusarium</i> sp. - <i>Soil</i> (maize-field)
3670	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3781	<i>Verticillium nigrescens</i> - <i>Acer</i> sp.
3671	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	3783	<i>Verticillium tricorpus</i> - <i>Soil</i>
3672	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	3784	<i>Verticillium dahliae</i> - <i>Lycopersicon esculentum</i>
3673	<i>Fusarium oxysporum</i> - <i>Lycopersicon esculentum</i>	3785	<i>Verticillium albo-atrum</i> - <i>Nicotiana tabacum</i>
3674	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	3787	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
3675	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	3789	<i>Verticillium tricorpus</i> - <i>Nicotiana tabacum</i>
3676	<i>Pseudomonas syringae</i> - <i>Prunus avium</i>	3790	<i>Verticillium tricorpus</i> - <i>Nicotiana tabacum</i>
3677	<i>Pseudomonas syringae</i> - <i>Prunus avium</i>	3792	<i>Verticillium</i> sp. - <i>Nicotiana tabacum</i>
3680	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	3794	<i>Verticillium tricorpus</i> - <i>Lycopersicon esculentum</i>
3682	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus</i> sp.	3795	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
3683	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3796	<i>Verticillium tricorpus</i> - <i>Soil</i>
3684	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3797	<i>Verticillium dahliae</i> - <i>Rosa</i> sp.
3685	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	3798	<i>Verticillium tricorpus</i> - <i>Cyphomandra betacea</i>
3686	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	3799	<i>Verticillium dahliae</i> - <i>Paeonia</i> sp.
3687	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	3801	<i>Verticillium dahliae</i> - <i>Rosa</i> sp.
3688	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus dulcis</i>	3802	<i>Verticillium fungicola</i> - <i>Agaricus bisporus</i>
3689	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus domestica</i>	3803	<i>Verticillium nigrescens</i> - <i>Soil</i>
3690	<i>Pseudomonas syringae</i> - <i>Prunus persica</i>	3806	<i>Verticillium tricorpus</i> - <i>Soil</i>
3691	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	3807	<i>Verticillium tricorpus</i> - <i>Soil</i>
3692	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	3808	<i>Phialophora cinereascens</i> - <i>Dianthus caryophyllus</i>
3694	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus domestica</i>	3809	<i>Verticillium dahliae</i> - <i>Fragaria X ananassa</i>
3695	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	3811	<i>Phialophora cinereascens</i> - <i>Dianthus caryophyllus</i>
3696	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	3812	<i>Verticillium dahliae</i> - <i>Soil</i>

- 3813 *Verticillium* sp. - Soil
3814 *Verticillium tricorpus* - Soil
3815 *Nectria inventa* - Soil
3816 *Verticillium albo-atrum* - *Cucumis sativus*
3817 *Verticillium dahliae* - *Rubus ursinus* var. *loganobaccus*
3818 *Verticillium dahliae* - *Fragaria X ananassa*
3819 *Verticillium dahliae* - *Lycopersicon esculentum*
3820 *Verticillium dahliae* - *Lycopersicon esculentum*
3821 *Verticillium dahliae* - *Lycopersicon esculentum*
3822 *Verticillium dahliae* - *Lycopersicon esculentum*
3823 *Verticillium dahliae* - *Ribes uva-crispa*
3824 *Verticillium dahliae* - *Nicotiana tabacum*
3825 *Verticillium dahliae* - *Lycopersicon esculentum*
3826 *Verticillium tricorpus* - *Nicotiana tabacum*
3827 *Verticillium dahliae* - *Lycopersicon esculentum*
3828 *Verticillium dahliae* - *Nicotiana tabacum*
3829 *Verticillium dahliae* - *Nicotiana tabacum*
3830 *Verticillium dahliae* - *Lycopersicon esculentum*
3831 *Verticillium albo-atrum* - *Nicotiana tabacum*
3832 *Verticillium dahliae* - *Nicotiana tabacum*
3833 *Verticillium dahliae* - *Humulus lupulus*
3834 *Verticillium dahliae* - *Lycopersicon esculentum*
3835 *Verticillium dahliae* - *Solanum tuberosum*
3840 *Verticillium tricorpus* - *Lycopersicon esculentum*
3841 *Verticillium nigrescens* - *Solanum tuberosum*
3842 *Verticillium nubilum* - Soil
3843 *Verticillium tricorpus* - *Cucumis melo*
3844 *Verticillium dahliae* - *Prunus persica*
3845 *Verticillium albo-atrum* - *Solanum tuberosum*
3846 *Nectria inventa* - Soil
3848 *Verticillium fungicola* - *Agaricus bisporus*
3849 *Verticillium albo-atrum* - *Lycopersicon esculentum*
3850 *Verticillium tricorpus* - *Cucumis sativus*
3852 *Verticillium dahliae* - *Hebe* sp.
3853 *Verticillium intertextum* - *Acer* sp.
3854 *Verticillium albo-atrum* - *Lycopersicon esculentum*
3855 *Verticillium albo-atrum* - *Lycopersicon esculentum*
3856 *Verticillium fungicola* - *Agaricus bisporus*
3857 *Gliomastix* sp. - Soil
3858 *Paecilomyces* sp. - Soil
3859 *Erwinia amylovora* - *Pyrus communis*
3860 *Erwinia amylovora* - *Pyrus communis*
3865 *Xanthomonas campestris* pv. *viticola* - *Vitis* sp.
3866 *Xanthomonas campestris* pv. *viticola* - *Vitis* sp.
3867 *Xanthomonas campestris* pv. *viticola* - *Vitis* sp.
3868 *Xanthomonas campestris* pv. *viticola* - *Vitis* sp.
3869 *Leptosphaerulina chartarum* - Plant debris
3870 *Phoma lotivora* - *Lotus tenuis*
3871 *Verticillium dahliae* - *Lathyrus odoratus*
3872 *Phialophora asteris* - *Aster novi-belgii*
3876 *Pseudomonas syringae* pv. *syringae* - *Oryza sativa*
3877 *Pseudomonas syringae* pv. *syringae* - *Oryza sativa*
3878 *Acetobacter pasteurianus* - *Malus X domestica*
3879 *Pseudomonas viridiflava* - *Nicotiana rustica*
3880 *Pseudomonas putida* - *Pyrus communis*
3881 *Pseudomonas syringae* pv. *papulans*
3882 *Pseudomonas syringae* pv. *ribicola* - *Ribes aureum*
3883 *Pseudomonas syringae* pv. *ribicola* - *Ribes aureum*
3884 *Pseudomonas viridiflava* - *Capsicum frutescens*
3885 *Pseudomonas syringae* - *Populus* sp.
3886 *Pseudomonas syringae* - *Magnolia* sp.
3887 *Pseudomonas syringae* pv. *syringae* - *Populus X euramerica*
3888 *Pseudomonas marginalis* - *Populus* sp.
3889 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
3890 *Pseudomonas syringae* - *Phaseolus limensis*
3891 *Pseudomonas syringae* pv. *syringae* - *Citrus* sp.
3892 *Pseudomonas syringae* - *Capsicum* sp.
3893 *Pseudomonas syringae* pv. *syringae* - *Salix matsudana*
3894 *Erwinia* sp. - *Salix fragilis*
3895 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
3896 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
3897 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
3898 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
3899 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
3900 *Pseudomonas syringae* pv. *syringae* - *Prunus* sp.
3901 *Pseudomonas syringae* pv. *syringae* - *Prunus cerasus*
3902 *Pseudomonas syringae* pv. *syringae* - *Prunus domestica*
3903 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
3904 *Pseudomonas syringae* pv. *syringae* - *Prunus* sp.
3905 *Bradyrhizobium* sp. (*Lupinus*) - *Lupinus* sp.
3906 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
3907 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
3908 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
3909 *Pseudomonas syringae* pv. *syringae* - *Citrus sinensis*
3910 *Pseudomonas syringae* pv. *syringae* - *Citrus limon*
3912 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3913 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3915 *Erwinia carotovora* subsp. *carotovora* - *Allium cepa*
3916 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
3917 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
3918 *Pseudomonas amygdali* - *Prunus dulcis*
3919 *Pseudomonas amygdali* - *Prunus dulcis*
3920 *Pseudomonas amygdali* - *Prunus dulcis*
3922 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
3923 *Pseudomonas syringae* pv. *theae* - *Camellia sinensis*
3924 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
3925 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
3926 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
3927 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3928 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3929 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
3930 *Pseudomonas syringae* pv. *syringae* - *Malus X domestica*
3931 *Pseudomonas syringae* pv. *syringae* - *Prunus cerasus*
3932 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
3933 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
3934 *Pseudomonas syringae* pv. *theae* - *Camellia sinensis*
3935 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
3936 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
3937 *Xanthomonas campestris* pv. *cucurbitae* - *Cucurbita maxima*
3938 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
3939 *Pseudomonas syringae* pv. *syringae* - *Pisum sativum*
3940 *Pseudomonas syringae* - *Pisum sativum*
3941 *Pseudomonas syringae* - *Pisum sativum* var. *arvense*
3943 *Pseudomonas asplenii*
3944 *Pseudomonas asplenii* - *Asplenium nidus*
3945 *Pseudomonas hibiscicola* - *Hibiscus rosa-sinensis*
3946 *Pseudomonas syringae* pv. *lapsa*
3947 *Pseudomonas syringae* pv. *lapsa* - *Zea* sp.
3950 *Burkholderia gladioli* pv. *gladioli* - *Gladiolus* sp.
3951 *Burkholderia gladioli* pv. *gladioli* - *Gladiolus* sp.
3952 *Burkholderia gladioli* pv. *gladioli* - *Gladiolus* sp.
3953 *Pseudomonas fluorescens* - *Freesia* sp.
3954 *Pseudomonas fluorescens* - *Iris* sp.
3955 *Pseudomonas syringae*
3956 *Pseudomonas syringae* pv. *primulae* - *Primula* sp.
3957 *Pseudomonas fluorescens* - *Primula obconica*
3958 *Pseudomonas* sp. - *Primula obconica*
3959 Unknown bacterium - rec. as *Pseudomonas seminum*
3960 *Acidovorax avenae* subsp. *avenae* - *Oryza sativa*
3961 *Pseudomonas syringae* pv. *strafaciens*
3962 *Pseudomonas syringae* pv. *ulmi* - *Ulmus* sp.
3963 *Pseudomonas syringae* pv. *viburni* - *Viburnum* sp.
3964 *Pseudomonas fluorescens*
3965 *Xanthomonas campestris* pv. *vitiswoodrowii* - *Vitis woodrowii*
3966 *Pseudomonas fluorescens*
3967 *Burkholderia andropogonis* - *Dianthus caryophyllus*
3968 *Burkholderia andropogonis* - *Dianthus barbatus*
3969 *Pseudomonas putida* - *Lactuca sativa*
3970 *Pseudomonas putida* - *Lactuca sativa*
3971 *Pseudomonas* sp. - *Lactuca sativa*
3973 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3974 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3975 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3976 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus avium*
3979 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
3980 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
3982 *Xanthomonas campestris* pv. *ionidii* - *Ionidium heterophyllum*
3983 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sativa*
3984 *Xanthomonas campestris* pv. *campestris* - *Brassica oleracea*
3985 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3986 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3987 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3988 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
3989 *Calonectria kytotensis* - *Eucalyptus erythrocorys*
3990 *Phoma exigua* - *Eucalyptus erythrocorys*
3992 *Pseudomonas syringae* - *Cattleya* sp.
3993 *Pseudomonas putida* - *Phalaenopsis* sp.
3994 *Burkholderia andropogonis* - *Mucuna deeringiana*
3995 *Burkholderia andropogonis* - *Mucuna deeringiana*
3996 *Burkholderia andropogonis* - *Bougainvillea* sp.
3997 *Burkholderia andropogonis* - *Trifolium repens*
3998 *Burkholderia andropogonis* - *Trifolium* sp.
4000 *Rhizobium meliloti* - *Medicago rugosa*
4001 *Burkholderia andropogonis* - *Dianthus* sp.
4003 *Burkholderia andropogonis* - *Dianthus caryophyllus*
4004 *Pseudomonas* sp. - *Phaseolus vulgaris*
4005 *Calonectria kytotensis* - *Ribes sativum*
4006 *Bacillus subtilis* - Soil
4007 *Bacillus subtilis* - Soil
4008 *Streptomyces griseus* - Soil
4010 *Erwinia chrysanthemi* pv. *dianthicola* - *Dianthus caryophyllus*
4011 *Pseudomonas syringae* pv. *psi* - *Pisum sativum*
4012 *Pseudomonas syringae* - *Allium porrum*
4013 *Xanthomonas campestris* pv. *campestris* - *Brassica oleracea*

4014	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	4147	<i>Rhodococcus fascians</i>
4019	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	4148	<i>Pythium coloratum</i> - <i>Pastinaca sativa</i>
4020	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	4149	<i>Pythium coloratum</i> - <i>Daucus carota</i> var. <i>sativus</i>
4023	<i>Calonectria kytensis</i> - <i>Acca sellowiana</i>	4150	<i>Pythium vanterpoolii</i> - Turf
4024	<i>Calonectria kytensis</i> - <i>Pinus radiata</i>	4151	<i>Pythium inflatum</i> - Mud bed of stream
4029	<i>Azotobacter vinelandii</i> - Soil	4152	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
4030	<i>Azomonas macrocytogenes</i> - Soil	4153	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
4031	<i>Azotobacter chroococcum</i> - Soil	4154	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
4032	<i>Azotobacter beijerinckii</i> - Soil	4155	<i>Pythium undulatum</i> - <i>Larix decidua</i>
4033	<i>Azomonas agilis</i> - Soil	4156	<i>Pythium undulatum</i> - Soil
4036	<i>Azotobacter vinelandii</i> - Soil	4157	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
4037	<i>Azotobacter chroococcum</i> - Soil	4163	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
4038	<i>Pseudomonas fluorescens</i> - <i>Allium cepa</i>	4165	<i>Xanthomonas campestris</i> pv. <i>vitiens</i> - <i>Lactuca sativa</i>
4039	<i>Pseudomonas fluorescens</i> - <i>Allium cepa</i>	4167	<i>Acetobacter pasteurianus</i> - <i>Malus X domestica</i>
4040	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4168	<i>Acetobacter pasteurianus</i> - <i>Malus X domestica</i>
4041	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4178	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
4043	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4181	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
4044	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4182	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
4045	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4190	<i>Clavibacter michiganensis insidiosus</i> - <i>Medicago sativa</i>
4046	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4192	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
4047	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4193	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
4048	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4196	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
4049	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4198	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4050	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4199	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4051	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4200	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4052	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4201	<i>Alternaria alternata</i> - <i>Glycine max</i>
4053	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4202	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4054	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4203	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4055	<i>Pseudomonas syringae</i> pv. <i>papulans</i> - <i>Malus X domestica</i>	4204	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4056	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	4205	<i>Alternaria alternata</i> - <i>Phaseolus vulgaris</i>
4057	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	4207	<i>Apiospora setosa</i> - <i>Bambusa oldhamii</i>
4065	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis</i> sp.	4208	<i>Trichoderma harzianum</i> - Wood
4068	<i>Xanthomonas campestris</i> pv. <i>arecae</i> - <i>Areca catechu</i>	4209	<i>Phoma rumicicola</i> - <i>Rumex obtusifolius</i>
4069	<i>Ceratocystis</i> sp. - <i>Eucalyptus ficifolia</i>	4210	<i>Colletotrichum fuscum</i> - <i>Digitalis purpurea</i>
4070	<i>Nectria galligena</i> - <i>Malus X domestica</i>	4211	<i>Gibberella acuminata</i> - <i>Vicia faba</i>
4071	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i>	4212	<i>Phialophora</i> sp. - <i>Rheum rhabarbarum</i>
4072	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i>	4219	<i>Pseudomonas fluorescens</i> - <i>Cucumis sativus</i>
4073	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i>	4220	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4074	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i>	4221	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4078	<i>Azomonas agilis</i>	4222	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
4079	<i>Azotobacter chroococcum</i> - Soil	4223	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4080	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	4224	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4081	<i>Azotobacter vinelandii</i>	4225	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4084	<i>Azotobacter chroococcum</i> - Soil	4226	<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i> - <i>Beta vulgaris</i>
4085	<i>Azotobacter chroococcum</i>	4227	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>
4086	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>	4231	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
4087	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	4240	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneum</i>
4088	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	4241	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
4089	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	4242	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
4090	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	4245	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
4091	<i>Pseudomonas syringae</i> pv. <i>tagetis</i> - <i>Tagetes erecta</i>	4246	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
4092	<i>Pseudomonas syringae</i> pv. <i>tagetis</i> - <i>Tagetes erecta</i>	4247	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
4094	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	4256	<i>Pseudomonas viridiflava</i> - <i>Pisum sativum</i>
4095	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	4259	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>
4099	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus dulcis</i>	4263	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentu</i>
4100	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus dulcis</i>	4265	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Bromus willdenowii</i>
4102	<i>Pseudomonas syringae</i> - <i>Pelargonium peltatum</i>	4267	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Bromus willdenowii</i>
4105	<i>Polyporus tomentosus</i> Fries var. <i>circinatus</i> - <i>Pseudotsuga</i>	4268	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Lycopersicon esculen</i>
4106	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>	4269	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>
4107	<i>Pseudomonas agarici</i> - <i>Agaricus bisporus</i>	4274	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
4112	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4283	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>
4113	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4284	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>
4114	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var.	4285	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
4115	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	4286	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
4116	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis</i> sp.	4287	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>
4117	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis</i> sp.	4288	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>
4118	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis</i> sp.	4292	<i>Xanthomonas campestris</i> pv. <i>tardicrescens</i> - <i>Iris tectorum</i>
4119	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	4293	<i>Xanthomonas campestris</i> pv. <i>phormiicola</i> - <i>Phormium tenax</i>
4120	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	4294	<i>Xanthomonas campestris</i> pv. <i>phormiicola</i> - <i>Phormium tenax</i>
4122	<i>Pseudomonas syringae</i> - <i>Prunus armeniaca</i>	4295	<i>Xanthomonas campestris</i> pv. <i>tardicrescens</i> - <i>Iris tectorum</i>
4123	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var.	4296	<i>Xanthomonas campestris</i> pv. <i>tardicrescens</i> - <i>Iris tectorum</i>
4124	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>	4297	<i>Xanthomonas campestris</i> pv. <i>phormiicola</i> - <i>Phormium tenax</i>
4125	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var.	4299	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>
4126	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var.	4300	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>
4132	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	4301	<i>Pseudomonas syringae</i> pv. <i>aptata</i> - <i>Lactuca sativa</i>
4133	<i>Rhizobium melliloti</i> - <i>Medicago sativa</i>	4302	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>
4134	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	4303	<i>Pseudomonas syringae</i> pv. <i>antirrhini</i> - <i>Antirrhinum majus</i>
4136	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - Rhizocote clover ino	4304	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
4137	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus arboreus</i>	4308	<i>Azomonas macrocytogenes</i> - Soil
4138	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus arboreus</i>	4309	<i>Azorhizophilus paspali</i> - Soil
4139	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus arboreus</i>	4312	<i>Pseudomonas syringae</i>
4140	<i>Rhizobium loti</i> - <i>Lupinus arboreus</i>	4313	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>
4141	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus angustissimus</i>	4314	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>
4142	<i>Bradyrhizobium</i> sp. (<i>Lupinus</i>) - <i>Lupinus arboreus</i>	4315	<i>Pseudomonas syringae</i> pv. <i>atropurpurea</i> - <i>Agrostis</i> sp.
4143	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i> var.	4316	<i>Pseudomonas syringae</i> pv. <i>eriobotryae</i> - <i>Eriobotrya japonica</i>

- 4317 *Pseudomonas syringae* pv. *cannabina* - *Cannabis sativa*
4318 *Pseudomonas syringae* pv. *atrofaciens*
4319 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium peltat*
4320 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium peltat*
4321 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium peltat*
4322 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
4323 *Pseudomonas syringae* pv. *garcae* - *Coffea arabica*
4324 *Pseudomonas savastanoi* pv. *phaseolicola* - *Pueraria monta*
4325 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4326 *Pseudomonas syringae* pv. *maculicola* - *Raphanus sativus*
4327 *Pseudomonas syringae* - *Glycine max*
4328 *Pseudomonas syringae* pv. *atropurpurea* - *Lolium multifloru*
4329 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
4330 *Pseudomonas syringae* pv. *delphinii* - *Delphinium* sp.
4331 *Pseudomonas syringae* pv. *mori* - *Morus alba*
4332 *Pseudomonas savastanoi* pv. *phaseolicola* - *Pueraria monta*
4333 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4335 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
4336 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domesti*
4337 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
4339 *Pseudomonas syringae* pv. *syringae* - *Bromus willdenowii*
4343 *Pseudomonas savastanoi* pv. *phaseolicola* - *Vigna radiata*
4345 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
4346 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus cocc*
4347 *Pseudomonas savastanoi* pv. *savastanoi* - *Fraxinus* sp.
4348 *Pseudomonas savastanoi* pv. *savastanoi* - *Fraxinus* sp.
4351 *Pseudomonas savastanoi* pv. *savastanoi* - *Nerium oleander*
4352 *Pseudomonas savastanoi* pv. *savastanoi* - *Olea europaea*
4355 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
4358 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4360 *Pseudomonas syringae* - *Vaccinium* sp.
4364 *Agrobacterium* sp. (tumourigenic strain) - *Rubus idaeus*
4368 *Pseudomonas syringae* - *Cornus mas*
4369 *Pseudomonas syringae* pv. *syringae* - *Magnolia* sp.
4370 *Pseudomonas syringae* - *Piper nigrum*
4372 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
4375 *Pseudomonas syringae* - *Sorghum sudanense*
4376 *Pseudomonas syringae* - *Magnolia* sp.
4377 *Pseudomonas syringae* - *Crataegus* sp.
4378 *Pseudomonas syringae* pv. *syringae* - *Phaseolus vulgaris*
4379 *Pseudomonas syringae* - *Sorghum sudanense*
4381 *Erwinia chrysanthemi* - *Dahlia* sp.
4384 *Rhizobium meliloti* - *Soil*
4385 *Rhizobium meliloti* - *Medicago rugosa*
4386 *Pseudomonas syringae* pv. *atrofaciens*
4387 *Pseudomonas syringae* pv. *aptata* - *Beta vulgaris*
4388 *Pseudomonas syringae* pv. *aptata* - *Beta vulgaris*
4391 *Pseudomonas syringae* pv. *antirrhini* - *Antirrhinum majus*
4394 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
4395 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4398 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
4402 *Pseudomonas savastanoi* pv. *phaseolicola* - *Pueraria monta*
4407 *Burkholderia solanacearum* - *Lycopersicon esculentum*
4409 *Pseudomonas syringae* pv. *syringae* - *Citrus limon*
4410 *Pseudomonas syringae* pv. *tabaci* - *Phaseolus vulgaris*
4413 *Pseudomonas syringae* pv. *syringae*
4414 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
4415 *Pseudomonas syringae* pv. *syringae* - *Sorghum bicolor*
4416 *Pseudomonas syringae* - *Nerium oleander*
4417 *Pseudomonas syringae* - *Zea mays*
4418 *Pseudomonas syringae* pv. *striaefaciens* - *Avena sativa*
4419 *Pseudomonas savastanoi* pv. *phaseolicola* - *Dolichos* sp.
4420 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
4421 *Pseudomonas syringae* pv. *coronafaciens* - *Secale cereale*
4422 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4425 *Pseudomonas syringae* pv. *mori* - *Morus alba*
4426 *Pseudomonas savastanoi* pv. *phaseolicola* - *Vigna radiata*
4427 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
4428 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus avium*
4432 *Pseudomonas savastanoi* pv. *savastanoi* - *Nerium oleander*
4433 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
4435 *Pseudomonas savastanoi* pv. *savastanoi* - *Nerium oleander*
4439 *Pseudomonas cichorii* - *Chrysanthemum X morifolium*
4440 *Burkholderia solanacearum* - *Solanum melongena* var. *escul*
4443 *Burkholderia solanacearum* - *Solanum melongena* var. *escul*
4446 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
4447 *Xanthomonas* sp. - ?*Vigna* sp.
4450 *Erwinia amylovora* - *Pyrus communis*
4451 *Pseudomonas syringae* pv. *atropurpurea* - *Bromus* sp.
4453 *Pseudomonas syringae* pv. *antirrhini* - *Antirrhinum majus*
4454 *Pseudomonas syringae* pv. *atrofaciens*
4455 *Pseudomonas syringae* pv. *eriototryae* - *Eriobotrya japonica*
4456 *Pseudomonas syringae* pv. *aptata* - *Beta vulgaris*
4457 *Pseudomonas syringae* pv. *atropurpurea* - *Lolium multifloru*
4459 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4460 *Pseudomonas syringae* pv. *atropurpurea* - *Arrhenatherum*
4462 *Pseudomonas syringae* pv. *eriototryae* - *Eriobotrya japonica*
4463 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
4464 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
4466 *Pseudomonas syringae* pv. *garcae* - *Coffea arabica*
4468 *Pseudomonas syringae* pv. *mori* - *Morus alba*
4469 *Pseudomonas savastanoi* pv. *phaseolicola* - *Pueraria monta*
4473 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
4474 *Pseudomonas syringae* pv. *syringae* - *Sorghum bicolor*
4476 *Pseudomonas savastanoi* pv. *savastanoi* - *Ligustrum japoni*
4477 *Pseudomonas syringae* - *Sorghum sudanense*
4480 *Pseudomonas syringae* - *Piper nigrum*
4481 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
4483 *Pseudomonas syringae* pv. *striaefaciens* - *Avena sativa*
4484 *Pseudomonas syringae* - *Cornus mas*
4488 *Pseudomonas syringae* - *Magnolia* sp.
4490 *Pseudomonas syringae* pv. *striaefaciens* - *Pennisetum american*
4491 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
4494 *Pseudomonas syringae* - *Pogostemon heyneanus*
4495 *Pseudomonas syringae* pv. *syringae* - *Medicago sativa*
4496 *Pseudomonas syringae* pv. *syringae* - *Citrus* sp.
4497 *Pseudomonas syringae* pv. *tabaci*
4498 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4499 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4505 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
4508 *Pseudomonas syringae* pv. *aptata* - *Beta vulgaris*
4513 *Pseudomonas syringae* pv. *passiflorae* - *Passiflora edulis*
4516 *Pseudomonas syringae* pv. *atrofaciens*
4518 *Pseudomonas syringae* pv. *mori* - *Morus alba*
4525 *Pseudomonas syringae* pv. *tabaci* - *Phaseolus vulgaris*
4527 *Pseudomonas syringae* - *Nerium oleander*
4530 *Pseudomonas syringae* pv. *passiflorae* - *Passiflora edulis*
4531 *Pseudomonas syringae* pv. *helianthi* - *Helianthus annuus*
4537 *Pseudomonas savastanoi* pv. *savastanoi* - *Olea europaea*
4538 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum* var. *arvens*
4540 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
4541 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
4544 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
4548 *Erwinia chrysanthemi* - *Dahlia* sp.
4561 *Xanthomonas campestris* pv. *erythrinae* - *Erythrina* sp.
4566 *Rhizobium meliloti* - *Medicago sativa*
4567 *Rhizobium meliloti* - *Medicago sativa*
4568 *Rhizobium meliloti* - *Medicago sativa*
4573 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
4574 *Xanthomonas campestris* pv. *juglandis* - *Juglans regia*
4575 *Burkholderia solanacearum* - *Lycopersicon esculentum*
4578 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
4582 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
4583 *Xanthomonas campestris* pv. *campestris* - *Brassica rapa*
4586 *Xanthomonas* sp. - ?*Vigna* sp.
4596 *Burkholderia solanacearum* - *Lycopersicon esculentum*
4597 *Bradyrhizobium* sp. (*Lotus*) - *Lotus suaveolens*
4598 *Xanthomonas campestris* pv. *pruni* - *Prunus dulcis*
4599 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
4600 *Septoria selenophomoides* - *Dendrobium* sp.
4601 *Ramularia* sp. - *Dendrobium* sp.
4602 *Septoria orchidearum* - *Dendrobium* sp.
4603 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus cocc*
4604 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4605 *Pseudomonas syringae* - *Vaccinium* sp.
4608 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
4610 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
4611 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4612 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4613 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4617 *Agrobacterium rhizogenes* (tumourigenic strain) - *Rubus ursi*
4618 *Xanthomonas* sp. - ?*Vigna* sp.
4621 *Xanthomonas campestris* pv. *citri* - *Citrus* sp.
4625 *Erwinia chrysanthemi* - *Dahlia* sp.
4627 *Erwinia carotovora* subsp. *carotovora* - *Solanum tuberosum*
4629 *Burkholderia solanacearum* - *Solanum nigrum*
4630 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4631 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4632 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4633 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4644 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
4646 *Xanthomonas campestris* pv. *oryzae*
4649 *Erwinia chrysanthemi* - *Daucus carota* var. *sativus*
4650 *Xanthomonas campestris* pv. *begoniae* - *Begonia X hiemalis*
4653 *Xanthomonas campestris* pv. *oryzicola* - *Oryza sativa*
4654 *Xanthomonas campestris* pv. *oryzicola* - *Oryza sativa*
4655 *Pseudomonas syringae* pv. *garcae* - *Coffea arabica*
4656 *Xanthomonas campestris* pv. *dieffenbachiae* - *Anthurium* sp.
4657 *Xanthomonas campestris* pv. *manihotis* - *Manihot esculenta*
4658 *Xanthomonas campestris* pv. *manihotis* - *Manihot esculenta*
4659 *Xanthomonas campestris* pv. *manihotis* - *Manihot esculenta*
4660 *Xanthomonas campestris* pv. *manihotis* - *Manihot esculenta*
4661 *Xanthomonas campestris* pv. *passiflorae* - *Passiflora edulis*
4664 *Rhizobium meliloti* - *Medicago sativa*

4665	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	4824	<i>Colletotrichum coccodes</i> - <i>Lycopersicon esculentum</i>
4666	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	4825	<i>Colletotrichum fructigenum</i> - <i>Pyrus communis</i>
4669	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	4826	<i>Colletotrichum orbiculare</i> - <i>Cucumis melo</i>
4676	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneum</i>	4827	<i>Glomerella cingulata</i> - <i>Citrus reticulata</i>
4678	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4828	<i>Colletotrichum fructigenum</i> - <i>Citrus limon</i>
4679	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4829	<i>Glomerella cingulata</i> - <i>Persea americana</i>
4680	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4830	<i>Colletotrichum acutatum</i> - <i>Cyphomandra betacea</i>
4681	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus</i> sp.	4831	<i>Colletotrichum coccodes</i> - <i>Solanum quitoense</i>
4682	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	4832	<i>Glomerella cingulata</i> - <i>Cordyline</i> sp.
4683	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus</i> sp.	4833	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
4687	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	4834	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>
4689	<i>Erwinia</i> sp.	4835	<i>Glomerella cingulata</i> - <i>Mangifera indica</i>
4690	<i>Erwinia</i> sp.	4836	<i>Colletotrichum acutatum</i> - <i>Cydonia oblonga</i>
4691	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	4837	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
4692	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	4838	<i>Glomerella cingulata</i> - <i>Citrus X tangelo</i>
4693	<i>Xanthomonas campestris</i> pv. <i>manihotis</i>	4839	<i>Colletotrichum acutatum</i> - <i>Lycopersicon esculentum</i>
4694	<i>Gibberella gordonii</i> - <i>Lolium</i> sp.	4840	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
4695	<i>Xanthomonas campestris</i> pv. <i>manihotis</i>	4843	<i>Glomerella cingulata</i> - <i>Melicactus ramiflorus</i>
4696	<i>Xanthomonas campestris</i> pv. <i>manihotis</i>	4845	<i>Colletotrichum musae</i> - <i>Musa X paradisiaca</i>
4697	<i>Xanthomonas axonopodis</i>	4846	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4698	<i>Xanthomonas axonopodis</i>	4847	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>
4699	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot</i> sp.	4848	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4700	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot</i> sp.	4849	<i>Colletotrichum coccodes</i> - <i>Ficus carica</i>
4701	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot</i> sp.	4850	<i>Colletotrichum orbiculare</i> - <i>Cucumis sativus</i>
4702	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot</i> sp.	4851	<i>Pseudomonas syringae</i> - <i>Quercus</i> sp.
4706	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>	4852	<i>Pseudomonas syringae</i> - <i>Populus</i> sp.
4707	<i>Pseudomonas</i> sp. - <i>Crataegus monogyna</i>	4853	<i>Pseudomonas syringae</i> - <i>Populus</i> sp.
4708	<i>Pseudomonas</i> sp. - <i>Pyrus communis</i>	4854	<i>Pseudomonas syringae</i> - <i>Vitis vinifera</i>
4709	<i>Pseudomonas</i> sp. - <i>Crataegus monogyna</i>	4857	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus domestica</i>
4710	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>	4858	<i>Pseudomonas</i> sp. - <i>Vitis vinifera</i>
4713	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4860	<i>Pseudomonas syringae</i> - <i>Panicum miliaceum</i>
4715	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4861	<i>Colletotrichum</i> sp. - <i>Protea cynaroides</i>
4719	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4862	<i>Glomerella cingulata</i> - <i>Paeonia</i> sp.
4725	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	4863	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
4730	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sativa</i>	4865	<i>Colletotrichum coccodes</i> - <i>Lycopersicon esculentum</i>
4732	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Beta vulgaris</i> subsp.	4866	<i>Glomerella cingulata</i> - <i>Passiflora edulis</i>
4733	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Beta vulgaris</i> subsp.	4867	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>
4734	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Beta vulgaris</i> subsp.	4868	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4735	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	4869	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4736	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	4870	<i>Glomerella cingulata</i> - <i>Orchid</i>
4737	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>	4871	<i>Glomerella cingulata</i> - <i>Orchid</i>
4742	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4872	<i>Glomerella cingulata</i> - <i>Actinidia deliciosa</i>
4746	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4873	<i>Glomerella cingulata</i> - <i>Actinidia deliciosa</i>
4753	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4874	<i>Colletotrichum orbiculare</i> - <i>Protea</i> sp.
4756	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4875	<i>Colletotrichum</i> sp. - <i>Protea susannae</i>
4758	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	4876	<i>Glomerella cingulata</i> - <i>Citrus</i> sp.
4761	<i>Colletotrichum dematium</i> - <i>Crinum</i> sp.	4878	<i>Glomerella cingulata</i> - <i>Passiflora edulis</i>
4764	<i>Rhizobium</i> sp.	4879	<i>Glomerella cingulata</i> - <i>Cyphomandra betacea</i>
4765	<i>Xanthomonas campestris</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>	4880	<i>Colletotrichum fructigenum</i> - <i>Ficus carica</i>
4766	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>	4881	<i>Colletotrichum acutatum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
4767	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>	4882	<i>Glomerella cingulata</i> - <i>Passiflora edulis</i>
4768	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>	4883	<i>Colletotrichum fructigenum</i> - <i>Cydonia oblonga</i>
4769	<i>Xanthomonas campestris</i> pv. <i>cucurbitae</i> - <i>Cucurbita maxima</i>	4884	<i>Glomerella cingulata</i> - <i>Passiflora edulis</i>
4770	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Prunus persica</i>	4885	<i>Colletotrichum fructigenum</i> - <i>Acmena smithii</i>
4771	<i>Rhizobium loti</i> - <i>Lotus suaveolens</i>	4887	<i>Glomerella cingulata</i> - <i>Earina mucronata</i>
4772	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4888	<i>Colletotrichum</i> sp. - <i>Protea</i> sp.
4773	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4889	<i>Glomerella cingulata</i> - <i>Hoya carmosa</i>
4774	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4890	<i>Gibberella pulcaris</i> - <i>Lolium perenne</i>
4775	<i>Pseudomonas amygdali</i> - <i>Prunus dulcis</i>	4892	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
4776	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>	4893	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Malus X domestica</i>
4779	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>	4894	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Syringa vulgaris</i>
4781	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	4895	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>
4784	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	4896	<i>Pseudomonas syringae</i> - <i>Zea mays</i>
4789	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>	4897	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pisum sativum</i>
4790	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>	4899	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus</i> sp.
4791	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>	4901	<i>Fusarium culmorum</i> - <i>Lolium perenne</i>
4792	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>	4902	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4793	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>	4903	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>
4805	<i>Xanthomonas campestris</i> pv. <i>aberrans</i> - <i>Brassica oleracea</i>	4904	<i>Colletotrichum coccodes</i> - <i>Medicago sativa</i>
4806	<i>Xanthomonas campestris</i> pv. <i>aberrans</i> - <i>Brassica oleracea</i>	4905	<i>Fusarium oxysporum</i> - <i>Passiflora edulis</i>
4807	<i>Xanthomonas campestris</i> pv. <i>aberrans</i> - <i>Brassica oleracea</i>	4906	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Asparagus officinalis</i>
4808	<i>Xanthomonas campestris</i> pv. <i>aberrans</i> - <i>Brassica oleracea</i>	4907	<i>Gibberella avenacea</i> - <i>Zea mays</i>
4809	<i>Xanthomonas campestris</i> pv. <i>aberrans</i> - <i>Brassica oleracea</i>	4908	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>
4810	<i>Glomerella cingulata</i> - <i>Cucumis sativus</i>	4909	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>
4811	<i>Glomerella cingulata</i> - <i>Helianthus tuberosus</i>	4910	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Asparagus officinalis</i>
4813	<i>Colletotrichum fructigenum</i> - <i>Erythrina crista-galli</i>	4911	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Asparagus officinalis</i>
4814	<i>Glomerella cingulata</i> - <i>Passiflora edulis</i>	4912	<i>Gibberella avenacea</i> - <i>Grass</i>
4815	<i>Glomerella cingulata</i> - <i>Cyphomandra betacea</i>	4913	<i>Fusarium culmorum</i> - <i>Solanum tuberosum</i>
4816	<i>Colletotrichum dematium</i> - <i>Medicago sativa</i>	4914	<i>Pseudomonas syringae</i> - <i>Trifolium pratense</i>
4817	<i>Colletotrichum fructigenum</i> - <i>Pyrus communis</i>	4915	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
4818	<i>Colletotrichum fructigenum</i> - <i>Cydonia oblonga</i>	4916	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
4819	<i>Colletotrichum coccodes</i> - <i>Solanum tuberosum</i>	4917	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus limon</i>
4821	<i>Colletotrichum acutatum</i> - <i>Passiflora edulis</i>	4918	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Centrosema pubesce</i>
4822	<i>Glomerella cingulata</i> - <i>Beilschmiedia tawa</i>	4919	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i>
4823	<i>Glomerella cingulata</i> - <i>Aucuba</i> sp.	4923	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus limon</i>

- 4924 *Pseudomonas syringae* - *Cucurbita* sp.
4925 *Pseudomonas* sp. - *Nerium oleander*
4926 *Pseudomonas syringae* - *Rubus ursinus* var. *loganobaccus*
4928 *Pseudomonas* sp. - *Salix* sp.
4929 *Pseudomonas syringae* pv. *syringae* - *Prunus laurocerasus*
4930 *Pseudomonas syringae* - *Euonymus japonica*
4932 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
4933 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentum*
4934 *Pseudomonas syringae* pv. *tabaci* - *Nicotiana tabacum*
4936 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium semipilosum*
4937 *Pseudomonas* sp.
4938 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
4939 *Xanthomonas* sp. - *Mahonia lomariifolia*
4940 *Pseudomonas syringae* - *Mahonia lomariifolia*
4944 *Pseudomonas syringae* - *Mahonia lomariifolia*
4948 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
4956 *Pseudomonas syringae* pv. *tabaci* - *Nicotiana tabacum*
4957 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
4958 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
4959 *Pseudomonas syringae* pv. *antirrhini* - *Antirrhinum majus*
4962 *Pseudomonas syringae* pv. *garcae* - *Coffea arabica*
4963 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
4965 *Pseudomonas syringae* pv. *syringae* - *Oryza sativa*
4966 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
4967 *Pseudomonas syringae* pv. *eriobotryae* - *Eriobotrya japonica*
4969 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
4978 *Agrobacterium* sp. (tumourigenic strain) - *Rubus idaeus*
4981 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
4982 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
4983 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus avium*
4984 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
4985 *Pseudomonas syringae* pv. *mori* - *Morus alba*
4986 *Pseudomonas syringae* pv. *papulans* - *Malus X domestica*
4988 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4990 *Pseudomonas savastanoi* pv. *savastanoi* - *Olea europaea*
4991 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus domestica*
4992 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
4993 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
4994 *Pseudomonas savastanoi* pv. *phaseolicola* - *Vigna radiata*
4995 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
4996 *Pseudomonas syringae* pv. *striaefaciens* - *X. Triticosecale* sp.
4997 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
4998 *Pseudomonas savastanoi* pv. *savastanoi* - *Olea europaea*
4999 *Pseudomonas savastanoi* pv. *savastanoi* - *Jasminum* sp.
5000 *Pseudomonas savastanoi* pv. *phaseolicola* - *Vigna radiata*
5001 *Pseudomonas syringae* - *Rhus* sp.
5004 *Pseudomonas syringae* pv. *tabaci* - *Nicotiana tabacum*
5006 *Pseudomonas savastanoi* pv. *phaseolicola* - *Macropodium atr*
5007 *Pseudomonas savastanoi* pv. *phaseolicola* - *Macropodium atr*
5010 *Pseudomonas syringae* pv. *antirrhini* - *Antirrhinum majus*
5011 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
5014 *Pseudomonas syringae* pv. *delphinii* - *Delphinium elatum*
5016 *Pseudomonas syringae* pv. *atrofaciens* - *Hordeum vulgare*
5019 *Pseudomonas syringae* pv. *garcae* - *Coffea arabica*
5020 *Pseudomonas syringae* - *Secale cereale*
5022 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
5023 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
5026 *Clavibacter michiganensis* subsp. *michiganensis* - *Capsicum*
5027 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
5028 *Pseudomonas syringae* pv. *eriobotryae* - *Eriobotrya japonica*
5032 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
5034 *Pseudomonas syringae* pv. *maculicola* - *Brassica oleracea*
5037 *Pseudomonas syringae* pv. *mori* - *Morus* sp.
5039 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
5040 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
5042 *Pseudomonas syringae* - *X. Triticosecale* sp.
5043 *Pseudomonas syringae* pv. *morsprunorum* - *Prunus cerasus*
5044 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
5048 *Pseudomonas syringae* pv. *sesami* - *Sesamum indicum*
5049 *Pseudomonas syringae* - *Brassica napus*
5051 *Xanthomonas campestris* pv. *vesicatoria* - *Capsicum annuum*
5055 *Pseudomonas syringae* pv. *syringae* - *Pisum sativum*
5056 *Erwinia chrysanthemi* - *Daucus carota* var. *sativus*
5057 *Erwinia carotovora* subsp. *carotovora* - *Daucus carota* var.
5058 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
5059 *Pseudomonas savastanoi* pv. *phaseolicola* - *Vigna radiata*
5060 *Pseudomonas syringae* - *Diospyros kaki*
5063 *Pseudomonas syringae* pv. *syringae* - *Juglans regia*
5064 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5065 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5066 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5067 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5068 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium procumbens*
5069 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5070 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5071 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5072 *Pseudomonas syringae* - *Hibiscus* sp.
5074 *Pseudomonas syringae* pv. *syringae* - *Abelmoschus esculent*
5075 *Pseudomonas syringae* pv. *syringae* - *Prunus dulcis*
5076 *Pseudomonas syringae* pv. *syringae* - *Syringa vulgaris*
5077 *Pseudomonas syringae* pv. *syringae* - *Juglans regia*
5078 *Pseudomonas syringae* - *Quercus* sp.
5079 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
5080 *Pseudomonas syringae* - *Vicia villosa*
5082 *Pseudomonas syringae* pv. *pisi* - *Pisum sativum*
5084 *Pseudomonas syringae* pv. *syringae* - *Prunus cerasus*
5085 *Pseudomonas syringae* pv. *syringae* - *Pyrus communis*
5086 *Pseudomonas syringae* - *Prunus persica*
5087 *Pseudomonas syringae* pv. *syringae* - *Triticum aestivum*
5088 *Pseudomonas syringae* - *Vicia villosa*
5092 *Pseudomonas syringae* pv. *syringae* - *Citrus reticulata*
5093 *Pseudomonas syringae* - *Rubus idaeus*
5094 *Pseudomonas syringae* pv. *syringae* - *Rosa* sp.
5095 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5096 *Pseudomonas syringae* pv. *syringae* - *Cotoneaster* sp.
5099 *Pseudomonas syringae* - *Callistemon viminalis*
5102 *Pseudomonas syringae* pv. *syringae* - *Citrus sinensis*
5103 *Pseudomonas syringae* - *Cucurbita* sp.
5104 *Pseudomonas syringae* pv. *syringae* - *Citrus* sp.
5105 *Pseudomonas syringae* pv. *syringae* - *Rosa* sp.
5106 *Pseudomonas syringae* - *Nerium oleander*
5107 *Pseudomonas syringae* pv. *tabaci* - *Nicotiana tabacum*
5109 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentum*
5110 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
5111 *Colletotrichum* sp. - *Protea barbifera*
5112 *Colletotrichum acutatum* - *Diospyros kaki*
5113 *Nectria haematococca* - *Zea mays*
5114 *Fusarium trichothecoides* - *Sechium edule*
5115 *Nectria haematococca* - *Solanum tuberosum*
5116 *Fusarium solani* var. *coeruleum* - *Solanum tuberosum*
5117 *Glomerella cingulata* - *Citrus X tangelo*
5118 *Colletotrichum coccodes* - *Helianthus tuberosus*
5119 *Glomerella cingulata* - *Persea americana*
5120 *Glomerella cingulata* - *Malus X domestica*
5121 *Glomerella cingulata* - *Cyclamen persicum*
5122 *Fusarium oxysporum* - *Allium cepa*
5123 *Fusarium oxysporum* - *Allium cepa*
5124 *Glomerella cingulata* - *Malus X domestica*
5125 *Glomerella cingulata* - *Teloea* sp.
5126 *Colletotrichum fructigenum* - *Actinidia deliciosa*
5127 *Colletotrichum dematium* - *Aucuba* sp.
5128 *Fusarium oxysporum* - *Ipomoea batatas*
5129 *Gibberella fujikuroi* var. *subglutinans* - *Asparagus officinalis*
5130 *Fusarium culmorum* - *Zea mays*
5131 *Fusarium semitectum* - *Montanoa* sp.
5132 *Fusarium oxysporum* - *Ipomoea batatas*
5133 *Fusarium oxysporum* Schlechtendal f. sp. *redolens* - *Aspara*
5134 *Fusarium oxysporum* - *Medicago sativa*
5135 *Fusarium semitectum* - *Ipomoea batatas*
5136 *Nectria haematococca* - *Ipomoea batatas*
5137 *Gibberella fujikuroi* var. *subglutinans* - *Asparagus officinalis*
5138 *Glomerella cingulata* - *Vitis vinifera*
5139 *Glomerella cingulata* - *Piper* sp.
5140 *Colletotrichum coccodes* - *Antirrhinum majus*
5141 *Fusarium oxysporum* - *Solanum tuberosum*
5142 *Fusarium oxysporum* - *Solanum tuberosum*
5143 *Fusarium oxysporum* - *Grass*
5144 *Fusarium oxysporum* - *Medicago sativa*
5145 *Fusarium oxysporum* Schlechtendal f. sp. *redolens* - *Solanu*
5146 *Fusarium oxysporum* - *Vigna angularis*
5147 *Fusarium* sp. - *Glycine max*
5148 *Fusarium oxysporum* Schlechtendal f. sp. *cepae* - *Allium*
5149 *Glomerella cingulata* - *Psidium littorale* var. *longipes*
5150 *Nectria haematococca* - *Sewage*
5151 *Gibberella fujikuroi* - *Zea mays*
5152 *Gibberella fujikuroi* - *Pinus radiata*
5153 *Gibberella avenacea* - *Cotula dioica*
5154 *Fusarium semitectum* - *Sewage*
5155 *Colletotrichum acutatum* - *Prunus persica* var. *nucipersica*
5156 *Gibberella gordonii* - *Ergot* on *Paspalum dilatatum*
5157 *Nectria haematococca* - *Passiflora edulis*
5158 *Fusarium oxysporum* - *Allium cepa*
5159 *Fusarium oxysporum* f. sp. *redolens* - *Allium cepa*
5160 *Fusarium* sp. - *Lilium* sp.
5161 *Fusarium oxysporum* f. sp. *narcissi* - *Narcissus* sp.
5162 *Fusarium* sp. - *Ipomoea batatas*
5163 *Fusarium oxysporum* - *Lilium* sp.
5164 *Gibberella pulicaris* - *Passiflora edulis*
5165 *Fusarium oxysporum* f. sp. *redolens* - *Allium cepa*
5166 *Nectria haematococca* - *Pisum sativum*
5167 *Fusarium oxysporum* f. sp. *conglutinans* - *Brassica napus*
5168 *Fusarium oxysporum* - *Ipomoea batatas*
5169 *Fusarium oxysporum* f. sp. *narcissi* - *Narcissus* sp.
5170 *Fusarium oxysporum* - *Cucumis sativus*

5171	<i>Colletotrichum graminicola</i> - <i>Paspalum</i> sp.	5256	<i>Nectria</i> sp.
5172	<i>Colletotrichum acutatum</i> - <i>Salix</i> sp.	5257	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Sophora microphylla</i>
5173	<i>Fusarium culmorum</i> - <i>Secchium edule</i>	5258	<i>Nectria</i> sp. - <i>Fomes</i> sp.
5174	<i>Colletotrichum coccodes</i> - <i>Lycopersicon esculentum</i>	5259	<i>Cylindrocarpon</i> sp. - <i>Ipomoea batatas</i>
5175	<i>Colletotrichum fructigenum</i> - <i>Actinidia deliciosa</i>	5260	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Gladiolus</i> sp.
5176	<i>Glomerella cingulata</i> - <i>Capsicum frutescens</i>	5261	<i>Cylindrocarpon</i> sp. - <i>Ipomoea batatas</i>
5177	<i>Glomerella cingulata</i> - <i>Citrus X tangelo</i>	5262	<i>Nectria stenospora</i> - <i>Melicytus ramiflorus</i>
5178	<i>Gibberella zeae</i> - <i>Zea mays</i>	5263	<i>Nectria sulcispota</i> - <i>Coprosma robusta</i>
5179	<i>Gibberella pulicaris</i> - <i>Oryza sativa</i>	5264	<i>Nectria ochroleuca</i>
5180	<i>Glomerella cingulata</i> - <i>Cucurbita maxima</i>	5265	<i>Nectria suffulta</i> - <i>Rhopalostylis sapida</i>
5181	<i>Colletotrichum trifolii</i> - <i>Medicago sativa</i>	5266	<i>Nectria suffulta</i> - <i>Rhopalostylis sapida</i>
5182	<i>Fusarium oxysporum</i> f. sp. <i>conglutinans</i> - <i>Brassica napus</i>	5267	<i>Nectria</i> sp. - <i>Coprosma</i> sp.
5183	<i>Fusarium oxysporum</i> - <i>Allium cepa</i>	5268	<i>Gibberella stilboides</i> - <i>Hemiberlesia rapax</i>
5184	<i>Gibberella avenacea</i> - <i>Cucumis sativus</i>	5269	<i>Gibberella zeae</i> - <i>Dactylis glomerata</i>
5185	<i>Fusarium oxysporum</i> f. sp. <i>pisi</i> - <i>Pisum sativum</i>	5270	<i>Nectria ochroleuca</i> - <i>Beilschmiedia tawa</i>
5186	<i>Fusarium oxysporum</i> - <i>Solanum tuberosum</i>	5271	<i>Nectria ochroleuca</i> - <i>Olearia rani</i>
5187	<i>Fusarium</i> sp. - <i>Lycopersicon esculentum</i>	5272	<i>Nectria</i> sp. - <i>Brachyglottis repanda</i>
5188	<i>Fusarium oxysporum</i> - <i>Allium cepa</i>	5273	<i>Nectria peziza</i> - <i>Geniostoma</i> sp.
5189	<i>Sclerotinia</i> sp. - <i>Oryza sativa</i>	5274	<i>Fusarium</i> sp. - <i>Solanum tuberosum</i>
5190	<i>Didymella bryoniae</i> - <i>Cucurbita maxima</i>	5275	<i>Nectria ochroleuca</i> - <i>Sophora microphylla</i>
5191	<i>Gibberella fujikuroi</i> - <i>Allium cepa</i>	5276	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Melicytus ramiflorus</i>
5192	<i>Fusarium oxysporum</i> - <i>Malus X domestica</i>	5277	<i>Nectria ochroleuca</i> - <i>Rhopalostylis sapida</i>
5193	<i>Gibberella baccata</i> - <i>Dianthus caryophyllus</i>	5278	<i>Nectria aureo-fulva</i> - <i>Melicytus ramiflorus</i>
5194	<i>Fusarium semitectum</i> - <i>Ipomoea batatas</i>	5279	<i>Nectria aureo-fulva</i> - Dead wood
5195	<i>Nectria haematococca</i> - <i>Medicago sativa</i>	5280	<i>Nectria ochroleuca</i>
5196	<i>Fusarium culmorum</i> - Wool	5281	<i>Glomerella</i> sp. - <i>Lycopersicon esculentum</i>
5197	<i>Fusarium culmorum</i> - <i>Prunus persica</i>	5282	<i>Glomerella</i> sp. - <i>Phormium tenax</i>
5198	<i>Fusarium culmorum</i> - <i>Passiflora</i> sp.	5283	<i>Glomerella</i> sp. - <i>Phormium tenax</i>
5199	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Phaseolus</i> sp.	5285	<i>Glomerella cingulata</i> - <i>Cordyline australis</i>
5200	<i>Fusarium oxysporum</i> - <i>Prunus persica</i>	5286	<i>Sphaeropsis sapinea</i> - <i>Pinus radiata</i>
5201	<i>Gibberella fujikuroi</i> - <i>Oryza sativa</i>	5287	<i>Nectria pinea</i> - <i>Pinus radiata</i>
5202	<i>Fusarium oxysporum</i> - <i>Solanum tuberosum</i>	5288	<i>Gibberella baccata</i> - <i>Cortaderia</i> sp.
5203	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Oryza sativa</i>	5289	<i>Gibberella stilboides</i> - <i>Hemiberlesia rapax</i>
5204	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> - <i>Lycopersicon esculentum</i>	5290	<i>Nectria tasmanica</i>
5205	<i>Fusarium oxysporum</i> f. sp. <i>narcissi</i> - <i>Narcissus</i> sp.	5292	<i>Endothia fluens</i> - <i>Fuchsia excorticata</i>
5206	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>	5293	<i>Nectria</i> sp. - <i>Cyathea</i> sp.
5207	<i>Fusarium culmorum</i> - <i>Sorghum bicolor</i>	5294	<i>Fusarium semitectum</i> - <i>Zea mays</i>
5208	<i>Nectria haematococca</i> - <i>Nicotiana tabacum</i>	5295	<i>Catabotrys deciduum</i> - <i>Rhopalostylis sapida</i>
5209	<i>Fusarium oxysporum</i> - <i>Passiflora edulis</i>	5296	<i>Gibberella intricans</i> - <i>Melicytus ramiflorus</i>
5210	<i>Gibberella zeae</i> - <i>Ipomoea batatas</i>	5297	<i>Gibberella baccata</i> - <i>Lupinus arboreus</i>
5211	<i>Fusarium oxysporum</i> - <i>Trifolium repens</i>	5298	<i>Nectria fragilis</i> - <i>Wintera</i> sp.
5212	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Iris</i> sp.	5299	<i>Gibberella baccata</i> - <i>Passiflora edulis</i>
5213	<i>Fusarium concolor</i> - <i>Cucurbita</i> sp.	5302	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucurbita maxima</i>
5214	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Zea mays</i>	5306	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5215	<i>Nectria haematococca</i> - <i>Passiflora edulis</i>	5309	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5216	<i>Fusarium oxysporum</i> f. sp. <i>niveum</i> - <i>Citrullus lanatus</i>	5310	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5217	<i>Gibberella baccata</i> - <i>Passiflora edulis</i>	5311	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5218	<i>Gibberella avenacea</i> - <i>Zea mays</i>	5312	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5219	<i>Gibberella baccata</i> - <i>Mellilotus</i> sp.	5313	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5220	<i>Fusarium oxysporum</i> - <i>Zea mays</i>	5314	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5221	<i>Fusarium culmorum</i> - Pasture	5316	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5222	<i>Fusarium culmorum</i>	5318	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5223	<i>Fusarium oxysporum</i> - <i>Glycine max</i>	5319	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i>
5224	<i>Gibberella fujikuroi</i> - <i>Oryza sativa</i>	5320	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5225	<i>Fusarium concolor</i>	5321	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5226	<i>Fusarium</i> sp. - <i>Sorghum bicolor</i>	5322	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i>
5227	<i>Gibberella stilboides</i> - <i>Hemiberlesia rapax</i>	5323	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i>
5228	<i>Gibberella zeae</i> - <i>Sorghum bicolor</i>	5324	<i>Pseudomonas syringae</i> - <i>Pisum sativum</i>
5229	<i>Gibberella stilboides</i> - <i>Hemiberlesia rapax</i>	5326	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
5230	<i>Fusarium oxysporum</i> - <i>Pisum sativum</i>	5327	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Daucus carota</i> var.
5231	<i>Fusarium culmorum</i> - <i>Cortaderia jubata</i>	5330	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersicon</i>
5232	<i>Fusarium oxysporum</i> - <i>Sorghum bicolor</i>	5331	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Capsicum</i>
5233	<i>Fusarium</i> sp. - <i>Nicotiana tabacum</i>	5332	<i>Pseudomonas syringae</i> - <i>Prunus avium</i>
5234	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Dianthus caryophyllus</i>	5334	<i>Pseudomonas fluorescens</i> - Peat moss on mushroom bed
5235	<i>Fusarium concolor</i> - <i>Pisum sativum</i>	5335	<i>Pseudomonas</i> sp. - Soil
5236	<i>Fusarium</i> sp. - <i>Solanum tuberosum</i>	5336	<i>Streptomyces calvus</i>
5237	<i>Gibberella avenacea</i> - Grass	5339	<i>Rhodococcus fascians</i> - <i>Lathyrus odoratus</i>
5238	<i>Fusarium culmorum</i> - <i>Dianthus caryophyllus</i>	5340	<i>Rhodococcus fascians</i> - <i>Lathyrus odoratus</i>
5239	<i>Gibberella stilboides</i> - <i>Hemiberlesia rapax</i>	5342	<i>Rhizobium leguminosarum</i> biovar. <i>trifolii</i> - <i>Trifolium repens</i>
5240	<i>Fusarium oxysporum</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	5345	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis melo</i>
5241	<i>Gibberella fujikuroi</i> - <i>Solanum tuberosum</i>	5360	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis melo</i>
5242	<i>Fusarium oxysporum</i> - <i>Ipomoea batatas</i>	5362	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
5243	<i>Gibberella avenacea</i> - <i>Fragaria X ananassa</i>	5364	<i>Azospirillum lipoferum</i> - Soil under <i>Digitaria</i> sp.
5244	<i>Gibberella tricinata</i> - <i>Pisum sativum</i>	5365	<i>Lactobacillus plantarum</i> - <i>Allium cepa</i>
5245	<i>Gibberella intricans</i> - <i>Hemiberlesia rapax</i>	5366	<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i> - <i>Zea mays</i>
5246	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Pinus</i> sp.	5367	<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i> - <i>Zea mays</i>
5247	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Schefflera digitata</i>	5368	<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i> - <i>Zea mays</i>
5248	<i>Nectria</i> sp. - <i>Coprosma grandiflora</i>	5369	<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i> - <i>Zea mays</i>
5249	<i>Nectria haematococca</i> - <i>Cucumis sativus</i>	5370	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>
5250	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Macropiper excelsum</i>	5371	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>
5251	<i>Fusarium solani</i> f. sp. <i>eumartii</i> - <i>Corynocarpus laevigatus</i>	5372	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>
5252	<i>Gibberella fujikuroi</i> - <i>Oryza sativa</i>	5373	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> - <i>Phaseol</i>
5253	<i>Nectria ochroleuca</i> - <i>Sophora microphylla</i>	5374	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>
5254	<i>Nectria ochroleuca</i> - <i>Melicytus ramiflorus</i>	5375	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>
5255	<i>Nectria vilior</i> - <i>Melicytus ramiflorus</i>	5376	<i>Rhizobium loti</i> - <i>Lotus pedunculatus</i>

- 5377 *Rhizobium* sp. - *Sophora angustifolia*
5378 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
5380 *Xanthomonas campestris* pv. *convolvuli* - *Convolvulus arven*
5381 *Xanthomonas campestris* pv. *aracearum* - *Xanthosoma sagi*
5382 *Xanthomonas campestris* pv. *eucalypti* - *Eucalyptus citriodori*
5384 *Rhizobium leguminosarum* biovar *trifolii*
5385 *Rhizobium leguminosarum* biovar *trifolii*
5386 *Rhizobium leguminosarum* biovar *trifolii*
5387 *Rhizobium leguminosarum* biovar *trifolii*
5388 *Rhizobium* sp. - *Vigna radiata*
5389 *Rhizobium* sp. - *Desmodium uncinatum*
5395 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
5396 *Rhizobium* sp. - *Psophocarpus tetragonolobus*
5397 *Pseudomonas syringae* pv. *syringae* - *Cucumis sativus*
5398 *Pseudomonas syringae* pv. *syringae* - *Cucumis sativus*
5399 *Pseudomonas syringae* pv. *syringae* - *Cucumis sativus*
5400 *Glomerella cingulata* - *Vitex lucens*
5401 *Catabotrys deciduum* - *Rhopalostylis sapida*
5402 *Venturia carpophila* - *Prunus persica* var. *nucipersica*
5403 *Gibberella cyanogena* - *Melicytus ramiflorus*
5404 *Gibberella intricans* - *Phormium tenax*
5405 *Gibberella cyanogena* - *Melicytus ramiflorus*
5406 *Cladosporium colocasiae* - *Colocasia esculenta*
5408 *Gibberella intricans* - *Cortaderia* sp.
5409 *Gibberella intricans* - *Cortaderia richardii*
5410 *Gibberella baccata* - *Lupinus arboreus*
5411 *Hypocrea vinoso* - *Hoheria populnea*
5412 *Hypocrea semiorbis* - Dead wood
5413 *Gibberella intricans* - *Cortaderia fulvida*
5414 *Hypocrea gelatinosa* - Dead wood
5416 *Gnomonia comari* - *Fragaria X ananassa*
5417 *Hypocrea gelatinosa* - Dead wood
5418 *Hypocrea ascoboloides*
5419 *Hypocrea manuka* - *Dysoxylum spectabile*
5420 *Hypocrea vinoso* - *Salix* sp.
5421 *Hypocrea schweinitzii* - *Dacrydium cupressinum*
5422 *Metarhizium* sp. - Stag beetle
5423 *Gibberella stilboides* - *Hemiberlesia* sp.
5424 *Nectria egmontensis* - *Pseudowintera colorata*
5425 *Hendersonula toruloidea*
5426 *Hypocrea schweinitzii* - *Weinmannia racemosa*
5427 *Gibberella gordonii* - *Paspalum* sp.
5428 *Colletotrichum acutatum* - *Lycopersicon esculentum*
5429 *Hypocrea atro-gelatinosa* - *Dacrydium cupressinum*
5430 *Nectria galligena* - *Malus X domestica*
5431 *Gibberella* sp. - *Coprosmo areolata*
5432 *Peckiella geoglossi* - *Geoglossum* sp.
5433 *Hypocrea atro-gelatinosa* - *Grifola berkeleyi*
5434 *Pestalotiopsis adusta* - *Digitalis purpurea*
5435 *Gibberella zeae* - *Cortaderia* sp.
5436 *Embellisia allii* - *Allium sativum*
5438 *Hypocrea nebulosa*
5439 *Metarhizium anisopliae* var. *anisopliae* - *Stethaspis longicorni*
5440 *Gibberella intricans* - *Cortaderia conspicua*
5441 *Mycogone rosea* - Mushroom
5442 *Endomyces geotrichum* - *Actinidia deliciosa*
5443 *Drechslera* sp. - *Oryza sativa*
5444 *Nectria aurantiicola* - Scale insect
5445 *Paecilomyces* sp. - Insect
5446 *Pestalotia vaccinii* - *Vaccinium* sp.
5447 *Gibberella cyanogena* - *Ammophila arenaria*
5448 *Gibberella cyanogena* - *Ammophila arenaria*
5449 *Gibberella cyanogena* - *Ammophila arenaria*
5450 *Paecilomyces javanicus* - Trapdoor spider
5451 *Phialophora asteris* - *Aster novi-belgii*
5452 *Phoma exigua* - *Citrus X tangelo*
5453 *Phoma exigua* - *Lupinus arboreus*
5454 *Myrothecium leucotrichum* - *Solanum nigrum*
5455 *Gibberella baccata* - *Solanum tuberosum*
5456 *Phanerochaete gigantea*
5457 *Phoma exigua* - *Cynara scolymus*
5458 *Gibberella zeae* - *Cortaderia* sp.
5459 *Endothia tropicalis* - *Elaeocarpus dentatus*
5460 *Phoma glomerata* - *Vitis vinifera*
5461 *Phoma macrostoma* var. *incolorata* - *Knightia excelsa*
5462 *Mariannaea elegans* var. *elegans* - *Dysoxylum spectabile*
5464 *Phoma glomerata* - *Vitis vinifera*
5466 *Monilinia fructicola* - *Prunus* sp.
5467 *Myrothecium* sp. - Scale insect
5468 *Paecilomyces farinosus* - Insect
5469 *Coleophoma* sp. - *Ipomoea batatas*
5470 *Sclerotinia minor* - *Lotononis bainesii*
5471 *Sclerotinia minor* - *Glycine max*
5472 *Sclerotinia sclerotiorum* - *Urtica urens*
5473 *Hypomyces chrysospermus* - *Porphyrella* sp.
5475 *Monilinia laxa* - *Prunus glandulosa*
5476 *Pestalotia* sp. - *Acca sellowiana*
5477 *Leptosphaerulina chartarum* - *Holcus lanatus*
5478 *Paecilomyces variotii* - Insect
5479 *Verticillium dahliae* - *Pelargonium peltatum*
5480 *Verticillium albo-atrum* - *Lycopersicon esculentum*
5481 *Trametes cinnabarina*
5483 *Stachybotrys chartarum* - Wool
5484 *Verticillium dahliae* - *Lathyrus odoratus*
5485 *Leptosphaerulina chartarum* - *Vitis vinifera*
5486 *Verticillium dahliae* - *Vitis vinifera*
5487 *Verticillium dahliae* - *Lycopersicon esculentum*
5488 *Glomerella cingulata* - *Cyphomandra betacea*
5489 *Verticillium albo-atrum* - *Dianthus caryophyllus*
5490 *Trichoderma* sp. - *Hypocrea* sp.
5491 *Rosellinia caudata* - *Rosa* sp.
5492 *Phialophora cinerescens* - *Dianthus caryophyllus*
5493 *Monilinia laxa* - *Prunus* sp.
5494 *Monilia* sp. - *Artocarpus altilis*
5495 *Trichoderma polysporum* - *Hypoxylon* sp.
5497 *Pleospora tarda* - *Lycopersicon esculentum*
5498 *Stemphylium vesicarium* - *Musa X paradisiaca*
5499 *Phialophora cinerescens* - *Dianthus caryophyllus*
5500 *Hypomyces rosellus* - *Stereum* sp.
5501 *Colletotrichum musae* - *Musa* sp.
5502 *Endomyces geotrichum* - *Carica papaya*
5503 *Stemphylium vesicarium* - *Lycopersicon esculentum*
5504 *Helminthosporium solani* - *Solanum tuberosum*
5505 *Pleospora tarda* - *Lupinus arboreus*
5506 *Stemphylium vesicarium* - *Amaryllis* sp.
5507 *Gibberella cyanogena* - *Cucurbita maxima*
5508 *Verticillium fungicola* - *Agaricus bisporus*
5509 *Verticillium psalliotae* - *Agaricus bisporus*
5510 *Verticillium fungicola* - *Agaricus bisporus*
5511 *Verticillium fungicola* - *Agaricus bisporus*
5512 *Verticillium psalliotae* - *Agaricus bisporus*
5513 *Verticillium fungicola* - *Agaricus bisporus*
5514 *Nectria haematococca* - *Passiflora edulis*
5516 *Pleospora tarda* - *Medicago sativa*
5518 *Hypomyces* sp. - Bolete
5519 *Gibberella cyanogena* - *Ammophila arenaria*
5520 *Nectria decora*
5521 *Septoria* sp. - *Phormium tenax*
5522 *Hypocrea coprosma* - *Quintinia serrata*
5523 *Paecilomyces lilacinus*
5524 *Pleospora tarda* - *Lupinus arboreus*
5525 *Septoria* sp. - *Phormium tenax*
5526 *Septoria cyclaminis* - *Cyclamen* sp.
5527 *Trichoderma* sp. - *Boletus* sp.
5528 *Discohainesia oenotherae* - *Fuchsia* sp.
5529 *Cladosporium sphaerospermum* - Air
5530 *Phoma exigua* - *Phaseolus vulgaris*
5531 *Phoma exigua* - *Cucumis sativus*
5532 *Lasiodiplodia theobromae* - *Citrus aurantiifolia*
5533 *Phoma exigua* - *Hydrangea* sp.
5534 *Phoma destructiva* - *Lycopersicon esculentum*
5535 *Glomerella cingulata*
5536 *Stemphylium vesicarium* - *Lupinus arboreus*
5537 *Phomopsis viticola* - *Vitis vinifera*
5539 *Beauveria bassiana* - *Graphognathus leucoloma*
5540 *Beauveria bassiana* - *Graphognathus leucoloma*
5541 *Beauveria bassiana* - *Graphognathus leucoloma*
5542 *Stemphylium globuliferum*
5543 *Hypocrea coprosma* - *Weinmannia racemosa*
5544 *Pleospora tarda*
5545 *Gibberella cyanogena* - *Cucurbita maxima*
5546 *Verticillium lecanii* - Glow-worm
5547 *Verticillium lecanii* - Glow-worm
5548 *Tolypocladium* sp. - Glow-worm
5549 *Tolypocladium* sp. - Glow-worm
5550 *Rhizobium leguminosarum* biovar *trifolii*
5551 *Rhizobium leguminosarum* biovar *trifolii*
5552 *Rhizobium leguminosarum* biovar *trifolii*
5553 *Rhizobium leguminosarum* biovar *trifolii*
5554 *Rhizobium meliloti*
5555 *Rhizobium meliloti*
5556 *Rhizobium meliloti*
5557 *Rhizobium meliloti*
5559 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
5560 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
5562 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
5565 *Erwinia herbicola* - *Glycine max*
5573 *Pseudomonas syringae* - *Vigna radiata*
5575 *Xanthomonas campestris* pv. *citri* - *Citrus aurantiifolia*
5581 *Burkholderia solanacearum* - *Solanum melongena* var. *escul*
5583 *Erwinia chrysanthemi* - *Lycopersicon esculentum*
5592 *Agrobacterium* sp. (saprophytic strain) - *Actinidia deliciosa*
5593 *Rhizobium meliloti* - *Medicago sativa*
5594 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*

5595	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	5684	<i>Penicillium verruculosum</i> - Worm cast
5596	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	5685	<i>Penicillium janthinellum</i> - <i>Lolium perenne</i>
5597	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	5686	<i>Penicillium glabrum</i> - Sheep dung
5598	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	5687	<i>Penicillium janthinellum</i> - Sheep dung
5599	<i>Marssonina panattoniana</i> - <i>Lactuca sativa</i>	5688	<i>Penicillium decumbens</i> - Sheep dung
5600	<i>Pleospora tarda</i> - <i>Matthiola incana</i>	5689	<i>Penicillium waksmanii</i> - <i>Lolium perenne</i>
5601	<i>Botrytis byssoidea</i> - <i>Allium cepa</i>	5690	<i>Penicillium rugulosum</i> - Sheep dung
5602	<i>Aspergillus restrictus</i> - Air	5691	<i>Penicillium citrinum</i> - Worm cast
5603	<i>Emericella nidulans</i>	5692	<i>Penicillium spinulosum</i> - Sheep
5604	<i>Alternaria longipes</i> - <i>Nicotiana tabacum</i>	5693	<i>Eupenicillium senticosum</i> - Worm cast
5605	<i>Alternaria cheiranthi</i> - <i>Cheiranthus cheiri</i>	5694	<i>Penicillium raistrickii</i> - Sheep
5606	<i>Calonectria kyotensis</i> - <i>Acca sellowiana</i>	5695	<i>Penicillium citrinum</i> - Worm cast
5607	<i>Ulocladium consortiale</i> - <i>Phaseolus</i> sp.	5696	<i>Penicillium thomii</i> - <i>Lolium perenne</i>
5608	<i>Acroconidiella tropaeoli</i> - <i>Tropaeolum majus</i>	5697	<i>Penicillium citrinum</i> - Sheep dung
5609	<i>Phoma pinodella</i> - <i>Medicago sativa</i>	5698	<i>Periconia macrospinosa</i> - <i>Lolium perenne</i>
5610	<i>Cochliobolus lunatus</i> - <i>Oryza sativa</i>	5699	<i>Pyrenopeziza brassicae</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
5611	<i>Penicillium jensenii</i>	5701	<i>Klebsiella pneumoniae</i> - <i>Carnegiea gigantea</i>
5612	<i>Amorphotheca resiniae</i> - Soil	5702	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
5613	<i>Caldariomyces fumago</i>	5703	<i>Erwinia chrysanthemi</i> pv. <i>chrysanthemi</i> - <i>Chrysanthemum</i> X
5614	<i>Ulocladium chartarum</i> - <i>Cucumis sativus</i>	5704	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>
5615	<i>Torula herbarum</i> - <i>Foeniculum vulgare</i>	5705	<i>Erwinia mallotivora</i> - <i>Mallotus japonicus</i>
5616	<i>Nectria aurantiicola</i> - Scale insect on kiwifruit	5706	<i>Erwinia cancerogena</i> - <i>Populus</i> X <i>euramericana</i>
5617	<i>Cladobotryum apiculatum</i> - <i>Armillaria</i> sp.	5707	<i>Pseudomonas cichorii</i> - <i>Cichorium endivia</i>
5618	<i>Acremonium murorum</i> - <i>Solanum tuberosum</i>	5708	<i>Pseudomonas marginalis</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>
5619	<i>Alternaria radicina</i> - <i>Daucus carota</i> var. <i>sativus</i>	5709	<i>Pseudomonas marginalis</i> pv. <i>pastinacae</i> - <i>Pastinaca sativa</i>
5620	<i>Pleospora tarda</i> - <i>Daucus carota</i> var. <i>sativus</i>	5710	<i>Pseudomonas syringae</i> pv. <i>ciccaronei</i> - <i>Cerantia siliqua</i>
5621	<i>Leptosphaerulina trifolii</i>	5711	<i>Pseudomonas syringae</i> pv. <i>mellea</i> - <i>Nicotiana tabacum</i>
5622	<i>Alternaria pluriseptata</i> - <i>Cucumis sativus</i>	5712	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
5623	<i>Leptosphaerulina trifolii</i> - <i>Lupinus luteus</i>	5714	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>
5624	<i>Neosartorya fischeri</i> - <i>Pisum sativum</i>	5715	<i>Xanthomonas fragariae</i> - <i>Fragaria</i> X <i>ananassa</i>
5625	<i>Phoma eupyrena</i> - <i>Lupinus albus</i>	5717	<i>Xanthomonas campestris</i> pv. <i>alangii</i> - <i>Alangium salviifolium</i>
5626	<i>Coniothyrium minitans</i> - <i>Sclerotinia sclerotiorum</i>	5718	<i>Xanthomonas campestris</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>
5627	<i>Chaetomium globosum</i>	5719	<i>Xanthomonas campestris</i> pv. <i>arecae</i> - <i>Areca catechu</i>
5628	<i>Acremonium murorum</i>	5720	<i>Xanthomonas campestris</i> pv. <i>bauhiniae</i> - <i>Bauhinia racemos</i>
5629	<i>Nectria tawa</i>	5722	<i>Xanthomonas campestris</i> pv. <i>blepharidis</i> - <i>Blepharis boerha</i>
5630	<i>Isaria felina</i> - <i>Opossum</i> dung	5723	<i>Xanthomonas campestris</i> pv. <i>carotae</i> - <i>Daucus carota</i> var.
5631	<i>Phoma exigua</i> - <i>Lycopersicon esculentum</i>	5724	<i>Xanthomonas campestris</i> pv. <i>coracanae</i> - <i>Eleusine coracan</i>
5632	<i>Alternaria dauci</i> - <i>Daucus carota</i> var. <i>sativus</i>	5725	<i>Xanthomonas campestris</i> pv. <i>coriandri</i> - <i>Coriandrum sativum</i>
5633	<i>Alternaria zinniae</i> - <i>Passiflora edulis</i>	5726	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus maxima</i>
5634	<i>Ulocladium atrum</i> - <i>Glycine max</i>	5727	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Anthurium</i> sp.
5635	<i>Coniothyrium minitans</i> - <i>Sclerotinia sclerotiorum</i>	5728	<i>Xanthomonas campestris</i> pv. <i>durantae</i> - <i>Duranta repens</i>
5638	<i>Stromatinia gladioli</i> - <i>Gladiolus</i> sp.	5729	<i>Xanthomonas campestris</i> pv. <i>esculenti</i> - <i>Abelmoschus escul</i>
5639	<i>Alternaria porri</i> - <i>Solanum tuberosum</i>	5730	<i>Xanthomonas campestris</i> pv. <i>euphorbiae</i> - <i>Euphorbia acalyp</i>
5641	<i>Alternaria passiflorae</i> - <i>Passiflora edulis</i>	5731	<i>Xanthomonas campestris</i> pv. <i>fascicularis</i> - <i>Corchorus fascic</i>
5642	<i>Alternaria radicina</i>	5732	<i>Xanthomonas campestris</i> pv. <i>glycines</i> - <i>Glycine max</i>
5643	<i>Fusarium oxysporum</i> f. sp. <i>redolens</i> - <i>Phaseolus</i> sp.	5733	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Dactylis glomerata</i>
5644	<i>Fusarium concolor</i> - Pasture	5734	<i>Xanthomonas campestris</i> pv. <i>guizotiae</i> - <i>Guizotia abyssinica</i>
5645	<i>Gibberella fujikuroi</i> - Orchid	5735	<i>Xanthomonas campestris</i> pv. <i>hordei</i> - <i>Hordeum vulgare</i>
5646	<i>Gibberella fujikuroi</i> - <i>Hordeum vulgare</i>	5736	<i>Xanthomonas campestris</i> pv. <i>ionidii</i> - <i>Ionidium heterophyllum</i>
5647	<i>Fusarium oxysporum</i> var. <i>redolens</i> - <i>Phaseolus</i> sp.	5737	<i>Xanthomonas campestris</i> pv. <i>lantanae</i> - <i>Lantana camara</i>
5648	<i>Fusarium culmorum</i> - <i>Lupinus albus</i>	5738	<i>Xanthomonas campestris</i> pv. <i>leeana</i> - <i>Leea edgeworthii</i>
5649	<i>Fusarium sambucinum</i> var. <i>coeruleum</i> - <i>Solanum quitoense</i>	5739	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium</i> sp.
5650	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Pinus</i> sp.	5740	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
5651	<i>Fusarium semitectum</i> - <i>Cucurbita maxima</i>	5741	<i>Xanthomonas campestris</i> pv. <i>manihoti</i> - <i>Manihot esculenta</i>
5652	<i>Fusarium culmorum</i> - <i>Dactylis glomerata</i>	5742	<i>Xanthomonas campestris</i> pv. <i>nakataecorchori</i> - <i>Corchorus</i>
5653	<i>Fusarium culmorum</i> - <i>Phaseolus coccineus</i>	5743	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>
5654	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>	5744	<i>Xanthomonas campestris</i> pv. <i>phleipratensis</i> - <i>Phleum praten</i>
5655	<i>Gibberella gordonii</i> - Ergot on <i>Lolium perenne</i>	5745	<i>Xanthomonas campestris</i> pv. <i>phyllanthi</i> - <i>Phyllanthus niruri</i>
5656	<i>Alternaria porri</i> - <i>Solanum tuberosum</i>	5746	<i>Xanthomonas campestris</i> pv. <i>physalidis</i> - <i>Physalis minima</i>
5658	<i>Leptosphaeria pratensis</i> - <i>Trifolium</i> sp.	5747	<i>Xanthomonas campestris</i> pv. <i>ricini</i> - <i>Ricinus communis</i>
5659	<i>Phoma glomerata</i> - Wool	5748	<i>Xanthomonas campestris</i> pv. <i>rhynchosiae</i> - <i>Rhynchosia</i>
5660	<i>Leptodontidium elatius</i> - <i>Malus</i> X <i>domestica</i>	5749	<i>Xanthomonas campestris</i> pv. <i>secalis</i> - <i>Secale cereale</i>
5661	<i>Gibberella baccata</i> - <i>Passiflora edulis</i>	5751	<i>Xanthomonas campestris</i> pv. <i>spermacoces</i> - <i>Spermacoce</i>
5662	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Zea mays</i>	5752	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Hordeum vulgare</i>
5663	<i>Penicillium minioluteum</i> - Soil	5753	<i>Xanthomonas campestris</i> pv. <i>tribuli</i> - <i>Tribulus terrestris</i>
5664	<i>Penicillium simplicissimum</i> - Sheep dung	5754	<i>Xanthomonas campestris</i> pv. <i>trichodesmae</i> - <i>Trichodesma</i>
5665	<i>Penicillium janthinellum</i> - Soil	5755	<i>Xanthomonas campestris</i> pv. <i>undulosa</i> - <i>Triticum turgidum</i>
5666	<i>Penicillium expansum</i> - Sheep dung	5756	<i>Xanthomonas campestris</i> pv. <i>uppalii</i> - <i>Ipomoea muricata</i>
5667	<i>Penicillium loliense</i> - <i>Lolium</i> sp.	5757	<i>Xanthomonas campestris</i> pv. <i>vasculorum</i> - <i>Saccharum officii</i>
5668	<i>Penicillium bilaii</i> - Soil	5758	<i>Xanthomonas campestris</i> pv. <i>vernoniae</i> - <i>Vernonia cinerea</i>
5669	<i>Paecilomyces lilacinus</i> - Sheep dung	5759	<i>Xanthomonas campestris</i> pv. <i>vignaeradiatae</i> - <i>Vigna radiata</i>
5670	<i>Penicillium simplicissimum</i> - Soil	5761	<i>Xanthomonas campestris</i> pv. <i>vitistrifoliae</i> - <i>Vitis trifolia</i>
5671	<i>Penicillium crustosum</i> - Sheep dung	5762	<i>Xanthomonas campestris</i> pv. <i>zinniae</i> - <i>Zinnia elegans</i>
5672	<i>Penicillium corylophilum</i> - Sheep dung	5763	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pinus radiata</i>
5673	<i>Paecilomyces marquandii</i> - Soil	5766	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pinus radiata</i>
5674	<i>Penicillium janthinellum</i> - Soil	5769	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pinus radiata</i>
5675	<i>Penicillium aculeatum</i> - Soil	5772	<i>Erwinia</i> sp. - <i>Zea mays</i>
5676	<i>Paecilomyces lilacinus</i> - Sheep dung	5775	<i>Pseudomonas fluorescens</i> - <i>Phaseolus vulgaris</i>
5677	<i>Penicillium rugulosum</i> - Sheep dung	5776	<i>Pseudomonas viridiflava</i> - <i>Phaseolus vulgaris</i>
5678	<i>Penicillium crustosum</i> - <i>Lolium perenne</i>	5777	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>
5679	<i>Penicillium decumbens</i> - <i>Lolium perenne</i>	5778	<i>Xanthomonas campestris</i> pv. <i>heliotropii</i> - <i>Heliotropium sudan</i>
5680	<i>Penicillium decumbens</i> - <i>Lolium perenne</i>	5779	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>
5681	<i>Penicillium simplicissimum</i> - Soil	5780	<i>Xanthomonas campestris</i> pv. <i>gummisudans</i> - <i>Gladiolus</i> sp.
5682	<i>Penicillium simplicissimum</i> - Sheep dung	5781	<i>Pseudomonas viridiflava</i> - <i>Passiflora edulis</i>
5683	<i>Talaromyces wortmannii</i> - Soil	5783	<i>Pseudomonas</i> sp. - <i>Passiflora edulis</i>

5785	<i>Agrobacterium tumefaciens</i> (saprophytic strain)	5932	<i>Pseudomonas syringae</i> - <i>Ulmus pumila</i>
5786	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	5938	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneum</i>
5789	<i>Ceratocystis paradoxa</i> - <i>Musa X paradisiaca</i>	5939	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>
5790	<i>Glomerella</i> sp. - <i>Musa X paradisiaca</i>	5940	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>
5791	<i>Fusarium</i> sp. - <i>Musa X paradisiaca</i>	5941	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>
5792	<i>Verticillium theobromae</i> - <i>Musa X paradisiaca</i>	5943	<i>Rhizobium leguminosarum</i> biovar <i>viciae</i> - <i>Vicia sativa</i> subsp.
5793	<i>Agrobacterium tumefaciens</i> (tumourigenic strain)	5944	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>
5794	<i>Agrobacterium rhizogenes</i> (rhizogenic strain) - <i>Malus X</i>	5946	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5795	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i> - <i>Prunus domestica</i>	5947	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5796	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>	5948	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5797	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	5949	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5798	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>)	5950	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5800	<i>Pseudomonas cichorii</i> - <i>Lactuca sativa</i>	5951	<i>Erwinia rubrifaciens</i> - <i>Juglans regia</i>
5801	<i>Pseudomonas cichorii</i> - <i>Chrysanthemum X morifolium</i>	5952	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>
5802	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>	5953	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>
5803	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>	5954	<i>Rhizobium</i> sp. - <i>Onobrychis vicifolia</i>
5804	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>	5960	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
5805	<i>Rhizobium</i> sp.	5965	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Lycopersicon esculentum</i>
5806	<i>Xanthomonas</i> sp. - <i>Momordica charantia</i>	5966	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersicon</i>
5807	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	5972	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - <i>Prunus pers</i>
5808	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	5977	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus</i>
5809	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	5980	<i>Burkholderia andropogonis</i> - <i>Sorghum bicolor</i>
5810	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus aurantiif</i>	5981	<i>Burkholderia cepacia</i> - Soil
5811	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>	5982	<i>Burkholderia cepacia</i> - <i>Lycopersicon esculentum</i>
5812	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	5985	<i>Agrobacterium</i> sp. (saprophytic strain) - <i>Rubus ursinus</i>
5813	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	5988	<i>Erwinia salicis</i> - <i>Salix alba</i> subsp. <i>vitellina</i>
5814	<i>Nocardia vaccinii</i> - <i>Vaccinium</i> sp.	5989	<i>Pseudomonas marginalis</i> pv. <i>marginalis</i> - <i>Lactuca sativa</i>
5816	<i>Xanthomonas populi</i> - <i>Populus X euramericana</i>	5996	<i>Cladosporium herbarum</i> - <i>Nicotiana tabacum</i>
5817	<i>Xanthomonas populi</i> - <i>Populus X euramericana</i>	5997	<i>Cladosporium cladosporioides</i> - <i>Nicotiana tabacum</i>
5818	<i>Rhizobium leguminosarum</i> biovar <i>phaseoli</i>	5999	<i>Pseudomonas cichorii</i> - <i>Primula X polyantha</i>
5819	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	6000	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
5820	<i>Rhizobium leguminosarum</i> biovar <i>phaseoli</i>	6001	Unknown bacterium - rec. as <i>Pseudomonas panici</i> - <i>Panicu</i>
5823	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis sativus</i>	6002	<i>Pseudomonas marginalis</i>
5826	<i>Lactobacillus plantarum</i>	6003	<i>Pseudomonas aurantiaca</i>
5827	<i>Xanthomonas populi</i> - <i>Populus X euramericana</i>	6004	<i>Pseudomonas aurantiaca</i>
5829	<i>Xanthomonas populi</i> - <i>Populus X euramericana</i>	6005	<i>Pseudomonas marginalis</i>
5830	<i>Xanthomonas populi</i> - <i>Populus X euramericana</i>	6006	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus reticulata</i>
5831	<i>Xanthomonas populi</i> - <i>Populus</i> sp.	6007	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Camellia sinensis</i>
5833	<i>Rhodococcus fascians</i>	6008	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus reticulata</i>
5834	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	6009	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus aurantium</i>
5836	<i>Xanthomonas populi</i> - <i>Populus tremula</i> X <i>P. tremuloides</i>	6010	<i>Pseudomonas marginalis</i> - <i>Lupinus</i> sp.
5837	<i>Burkholderia cepacia</i>	6011	<i>Pseudomonas syringae</i> - <i>Lupinus</i> sp.
5838	<i>Burkholderia gladioli</i> pv. <i>allii</i> <i>colica</i>	6012	<i>Pseudomonas syringae</i> - <i>Lupinus</i> sp.
5839	<i>Burkholderia gladioli</i> pv. <i>allii</i> <i>colica</i>	6013	<i>Pseudomonas syringae</i> - <i>Lupinus</i> sp.
5840	<i>Burkholderia gladioli</i> pv. <i>allii</i> <i>colica</i>	6014	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Sorghum bicolor</i>
5841	<i>Burkholderia cepacia</i>	6015	<i>Pseudomonas syringae</i> - <i>Zea mays</i>
5845	<i>Erwinia tracheiphila</i> - <i>Cucumis melo</i> var. <i>reticulatus</i>	6016	Unknown bacterium - rec. as <i>Pseudomonas</i> (<i>Erwinia</i>) <i>toxica</i>
5846	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	6017	Unknown bacterium - rec. as <i>Pseudomonas</i> (<i>Erwinia</i>) <i>toxica</i>
5847	<i>Xanthomonas campestris</i> pv. <i>vitiswoodrowii</i> - <i>Vitis vinifera</i>	6018	<i>Pseudomonas aurantiaca</i>
5848	<i>Burkholderia caryophylli</i> - <i>Dianthus caryophyllus</i>	6019	<i>Pseudomonas aurantiaca</i>
5849	<i>Xanthomonas campestris</i> pv. <i>cajani</i> - <i>Cajanus cajan</i>	6020	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
5850	<i>Xanthomonas campestris</i> pv. <i>coriandri</i> - <i>Coriandrum sativum</i>	6021	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - Soil
5852	<i>Xanthomonas campestris</i> pv. <i>thirumalacharii</i> - <i>Triumfetta pila</i>	6022	<i>Agrobacterium</i> sp. (saprophytic strain) - Soil
5853	<i>Xanthomonas campestris</i> pv. <i>spermacoces</i> - <i>Spermacocce</i>	6023	<i>Agrobacterium</i> sp. (saprophytic strain) - Soil
5854	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>	6024	<i>Agrobacterium</i> sp. (saprophytic strain) - Soil
5855	<i>Xanthomonas campestris</i> pv. <i>vignicola</i> - <i>Vigna unguiculata</i>	6025	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - <i>Salix purp</i>
5856	<i>Agrobacterium tumefaciens</i> (tumourigenic strain)	6026	<i>Rhizobium meliloti</i>
5857	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>	6028	<i>Rhizobium meliloti</i>
5858	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>	6030	<i>Pestalotiopsis</i> sp. - <i>Arachis hypogaea</i>
5859	<i>Rhizobium</i> sp.	6031	<i>Volutella</i> sp. - <i>Arachis hypogaea</i>
5861	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	6036	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Beta vulgaris</i> subsp.
5862	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	6039	<i>Pseudomonas marginalis</i> - <i>Brassica oleracea</i> var. <i>botrytis</i>
5863	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus coccin</i>	6041	<i>Xanthomonas</i> sp. - <i>Eucalyptus</i> sp.
5864	<i>Rhizobium meliloti</i>	6048	<i>Pseudomonas syringae</i> - <i>Hoheria populnea</i>
5865	<i>Rhizobium meliloti</i>	6057	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
5866	<i>Pseudomonas syringae</i> pv. <i>tagetis</i> - <i>Tagetes erecta</i>	6061	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
5876	<i>Erwinia chrysanthemi</i> - <i>Dahlia</i> sp.	6063	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
5884	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pisum sativum</i>	6078	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Bromus</i> sp.
5888	<i>Pseudomonas viridiflava</i> - <i>Pseudopanax</i> sp.	6082	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Lolium perenne</i>
5890	<i>Pseudomonas cichorii</i> - <i>Centaurea cyanus</i>	6083	<i>Cladosporium herbarum</i> - Refrigerator door PVC gasket
5894	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	6084	<i>Cladosporium herbarum</i> - Refrigerator door PVC gasket
5896	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>	6085	<i>Cladosporium herbarum</i> - Refrigerator door PVC gasket
5897	<i>Pseudomonas viridiflava</i> - <i>Anagallis arvensis</i>	6086	<i>Cladosporium sphaerospermum</i> - Refrigerator door PVC gask
5901	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus limon</i>	6087	<i>Cladosporium sphaerospermum</i> - Refrigerator door PVC gask
5902	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus limon</i>	6088	<i>Pestalotiopsis</i> sp. - Refrigerator door PVC gasket
5905	<i>Pseudomonas viridiflava</i> - <i>Anagallis arvensis</i>	6089	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask
5907	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.	6090	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask
5912	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus cocc</i>	6092	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask
5913	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	6093	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask
5915	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.	6094	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask
5924	<i>Bacillus cereus</i>	6095	<i>Cladosporium</i> sp. - Refrigerator door PVC gasket
5925	<i>Klebsiella pneumoniae</i>	6096	<i>Cladosporium</i> sp. - Refrigerator door PVC gasket
5926	<i>Staphylococcus aureus</i>	6097	<i>Cladosporium</i> sp. - Refrigerator door PVC gasket
5928	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>	6098	<i>Aspergillus</i> sp. - Refrigerator door PVC gasket
5929	<i>Erwinia stewartii</i> - Corn flea beetle	6099	<i>Penicillium</i> sp. - Refrigerator door PVC gasket
5930	<i>Erwinia stewartii</i> - <i>Zea mays</i> var. <i>indentata</i>	6100	<i>Aspergillus</i> sp. - Refrigerator door PVC gasket
5931	<i>Pseudomonas syringae</i> - <i>Ulmus pumila</i>	6101	<i>Penicillium</i> sp. - Refrigerator door PVC gasket

6102	<i>Penicillium</i> sp. - Refrigerator door PVC gasket	6197	<i>Mucor mucedo</i>
6103	<i>Cladosporium cladosporioides</i> - Refrigerator door PVC gask	6198	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago sati</i>
6104	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	6200	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
6105	<i>Pseudomonas marginalis</i> - <i>Lycopersicon esculentum</i>	6201	<i>Apiognomonina veneta</i> - <i>Platanus orientalis</i>
6106	<i>Mycosphaerella davisii</i> - <i>Melilotus</i> sp.	6202	<i>Apiognomonina veneta</i> - <i>Platanus orientalis</i>
6107	<i>Escherichia coli</i>	6203	<i>Apiognomonina veneta</i> - <i>Platanus orientalis</i>
6112	<i>Codinaea fertilis</i> - <i>Medicago sativa</i>	6204	<i>Drechslera biseptata</i> - <i>Digitaria smutsii</i>
6113	<i>Drechslera multififormis</i> - <i>Tribulus terrestris</i>	6205	<i>Drechslera biseptata</i> - <i>Vulpia bromoides</i>
6114	<i>Curvularia trifolii</i> - <i>Trifolium repens</i>	6206	<i>Drechslera biseptata</i> - <i>Vulpia bromoides</i>
6115	<i>Drechslera triseptata</i> - <i>Lolium multiflorum</i>	6207	<i>Drechslera biseptata</i> - <i>Aira caryophylla</i>
6116	<i>Curvularia</i> sp. - <i>Panicum milliaceum</i>	6208	<i>Drechslera biseptata</i> - <i>Aira caryophylla</i>
6117	<i>Curvularia</i> sp. - <i>Sorghum bicolor</i>	6209	<i>Cochliobolus cynodontis</i>
6118	<i>Drechslera triseptata</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6210	<i>Cochliobolus cynodontis</i>
6119	<i>Drechslera triseptata</i> - <i>Dactylis glomerata</i>	6211	<i>Drechslera dematioidea</i> - <i>Aira caryophylla</i>
6120	<i>Drechslera triseptata</i> - <i>Holcus lanatus</i>	6212	<i>Drechslera dematioidea</i> - <i>Stenotaphrum secundatum</i>
6121	<i>Setosphaeria turcica</i> - <i>Zea mays</i>	6213	<i>Drechslera dematioidea</i> - <i>Anthoxanthum odoratum</i>
6122	<i>Cochliobolus cynodontis</i> - <i>Dactylis glomerata</i>	6214	<i>Drechslera dematioidea</i> - <i>Holcus lanatus</i>
6123	<i>Cochliobolus cynodontis</i> - <i>Axonopus affinis</i>	6215	<i>Drechslera dematioidea</i> - <i>Holcus lanatus</i>
6124	<i>Cochliobolus cynodontis</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6216	<i>Drechslera dematioidea</i> - <i>Cortaderia</i> sp.
6125	<i>Cochliobolus cynodontis</i> - <i>Cynosurus cristatus</i>	6217	<i>Pyrenophora erythrospila</i> - <i>Bromus willdenowii</i>
6126	<i>Cochliobolus cynodontis</i> - <i>Lolium multiflorum</i>	6218	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>
6127	<i>Cochliobolus cynodontis</i> - <i>Cynodon dactylon</i>	6219	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>
6128	<i>Cochliobolus cynodontis</i> - <i>Cynodon dactylon</i>	6220	<i>Pyrenophora erythrospila</i> - <i>Lolium perenne</i>
6129	<i>Bipolaris iridis</i> - <i>Iris</i> sp.	6221	<i>Pyrenophora erythrospila</i> - <i>Digitaria smutsii</i>
6130	<i>Cochliobolus spicifer</i> - <i>Phleum pratense</i>	6222	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>
6131	<i>Cochliobolus spicifer</i> - <i>Lolium multiflorum</i>	6223	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>
6132	<i>Cochliobolus spicifer</i> - <i>Cynosurus cristatus</i>	6224	<i>Cochliobolus ravenelii</i> - <i>Sporobolus africanus</i>
6133	<i>Cochliobolus spicifer</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6225	<i>Bipolaris sacchari</i>
6134	<i>Cochliobolus spicifer</i> - <i>Dactylis glomerata</i>	6226	<i>Bipolaris sacchari</i> - <i>Pennisetum clandestinum</i>
6135	<i>Cochliobolus spicifer</i> - <i>Microlaena stipoides</i>	6227	<i>Bipolaris sacchari</i> - <i>Oplismenus imbecillus</i>
6136	<i>Cochliobolus spicifer</i> - <i>Lolium</i> sp.	6228	<i>Bipolaris sacchari</i> - <i>Setaria glauca</i>
6137	<i>Cochliobolus spicifer</i> - <i>Bromus willdenowii</i>	6229	<i>Bipolaris sacchari</i> - <i>Axonopus affinis</i>
6138	<i>Cochliobolus spicifer</i> - <i>Cynodon dactylon</i>	6230	<i>Bipolaris sacchari</i> - <i>Paspalum dilatatum</i>
6139	<i>Pyrenophora tetrarrhena</i> - <i>Microlaena stipoides</i>	6231	<i>Bipolaris sacchari</i> - <i>Lolium multiflorum</i>
6140	<i>Cochliobolus geniculatus</i> - <i>Passiflora edulis</i>	6233	<i>Cochliobolus sativus</i> - <i>Lolium perenne</i>
6141	<i>Cochliobolus intermedius</i> - <i>Lolium multiflorum</i>	6234	<i>Cochliobolus sativus</i>
6142	<i>Curvularia ischaemi</i> - <i>Ischaemum indicum</i>	6235	<i>Cochliobolus sativus</i> - <i>Lolium</i> sp.
6143	<i>Cochliobolus intermedius</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6236	<i>Cochliobolus sativus</i> - <i>Cynosurus cristatus</i>
6144	<i>Curvularia trifolii</i> - <i>Digitaria setivalva</i>	6237	<i>Cochliobolus sativus</i> - <i>Lolium multiflorum</i> X <i>perenne</i>
6145	<i>Curvularia trifolii</i> - <i>Agrostis capillaris</i>	6238	<i>Cochliobolus sativus</i> - <i>Holcus lanatus</i>
6146	<i>Curvularia trifolii</i> - <i>Paspalum distichum</i>	6239	<i>Cochliobolus sativus</i> - <i>Holcus lanatus</i>
6147	<i>Curvularia trifolii</i> - <i>Paspalum dilatatum</i>	6240	<i>Cochliobolus sativus</i> - <i>Eleusine indica</i>
6148	<i>Curvularia trifolii</i> - <i>Echinochloa crus-galli</i>	6241	<i>Cochliobolus sativus</i>
6149	<i>Curvularia trifolii</i> - <i>Setaria glauca</i>	6242	<i>Cochliobolus sativus</i> - <i>Lolium perenne</i>
6150	<i>Curvularia trifolii</i> - <i>Lolium multiflorum</i>	6243	<i>Cochliobolus sativus</i> - <i>Lolium perenne</i>
6151	<i>Curvularia trifolii</i> - <i>Sporobolus africanus</i>	6244	<i>Colletotrichum dematium</i> - <i>Freyinetia</i> sp.
6152	<i>Curvularia trifolii</i> - <i>Phleum pratense</i>	6245	<i>Cochliobolus sativus</i> - <i>Festuca</i> sp.
6153	<i>Curvularia trifolii</i> - <i>Paspalum dilatatum</i>	6246	<i>Cochliobolus sativus</i> - <i>Cynodon dactylon</i>
6154	<i>Curvularia trifolii</i> - <i>Dactylis glomerata</i>	6247	<i>Cochliobolus sativus</i> - <i>Hordeum murinum</i>
6155	<i>Curvularia trifolii</i> - <i>Axonopus affinis</i>	6248	<i>Arthrobotrys</i> sp. - Soil
6156	<i>Curvularia trifolii</i> - <i>Agrostis capillaris</i>	6249	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
6157	<i>Cochliobolus australiensis</i> - <i>Lolium multiflorum</i>	6251	<i>Cochliobolus sativus</i> - <i>Lolium perenne</i>
6158	<i>Cochliobolus australiensis</i> - <i>Eragrostis simplex</i>	6252	<i>Cochliobolus sativus</i> - <i>Lolium</i> sp.
6159	<i>Curvularia trifolii</i> f. sp. <i>gladioli</i> - <i>Gladiolus</i> sp.	6253	<i>Cochliobolus sativus</i> - <i>Lolium</i> sp.
6160	<i>Curvularia trifolii</i> f. sp. <i>gladioli</i> - <i>Gladiolus</i> sp.	6254	<i>Macrophomina phaseolina</i> - <i>Trifolium repens</i>
6161	<i>Drechslera brizae</i> - <i>Briza minor</i>	6256	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
6162	<i>Drechslera brizae</i> - <i>Briza maxima</i>	6257	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
6163	<i>Drechslera brizae</i> - <i>Briza minor</i>	6259	<i>Cochliobolus geniculatus</i> - <i>Citrus sinensis</i>
6164	<i>Drechslera brizae</i> - <i>Briza minor</i>	6260	<i>Cochliobolus intermedius</i> - <i>Citrus sinensis</i>
6165	<i>Pyrenophora semeniperda</i> - <i>Rytdosperma</i> sp.	6261	<i>Cochliobolus lunatus</i> - <i>Pandanus</i> sp.
6166	<i>Pyrenophora semeniperda</i> - <i>Rytdosperma racemosum</i>	6262	<i>Curvularia brachyspora</i> - <i>Digitaria sanguinalis</i>
6167	<i>Pyrenophora semeniperda</i> - <i>Rytdosperma</i> sp.	6263	<i>Fusarium semitectum</i> - <i>Ananas comosus</i>
6168	<i>Pyrenophora semeniperda</i> - <i>Cortaderia jubata</i>	6264	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
6169	<i>Pyrenophora semeniperda</i> - <i>Cortaderia jubata</i>	6265	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
6170	<i>Pyrenophora semeniperda</i> - <i>Sieglingia decumbens</i>	6266	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
6171	<i>Pyrenophora semeniperda</i> - <i>Rytdosperma</i> sp.	6267	<i>Drechslera brizae</i> - <i>Briza minor</i>
6172	<i>Curvularia ischaemi</i> - <i>Ischaemum indicum</i>	6268	<i>Pseudomonas rubrisubalbicans</i> - <i>Sorghum bicolor</i>
6173	<i>Cochliobolus cynodontis</i> - <i>Dactylis glomerata</i>	6269	<i>Xanthomonas fragariae</i> - <i>Fragaria</i> X <i>ananassa</i>
6174	<i>Cochliobolus spicifer</i> - <i>Cynosurus cristatus</i>	6271	<i>Pseudomonas viridiflava</i> - <i>Pisum sativum</i>
6175	<i>Cochliobolus spicifer</i> - <i>Dactylis glomerata</i>	6274	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>
6176	<i>Cochliobolus spicifer</i> - <i>Dactylis glomerata</i>	6275	<i>Erwinia</i> sp. - <i>Salix fragilis</i>
6177	<i>Cochliobolus geniculatus</i> - <i>Passiflora edulis</i>	6278	<i>Xanthomonas fragariae</i> - <i>Fragaria</i> X <i>ananassa</i>
6178	<i>Cochliobolus geniculatus</i> - <i>Passiflora edulis</i>	6279	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>
6179	<i>Cochliobolus geniculatus</i> - <i>Passiflora edulis</i> Sims	6280	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
6180	<i>Curvularia trifolii</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6281	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
6181	<i>Curvularia</i> sp. - <i>Brachiaria mutica</i>	6282	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i> var. <i>arvens</i>
6182	<i>Drechslera brizae</i> - <i>Briza minor</i>	6283	<i>Erwinia chrysanthemi</i> - <i>Dahlia</i> sp.
6183	<i>Drechslera brizae</i> - <i>Briza minor</i>	6285	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
6184	<i>Pyrenophora semeniperda</i> - <i>Cortaderia jubata</i>	6286	<i>Pseudomonas aeruginosa</i>
6189	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	6289	<i>Pseudomonas meliae</i> - <i>Melia azedarach</i>
6191	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora edulis</i>	6291	<i>Phoma eupyrena</i> - <i>Phaseolus vulgaris</i>
6192	<i>Erwinia chrysanthemi</i> - <i>Saintpaulia</i> sp.	6292	<i>Phoma exigua</i> Desmazieres var. <i>exigua</i> - <i>Solanum tuberosum</i>
6193	<i>Rhizobium</i> sp. - <i>Sophora microphylla</i>	6293	<i>Phoma glomerata</i> - <i>Medicago sativa</i>
6195	<i>Pythium erinaceum</i> - Soil (wheat field)	6294	<i>Phoma herbarum</i> - <i>Rosa</i> sp.
6196	<i>Mucor mucedo</i>	6295	<i>Phoma leveillei</i> - <i>Fragaria</i> X <i>ananassa</i>

- 6296 *Phoma macrostoma* Montagne var. *macrostoma* - *Ulmus* sp.
6297 *Phoma pinodella* - *Pisum sativum*
6298 *Phoma multirostrata* - *Philodendron* sp.
6299 *Phoma nebulosa* - *Urtica dioica*
6301 *Phoma putaminum* - *Ulmus* sp.
6302 *Phoma tropica* - *Guzmania* sp.
6303 *Bradyrhizobium* sp. (*Ulex*) - *Ulex europaeus*
6305 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6306 *Corynebacterium* sp. - *Lolium rigidum*
6307 *Clavibacter toxicus* - *Lolium rigidum*
6308 *Corynebacterium* sp. - *Phalaris minor*
6309 *Corynebacterium* sp. - *Phalaris minor*
6310 *Corynebacterium* sp. - *Phalaris paradoxa*
6311 *Corynebacterium* sp. - *Avena fatua*
6312 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus cocc*
6313 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus vulg*
6314 *Botrytis galanthina* - *Lachenalia* sp.
6353 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6354 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6355 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6356 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6357 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6358 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* X *paradisiaca*
6359 *Erwinia chrysanthemi* pv. *paradisiaca* - *Musa* sp.
6360 *Neurospora crassa* - Laboratory derived strain
6361 *Neurospora crassa* - Laboratory derived strain
6362 *Pseudomonas syringae* - *Zea mays*
6363 *Pseudomonas syringae* - *Zea mays*
6364 *Pseudomonas syringae* pv. *syringae* - *Lycopersicon esculen*
6365 *Pseudomonas syringae* pv. *syringae* - *Rosa* sp.
6366 *Pseudomonas syringae* pv. *syringae* - *Citrus limon*
6369 *Pseudomonas syringae* pv. *tagetis* - *Tagetes erecta*
6370 *Pseudomonas syringae* pv. *tagetis* - *Tagetes erecta*
6371 *Pseudomonas syringae* pv. *tagetis* - *Tagetes* sp.
6372 *Pseudomonas savastanoi* pv. *glycinea* - *Phaseolus* sp.
6373 *Pseudomonas savastanoi* pv. *glycinea* - *Phaseolus* sp.
6374 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
6375 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
6377 *Pseudomonas syringae* pv. *syringae* - *Panicum miliaceum*
6378 *Pseudomonas syringae* - *Setaria italica*
6379 *Pseudomonas syringae* pv. *syringae* - *Prunus persica*
6380 *Pseudomonas syringae* - *Zea mays*
6381 *Pseudomonas syringae* - *Zea mays*
6384 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6385 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6386 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6387 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6388 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6389 *Pseudomonas syringae* pv. *syringae* - *Hordeum vulgare*
6390 *Pseudomonas syringae* pv. *syringae* - *Triticum aestivum*
6391 *Pseudomonas syringae* pv. *syringae* - *Triticum aestivum*
6392 *Pseudomonas syringae* pv. *syringae* - *Triticum aestivum*
6393 *Pseudomonas syringae* pv. *syringae* - *Triticum aestivum*
6402 *Agrobacterium tumefaciens* - *Vitis vinifera*
6403 *Agrobacterium* sp. (tumourigenic strain) - *Prunus persica*
6406 *Agrobacterium tumefaciens* - *Actinidia deliciosa*
6410 *Pseudomonas putida* - *Dahlia* sp.
6411 *Pseudomonas fluorescens* - *Lycopersicon esculentum*
6412 *Pseudomonas viridiflava* - *Lycopersicon esculentum*
6416 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
6419 *Pseudomonas fluorescens* - *Lycopersicon esculentum*
6421 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
6422 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
6424 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
6426 *Bradyrhizobium* sp. (*Carmichaelia*) - *Carmichaelia* sp.
6427 *Erwinia chrysanthemi* pv. *dianthicola* - *Dianthus caryophyllus*
6428 *Agrobacterium rubi* - *Rubus ursinus* var. *loganobaccus*
6429 *Erwinia* sp. - *Rubus idaeus*
6431 *Xanthomonas campestris* pv. *graminis* - *Lolium perenne*
6436 *Xanthomonas campestris* pv. *graminis* - *Bromus marginatus*
6438 *Xanthomonas campestris* pv. *graminis* - *Bromus willdenowii*
6444 *Xanthomonas campestris* pv. *graminis* - *Lolium perenne*
6445 *Pseudomonas syringae* - *Idesia polycarpa*
6450 *Pseudomonas syringae* - *Capsicum annum*
6451 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentu*
6455 *Xanthomonas campestris* pv. *passiflorae* - *Passiflora edulis*
6456 *Pseudomonas viridiflava* - *Lactuca sativa*
6461 *Xanthomonas campestris* pv. *vitians* - *Lactuca sativa*
6465 *Pseudomonas syringae* pv. *dysoxylis* - *Dysoxylum spectabile*
6475 *Agrobacterium tumefaciens* - *Vitis vinifera*
6477 *Aphanomyces euteiches* - *Pisum sativum*
6478 *Aphanomyces euteiches* - *Pisum sativum*
6479 *Xanthomonas campestris* pv. *zinniae* - *Zinnia* sp.
6482 *Xanthomonas campestris* pv. *graminis* - *Bromus willdenowii*
6483 *Xanthomonas campestris* pv. *graminis* - *Lolium perenne*
6484 *Xanthomonas campestris* pv. *zinniae* - *Zinnia* sp.
6490 *Pseudomonas syringae* pv. *lachrymans* - *Cucumis sativus*
6491 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6492 *Pseudomonas syringae* pv. *coronafaciens* - *Avena sativa*
6493 *Pseudomonas syringae* - *Ulmus pumila*
6494 *Xanthomonas campestris* pv. *juglandis* - *Juglans regia*
6495 *Escherichia coli*
6496 *Bradyrhizobium* sp. (*Chamaecytisus*) - *Chamaecytisus palm*
6497 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6498 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6502 *Xanthomonas campestris* pv. *desmodii* - *Desmodium*
6504 *Azotobacter vinelandii* - Laboratory derived selection
6505 *Azotobacter vinelandii* - Laboratory derived selection
6506 *Azotobacter vinelandii* - Laboratory derived selection
6508 *Azomonas agilis*
6509 *Azomonas agilis*
6512 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6514 *Burkholderia solanacearum* - *Lycopersicon esculentum*
6517 *Alternaria porri* - *Allium porrum*
6518 *Alternaria dichondrae* - *Dichondra repens*
6519 *Alternaria solani* - *Lycopersicon esculentum*
6521 *Acidovorax avenae* subsp. *citrulli* - *Citrullus lanatus*
6522 *Acidovorax avenae* subsp. *citrulli* - *Citrullus lanatus*
6523 *Burkholderia solanacearum* - *Nicotiana tabacum*
6524 *Burkholderia solanacearum* - *Nicotiana tabacum*
6525 *Burkholderia solanacearum* - *Nicotiana tabacum*
6526 *Trichoderma reesei*
6529 *Pseudomonas viridiflava* - *Brassica oleracea* var. *botrytis*
6533 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6536 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6541 *Xanthomonas campestris* pv. *campestris* - *Brassica olerace*
6543 *Rhizopus oryzae* - *Coco-cake*
6544 *Rhizopus oryzae*
6545 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
6546 *Phoma nigricans* - *Actinidia deliciosa*
6551 *Pseudomonas tolaasii* - *Agaricus bisporus*
6552 *Pseudomonas* sp. - *Agaricus bisporus*
6553 *Pseudomonas tolaasii* - *Agaricus bisporus*
6554 *Pseudomonas agarici* - *Agaricus bisporus*
6555 *Pseudomonas agarici* - *Agaricus bisporus*
6556 *Pseudomonas agarici* - *Agaricus bisporus*
6557 *Pseudomonas agarici* - *Agaricus bisporus*
6558 *Pseudomonas agarici* - *Agaricus bisporus*
6559 *Escherichia coli*
6560 *Pseudomonas aeruginosa*
6561 *Pseudomonas aeruginosa*
6562 *Pseudomonas aeruginosa*
6564 *Pseudomonas syringae* pv. *tagetis* - *Tagetes erecta*
6565 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
6566 *Clavibacter michiganensis* subsp. *insidiosus* - *Medicago sati*
6567 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus cocc*
6568 *Pseudomonas savastanoi* pv. *phaseolicola* - *Phaseolus cocc*
6569 *Xanthomonas campestris* pv. *cannabis* - *Cannabis sativa*
6570 *Xanthomonas campestris* pv. *cannabis* - *Cannabis sativa*
6571 *Xanthomonas campestris* pv. *cannabis* - *Cannabis sativa*
6572 *Xanthomonas campestris* pv. *cannabis* - *Cannabis sativa*
6573 *Mycocentrospora acerina* - *Viola X Wittrockiana*
6574 *Xanthomonas campestris* pv. *clitoriae* - *Clitoria biflora*
6575 *Xylella fastidiosa* - *Prunus dulcis*
6576 *Xylella fastidiosa* - *Vitis vinifera*
6577 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6578 *Pseudomonas syringae* pv. *syringae*
6579 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6580 *Pseudomonas syringae* pv. *syringae*
6581 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6582 *Pseudomonas syringae* pv. *syringae*
6583 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6584 *Pseudomonas syringae* pv. *syringae*
6585 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6586 *Pseudomonas syringae* pv. *syringae*
6587 *Pseudomonas syringae* pv. *syringae* - *Prunus armeniaca*
6588 *Pseudomonas syringae* pv. *syringae*
6589 *Pseudomonas syringae* pv. *syringae* - *Prunus domestica*
6590 *Rhinochloa* sp. - *Trifolium repens*
6591 *Ochroconis constricta* - Soil
6592 *Phoma nigricans* - *Actinidia deliciosa*
6593 *Volutella ciliata* - *Medicago sativa*
6594 *Memnoniella echinata*
6595 *Memnoniella subsimplex*
6596 *Stachybotrys chartarum*
6597 *Phoma nigricans* - *Actinidia deliciosa*
6598 *Phoma nigricans* - *Iris* sp.
6599 *Phoma nigricans*
6600 *Stachybotrys chartarum* - *Coal*
6601 *Phoma pinodella* - *Pisum sativum*
6602 *Phoma nigricans* - *Actinidia deliciosa*
6603 *Phoma macrostoma* Montagne var. *macrostoma* - *Actinidia*
6604 *Phoma macrostoma* Montagne var. *macrostoma* - *Actinidia*
6605 *Phoma macrostoma* Montagne var. *macrostoma* - *Actinidia*

6606	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	6726	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
6609	<i>Cladosporium tenuissimum</i> - Air	6728	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
6610	<i>Phoma chrysanthemicola</i> - <i>Agathis macrophylla</i>	6731	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
6611	<i>Phoma exigua</i> - <i>Lolium perenne</i>	6735	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>
6612	<i>Phoma plurivora</i> - <i>Actinidia deliciosa</i>	6745	<i>Rhizobium leguminosarum</i> biovar <i>phaseoli</i> - <i>Phaseolus vulg</i>
6613	<i>Phoma plurivora</i> - <i>Medicago polymorpha</i>	6746	<i>Xanthomonas campestris</i> pv. <i>centellae</i> - <i>Centella asiatica</i>
6614	<i>Phoma paspali</i> - <i>Paspalum dilatatum</i>	6747	<i>Xanthomonas campestris</i> pv. <i>merremiae</i> - <i>Merremia gangeti</i>
6615	<i>Phoma paspali</i> - <i>Lolium perenne</i>	6748	<i>Drechslera dematioidea</i> - <i>Anthoxanthum odoratum</i>
6616	<i>Phoma lotivora</i> - <i>Lotus pedunculatus</i>	6749	<i>Drechslera siccans</i> - <i>Lolium</i> sp.
6617	<i>Phoma chrysanthemicola</i> - <i>Medicago sativa</i>	6750	<i>Drechslera poae</i> - <i>Poa pratensis</i>
6618	<i>Phoma chrysanthemicola</i> - <i>Medicago sativa</i>	6751	<i>Drechslera phlei</i> - <i>Phleum pratense</i>
6619	<i>Phoma chrysanthemicola</i> - <i>Medicago scutellata</i>	6752	<i>Pyrenophora avenae</i> - <i>Dichelachne crinita</i>
6621	<i>Phoma exigua</i> - <i>Trifolium purpureum</i>	6753	<i>Pyrenophora erythrospila</i> - <i>Anthoxanthum odoratum</i>
6622	<i>Phoma fimeti</i> - <i>Pennisetum clandestinum</i>	6755	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.
6623	<i>Phoma fimeti</i> - <i>Medicago sativa</i>	6758	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.
6624	<i>Phoma huancayensis</i> - <i>Actinidia deliciosa</i>	6759	<i>Xanthomonas</i> sp. - <i>Diospyros kaki</i>
6625	<i>Phoma huancayensis</i> - <i>Paspalum dilatatum</i>	6762	<i>Xanthomonas</i> sp. - <i>Diospyros kaki</i>
6626	<i>Phoma leveillei</i> - <i>Medicago sativa</i>	6763	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>
6627	<i>Phoma leveillei</i> - <i>Trifolium repens</i>	6764	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
6628	<i>Phoma macrostoma</i> Montagne var. <i>incolorata</i> - <i>Medicago</i>	6765	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus salicina</i>
6629	<i>Phoma macrostoma</i> Montagne var. <i>incolorata</i> - <i>Trifolium</i> sp.	6766	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.
6631	<i>Phoma medicaginis</i> - <i>Medicago sativa</i>	6769	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.
6632	<i>Phoma medicaginis</i> - <i>Medicago sativa</i>	6772	<i>Erwinia herbicola</i> pv. <i>milletiae</i> - <i>Wisteria floribunda</i>
6633	<i>Phoma pomorum</i> - <i>Medicago sativa</i>	6773	<i>Erwinia herbicola</i> pv. <i>milletiae</i> - <i>Wisteria floribunda</i>
6634	<i>Phoma pomorum</i> - <i>Medicago polymorpha</i>	6774	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
6635	<i>Phoma pomorum</i> - <i>Lolium perenne</i>	6777	<i>Xanthomonas</i> sp. - <i>Diospyros kaki</i>
6637	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	6778	<i>Xanthomonas</i> sp. - <i>Diospyros kaki</i>
6638	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	6779	<i>Burkholderia andropogonis</i> - <i>Coffea arabica</i>
6639	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	6780	<i>Burkholderia andropogonis</i> - <i>Coffea arabica</i>
6640	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus armeniaca</i>	6781	<i>Burkholderia andropogonis</i> - <i>Coffea arabica</i>
6641	<i>Pseudomonas syringae</i> pv. <i>syringae</i>	6782	<i>Burkholderia solanacearum</i> - <i>Musa</i> sp.
6642	<i>Phoma fimeti</i> - <i>Eucalyptus</i> sp.	6784	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>
6643	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	6787	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>
6644	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	6788	<i>Rhodococcus fascians</i> - <i>Carica pubescens</i>
6645	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	6792	<i>Rhodococcus fascians</i> - <i>Carica X heilbornii</i> nm. <i>pentagona</i>
6646	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	6795	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>
6647	<i>Burkholderia andropogonis</i> - <i>Dianthus caryophyllus</i>	6796	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6648	<i>Xanthomonas fragariae</i> - <i>Fragaria X ananassa</i>	6797	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6649	<i>Burkholderia andropogonis</i> - <i>Dianthus caryophyllus</i>	6798	<i>Phoma lotivora</i> - <i>Lotus pedunculatus</i>
6650	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium</i> sp.	6799	<i>Phoma lotivora</i> - <i>Lotus pedunculatus</i>
6651	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium</i> sp.	6800	<i>Phoma huancayensis</i> - <i>Pennisetum clandestinum</i>
6652	<i>Xanthomonas campestris</i> pv. <i>begoniae</i> - <i>Begonia X hiemalis</i>	6802	<i>Phoma fimeti</i> - <i>Medicago sativa</i>
6654	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>	6803	<i>Phoma macrostoma</i> Montagne var. <i>macrostoma</i> - <i>Lolium</i>
6655	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>	6804	<i>Ascochyta sorghi</i> - <i>Lolium perenne</i>
6656	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>	6805	<i>Drechslera brizae</i> - <i>Briza maxima</i>
6657	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	6806	<i>Drechslera</i> sp. - <i>Dichelachne crinita</i>
6658	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	6807	<i>Drechslera</i> sp. - <i>Dactylis glomerata</i>
6659	<i>Ascochyta caulina</i> - <i>Atriplex prostrata</i>	6808	<i>Drechslera biseptata</i> - <i>Lolium perenne</i>
6660	<i>Ascochyta obiones</i> - <i>Halimione portulacoides</i>	6809	<i>Cochliobolus sativus</i> - <i>Hordeum distichon</i>
6661	<i>Stachybotrys chartarum</i>	6810	<i>Pyrenophora dictyoides</i> - <i>Lolium perenne</i>
6662	<i>Phoma medicaginis</i> - <i>Medicago sativa</i>	6811	<i>Ascochyta sorghi</i> - <i>Lolium perenne</i>
6663	<i>Micronectriella cucumeris</i> - <i>Ranunculus repens</i>	6812	<i>Ascochyta sorghi</i> - <i>Dactylis glomerata</i>
6664	<i>Fusarium oxysporum</i> var. <i>zingiberi</i> - <i>Zingiber officinale</i>	6813	<i>Ascochyta sorghi</i> - <i>Dactylis glomerata</i>
6665	<i>Fusarium oxysporum</i> var. <i>zingiberi</i> - <i>Zingiber officinale</i>	6814	<i>Phoma macrostoma</i> Montagne var. <i>incolorata</i> - <i>Lolium peren</i>
6666	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Zingiber officinale</i>	6816	<i>Phoma</i> sp. - <i>Acca sellowiana</i>
6667	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Zingiber officinale</i>	6817	<i>Phoma</i> sp. - <i>Paspalum dilatatum</i>
6668	<i>Nectria haematococca</i> - <i>Zingiber officinale</i>	6818	<i>Phoma pratorum</i> - <i>Dactylis glomerata</i>
6669	<i>Nectria haematococca</i> - <i>Zingiber officinale</i>	6819	<i>Phoma paspali</i> - <i>Dactylis glomerata</i>
6670	<i>Pseudomonas syringae</i> pv. <i>erobotryae</i> - <i>Eriobotrya japonica</i>	6820	<i>Didymella bryoniae</i> - <i>Cucumis melo</i>
6671	<i>Nectriella pironii</i> - <i>Aphelandra squarrosa</i>	6821	<i>Didymella bryoniae</i> - <i>Cucurbita maxima</i>
6672	<i>Nectriella pironii</i> - <i>Aphelandra squarrosa</i>	6822	<i>Didymella bryoniae</i> - <i>Cucurbita maxima</i>
6673	<i>Nectriella pironii</i> - <i>Codiaeum variegatum</i> var. <i>pictum</i>	6823	<i>Phoma huancayensis</i> - <i>Dactylis glomerata</i>
6674	<i>Nectriella pironii</i> - <i>Leucophyllum frutescens</i>	6824	<i>Phoma rumicicola</i> - <i>Rumex obtusifolius</i>
6675	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil	6825	<i>Phoma rumicicola</i> - <i>Rumex obtusifolius</i>
6676	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - <i>Chrysant</i>	6826	<i>Phoma glomerata</i> - <i>Malus X domestica</i>
6677	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus armeniaca</i>	6827	<i>Phoma glomerata</i> - <i>Actinidia deliciosa</i>
6678	<i>Phoma medicaginis</i> - <i>Medicago polymorpha</i>	6828	<i>Phoma glomerata</i> - <i>Dactylis glomerata</i>
6680	<i>Rhizobium leguminosarum</i> - <i>Lathyrus</i> sp.	6829	<i>Phoma glomerata</i> - <i>Phormium tenax</i>
6681	<i>Rhizobium</i> sp. - <i>Cicer arietinum</i>	6830	<i>Botryosphaeria stevensii</i> - <i>Malus X domestica</i>
6682	<i>Rhizobium</i> sp. - <i>Cicer arietinum</i>	6831	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6683	<i>Rhizobium</i> sp. - <i>Cicer arietinum</i>	6832	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6684	<i>Phoma herbarum</i> - <i>Lolium perenne</i>	6833	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6685	<i>Pyrenophora dictyoides</i> - <i>Lolium multiflorum</i> X <i>perenne</i>	6834	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6686	<i>Pseudomonas viridiflava</i> - <i>Apium graveolens</i> var. <i>dulce</i>	6835	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6689	<i>Pseudomonas syringae</i> - <i>Allium porrum</i>	6836	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6693	<i>Pseudomonas marginalis</i> - <i>Allium porrum</i>	6837	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6695	Unknown bacterium from <i>Strelitzia reginae</i>	6838	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6700	<i>Phoma nigricans</i> - <i>Psidium</i> sp.	6839	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6701	<i>Pseudomonas syringae</i> - <i>Magnolia</i> sp.	6840	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
6702	<i>Phoma medicaginis</i> - <i>Dactylis glomerata</i>	6855	<i>Pseudomonas syringae</i> - <i>Lolium perenne</i>
6703	<i>Phoma glomerata</i> - <i>Lolium perenne</i>	6857	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>
6704	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucurbita</i> sp.	6861	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
6705	<i>Pseudomonas syringae</i> - <i>Magnolia</i> sp.	6862	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>
6710	<i>Pseudomonas syringae</i> - <i>Magnolia</i> sp.	6864	<i>Phoma fimeti</i> - <i>Lolium perenne</i>
6714	<i>Pseudomonas</i> sp. - <i>Lycopersicon esculentum</i>	6865	<i>Phoma huancayensis</i> - <i>Vaccinium corymbosum</i>

6866	<i>Phoma</i> sp. - <i>Acca sellowiana</i>	6993	<i>Apiospora setosa</i> - <i>Bambusa</i> sp.
6867	<i>Phoma</i> sp. - <i>Acca sellowiana</i>	6994	<i>Phoma</i> cava - <i>Malus X domestica</i>
6868	<i>Phoma</i> sp. - <i>Acca sellowiana</i>	6995	<i>Phoma</i> cava - <i>Malus X domestica</i>
6869	<i>Phoma nigricans</i> - <i>Acca sellowiana</i>	6996	<i>Phoma</i> cava - <i>Malus X domestica</i>
6870	<i>Colletotrichum orbiculare</i> - <i>Cucumis melo</i>	6997	<i>Colletotrichum acutatum</i> - <i>Vaccinium corymbosum</i>
6871	<i>Phoma pomorum</i> - <i>Lolium perenne</i>	6998	<i>Colletotrichum acutatum</i> - <i>Vaccinium corymbosum</i>
6872	<i>Phoma pomorum</i> - <i>Lolium perenne</i>	6999	<i>Glomerella cingulata</i> - <i>Vaccinium corymbosum</i>
6873	<i>Phoma plurivora</i> - <i>Setaria</i> sp.	7000	<i>Glomerella cingulata</i> - <i>Vaccinium corymbosum</i>
6874	<i>Phoma plurivora</i> - <i>Setaria</i> sp.	7001	<i>Bimuria novae-zelandiae</i> - Soil
6875	<i>Phoma plurivora</i> - <i>Pennisetum clandestinum</i>	7002	<i>Bimuria novae-zelandiae</i> - Soil
6876	<i>Phoma fimeti</i> - <i>Lolium perenne</i>	7003	<i>Seimatosporium vaccinii</i> - <i>Vaccinium ashei</i>
6877	<i>Phoma herbarum</i> - <i>Lolium perenne</i>	7004	<i>Seimatosporium vaccinii</i> - <i>Vaccinium corymbosum</i>
6878	<i>Phoma rumicicola</i> - <i>Rumex obtusifolius</i>	7005	<i>Seimatosporium vaccinii</i> - <i>Vaccinium corymbosum</i>
6879	<i>Colletotrichum trifolii</i> - <i>Medicago sativa</i>	7006	<i>Botryosphaeria dothidea</i> - <i>Vaccinium corymbosum</i>
6881	<i>Glomerella cingulata</i> - <i>Medicago sativa</i>	7007	<i>Botryosphaeria dothidea</i> - <i>Vaccinium ashei</i>
6882	<i>Glomerella cingulata</i> - <i>Medicago sativa</i>	7008	<i>Botryosphaeria stevensii</i> - <i>Vaccinium ashei</i>
6883	<i>Colletotrichum trifolii</i> - <i>Medicago sativa</i>	7009	<i>Botryosphaeria dothidea</i> - <i>Vaccinium corymbosum</i>
6884	<i>Phoma lotivora</i> - <i>Lotus pedunculatus</i>	7010	<i>Botryosphaeria dothidea</i> - <i>Vaccinium ashei</i>
6885	<i>Phoma lotivora</i> - <i>Lotus pedunculatus</i>	7011	<i>Phoma nigricans</i> - <i>Vaccinium corymbosum</i>
6886	<i>Setosphaeria turcica</i> - <i>Sorghum X alnum</i>	7012	<i>Sclerotinia sclerotiorum</i> - <i>Vaccinium corymbosum</i>
6887	<i>Beauveria bassiana</i> - <i>Aenetus virescens</i>	7013	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
6888	<i>Apiospora setosa</i> - <i>Bambusa</i> sp.	7014	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
6889	<i>Apiospora tintinnabula</i> - <i>Bambusa</i> sp.	7015	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
6890	<i>Volutella</i> sp. - <i>Turtile</i>	7016	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
6891	<i>Pestalotia watsoniae</i> - <i>Watsonia meriana</i>	7017	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
6892	<i>Ascochyta pisi</i> - <i>Pisum sativum</i>	7018	<i>Leptodonitidium elatius</i> - <i>Malus X domestica</i>
6893	<i>Ascochyta pisi</i> - <i>Pisum sativum</i>	7019	<i>Apiospora tintinnabula</i> - <i>Bambusa</i> sp.
6894	<i>Ascochyta</i> sp. - <i>Phormium tenax</i>	7020	<i>Botrytis cinerea</i> - <i>Vaccinium corymbosum</i>
6895	<i>Stemphylium vesicarium</i>	7021	<i>Phoma jolyana</i> - <i>Iris</i> sp.
6896	<i>Stemphylium vesicarium</i>	7022	<i>Phoma macrostoma</i> var. <i>incolorata</i> - <i>Passiflora edulis</i>
6917	<i>Pseudomonas cichorii</i> - <i>Carthamus tinctorius</i>	7023	<i>Phoma lotivora</i> - <i>Lolium perenne</i>
6918	<i>Xanthomonas campestris</i> pv. <i>maculifoliogardeniae</i> - <i>Ixora coc</i>	7024	<i>Phoma</i> sp. - <i>Dioscorea bulbifera</i>
6926	<i>Erwinia chrysanthemi</i> - <i>Apium graveolens</i> var. <i>dulce</i>	7025	<i>Phomopsis</i> sp. - <i>Vaccinium corymbosum</i>
6928	<i>Erwinia chrysanthemi</i> - <i>Apium graveolens</i> var. <i>dulce</i>	7026	<i>Phoma</i> sp. - <i>Emilia sonchifolia</i>
6930	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	7027	<i>Phoma</i> sp. - <i>Vaccinium corymbosum</i>
6931	<i>Rhizobium</i> sp. - Rhizocote Laboratories clover inoculant	7028	<i>Phoma</i> sp. - <i>Dioscorea bulbifera</i>
6932	<i>Rhizobium</i> sp. - <i>Hedysarum coronarium</i>	7029	<i>Phoma</i> sp. - Soil surrounding passionfruit
6933	<i>Serratia marcescens</i> - <i>Medicago sativa</i>	7030	<i>Phoma nigricans</i> - <i>Lotus</i> sp.
6934	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>	7031	<i>Phoma</i> sp. - <i>Vaccinium corymbosum</i>
6935	<i>Serratia marcescens</i> - <i>Medicago sativa</i>	7032	<i>Phoma</i> sp. - <i>Vaccinium corymbosum</i>
6936	<i>Serratia marcescens</i> - <i>Medicago sativa</i>	7033	<i>Phoma macrostoma</i> var. <i>incolorata</i> - <i>Trifolium fragiferum</i>
6937	<i>Rhizobium</i> sp.	7034	<i>Phoma</i> sp. - <i>Vitis vinifera</i>
6938	<i>Escherichia coli</i>	7035	<i>Phoma</i> sp. - <i>Dioscorea bulbifera</i>
6939	<i>Escherichia coli</i>	7036	<i>Phoma</i> sp. - Soil surrounding passionfruit
6940	<i>Escherichia coli</i>	7037	<i>Phoma macrostoma</i> Montagne var. <i>incolorata</i> - <i>Rhododendr</i>
6941	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	7038	<i>Phoma tropica</i> - <i>Citrus sinensis</i>
6944	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus alba</i>	7039	<i>Cylindrocarpon didymum</i> - <i>Actinidia deliciosa</i>
6947	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus bombycis</i>	7040	<i>Pythium erinaceus</i> - Soil (wheat field)
6948	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7041	<i>Pythium erinaceus</i> - Soil (wheat field)
6949	<i>Pseudomonas</i> sp.	7042	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
6950	<i>Pseudomonas</i> sp. - Ground soybean mushroom compost	7043	<i>Bullera pyricola</i> - <i>Malus X domestica</i>
6951	<i>Pseudomonas</i> sp.	7044	<i>Bullera pyricola</i> - <i>Malus X domestica</i>
6952	<i>Pseudomonas</i> sp. - Soil (casing under blotched mushroom)	7045	<i>Bullera alba</i> - <i>Malus X domestica</i>
6953	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7046	<i>Bullera alba</i> - <i>Malus X domestica</i>
6954	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7047	<i>Fusarium solani</i> f. sp. <i>pisi</i> - <i>Pisum sativum</i>
6955	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	7048	<i>Phacidium</i> sp. - <i>Medicago sativa</i>
6956	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7049	<i>Phoma pratensis</i> - <i>Lolium perenne</i>
6957	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7050	<i>Phoma pratensis</i> - <i>Lolium perenne</i>
6958	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7051	<i>Phoma pratensis</i> - <i>Lolium perenne</i>
6959	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7052	<i>Phoma nigricans</i> - <i>Lolium perenne</i>
6960	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	7053	<i>Phoma herbarum</i> - <i>Lolium perenne</i>
6961	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	7054	<i>Phoma nigricans</i> - <i>Arrhenatherum elatius</i>
6962	<i>Pseudomonas</i> sp. - <i>Agaricus bisporus</i>	7055	<i>Phoma nigricans</i> - <i>Lolium perenne</i>
6964	<i>Stemphylium majusculum</i>	7056	<i>Phoma nigricans</i> - <i>Pennisetum clandestinum</i>
6965	<i>Stemphylium globuliferum</i>	7057	<i>Verticillium nigriscens</i> - <i>Lycopersicon esculentum</i>
6966	<i>Arthrinium phaeospermum</i> - <i>Bambusa</i> sp.	7059	<i>Sclerotinia draytonii</i> - <i>Iris</i> sp.
6967	<i>Apiospora montagnei</i> - <i>Bambusa</i> sp.	7060	<i>Fusarium oxysporum</i> f. sp. <i>gladioli</i> - <i>Iris</i> sp.
6968	<i>Diaporthe perniciosa</i> - <i>Malus X domestica</i>	7061	<i>Phytophthora citricola</i> - <i>Olearia paniculata</i>
6969	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7062	<i>Truncatella angustata</i> - <i>Malus X domestica</i>
6970	<i>Phomopsis</i> sp. - <i>Acacia</i> sp.	7063	<i>Clethruidium corticola</i> - <i>Malus X domestica</i>
6972	<i>Diaporthe citri</i> - <i>Citrus sinensis</i>	7064	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>
6976	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7065	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>
6977	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7068	<i>Pseudomonas syringae</i> - <i>Triticum aestivum</i>
6979	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7069	<i>Leptosphaerulina chartarum</i> - Soil (pasture)
6980	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7070	<i>Leptosphaerulina chartarum</i> - Soil (pasture)
6981	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7071	<i>Leptosphaerulina chartarum</i> - Soil (pasture)
6982	<i>Diaporthe perniciosa</i> - <i>Malus X domestica</i>	7072	<i>Leptosphaerulina chartarum</i> - Soil (pasture)
6983	<i>Diaporthe perniciosa</i> - <i>Malus X domestica</i>	7074	<i>Leptosphaerulina chartarum</i> - Soil (pasture)
6984	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	7076	<i>Burkholderia andropogonis</i> - <i>Cicer arietinum</i>
6985	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	7077	<i>Erwinia chrysanthemi</i> - <i>Oryza sativa</i>
6986	<i>Phomopsis</i> sp. - <i>Citrus limon</i>	7078	<i>Erwinia chrysanthemi</i> - <i>Oryza sativa</i>
6987	<i>Phomopsis</i> sp. - <i>Malus X domestica</i>	7079	<i>Erwinia chrysanthemi</i> - <i>Oryza sativa</i>
6988	<i>Phomopsis</i> sp. - <i>Dodonaea</i> sp.	7080	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>
6989	<i>Diaporthe citri</i> - <i>Citrus</i> sp.	7081	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>
6990	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	7082	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
6991	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	7083	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Eleusine coracana</i>
6992	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	7084	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Eleusine coracana</i>

7085	<i>Pseudomonas viridiflava</i> - <i>Cucumis sativus</i>	7280	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>
7086	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>	7287	<i>Pseudomonas viridiflava</i> - <i>Cucumis melo</i>
7087	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>	7290	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
7088	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>	7291	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
7089	<i>Pseudomonas viridiflava</i> - <i>Lycopersicon esculentum</i>	7292	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
7090	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus salicina</i>	7293	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
7091	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus salicina</i>	7294	<i>Xanthomonas campestris</i> pv. <i>theicola</i> - <i>Camellia sinensis</i>
7092	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus salicina</i>	7296	<i>Rhinocladia</i> sp. - <i>Malus X domestica</i>
7093	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus salicina</i>	7297	<i>Phytophthora cactorum</i> - <i>Malus X domestica</i>
7094	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var. <i>nuci</i>	7298	<i>Phytophthora cactorum</i> - Soil (apple orchard)
7095	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var. <i>nuci</i>	7299	<i>Phytophthora cactorum</i> - Soil (apple orchard)
7096	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	7300	<i>Phytophthora cinnamomi</i> - <i>Actinidia deliciosa</i>
7097	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var. <i>nuci</i>	7301	<i>Phytophthora cinnamomi</i> - <i>Carya illinoensis</i>
7098	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var. <i>nuci</i>	7302	<i>Phytophthora citricola</i> - <i>Prunus mahaleb</i>
7099	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	7304	<i>Phytophthora megasperma</i> Drechsler var. <i>megasperma</i> -
7100	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7305	<i>Phytophthora megasperma</i> Drechsler var. <i>megasperma</i> -
7103	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7306	<i>Bipolaris iridis</i> - <i>Iris</i> sp.
7107	<i>Pseudomonas viridiflava</i> - <i>Actinidia deliciosa</i>	7307	<i>Leptotyphlops cupressi</i> - <i>X Cupressocyparis leylandii</i>
7108	<i>Rhodococcus fascians</i> - <i>Verbascum nigrum</i>	7308	<i>Mycosphaerella macrospora</i> - <i>Iris</i> sp.
7109	<i>Rhodococcus fascians</i> - <i>Gladiolus</i> sp.	7309	<i>Pythium debaryanum</i> - <i>Phaseolus vulgaris</i>
7112	<i>Rhodococcus fascians</i> - <i>Brodiaea laxa</i>	7310	<i>Pythium debaryanum</i> - <i>Humulus lupulus</i>
7113	<i>Rhodococcus fascians</i> - <i>Begonia</i> sp.	7311	<i>Pythium vanterpoolii</i> - Turf
7114	<i>Rhodococcus fascians</i> - <i>Dahlia</i> sp.	7312	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - <i>Medicago</i>
7116	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	7313	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - <i>Medicago</i>
7117	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>	7314	<i>Pestalotiopsis funerea</i> - <i>X Cupressocyparis leylandii</i>
7118	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	7315	<i>Sclerotinia sclerotiorum</i> - <i>Dahlia</i> sp.
7120	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	7316	<i>Sclerotinia sclerotiorum</i> - <i>Nicotiana tabacum</i>
7121	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7318	<i>Sclerotinia trifoliorum</i> - <i>Medicago sativa</i>
7122	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7319	<i>Sclerotinia trifoliorum</i> - <i>Medicago sativa</i>
7123	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7320	<i>Fulvia fulva</i> - <i>Lycopersicon esculentum</i>
7125	<i>Clavibacter xyli</i> subsp. <i>xyli</i> - <i>Saccharum officinarum</i>	7321	<i>Leptotyphlops cupressi</i> - <i>Chamaecyparis lawsoniana</i>
7126	<i>Clavibacter xyli</i> subsp. <i>xyli</i> - <i>Saccharum officinarum</i>	7322	<i>Leptotyphlops cupressi</i> - <i>X Cupressocyparis leylandii</i>
7127	<i>Clavibacter xyli</i> subsp. <i>xyli</i> - <i>Saccharum officinarum</i>	7323	<i>Seiridium cardinale</i> - <i>X Cupressocyparis leylandii</i>
7128	Unknown bacterium - rec. as <i>Xanthomonas panicis</i> - <i>Nicotian</i>	7324	<i>Seiridium cardinale</i> - <i>X Cupressocyparis leylandii</i>
7129	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium pratense</i>	7325	<i>Seiridium cardinale</i> - <i>X Cupressocyparis leylandii</i>
7130	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneum</i>	7326	<i>Seiridium cardinale</i> - <i>X Cupressocyparis leylandii</i>
7131	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	7327	<i>Monographella nivalis</i> - Soil
7135	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	7328	<i>Phialophora mustea</i> - Wood pulp
7139	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	7329	<i>Tolypocladium</i> sp. - Glow-worm
7140	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	7345	<i>Pseudomonas syringae</i> - <i>Tropaeolum majus</i>
7143	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	7349	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis melo</i>
7158	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	7356	<i>Pseudomonas</i> sp. - <i>Allium cepa</i>
7159	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	7373	<i>Erwinia herbicola</i> - <i>Allium cepa</i>
7164	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	7374	<i>Erwinia herbicola</i> - <i>Allium cepa</i>
7165	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium</i> sp.	7375	<i>Erwinia herbicola</i> - <i>Allium cepa</i>
7166	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	7376	<i>Erwinia herbicola</i> - <i>Allium cepa</i>
7167	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	7377	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
7168	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	7378	<i>Pseudomonas fluorescens</i> - <i>Allium cepa</i>
7169	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	7380	<i>Pseudomonas syringae</i> - <i>Lycopersicon esculentum</i>
7170	<i>Xanthomonas campestris</i> pv. <i>cajani</i> - <i>Cajanus cajan</i>	7383	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
7173	<i>Pseudomonas fluorescens</i> - <i>Apium graveolens</i> var. <i>dulce</i>	7391	<i>Pseudomonas syringae</i> - <i>Avena sativa</i>
7180	<i>Xanthomonas campestris</i> pv. <i>poinsetticola</i> - <i>Euphorbia pulc</i>	7393	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
7183	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>	7395	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7186	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	7397	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7193	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>	7398	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7197	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Prunus persica</i>	7399	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7200	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	7401	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7203	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7403	<i>Pseudomonas</i> sp. - <i>Zea mays</i>
7204	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7404	<i>Pseudomonas fluorescens</i> - <i>Zea mays</i>
7208	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7405	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Persea americana</i>
7211	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7409	<i>Pseudomonas syringae</i> - <i>Avena sativa</i>
7213	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7411	<i>Pseudomonas syringae</i> - <i>Avena sativa</i>
7215	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7419	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Bromus willdenowii</i>
7216	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	7423	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>
7219	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7427	<i>Pseudomonas viridiflava</i> - <i>Cyclamen persicum</i>
7220	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7430	<i>Pseudomonas marginalis</i> - <i>Cyclamen persicum</i>
7221	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7432	<i>Pseudomonas marginalis</i> - <i>Cyclamen persicum</i>
7222	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7442	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>
7223	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7443	Unknown bacterium - rec. as <i>Pseudomonas strelitziae</i> - <i>Strel</i>
7224	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7444	Unknown bacterium - rec. as <i>Xanthomonas strelitziae</i> - <i>Strel</i>
7225	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7445	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>
7226	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7446	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>
7227	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7447	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>
7228	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7448	<i>Erwinia cacticida</i> - <i>Carnegiea gigantea</i>
7229	<i>Clavibacter michiganensis</i> subsp. <i>tessellarius</i> - <i>Triticum aesti</i>	7449	<i>Erwinia cacticida</i> - <i>Carnegiea gigantea</i>
7230	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>	7450	<i>Erwinia cacticida</i> - <i>Carnegiea gigantea</i>
7243	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Rubus ursinus</i> var.	7451	<i>Erwinia cacticida</i> - <i>Acanthocercus pentagonus</i>
7253	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Chrysanthemum X</i>	7452	<i>Erwinia cacticida</i> - <i>Opuntia fulgida</i>
7255	<i>Erwinia chrysanthemi</i> - <i>Ananas comosus</i>	7453	<i>Erwinia cacticida</i> - <i>Lemaireocereus thurberi</i>
7256	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Capsicum annum</i>	7454	<i>Erwinia cacticida</i> - <i>Ferocactus wislizenii</i>
7257	<i>Pseudomonas viridiflava</i> - <i>Lactuca sativa</i>	7455	<i>Erwinia cacticida</i> - <i>Opuntia phaeacantha</i> var. <i>discata</i>
7258	<i>Pseudomonas viridiflava</i> - <i>Vaccinium corymbosum</i>	7456	<i>Erwinia</i> sp. - <i>Opuntia phaeacantha</i>
7261	Unknown bacterium from <i>Phytolacca octandra</i>	7457	<i>Erwinia cacticida</i> - <i>Lemaireocereus gummosus</i>
7266	<i>Pseudomonas viridiflava</i> - <i>Apium graveolens</i> var. <i>dulce</i>	7458	<i>Curtobacterium flaccumfaciens</i> pv. <i>betae</i> - <i>Beta vulgaris</i>
7279	<i>Pseudomonas fluorescens</i> - <i>Allium cepa</i>	7459	<i>Pseudomonas syringae</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>

7460	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Canna indica</i>	7614	<i>Escherichia coli</i>
7461	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Anthurium</i> sp.	7615	<i>Salmonella</i> sp. serotype Potsdam
7462	<i>Xanthomonas campestris</i> pv. <i>ricini</i> - <i>Ricinus communis</i>	7616	<i>Salmonella</i> sp. serotype Lille
7463	<i>Xanthomonas campestris</i> pv. <i>ricini</i> - <i>Ricinus communis</i>	7617	<i>Serratia marcescens</i> - Pond water
7464	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Nicotiana tabacum</i>	7618	<i>Shigella flexneri</i> - Human faeces
7465	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca sativa</i>	7619	<i>Hafnia alvei</i>
7466	<i>Xanthomonas campestris</i> pv. <i>thespesiae</i> - <i>Thespesia populh</i>	7620	<i>Hafnia alvei</i>
7467	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	7621	<i>Hafnia alvei</i>
7468	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	7622	<i>Hafnia alvei</i>
7469	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	7623	<i>Hafnia alvei</i>
7470	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	7624	<i>Escherichia coli</i>
7471	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	7625	<i>Escherichia coli</i>
7472	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	7626	<i>Rhizobium meliloti</i> - <i>Medicago</i> sp.
7473	<i>Azorhizophilus paspali</i> - Rhizosphere of <i>Paspalum notatum</i>	7627	<i>Colletotrichum</i> sp. - <i>Meryta sinclairii</i>
7474	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - <i>Chrysant</i>	7628	<i>Erwinia chrysanthemi</i> - <i>Colocasia esculenta</i>
7477	<i>Escherichia coli</i>	7634	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
7478	<i>Pseudomonas fluorescens</i> - <i>Leucaena glauca</i>	7635	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
7479	<i>Pseudomonas fluorescens</i> - <i>Leucaena glauca</i>	7637	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>
7480	<i>Pseudomonas fluorescens</i> - <i>Leucaena glauca</i>	7638	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
7481	<i>Pseudomonas</i> sp. - <i>Centrosema</i> sp.	7639	<i>Monilinia fruticola</i> - <i>Prunus armeniaca</i>
7482	<i>Pseudomonas</i> sp. - <i>Centrosema</i> sp.	7640	<i>Monilinia fruticola</i> - <i>Prunus persica</i>
7483	<i>Escherichia coli</i>	7641	<i>Monilinia fruticola</i> - <i>Prunus persica</i>
7485	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus</i> sp.	7642	<i>Monilinia fruticola</i> - <i>Prunus persica</i>
7486	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus</i> sp.	7644	<i>Marssonina brunnea</i> f. sp. <i>brunnea</i> - <i>Populus X euramerican</i>
7487	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus</i> sp.	7645	<i>Marssonina brunnea</i> f. sp. <i>brunnea</i> - <i>Populus X euramerican</i>
7488	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus</i> sp.	7646	<i>Marssonina brunnea</i> f. sp. <i>brunnea</i> - <i>Populus deltoides</i>
7489	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus sinensis</i>	7647	<i>Marssonina brunnea</i> f. sp. <i>brunnea</i> - <i>Populus X euramerican</i>
7490	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus aurantiif</i>	7648	<i>Marssonina brunnea</i> f. sp. <i>trepdiae</i> - <i>Populus tremuloides</i>
7491	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus sinensis</i>	7649	<i>Marssonina castagnei</i> - <i>Populus alba</i>
7492	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	7650	<i>Marssonina populi</i> - <i>Populus nigra</i>
7493	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus sinensis</i>	7651	<i>Marssonina populi</i> - <i>Populus nigra</i>
7494	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	7652	<i>Marssonina populi</i> - <i>Populus X berlinensis</i>
7495	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus aurantiif</i>	7653	<i>Monilinia laxa</i> - <i>Prunus armeniaca</i>
7496	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>	7654	<i>Monilinia laxa</i> - <i>Prunus armeniaca</i>
7497	<i>Xanthomonas campestris</i> pv. <i>carotae</i> - <i>Daucus carota</i> var.	7655	<i>Dicyma pulvinata</i> - <i>Colocasia esculenta</i>
7498	<i>Xanthomonas campestris</i> pv. <i>carotae</i> - <i>Daucus carota</i> var.	7659	<i>Botrytis cinerea</i> - <i>Malus X domestica</i>
7499	<i>Xanthomonas campestris</i> pv. <i>carotae</i> - <i>Daucus carota</i> var.	7663	<i>Botrytis cinerea</i> - <i>Cucumis sativus</i>
7500	<i>Acidovorax avenae</i> subsp. <i>citruilli</i> - <i>Citrullus lanatus</i>	7664	<i>Botrytis cinerea</i> - <i>Phaseolus vulgaris</i>
7501	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis melo</i>	7665	<i>Botrytis cinerea</i> - <i>Cucumis sativus</i>
7502	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Cucumis melo</i>	7666	<i>Botrytis cinerea</i> - <i>Phaseolus vulgaris</i>
7516	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i> X <i>V. labrusca</i>	7667	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i> X <i>V. labrusca</i>
7517	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i> X <i>V. labrusca</i>	7668	<i>Botrytis cinerea</i> - <i>Cucumis sativus</i>
7518	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i> X <i>V. labrusca</i>	7687	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>
7527	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>	7688	<i>Botrytis cinerea</i> - <i>Cucumis sativus</i>
7532	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>	7689	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
7542	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>	7690	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
7551	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7696	<i>Glomerella cingulata</i> - <i>Stylosanthes guianensis</i>
7553	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7697	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>
7554	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7698	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>
7558	<i>Botrytis cinerea</i> - <i>Cucumis sativus</i>	7699	<i>Phoma exigua</i> - <i>Actinidia deliciosa</i>
7562	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7700	<i>Lasiodiplodia theobromae</i> - <i>Psidium guajava</i>
7563	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7701	<i>Nectria rigidiuscula</i> - <i>Psidium guajava</i>
7564	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7702	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
7566	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7703	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i> X <i>V. labrusca</i>
7567	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7704	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>
7572	<i>Pestalotia hansenii</i> - <i>Pinus radiata</i>	7706	<i>Rhodococcus fascians</i> - <i>Carica X heilbornii</i> nm. <i>pentagona</i>
7573	<i>Pestalotia hansenii</i> - <i>Pinus radiata</i>	7708	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>
7574	<i>Pestalotia hansenii</i> - <i>Pinus radiata</i>	7710	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>
7575	<i>Pestalotia hansenii</i> - <i>Pinus radiata</i>	7711	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsi</i>
7577	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>	7712	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsi</i>
7578	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>	7713	<i>Acidovorax avenae</i> subsp. <i>citruilli</i> - <i>Cucumis melo</i> var. <i>reticul</i>
7581	<i>Botrytis cinerea</i> - <i>Rubus ursinus</i> var. <i>loganobaccus</i>	7714	<i>Acidovorax avenae</i> subsp. <i>citruilli</i> - <i>Cucumis melo</i> var. <i>reticul</i>
7582	<i>Botrytis cinerea</i> - <i>Rubus ursinus</i> var. <i>loganobaccus</i>	7715	<i>Acidovorax avenae</i> subsp. <i>citruilli</i> - <i>Citrullus lanatus</i>
7583	<i>Botrytis cinerea</i> - <i>Rubus ursinus</i> var. <i>loganobaccus</i>	7716	<i>Acidovorax avenae</i> subsp. <i>citruilli</i> - <i>Citrullus lanatus</i>
7585	<i>Botrytis cinerea</i> - <i>Rubus ursinus</i> var. <i>loganobaccus</i>	7717	<i>Xanthomonas campestris</i> pv. <i>cerealis</i> - <i>Bromus inermis</i>
7588	<i>Botrytis cinerea</i> - <i>Begonia</i> sp.	7719	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>
7589	<i>Botrytis cinerea</i> - <i>Begonia</i> sp.	7720	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>
7590	<i>Aspergillus flavus</i>	7721	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i> var. <i>rugosa</i>
7591	<i>Aspergillus niger</i>	7722	<i>Neurospora crassa</i> - Laboratory derived strain
7592	<i>Aspergillus versicolor</i>	7723	<i>Neurospora crassa</i> - Laboratory derived strain
7594	<i>Penicillium funiculosum</i>	7724	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum</i> sp.
7595	<i>Botrytis cinerea</i> - Laboratory derived strain	7725	<i>Xanthomonas campestris</i> pv. <i>phlei</i> - <i>Pheum pratense</i>
7596	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>	7726	<i>Xanthomonas campestris</i> pv. <i>poae</i> - <i>Poa trivialis</i>
7597	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>	7727	<i>Xanthomonas campestris</i> pv. <i>arrhenatheri</i> - <i>Arrhenatherum</i>
7598	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7728	<i>Xanthomonas populi</i> - <i>Populus balsamifera</i>
7599	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7729	<i>Xanthomonas populi</i> - <i>Populus tremula</i>
7600	<i>Botrytis cinerea</i> - <i>Fragaria X ananassa</i>	7730	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
7601	<i>Alternaria panax</i> - <i>Meryta sinclairii</i>	7733	<i>Acidovorax konjaci</i> - <i>Amorphophallus rivieri</i>
7602	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - Soil	7734	<i>Acidovorax konjaci</i> - <i>Amorphophallus rivieri</i>
7603	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - <i>Medicago sati</i>	7737	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
7604	<i>Aspergillus flavus</i> - <i>Vogtia</i> sp. [Invertebrate]	7738	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
7606	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7739	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
7608	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Diospyros kaki</i>	7740	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
7610	<i>Citrobacter freundii</i>	7741	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>
7611	<i>Edwardsiella tarda</i> - Human faeces	7742	<i>Alternaria solani</i> - <i>Solanum muricatum</i>
7612	<i>Enterobacter agglomerans</i> - <i>Costelytra zealandica</i>	7743	<i>Colletotrichum dematium</i> - <i>Muscari</i> sp.
7613	<i>Enterobacter cloacae</i> - Human cerebrospinal fluid	7744	<i>Gibberella avenacea</i> - <i>Narcissus</i> sp.

7745	<i>Gibberella baccata</i> - <i>Freesia</i> sp.	7843	<i>Pseudomonas aeruginosa</i> - <i>Allium cepa</i>
7746	<i>Gibberella stilboides</i> - <i>Iris</i> sp.	7844	<i>Pseudomonas aeruginosa</i> - <i>Allium cepa</i>
7747	<i>Gibberella stilboides</i> - <i>Iris</i> sp.	7845	<i>Burkholderia gladioli</i> pv. <i>alliicola</i> - <i>Allium cepa</i>
7748	<i>Gibberella stilboides</i> - <i>Iris</i> sp.	7846	<i>Pseudomonas syringae</i> pv. <i>photiniae</i> - <i>Photinia glabra</i>
7749	<i>Phytophthora cinnamomi</i> - <i>Castanea</i> sp.	7847	<i>Pseudomonas syringae</i> pv. <i>photiniae</i> - <i>Photinia glabra</i>
7750	<i>Phytophthora citricola</i> - <i>Solanum muricatum</i>	7848	<i>Pseudomonas ficuserectae</i> - <i>Ficus erecta</i>
7751	<i>Phytophthora citrophthora</i>	7849	<i>Pseudomonas ficuserectae</i> - <i>Ficus erecta</i>
7752	<i>Phytophthora nicotianae</i> var. <i>nicotianae</i> - <i>Nicotiana tabacum</i>	7850	<i>Pseudomonas ficuserectae</i> - <i>Ficus erecta</i>
7753	<i>Phytophthora nicotianae</i> var. <i>parasitica</i> - <i>Malus X domestica</i>	7851	<i>Acidovorax konjaci</i> - <i>Amorphophallus rivieri</i>
7754	<i>Phoma exigua</i> - <i>Cyphomandra betacea</i>	7852	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.
7755	<i>Colletotrichum destructivum</i> - <i>Onobrychis viciifolia</i>	7855	<i>Burkholderia andropogonis</i> - <i>Dianthus caryophyllus</i>
7756	<i>Colletotrichum destructivum</i> - <i>Lotus pedunculatus</i>	7856	<i>Burkholderia andropogonis</i> - <i>Dianthus caryophyllus</i>
7757	<i>Kramasamuha sibika</i> - <i>Psidium guajava</i>	7857	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7758	<i>Sclerotium hydrophilum</i> - <i>Oryza sativa</i>	7858	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>
7759	<i>Conidiocarpus</i> sp. - <i>Colocasia esculenta</i>	7859	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7760	<i>Ascochyta paspali</i> - <i>Paspalum dilatatum</i>	7860	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7761	<i>Penicillium paxilli</i> - Soil	7861	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7762	<i>Paecilomyces carneus</i> - Soil	7862	<i>Burkholderia solanacearum</i> - <i>Heliconia</i> sp.
7763	<i>Penicillium inflatum</i> - Soil (ryegrass pasture)	7863	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>
7764	<i>Penicillium janczewskii</i> - Soil	7864	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7765	<i>Penicillium miczynskii</i> - <i>Lolium</i> sp.	7865	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7766	<i>Penicillium novae-zeelandiae</i> - <i>Lolium</i> sp.	7866	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7767	<i>Penicillium canescens</i> - Sheep dung	7867	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7768	<i>Penicillium sublateralium</i> - Soil	7868	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7769	<i>Penicillium verruculosum</i> - <i>Lolium</i> sp.	7869	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>
7771	<i>Leptosphaerulina trifolii</i> - <i>Medicago sativa</i>	7871	<i>Nectria haematococca</i> - Mite
7772	<i>Colletotrichum destructivum</i> - <i>Medicago sativa</i>	7872	<i>Guignardia citricarpa</i> - <i>Citrus limon</i>
7773	<i>Colletotrichum coccodes</i> - <i>Ripogonum scandens</i>	7873	<i>Guignardia citricarpa</i> - <i>Citrus sinensis</i>
7774	<i>Colletotrichum destructivum</i> - <i>Medicago sativa</i>	7874	<i>Guignardia citricarpa</i> - <i>Citrus reticulata</i>
7775	<i>Emericella nidulans</i> - Laboratory derived strain	7876	<i>Fusarium oxysporum</i> - <i>Colocasia esculenta</i>
7776	<i>Emericella nidulans</i> - Laboratory derived strain	7878	<i>Fusarium sacchari</i> - <i>Musa</i> sp.
7777	<i>Emericella nidulans</i> - Laboratory derived strain	7879	<i>Fusarium sacchari</i> - <i>Cymbidium</i> sp.
7778	<i>Emericella nidulans</i> - Laboratory derived strain	7880	<i>Fusarium semitectum</i> - <i>Musa</i> sp.
7780	<i>Ascochyta caulina</i> - <i>Atriplex prostrata</i>	7881	<i>Fusarium semitectum</i> - <i>Musa</i> sp.
7781	<i>Neurospora crassa</i> - Laboratory derived strain	7882	<i>Hypomyces aurantium</i> - Polypore
7782	<i>Neurospora crassa</i> - Laboratory derived strain	7883	<i>Thyronectria pseudotrichia</i>
7783	<i>Neurospora crassa</i> - Laboratory derived strain	7884	<i>Thyronectria pseudotrichia</i>
7784	<i>Neurospora crassa</i> - Laboratory derived strain	7885	<i>Thyronectria pseudotrichia</i>
7785	<i>Neurospora crassa</i> - Laboratory derived strain	7886	<i>Thyronectria pseudotrichia</i>
7786	<i>Neurospora crassa</i> - Laboratory derived strain	7887	<i>Thyronectria pseudotrichia</i>
7787	<i>Verticillium lecanii</i> - Aphids on Chinese cabbage	7888	<i>Thyronectria pseudotrichia</i> - Bark
7788	<i>Phoma</i> sp. - <i>Meryta sinclairii</i>	7889	<i>Thyronectria pseudotrichia</i>
7789	<i>Phoma</i> sp. - <i>Meryta sinclairii</i>	7890	<i>Staphylotrichum coccosporum</i> - Soil (maize-field)
7790	<i>Phoma</i> sp. - <i>Meryta sinclairii</i>	7891	<i>Myrothecium verrucaria</i> - Soil (maize-field)
7791	<i>Lophodermium</i> sp. - <i>Metrosideros</i> sp.	7892	<i>Verticillium nigrescens</i> - Soil (maize-field)
7792	<i>Cryptosporiopsis</i> sp. - <i>Citrus</i> sp.	7893	<i>Diheterospora chlamydosporia</i> - Soil (maize-field)
7793	<i>Ombrophila microspora</i> - Tree-fern	7894	<i>Nectria</i> sp. - Bark
7794	<i>Ombrophila microspora</i> - <i>Cyathea</i> sp.	7896	<i>Nectria gracilipes</i> - Dead log
7796	<i>Ombrophila violacea</i> - Tree-fern	7897	<i>Nectria gracilipes</i> - Bark
7797	<i>Ombrophila microspora</i> - <i>Freycinetia baueriana</i> subsp. <i>bank</i>	7898	<i>Thyronectria pseudotrichia</i>
7798	<i>Ombrophila</i> sp. - <i>Freycinetia baueriana</i> subsp. <i>banksii</i>	7899	<i>Thyronectria pseudotrichia</i>
7799	<i>Sesquicillium pseudosetosum</i>	7900	<i>Hypomyces</i> sp. - Polypore
7800	<i>Sesquicillium</i> cf. <i>buxi</i>	7901	<i>Nectria gracilipes</i> - Bark
7801	<i>Nectria</i> sp. - <i>Beilschmiedia tawa</i>	7902	<i>Nectria macrostoma</i> - Bark
7803	<i>Nectria grammicospora</i> - Wood	7903	<i>Thyronectria pseudotrichia</i>
7805	<i>Nectria grammicospora</i> - Fruit	7904	<i>Nectria gracilipes</i> - Bark
7806	<i>Nectria grammicospora</i> - Bark	7905	<i>Thyronectria pseudotrichia</i>
7807	<i>Nectria grammicospora</i> - <i>Hoheria populnea</i>	7907	<i>Thyronectria pseudotrichia</i> - Bark
7808	<i>Nectria subquaternata</i> - Bark	7908	<i>Thyronectria pseudotrichia</i> - Bark
7810	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	7909	<i>Nectria gracilipes</i> - Recently felled tree
7811	<i>Botryosphaeria stevensii</i> - <i>Actinidia deliciosa</i>	7910	<i>Sphaerostilbe ochracea</i>
7812	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>	7911	<i>Nectria gracilipes</i> - Bark
7813	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>	7912	<i>Syncephalastrum racemosum</i> - Soil (maize-field)
7814	<i>Colletotrichum</i> sp. - <i>Actinidia deliciosa</i>	7913	<i>Thyronectria pseudotrichia</i>
7815	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7914	<i>Thyronectria pseudotrichia</i>
7816	<i>Diaporthe</i> sp. - <i>Actinidia deliciosa</i>	7915	<i>Sphaerostilbe ochracea</i>
7817	<i>Phoma nigricans</i> - <i>Actinidia deliciosa</i>	7923	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>
7818	<i>Botryosphaeria parva</i> - <i>Malus X domestica</i>	7924	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>
7819	<i>Paecilomyces farinosus</i> - <i>Vespula germanica</i>	7925	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>
7821	<i>Coccomyces</i> sp. - <i>Metrosideros</i> sp.	7926	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>
7823	<i>Neurospora crassa</i> - Laboratory derived strain	7927	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>
7824	<i>Neurospora crassa</i> - Laboratory derived strain	7928	<i>Fusicoccum luteum</i> - <i>Malus X domestica</i>
7825	<i>Guignardia citricarpa</i> - <i>Citrus</i> sp.	7929	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>
7826	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7930	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>
7827	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7931	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>
7828	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7932	<i>Botryosphaeria stevensii</i> - <i>Actinidia deliciosa</i>
7829	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7933	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>
7831	<i>Alternaria alternantherae</i> - <i>Alternanthera phylloxeroides</i>	7934	<i>Botryosphaeria parva</i> - <i>Actinidia deliciosa</i>
7832	<i>Cryptosporiopsis</i> sp. - <i>Actinidia deliciosa</i>	7935	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7833	<i>Ceratocystis fimbriata</i> - <i>Colocasia esculenta</i>	7936	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7834	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7937	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7835	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>	7938	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7836	<i>Pseudomonas syringae</i> - <i>Magnolia quinquepeta</i>	7939	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7840	<i>Pseudomonas syringae</i> pv. <i>photiniae</i> - <i>Photinia glabra</i>	7940	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7842	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Solanum tuberosum</i>	7941	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>

7942	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>	8038	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>
7943	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8039	<i>Burkholderia andropogonis</i> - <i>Sorghum bicolor</i>
7944	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8040	<i>Pseudomonas cichorii</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
7945	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8041	<i>Pseudomonas cichorii</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
7946	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8042	<i>Burkholderia andropogonis</i> - <i>Sorghum bicolor</i>
7947	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8043	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora alata</i>
7948	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8044	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersicon</i>
7949	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>	8045	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora alata</i>
7950	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8046	<i>Xanthomonas campestris</i> pv. <i>passiflorae</i> - <i>Passiflora alata</i>
7951	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8047	<i>Pseudomonas syringae</i> pv. <i>garcae</i> - <i>Coffea arabica</i>
7952	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8048	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>
7953	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8049	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7954	<i>Burkholderia solanacearum</i> - <i>Portulaca</i> sp.	8050	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7955	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>	8051	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7956	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8052	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7957	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	8053	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7958	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8054	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7959	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	8055	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7960	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	8056	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7961	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8057	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7962	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8058	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7963	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8059	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
7964	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8060	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
7965	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8061	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
7966	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8062	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7967	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8063	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7968	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8064	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7969	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>	8065	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
7970	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>	8066	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>
7971	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	8067	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>
7972	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8068	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7973	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8069	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7974	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8070	<i>Burkholderia solanacearum</i> - <i>Cyphomandra</i> sp.
7975	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8071	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7976	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8072	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>
7977	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8073	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7978	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8074	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7979	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8075	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7980	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8076	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7981	<i>Burkholderia solanacearum</i> - <i>Capsicum frutescens</i>	8077	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7982	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8078	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7983	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8079	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7984	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8080	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7985	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8081	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7986	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>	8082	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7987	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8083	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7988	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8084	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7989	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8085	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>
7990	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8086	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7991	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8087	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7992	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8088	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7993	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8089	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>
7994	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8090	<i>Burkholderia solanacearum</i> - <i>Melampodium perfoliatum</i>
7995	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8091	<i>Burkholderia solanacearum</i> - <i>Musa acuminata</i>
7996	<i>Agrobacterium</i> sp. (saprophytic strain) - Human skin infectio	8092	<i>Burkholderia solanacearum</i> - <i>Musa X paradisiaca</i>
7997	<i>Agrobacterium</i> sp. (saprophytic strain) - Human blood	8093	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
7998	<i>Agrobacterium</i> sp. (saprophytic strain) - Human blood	8094	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
7999	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	8095	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8000	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	8096	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8001	<i>Tritirachium</i> sp. - Cat	8097	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8002	<i>Botryosphaeria parva</i> - <i>Populus nigra</i>	8098	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8003	<i>Botryosphaeria parva</i> - <i>Populus nigra</i>	8099	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8004	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>	8100	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8005	<i>Fusicoccum luteum</i> - <i>Actinidia deliciosa</i>	8101	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8006	<i>Fusicoccum luteum</i> - <i>Malus X domestica</i>	8102	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8007	<i>Fusicoccum luteum</i> - <i>Malus X domestica</i>	8103	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8008	<i>Fusicoccum luteum</i> - <i>Malus X domestica</i>	8104	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8010	<i>Fusicoccum luteum</i> - <i>Malus X domestica</i>	8105	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8011	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8107	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8012	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8108	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8013	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8109	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8015	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8110	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8016	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8111	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
8017	<i>Botryosphaeria dothidea</i> - <i>Actinidia deliciosa</i>	8112	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8019	<i>Botryosphaeria dothidea</i> - <i>Populus nigra</i>	8113	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8026	<i>Gibberella baccata</i> - <i>Cortaderia</i> sp.	8114	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8027	<i>Nectria atrofusca</i>	8115	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8028	<i>Mycosphaerella fragariae</i> - <i>Fragaria X ananassa</i>	8116	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8029	<i>Gibberella avenacea</i>	8118	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8030	<i>Fusarium culmorum</i>	8119	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8031	<i>Gibberella intricans</i>	8121	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
8032	<i>Gibberella zeae</i>	8122	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>esculentum</i>
8033	<i>Gibberella baccata</i>	8125	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>
8034	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersicon</i>	8126	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8035	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esculentum</i>	8127	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>
8036	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esculentum</i>	8128	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>
8037	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuum</i>	8129	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>

8130	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>	8221	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8131	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>	8222	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8132	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>	8223	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8133	<i>Fusarium merismoides</i>	8224	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8134	<i>Gibberella fujikuroi</i>	8225	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8135	<i>Fusarium arthrosporioides</i>	8226	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8136	<i>Fusarium poae</i>	8227	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8137	<i>Gibberella pulicaris</i>	8228	<i>Burkholderia solanacearum</i> - <i>Nicotiana tabacum</i>
8138	<i>Nectria haematococca</i>	8229	<i>Burkholderia solanacearum</i> - <i>Zingiber officinale</i>
8139	<i>Verticillium dahliae</i> - <i>Actinidia deliciosa</i>	8231	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8140	<i>Pyrenopeziza brassicae</i> - <i>Brassica oleracea</i> var. <i>botrytis</i>	8236	<i>Nectria</i> sp. - Polypore
8141	<i>Verticillium insectorum</i> - <i>Hyperodes bonariensis</i>	8237	<i>Sphaerostilbella lutea</i> - Polypore
8142	<i>Gibberella acuminata</i>	8238	<i>Phacidium</i> sp. - <i>Metrosideros</i> sp.
8143	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.	8241	<i>Colletotrichum trichellum</i> - <i>Hedera helix</i>
8144	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.	8242	<i>Coccomyces</i> sp. - <i>Weinmannia racemosa</i>
8145	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.	8243	<i>Hypomyces</i> sp. - Bolete
8146	<i>Glomerella cingulata</i> - Orchid	8244	<i>Hypomyces aurantius</i> - Polypore
8147	<i>Beauveria bassiana</i> - <i>Vespula germanica</i>	8245	<i>Stemphylium lycopersici</i> - <i>Platycodon grandiflorus</i>
8148	<i>Nectria puiggari</i> - <i>Hypoxylon deustum</i>	8246	<i>Alternaria cinerariae</i> - <i>Legularia</i> sp.
8149	<i>Phacidium</i> sp. - <i>Beilschmiedia tawa</i>	8247	<i>Emericella nidulans</i> - Laboratory derived strain
8150	<i>Hypoderma</i> sp. - <i>Cordyline banksii</i>	8248	<i>Emericella nidulans</i> - Laboratory derived strain
8151	<i>Alternaria alternata</i> - Cream cheese	8249	<i>Emericella nidulans</i> - Laboratory derived strain
8152	<i>Nectria rigidiuscula</i> - <i>Vanilla planifolia</i>	8250	<i>Emericella nidulans</i> - Laboratory derived strain
8153	<i>Glomerella cingulata</i> - <i>Piper methysticum</i>	8251	<i>Emericella nidulans</i> - Laboratory derived strain
8154	<i>Glomerella cingulata</i> - <i>Piper methysticum</i>	8252	<i>Emericella nidulans</i> - Laboratory derived strain
8155	<i>Glomerella cingulata</i> - <i>Piper methysticum</i>	8253	<i>Emericella nidulans</i> - Laboratory derived strain
8156	<i>Glomerella cingulata</i> - <i>Piper methysticum</i>	8254	<i>Emericella nidulans</i> - Laboratory derived strain
8157	<i>Glomerella cingulata</i> - <i>Piper methysticum</i>	8255	<i>Emericella nidulans</i> - Laboratory derived strain
8159	<i>Ephelis</i> sp. - <i>Danthonia spicata</i>	8256	<i>Emericella nidulans</i> - Laboratory derived strain
8160	<i>Ephelis</i> sp. - <i>Danthonia spicata</i>	8257	<i>Emericella nidulans</i> - Laboratory derived strain
8161	<i>Arthroderma uncinatum</i> - <i>Lolium perenne</i>	8258	<i>Emericella nidulans</i> - Laboratory derived strain
8162	<i>Sesquicillium candelabrum</i> - <i>Lolium perenne</i>	8259	<i>Emericella nidulans</i> - Laboratory derived strain
8163	<i>Dictyosporium elegans</i> - <i>Lolium perenne</i>	8260	<i>Emericella nidulans</i> - Laboratory derived strain
8166	<i>Burkholderia solanacearum</i> - Soil	8261	<i>Fusarium oxysporum</i> - Shoe leather
8168	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8262	<i>Fusarium culmorum</i> - Shoe leather
8169	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8263	<i>Hypomyces</i> sp. - Bolete
8170	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8264	<i>Hypomyces</i> sp. - Bolete
8171	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8265	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8172	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8266	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8173	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8267	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8174	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8268	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8175	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8269	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8176	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8270	<i>Pseudomonas corrugata</i> - <i>Medicago sativa</i>
8177	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8271	<i>Pseudomonas corrugata</i> - <i>Medicago sativa</i>
8178	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8272	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
8179	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8273	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8180	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8274	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8181	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8275	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
8182	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8276	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>escul</i>
8183	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8277	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>
8184	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8278	<i>Burkholderia solanacearum</i> - Soil
8185	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8279	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8186	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8280	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8187	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8282	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8188	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8283	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8189	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8284	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8190	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8285	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8191	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8286	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8192	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8287	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
8194	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8288	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8195	<i>Zymomonas</i> sp. - <i>Prunus dulcis</i>	8289	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil under
8196	<i>Zymomonas</i> sp. - <i>Prunus dulcis</i>	8290	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - Soil under
8197	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Rubus ursinus</i> var.	8295	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil under
8199	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8297	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil around
8200	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8300	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8201	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8301	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8202	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8302	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8203	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8303	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8204	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8304	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8205	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8306	<i>Xanthomonas campestris</i> pv. <i>cannae</i> - <i>Canna X generalis</i>
8206	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8307	<i>Agrobacterium tumefaciens</i> (saprophytic strain) - <i>Excoecaria</i>
8207	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8308	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8208	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8310	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8209	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8315	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8210	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8317	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8211	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8320	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - Soil
8212	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8323	<i>Agrobacterium</i> sp. (saprophytic strain) - Soil
8213	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8324	<i>Agrobacterium</i> sp. (saprophytic strain) - Soil
8214	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8325	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8215	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8327	<i>Agrobacterium tumefaciens</i> (tumourigenic strain) - Soil
8216	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8331	<i>Stagonosporopsis curtisii</i> - <i>Nerine sarniensis</i>
8217	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	8332	<i>Aureobasidium</i> sp. - Mouldy wall-paper
8218	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	8333	<i>Phoma glomerata</i> - Mouldy wall-paper
8219	<i>Burkholderia solanacearum</i> - <i>Solanum sisymbriifolium</i>	8334	<i>Alternaria</i> sp. - Mouldy wall-paper
8220	<i>Burkholderia solanacearum</i> - <i>Solanum americanum</i>	8335	<i>Cladosporium</i> sp. - Mouldy wall-paper

8336	<i>Guignardia citricarpa</i> - <i>Citrus X tangelo</i>	8468	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8337	<i>Phomopsis tuberivora</i> - <i>Solanum tuberosum</i>	8469	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8338	<i>Hypomyces chrysospermus</i> - <i>Bolete</i>	8470	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8339	<i>Hypomyces aureo-nitens</i> - <i>Stereum</i> sp.	8471	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8340	<i>Bysothecium circinans</i> - <i>Medicago sativa</i>	8472	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8341	<i>Phomopsis viticola</i> - <i>Vitis vinifera</i>	8473	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8342	<i>Chrysosporium</i> sp. - <i>Trifolium repens</i>	8474	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8343	<i>Chrysosporium</i> sp. - <i>Trifolium repens</i>	8475	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8344	<i>Leptosphaeria maculans</i> - <i>Brassica napus</i>	8476	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8345	<i>Leptosphaeria maculans</i> - <i>Brassica napus</i>	8477	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8346	<i>Leptosphaeria maculans</i> - <i>Brassica napus</i>	8478	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8347	<i>Leptosphaeria maculans</i> - <i>Brassica napus</i>	8479	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8348	<i>Monilinia laxa</i> - <i>Prunus armeniaca</i>	8480	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8349	<i>Monilinia fructicola</i> - <i>Prunus salicina</i>	8481	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8350	<i>Penicillium digitatum</i> - <i>Citrus</i> sp.	8482	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8351	<i>Hypomyces aurantius</i> - <i>Polypore</i>	8483	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8352	<i>Hypomyces aurantius</i> - <i>Polypore</i>	8484	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8353	<i>Hypomyces aurantius</i> - <i>Polypore</i>	8485	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8357	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i>	8486	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8358	<i>Dictyotrichiella</i> sp. - <i>Dacrydium cupressinum</i>	8487	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8364	<i>Agrobacterium</i> sp. (saprophytic strain) - <i>Soil</i>	8488	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8366	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - <i>Soil</i>	8489	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8367	<i>Agrobacterium rhizogenes</i> - <i>Soil</i>	8490	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8368	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Soil</i>	8491	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8372	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - <i>Soil</i>	8492	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8376	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Soil</i>	8493	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8377	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus compressus</i>	8494	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8378	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - clover inoculant	8495	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8379	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - Legume inoculant	8496	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8381	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	8510	<i>Emericella nidulans</i> - Laboratory derived strain
8383	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	8511	<i>Emericella nidulans</i> - Laboratory derived strain
8385	<i>Pseudomonas</i> sp. - <i>Prunus persica</i> var. <i>nucipersica</i>	8512	<i>Emericella nidulans</i> - Laboratory derived strain
8386	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8513	<i>Emericella nidulans</i> - Laboratory derived strain
8390	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8514	<i>Emericella nidulans</i> - Laboratory derived strain
8391	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8515	<i>Emericella nidulans</i> - Laboratory derived strain
8394	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8516	<i>Emericella nidulans</i> - Laboratory derived strain
8396	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8517	<i>Emericella nidulans</i> - Laboratory derived strain
8398	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i> var.	8518	<i>Botrytis cinerea</i> - <i>Psidium littorale</i> var. <i>longipes</i>
8401	<i>Erwinia</i> sp. - <i>Zea mays</i>	8521	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8403	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i> var.	8522	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8404	<i>Pseudomonas viridiflava</i> - <i>Melospaerula ramosa</i>	8525	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>
8405	<i>Pseudomonas syringae</i> - <i>Prunus persica</i> var. <i>nucipersica</i>	8526	<i>Botrytis cinerea</i> - <i>Cyclamen</i> sp.
8406	<i>Pseudomonas syringae</i> - <i>Prunus persica</i> var. <i>nucipersica</i>	8527	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8407	<i>Pseudomonas</i> sp. - <i>Prunus persica</i> var. <i>nucipersica</i>	8528	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8408	<i>Pseudomonas viridiflava</i> - <i>Vaccinium corymbosum</i>	8530	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8409	<i>Xanthomonas campestris</i> pv. <i>cannae</i> - <i>Canna X generalis</i>	8531	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8410	<i>Xanthomonas campestris</i> pv. <i>cannae</i> - <i>Canna X generalis</i>	8532	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8411	<i>Xanthomonas campestris</i> pv. <i>cannae</i> - <i>Canna X generalis</i>	8533	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8412	<i>Xanthomonas campestris</i> pv. <i>cannae</i> - <i>Canna X generalis</i>	8534	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8413	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8535	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8414	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8536	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8415	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8537	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8416	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8538	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8417	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8539	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8418	<i>Erwinia</i> sp. - <i>Dieffenbachia maculata</i>	8540	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8419	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i> var.	8541	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8424	<i>Pseudomonas</i> sp. - <i>Nerium</i> sp.	8542	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8425	<i>Xanthomonas</i> sp.	8543	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8426	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8544	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8427	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8545	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8428	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8546	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8429	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8547	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8430	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8548	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8431	<i>Erwinia psidii</i> - <i>Psidium guajava</i>	8549	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8432	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group C) - <i>Citrus aurantiif</i>	8550	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8433	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	8551	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8434	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group C) - <i>Citrus aurantiif</i>	8552	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8435	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group C) - <i>Citrus aurantiif</i>	8553	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8436	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus aurantiif</i>	8554	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8437	<i>Erwinia</i> sp. - <i>Pyrus communis</i>	8555	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8438	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	8556	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8439	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	8557	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>
8440	<i>Erwinia</i> sp. - <i>Pyrus communis</i>	8561	<i>Xanthomonas</i> sp. - <i>Cissus japonica</i>
8441	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>	8562	<i>Acetobacter aceti</i> - <i>Cellulose</i>
8442	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus suaveolens</i>	8564	<i>Botrytis cinerea</i> - <i>Pyrus pyrifolia</i>
8443	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	8565	<i>Botrytis cinerea</i> - <i>Fuchsia</i> sp.
8444	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	8566	<i>Botrytis cinerea</i> - <i>Vaccinium corymbosum</i>
8451	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	8567	<i>Botrytis cinerea</i> - <i>Cyclamen</i> sp.
8452	<i>Xanthomonas</i> sp. - <i>Magnolia</i> sp.	8569	<i>Botrytis cinerea</i> - <i>Begonia X hiemalis</i>
8454	<i>Pseudomonas syringae</i> - <i>Magnolia</i> sp.	8570	<i>Botrytis cinerea</i> - <i>Begonia X hiemalis</i>
8457	<i>Xanthomonas</i> sp. - <i>Magnolia stellata</i>	8571	<i>Botrytis cinerea</i> - <i>Actinidia deliciosa</i>
8459	<i>Pseudomonas syringae</i> - <i>Magnolia stellata</i>	8572	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8461	<i>Pseudomonas syringae</i> - <i>Magnolia stellata</i>	8573	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8462	<i>Xanthomonas</i> sp. - <i>Magnolia</i> sp.	8575	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8464	<i>Pseudomonas syringae</i> - <i>Magnolia</i> sp.	8576	<i>Botrytis cinerea</i> - <i>Prunus armeniaca</i>
8466	<i>Xanthomonas</i> sp. - <i>Eriostemon myoporoides</i>	8577	<i>Botrytis cinerea</i> - <i>Begonia X hiemalis</i>
8467	<i>Rhizobium</i> sp. - <i>Vigna</i> sp.	8578	<i>Fusarium solani</i> f. sp. <i>pisi</i> - <i>Pisum sativum</i>

8579	<i>Ceratocystis fimbriata</i> - <i>Ipomoea batatas</i>	8674	<i>Azomonas macrocytogenes</i>
8581	<i>Cytospora leucostoma</i> - <i>Prunus persica</i> var. <i>nucipersica</i>	8675	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>
8586	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>	8676	<i>Xanthomonas albilineans</i> - <i>Saccharum sp.</i>
8589	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>	8677	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>
8590	<i>Ascochyta caulina</i> - <i>Atriplex</i> sp.	8678	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>
8591	<i>Ascochyta caulina</i> - <i>Spinacia oleracea</i>	8679	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>
8592	<i>Ascochyta caulina</i> - <i>Spinacia oleracea</i>	8680	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>
8593	<i>Ascochyta caulina</i> - <i>Spinacia oleracea</i>	8681	<i>Xanthomonas axonopodis</i> - <i>Axonopus scoparius</i>
8594	<i>Penicillium</i> sp. - <i>Lycopersicon esculentum</i>	8682	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8595	<i>Penicillium expansum</i>	8683	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8596	<i>Acetobacter hansenii</i> - <i>Myrica rubra</i>	8684	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8597	<i>Acetobacter hansenii</i> - Vinegar	8685	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8598	<i>Acetobacter hansenii</i> - Vinegar	8686	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8599	<i>Acetobacter hansenii</i>	8687	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8600	<i>Acetobacter liquefaciens</i> - <i>Diospyros kaki</i>	8688	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8601	<i>Acetobacter liquefaciens</i>	8689	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
8602	<i>Acetobacter pasteurianus</i>	8690	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> sp.
8603	<i>Acetobacter pasteurianus</i> - Vinegar	8691	<i>Burkholderia caryophylli</i> - <i>Limonium sinuatum</i>
8604	<i>Acetobacter pasteurianus</i> - Spoiled beer	8692	<i>Burkholderia caryophylli</i> - <i>Limonium sinuatum</i>
8605	<i>Acetobacter pasteurianus</i> - Vinegar	8693	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8606	<i>Acetobacter pasteurianus</i> - Vinegar	8694	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8607	<i>Acetobacter pasteurianus</i> - Vinegar	8695	<i>Penicillium expansum</i> - Laboratory derived strain
8608	<i>Acetobacter pasteurianus</i>	8696	<i>Penicillium expansum</i> - Laboratory derived strain
8609	<i>Acetobacter pasteurianus</i>	8697	<i>Penicillium expansum</i> - Laboratory derived strain
8610	<i>Acetobacter pasteurianus</i> - Sewage on Soil	8698	<i>Penicillium expansum</i> - Laboratory derived strain
8611	<i>Acetobacter pasteurianus</i>	8699	<i>Penicillium expansum</i> - Laboratory derived strain
8612	<i>Acetobacter pasteurianus</i> - Cider	8700	<i>Penicillium expansum</i> - Laboratory derived strain
8614	<i>Gluconobacter oxydans</i>	8701	<i>Beauveria bassiana</i> - <i>Hyperodes bonariensis</i>
8615	<i>Gluconobacter oxydans</i> - <i>Lilium auratum</i>	8702	<i>Fusarium oxysporum</i> - <i>Vaccinium corymbosum</i>
8616	<i>Gluconobacter oxydans</i> - <i>Lilium auratum</i>	8703	<i>Fusarium oxysporum</i> - Wallpaper
8617	<i>Gluconobacter oxydans</i> - <i>Dahlia</i> sp.	8704	<i>Engynodontium aranearum</i> - Spider
8618	<i>Gluconobacter oxydans</i> - <i>Fragaria X ananassa</i>	8707	<i>Phoma</i> sp. - <i>Scolytopa</i> sp.
8619	<i>Gluconobacter oxydans</i> - <i>Prunus tomentosa</i>	8708	<i>Monographella nivalis</i> - Turf
8620	<i>Gluconobacter oxydans</i> - <i>Fragaria X ananassa</i>	8709	<i>Monographella nivalis</i> - <i>Agrostis</i> sp.
8621	<i>Gluconobacter oxydans</i> - <i>Fragaria X ananassa</i>	8710	<i>Monographella nivalis</i> - <i>Poa</i> sp.
8622	<i>Gluconobacter oxydans</i> - <i>Prunus</i> sp.	8711	<i>Gibberella avenacea</i> - <i>Dianthus</i> sp.
8623	<i>Gluconobacter oxydans</i> - <i>Rheum undulatum</i>	8712	<i>Gibberella avenacea</i> - <i>Dianthus</i> sp.
8624	<i>Gluconobacter oxydans</i> - Dried persimmon fruit	8713	<i>Verticillium lecanii</i> - Whitely
8625	<i>Gluconobacter oxydans</i> - <i>Vitis</i> sp.	8714	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>
8626	<i>Gluconobacter oxydans</i> - Top-fermented beer	8715	<i>Botrytis cinerea</i> - <i>Vitis vinifera</i>
8627	<i>Gluconobacter oxydans</i> - Bakers' yeast	8716	<i>Stemphylium</i> sp. - <i>Asparagus officinalis</i>
8628	<i>Gluconobacter oxydans</i> - Beer	8717	<i>Stemphylium</i> sp. - <i>Asparagus officinalis</i>
8629	<i>Pseudomonas syringae</i> pv. <i>eriobotryae</i> - <i>Eriobotrya japonica</i>	8718	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>
8630	<i>Pseudomonas syringae</i> pv. <i>eriobotryae</i> - <i>Eriobotrya japonica</i>	8719	<i>Stemphylium</i> sp. - <i>Allium cepa</i>
8631	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	8720	<i>Stemphylium</i> sp. - <i>Asparagus officinalis</i>
8633	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	8721	<i>Stemphylium</i> sp. - <i>Lycopersicon esculentum</i>
8634	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	8722	<i>Stemphylium</i> sp. - <i>Lycopersicon esculentum</i>
8635	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	8723	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8636	<i>Pseudomonas syringae</i> pv. <i>eriobotryae</i> - <i>Eriobotrya japonica</i>	8724	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8637	<i>Xanthomonas campestris</i> pv. <i>manihotis</i> - <i>Manihot esculenta</i>	8725	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8638	<i>Agrobacterium</i> sp. (saprophytic strain) - <i>Vitis vinifera</i>	8726	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8639	<i>Agrobacterium rhizogenes</i> (rhizogenic strain) - <i>Malus X dom</i>	8727	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8640	<i>Agrobacterium rhizogenes</i> (rhizogenic strain)	8728	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>
8641	<i>Agrobacterium rhizogenes</i> (rhizogenic strain)	8729	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8642	<i>Agrobacterium rhizogenes</i> (rhizogenic strain) - <i>Rosa</i> sp.	8730	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8643	<i>Agrobacterium rubi</i> - <i>Rubus</i> sp.	8731	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8644	<i>Chromobacterium violaceum</i> - Fresh water	8732	<i>Xylella fastidiosa</i> - <i>Vitis vinifera</i>
8645	<i>Erwinia mallotivora</i> - <i>Mallotus japonicus</i>	8733	<i>Xylella fastidiosa</i> - <i>Prunus salicina</i>
8646	<i>Erwinia mallotivora</i> - <i>Mallotus japonicus</i>	8734	<i>Xylella fastidiosa</i> - <i>Prunus salicina</i>
8647	<i>Pseudomonas aeruginosa</i>	8735	<i>Xylella fastidiosa</i> - <i>Prunus salicina</i>
8648	<i>Pseudomonas aeruginosa</i> - <i>Agaricus bisporus</i>	8736	<i>Xylella fastidiosa</i> - <i>Catharanthus roseus</i>
8649	<i>Pseudomonas aeruginosa</i> - <i>Agaricus bisporus</i>	8737	<i>Xylella fastidiosa</i> - <i>Catharanthus roseus</i>
8650	<i>Pseudomonas aeruginosa</i> - <i>Agaricus bisporus</i>	8738	<i>Xylella fastidiosa</i> - <i>Catharanthus roseus</i>
8651	<i>Pseudomonas aeruginosa</i> - <i>Aglaonema commutatum</i>	8739	<i>Xylella fastidiosa</i> - <i>Prunus dulcis</i>
8652	<i>Pseudomonas aeruginosa</i> - <i>Chrysanthemum</i> sp.	8740	<i>Xylella fastidiosa</i> - <i>Platanus occidentalis</i>
8653	<i>Pseudomonas aeruginosa</i> - <i>Zea mays</i>	8741	<i>Xylella fastidiosa</i> - <i>Ulmus americana</i>
8654	<i>Acidovorax avenae</i> subsp. <i>cattleyae</i> - <i>Cattleya</i> sp.	8742	<i>Xylella fastidiosa</i> - <i>Ulmus americana</i>
8655	<i>Burkholderia cepacia</i>	8743	<i>Xylella fastidiosa</i> - <i>Prunus salicina</i>
8657	<i>Burkholderia glumae</i> - <i>Oryza sativa</i>	8744	<i>Xylella fastidiosa</i> - <i>Prunus persica</i>
8658	<i>Pseudomonas marginalis</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>	8745	<i>Xylella fastidiosa</i> - <i>Ambrosia artemisiifolia</i>
8659	<i>Pseudomonas marginalis</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>	8751	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>
8660	<i>Pseudomonas marginalis</i> pv. <i>pastinacae</i> - <i>Pastinaca sativa</i>	8752	<i>Janthinobacterium lividum</i> - <i>Costelytra zealandica</i>
8661	<i>Pseudomonas marginalis</i> pv. <i>pastinacae</i> - <i>Pastinaca sativa</i>	8756	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8662	<i>Pseudomonas marginalis</i> pv. <i>pastinacae</i> - <i>Pastinaca sativa</i>	8757	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8663	<i>Acidovorax avenae</i> subsp. <i>citrulli</i> - <i>Citrullus lanatus</i>	8758	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8664	<i>Pseudomonas rubrisubalbicans</i> - <i>Saccharum officinarum</i>	8759	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8665	<i>Burkholderia andropogonis</i> - <i>Setcreasea pallida</i>	8760	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8666	<i>Xanthomonas campestris</i> pv. <i>cassavae</i> - <i>Manihot</i> sp.	8761	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8667	<i>Xanthomonas campestris</i> pv. <i>cassavae</i> - <i>Manihot</i> sp.	8762	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8668	<i>Xanthomonas campestris</i> pv. <i>cassavae</i> - <i>Manihot</i> sp.	8763	<i>Serratia</i> sp. - <i>Costelytra zealandica</i>
8669	<i>Xanthomonas campestris</i> pv. <i>cassavae</i> - <i>Manihot</i> sp.	8764	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8670	<i>Pseudomonas syringae</i> pv. <i>primulae</i> - <i>Primula X polyantha</i>	8765	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8671	<i>Azospirillum brasiliense</i> - <i>Digitaria decumbens</i>	8766	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8672	<i>Azospirillum lipoferum</i>	8767	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>
8673	<i>Azotobacter beijerinckii</i>	8768	<i>Serratia entomophila</i> - <i>Costelytra zealandica</i>

- 8769 *Serratia entomophila* - *Costelytra zealandica*
8770 *Serratia entomophila* - *Costelytra zealandica*
8771 *Serratia proteamaculans* - *Costelytra zealandica*
8772 *Serratia proteamaculans* - *Costelytra zealandica*
8773 *Serratia proteamaculans* - *Costelytra zealandica*
8774 *Serratia proteamaculans* - *Costelytra zealandica*
8775 *Serratia proteamaculans* - *Costelytra zealandica*
8776 *Serratia proteamaculans* - *Costelytra zealandica*
8777 *Serratia proteamaculans* - *Costelytra zealandica*
8778 *Serratia* sp. - *Costelytra zealandica*
8779 *Serratia proteamaculans* - *Costelytra zealandica*
8780 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
8781 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
8782 *Pseudomonas syringae* pv. *persicae* - *Prunus persica*
8783 *Pseudomonas syringae* pv. *persicae* - *Prunus persica* var.
8784 *Pseudomonas syringae* pv. *persicae* - *Prunus persica* var.
8785 *Xanthomonas campestris* pv. *juglandis* - *Juglans regia*
8786 *Pseudomonas syringae* - *Morus* sp.
8787 *Xanthomonas campestris* pv. *zingibericola* - *Zingiber officinale*
8788 *Xanthomonas campestris* pv. *leersiae* - *Leersia hexandra*
8789 *Xanthomonas campestris* pv. *leersiae* - *Leersia hexandra*
8790 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8792 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8793 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8794 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8795 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8796 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8797 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8798 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8799 *Clavibacter xyli* subsp. *cynodontis* - *Cynodon dactylon*
8800 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8801 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8802 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8803 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8804 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8805 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8806 *Clavibacter xyli* subsp. *xyli* - *Saccharum officinarum*
8807 *Acetobacter aceti* - *Vinegar*
8808 *Acetobacter pasteurianus*
8809 *Acetobacter pasteurianus* - *Beer*
8811 *Erwinia cyripedii* - *Cyripedium* sp.
8812 *Erwinia cyripedii* - *Cyripedium* sp.
8813 *Pseudomonas syringae* pv. *lapsea*
8814 *Pseudomonas syringae* pv. *primulae*
8815 *Pseudomonas syringae* pv. *striaefaciens* - *X. Triticosecale* sp.
8816 *Xanthomonas campestris* pv. *cassavae*
8817 *Xanthomonas campestris* pv. *cassavae*
8818 *Xanthomonas campestris* pv. *cassavae*
8819 *Pseudomonas viridiflava* - *Citrus aurantium*
8820 *Pseudomonas viridiflava* - *Prunus persica*
8821 *Pseudomonas viridiflava* - *Citrus sinensis*
8822 *Pseudomonas viridiflava* - *Citrus sinensis*
8823 *Pseudomonas viridiflava* - *Citrus sinensis*
8824 *Pseudomonas viridiflava* - *Citrus aurantium*
8825 *Pseudomonas viridiflava* - *Lycopersicon esculentum*
8826 *Pseudomonas viridiflava* - *Lycopersicon esculentum*
8827 *Erwinia amylovora* - *Pyrus pyriformis*
8828 *Pyrenophora teres* - *Hordeum vulgare*
8829 *Pyrenophora teres* - *Hordeum vulgare*
8830 *Pyrenophora teres* - *Hordeum vulgare*
8831 *Pyrenophora teres* - *Hordeum vulgare*
8832 *Nectria haematococca* - *Coffea arabica*
8833 *Phyllosticta* sp. - *Corynocarpus laevigatus*
8834 *Fusicoccum luteum* - *Pyrus communis*
8835 *Fusicoccum luteum* - *Persea americana*
8836 *Nomuraea rileyi* - *Thysanoplusia orichalcea*
8837 *Fusarium poae* - *Siteroptes avenae*
8838 *Curvularia eragrostidis* - *Piper methysticum*
8839 *Colletotrichum capsici* - *Piper methysticum*
8840 *Glomerella cingulata* - *Piper methysticum*
8841 *Glomerella cingulata* - *Piper methysticum*
8842 *Cytospora leucostoma* - *Prunus armeniaca*
8843 *Cytospora leucostoma* - *Prunus armeniaca*
8844 *Cytospora leucostoma* - *Prunus armeniaca*
8845 *Cytospora leucostoma* - *Prunus armeniaca*
8846 *Cytospora leucostoma* - *Prunus armeniaca*
8847 *Botryosphaeria parva* - *Persea americana*
8848 *Botryosphaeria parva* - *Persea americana*
8849 *Pythium graminicola* - *Soil*
8850 *Gibberella intricans* - *Zea mays*
8851 *Fusarium poae* - *Zea mays*
8852 *Fusarium subglutinans* - *Zea mays*
8854 *Gibberella fujikuroi* - *Zea mays*
8855 *Gibberella baccata* - *Zea mays*
8856 *Fusarium crookwellense* - *Litter in maize field*
8857 *Gibberella intricans* - *Zea mays*
8858 *Fusarium sambucinum* var. *coeruleum* - *Litter in maize field*
8860 *Gibberella avenacea* - *Zea mays*
8861 *Erwinia amylovora* - *Pyrus communis*
8862 *Erwinia amylovora* - *Malus X domestica*
8863 *Erwinia amylovora* - *Pyrus communis*
8864 *Erwinia amylovora* - *Pyrus communis*
8865 *Erwinia amylovora* - *Malus X domestica*
8866 *Serratia* sp. - *Costelytra zealandica*
8867 *Xanthomonas campestris* pv. *pruni* - *Prunus salicina*
8868 *Azorhizophilus paspali* - *Rhizosphere of Paspalum dilatatum*
8869 *Azorhizophilus paspali* - *Rhizosphere of Paspalum dilatatum*
8870 *Azorhizophilus paspali* - *Rhizosphere of Paspalum dilatatum*
8872 *Pseudomonas* sp. - *Agaricus bisporus*
8873 *Pseudomonas* sp. - *Agaricus bisporus*
8874 *Agrobacterium rhizogenes* (rhizogenic strain)
8875 *Agrobacterium rubi* - *Rubus* sp.
8876 *Agrobacterium rubi* - *Rubus* sp.
8877 *Bacillus megaterium* pv. *cerealis* - *Triticum aestivum*
8878 *Bacillus megaterium* pv. *cerealis* - *Triticum aestivum*
8880 *Erwinia amylovora* - *Malus X domestica*
8881 *Erwinia amylovora* - *Malus X domestica*
8882 *Xanthomonas populi* - *Salix X dasycloados*
8883 *Xanthomonas campestris* pv. *zingibericola* - *Zingiber officinale*
8884 *Xanthomonas campestris* pv. *zingibericola* - *Zingiber officinale*
8885 *Agrobacterium tumefaciens* - *Humulus lupulus*
8886 *Agrobacterium* sp. - *Populus alba* var. *tomentosa*
8887 *Agrobacterium tumefaciens* - *Vitis* sp.
8888 *Pseudomonas* sp. - *Hosta plantaginea*
8889 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8890 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8891 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8894 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8895 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8896 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8898 *Pseudomonas corrugata* - *Lycopersicon esculentum*
8899 *Pseudomonas syringae* pv. *berberidis* - *Berberis gagnepainii*
8900 *Pseudomonas syringae* pv. *berberidis* - *Berberis X ottawensis*
8901 *Pseudomonas syringae* pv. *berberidis* - *Berberis julianae*
8902 *Pseudomonas syringae* pv. *philadelphia* - *Philadelphus coron*
8903 *Pseudomonas syringae* pv. *philadelphia* - *Philadelphus coron*
8904 *Oerskovia xanthineolytica*
8905 *Xylophilus ampelinus* - *Vitis vinifera*
8906 *Erwinia amylovora* - *Malus X domestica*
8909 *Pseudomonas* sp. - *Hosta plantaginea*
8911 *Pseudomonas* sp. - *Hosta plantaginea*
8913 *Pseudomonas* sp. - *Hosta plantaginea*
8915 *Pseudomonas* sp. - *Hosta plantaginea*
8917 *Xanthomonas campestris* pv. *betae* - *Beta vulgaris* var. *horta*
8918 *Xanthomonas campestris* pv. *bilvae* - *Aegle marmelos*
8919 *Xanthomonas campestris* pv. *paulliniae* - *Paullinia cupana*
8920 *Xylophilus ampelinus* - *Vitis vinifera*
8921 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8922 *Xanthomonas campestris* pv. *populi* - *Populus* sp.
8923 *Xanthomonas campestris* pv. *populi* - *Populus X euramerica*
8924 *Xanthomonas* sp. - *Cordia goeldiana*
8925 *Xanthomonas* sp. - *Cordia goeldiana*
8926 *Agrobacterium* sp. (tumourigenic strain) - *Inga fagifolia*
8927 *Agrobacterium* sp. (tumourigenic strain) - *Inga fagifolia*
8928 *Agrobacterium* sp. (tumourigenic strain)
8929 *Agrobacterium* sp. (tumourigenic strain)
8930 *Agrobacterium* sp. (tumourigenic strain)
8931 *Agrobacterium* sp. (tumourigenic strain)
8932 *Erwinia persicina* - *Phaseolus vulgaris*
8933 *Pseudomonas blatchfordae* - *Phaseolus vulgaris*
8934 *Pseudomonas viridiflava* - *Actinidia deliciosa*
8936 *Pseudomonas* sp. - *Actinidia deliciosa*
8937 *Pseudomonas* sp. - *Actinidia deliciosa*
8940 *Pseudomonas* sp. - *Actinidia deliciosa*
8941 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8942 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8944 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8945 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8946 *Pseudomonas* sp. - *Actinidia deliciosa*
8947 *Pseudomonas syringae* pv. *aesculi* - *Aesculus indica*
8948 *Pseudomonas* sp. - *Ficus palmata*
8949 *Xanthomonas campestris* pv. *mirabilis* - *Mirabilis jalapa*
8950 *Pseudomonas* sp. - *Actinidia deliciosa*
8952 *Pseudomonas* sp. - *Actinidia deliciosa*
8953 *Pseudomonas* sp. - *Actinidia deliciosa*
8954 *Pseudomonas* sp. - *Actinidia deliciosa*
8956 *Pseudomonas* sp. - *Actinidia deliciosa*
8957 *Pseudomonas* sp. - *Actinidia deliciosa*
8959 *Pseudomonas syringae* pv. *zizaniae* - *Zizania aquatica*
8960 *Pseudomonas syringae* - *Allium porrum*
8961 *Pseudomonas syringae* - *Allium porrum*
8962 *Pseudomonas syringae* - *Allium porrum*
8963 *Pseudomonas syringae* - *Allium porrum*
8964 *Pseudomonas syringae* - *Allium porrum*

8965	<i>Pseudomonas syringae</i> - <i>Allium porrum</i>	9061	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>
8966	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	9062	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>
8970	<i>Agrobacterium</i> sp.	9063	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>
8971	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9064	<i>Fusicoccum luteum</i> - <i>Vitis vinifera</i>
8972	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9065	<i>Fusicoccum luteum</i> - <i>Vitis vinifera</i>
8973	<i>Stemphylium</i> sp. - <i>Asparagus officinalis</i>	9066	<i>Pythium irregulare</i> - Soil
8974	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9067	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
8975	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9068	<i>Pseudomonas putida</i> - <i>Glycine max</i>
8976	<i>Pseudomonas viridiflava</i> - <i>Vaccinium corymbosum</i>	9069	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
8980	<i>Stemphylium</i> sp. - <i>Asparagus officinalis</i>	9070	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
8981	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9071	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
8982	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9072	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
8983	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9073	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium zonal</i>
8984	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9074	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium zonal</i>
8986	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9075	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium zonal</i>
8987	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9076	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8988	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9077	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8989	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9078	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8990	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9079	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8991	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>	9080	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8992	<i>Pythium periplocum</i>	9081	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>
8993	<i>Gibberella stilboides</i> - <i>Zea mays</i>	9082	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
8994	<i>Fusarium oxysporum</i> - <i>Zea mays</i>	9083	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
8995	<i>Gibberella pulicaris</i> - Litter in maize field	9084	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
8996	<i>Gibberella acuminata</i> - Litter in maize field	9085	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
8997	<i>Fusarium culmorum</i> - Soil (maize-field)	9086	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
8998	<i>Gibberella zeae</i> - <i>Zea mays</i>	9087	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>
8999	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - <i>Medicago</i>	9088	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9000	<i>Xanthomonas campestris</i> pv. <i>cajani</i> - <i>Cajanus cajan</i>	9089	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9001	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	9090	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9002	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	9091	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9004	<i>Escherichia coli</i>	9092	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9005	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	9093	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9009	<i>Agrobacterium</i> sp. - <i>Malus X domestica</i>	9094	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9010	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Rubus idaeus</i>	9095	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9011	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	9096	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9012	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	9097	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
9013	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	9098	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
9014	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9099	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
9015	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9100	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
9016	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9101	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
9017	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9102	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>
9018	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9103	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>
9019	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9104	<i>Erwinia amylovora</i> - <i>Cotoneaster salicifolius</i> var. <i>floccosus</i>
9020	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i>	9105	<i>Erwinia amylovora</i> - <i>Cotoneaster buxifolius</i>
9021	<i>Burkholderia gladioli</i> pv. <i>allicola</i> - <i>Allium cepa</i>	9106	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>
9022	<i>Burkholderia gladioli</i> pv. <i>allicola</i> - <i>Allium cepa</i>	9107	<i>Erwinia amylovora</i> - <i>Cotoneaster salicifolius</i> var. <i>floccosus</i>
9023	<i>Burkholderia gladioli</i> pv. <i>allicola</i> - <i>Allium cepa</i>	9108	<i>Erwinia amylovora</i> - <i>Cotoneaster</i> sp.
9024	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>	9109	<i>Erwinia amylovora</i> - <i>Crataegus monogyna</i>
9025	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>	9110	<i>Erwinia amylovora</i> - <i>Mespilus germanica</i>
9026	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>	9111	<i>Erwinia amylovora</i> - <i>Pyraecantha</i> sp.
9027	<i>Pseudomonas syringae</i> pv. <i>lachrymans</i> - <i>Cucumis sativus</i>	9112	<i>Clavibacter michiganensis</i> subsp. <i>nebraskensis</i>
9028	<i>Pseudomonas syringae</i> pv. <i>lachrymans</i> - <i>Cucumis sativus</i>	9113	<i>Erwinia tracheiphila</i> - <i>Cucumis sativus</i>
9029	<i>Pseudomonas syringae</i> pv. <i>lachrymans</i> - <i>Cucumis sativus</i>	9114	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>
9030	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	9115	<i>Xanthomonas campestris</i> pv. <i>alfalfae</i> - <i>Medicago sativa</i>
9031	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>	9116	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum</i> sp.
9032	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i>	9117	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus sp.</i>
9033	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	9118	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus sp.</i>
9034	<i>Eupenicillium brefeldianum</i>	9119	<i>Pseudomonas syringae</i> pv. <i>erobotryae</i> - <i>Eriobotrya japonica</i>
9035	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9120	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Solanum</i>
9036	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9121	<i>Erwinia carotovora</i> subsp. <i>wasabiae</i> - <i>Eutrema wasabi</i>
9037	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9122	<i>Erwinia carotovora</i> subsp. <i>wasabiae</i> - <i>Eutrema wasabi</i>
9038	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9123	<i>Erwinia carotovora</i> subsp. <i>wasabiae</i> - <i>Eutrema wasabi</i>
9039	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9124	<i>Erwinia carotovora</i> subsp. <i>wasabiae</i> - <i>Eutrema wasabi</i>
9040	<i>Stemphylium</i> sp. - <i>Allium cepa</i>	9125	<i>Erwinia carotovora</i> subsp. <i>wasabiae</i> - <i>Eutrema wasabi</i>
9041	<i>Microdochium bolleyi</i> - <i>Lolium</i> sp.	9126	<i>Pseudomonas syringae</i> - <i>Populus</i> sp.
9042	<i>Rhizopus oryzae</i> - Yeast cake	9127	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus trichocarpa</i>
9043	<i>Rhizopus oryzae</i>	9128	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus trichocarpa</i>
9044	<i>Rhizopus oryzae</i>	9129	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsior</i>
9045	<i>Stemphylium</i> sp. - <i>Lactuca sativa</i>	9130	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsior</i>
9046	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - Soil	9131	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsior</i>
9047	<i>Athelia rolfsii</i> - <i>Iris</i> sp.	9132	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsior</i>
9048	<i>Nectria ochroleuca</i> - <i>Hordeum vulgare</i>	9133	<i>Erwinia herbicola</i> - <i>Ulmus</i> sp.
9049	<i>Leptosphaerulina australis</i> - <i>Hordeum vulgare</i>	9134	<i>Erwinia herbicola</i> - <i>Populus</i> sp.
9050	<i>Preussia fleischhakeri</i> - <i>Hordeum vulgare</i>	9135	<i>Erwinia herbicola</i> - <i>Populus X canescens</i> Smith
9051	<i>Ascochyta fabae</i> f. sp. <i>lentis</i> - <i>Lens culinaris</i>	9136	<i>Erwinia salicis</i> - <i>Salix</i> sp.
9052	<i>Ascochyta fabae</i> f. sp. <i>lentis</i> - <i>Lens culinaris</i>	9137	<i>Erwinia salicis</i> - <i>Salix alba</i>
9053	<i>Ascochyta fabae</i> f. sp. <i>lentis</i> - <i>Lens culinaris</i>	9138	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus maximowiczii</i>
9054	<i>Pythium aferile</i> - Soil	9139	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus X interamerica</i>
9055	<i>Phytophthora</i> sp. - <i>Medicago sativa</i>	9140	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Salix alba</i>
9056	<i>Phytophthora megasperma</i> f. sp. <i>glycines</i> - <i>Glycine max</i>	9141	<i>Xanthomonas populi</i> - <i>Populus X interamericana</i>
9057	<i>Phytophthora megasperma</i> f. sp. <i>medicaginis</i> - <i>Cicer arietinum</i>	9142	<i>Erwinia rhapontici</i> - <i>Triticum aestivum</i>
9058	<i>Monographella nivalis</i> - <i>Poa annua</i>	9143	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Geranium</i> sp.
9059	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>	9144	<i>Erwinia amylovora</i> - <i>Pyrus pyrifolia</i>
9060	<i>Stemphylium</i> sp. - <i>Medicago sativa</i>	9145	<i>Erwinia amylovora</i> - <i>Pyrus pyrifolia</i>

9150	<i>Pseudomonas syringae</i> pv. <i>dendropanacis</i> - <i>Dendropanax</i>	9279	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>
9151	<i>Pseudomonas syringae</i> pv. <i>tremae</i> - <i>Trema orientalis</i>	9280	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium hir</i>
9152	<i>Xanthomonas campestris</i> pv. <i>syngonii</i> - <i>Syngonium podophy</i>	9281	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium hir</i>
9153	<i>Xanthomonas campestris</i> pv. <i>syngonii</i> - <i>Syngonium podophy</i>	9282	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium hir</i>
9154	<i>Xanthomonas campestris</i> pv. <i>syngonii</i> - <i>Syngonium podophy</i>	9283	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> - <i>Gossypium hir</i>
9155	<i>Xanthomonas campestris</i> pv. <i>syngonii</i> - <i>Syngonium podophy</i>	9284	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
9156	<i>Erwinia chrysanthemi</i> - <i>Philodendron</i> sp.	9285	<i>Xanthomonas campestris</i> pv. <i>melonis</i> - <i>Cucumis melo</i>
9157	<i>Erwinia chrysanthemi</i> - <i>Philodendron</i> sp.	9286	<i>Xanthomonas campestris</i> pv. <i>paulliniae</i> - <i>Paullinia cupana</i>
9158	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus</i> sp.	9287	<i>Erwinia chrysanthemi</i> - <i>Musa</i> sp.
9159	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus</i> sp.	9288	<i>Erwinia chrysanthemi</i> - <i>Solanum tuberosum</i>
9160	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	9289	<i>Erwinia chrysanthemi</i> - <i>Elettaria cardamomum</i>
9161	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	9290	<i>Erwinia chrysanthemi</i> - <i>Ipomoea batatas</i>
9162	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>	9291	<i>Xanthomonas</i> sp. - <i>Piper nigrum</i>
9163	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>	9292	<i>Xanthomonas campestris</i> pv. <i>aracearum</i> - <i>Colocasia esculenta</i>
9164	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>	9293	<i>Burkholderia cepacia</i> - <i>Allium cepa</i>
9165	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	9294	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus persica</i> var.
9166	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	9295	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Alnus cordata</i>
9167	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9296	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Alnus cordata</i>
9168	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9298	<i>Xanthomonas</i> sp. - <i>Parthenium hysterophorus</i>
9169	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9299	<i>Xanthomonas</i> sp. - <i>Parthenium hysterophorus</i>
9170	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9300	<i>Xanthomonas</i> sp. - <i>Parthenium hysterophorus</i>
9171	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9302	<i>Rhizobium</i> sp. - <i>Galega orientalis</i>
9172	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9303	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
9173	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9305	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Solanum mauritanium</i>
9174	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9307	<i>Enterobacter</i> sp. - <i>Populus</i> sp.
9175	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9308	<i>Erwinia salicis</i> - <i>Populus</i> X <i>euramericana</i>
9176	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9309	<i>Enterobacter</i> sp. - <i>Populus</i> X <i>interamericana</i>
9177	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9310	<i>Erwinia salicis</i> - <i>Salix alba</i>
9178	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9311	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
9179	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9312	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>
9180	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9313	<i>Pseudomonas</i> sp. - <i>Hibiscus rosa-sinensis</i>
9181	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9314	<i>Pseudomonas syringae</i> pv. <i>hibiscis</i> - <i>Hibiscus rosa-sinensis</i>
9182	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9315	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9183	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9316	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9184	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9317	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9185	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9318	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9186	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9319	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9187	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9320	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9188	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	9321	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9189	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9322	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9190	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9323	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9191	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9324	<i>Pseudomonas syringae</i> pv. <i>tomato</i> - <i>Lycopersicon esculentum</i>
9192	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9325	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Salix</i> X <i>erythroflexuos</i>
9193	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9326	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus</i> X <i>generosa</i>
9194	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9327	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus</i> X <i>generosa</i>
9195	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9328	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Salix</i> X <i>erythroflexuos</i>
9196	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9329	<i>Lasioidiplodia theobromae</i> - <i>Cyrtosperma chamissonis</i>
9197	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9330	<i>Fusarium longipes</i> - <i>Cyrtosperma chamissonis</i>
9198	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9331	<i>Gibberella avenacea</i> - <i>Prunus persica</i>
9199	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9332	<i>Botryotinia squamosa</i> - <i>Allium cepa</i>
9200	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9333	<i>Nectria</i> cf. <i>tawa</i> - <i>Coprosma</i> sp.
9201	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9334	<i>Nectria</i> cf. <i>coprosmae</i> - <i>Ripogonum scandens</i>
9202	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9335	<i>Nectria</i> cf. <i>tawa</i> - <i>Coprosma</i> sp.
9203	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9336	<i>Nectria tawa</i> - <i>Dacrydium cupressinum</i>
9204	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9337	<i>Nectria coprosmae</i> - <i>Freycinetia baueriana</i> subsp. <i>banksii</i>
9205	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9338	<i>Nectria coprosmae</i> - <i>Rhopalostylis sapida</i>
9206	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9339	<i>Nectria tawa</i> - <i>Beilschmiedia tawa</i>
9207	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersi</i>	9340	<i>Nectria coprosmae</i> - <i>Collospermum hastatum</i>
9209	<i>Burkholderia gladioli</i> pv. <i>alliicola</i> - <i>Allium cepa</i>	9341	<i>Nectria coprosmae</i> - Tree
9210	<i>Burkholderia gladioli</i> pv. <i>alliicola</i> - <i>Allium cepa</i>	9342	<i>Nectria tawa</i> - Tree
9211	<i>Burkholderia gladioli</i> pv. <i>alliicola</i> - <i>Allium cepa</i>	9343	<i>Nectria coprosmae</i> - Tree
9212	<i>Burkholderia gladioli</i> pv. <i>alliicola</i> - <i>Allium cepa</i>	9344	<i>Nectria</i> sp. - <i>Astelium</i> sp.
9214	<i>Burkholderia andropogonis</i> - <i>Sorghum</i> sp.	9345	<i>Nectria tawa</i> - Tree
9253	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	9346	<i>Nectria coprosmae</i> - Tree
9254	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i>	9347	<i>Nectria tawa</i> - Tree
9255	<i>Erwinia amylovora</i> - <i>Onobrychis viciifolia</i>	9348	<i>Nectria radialis</i> - <i>Trifolium repens</i>
9256	<i>Erwinia amylovora</i>	9349	<i>Nectria</i> sp. - <i>Astelium</i> sp.
9257	<i>Pseudomonas marginalis</i>	9351	<i>Cylindrocladiella peruviana</i> - Grasshopper
9258	<i>Pseudomonas syringae</i> - <i>Onobrychis viciifolia</i>	9352	<i>Sclerotinia sclerotiorum</i> - <i>Actinidia deliciosa</i>
9259	<i>Pseudomonas viridiflava</i> - <i>Medicago sativa</i>	9353	<i>Sclerotinia sclerotiorum</i> - <i>Actinidia deliciosa</i>
9260	<i>Pseudomonas viridiflava</i> - <i>Lotus corniculatus</i>	9365	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus deltoides</i> X
9261	<i>Xanthomonas campestris</i> pv. <i>viegasii</i> - <i>Pachystachys lutea</i>	9366	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus</i> X <i>euramerica</i>
9262	<i>Xanthomonas campestris</i> pv. <i>viegasii</i> - <i>Pachystachys lutea</i>	9367	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus</i> X <i>generosa</i>
9263	<i>Xanthomonas</i> sp. - <i>Parthenium hysterophorus</i>	9368	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus</i> X <i>generosa</i>
9264	<i>Xanthomonas</i> sp. - <i>Parthenium hysterophorus</i>	9369	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus</i> X <i>generosa</i>
9265	<i>Pythium irregulare</i> - Soil	9370	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus</i> X <i>generosa</i>
9266	<i>Pythium irregulare</i> - Soil	9371	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus</i> X <i>generosa</i>
9267	<i>Pythium ultimum</i> - Soil	9372	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Populus</i> X <i>euramerica</i>
9268	<i>Pythium coloratum</i> - Soil	9373	<i>Clavibacter</i> sp. - <i>Agropyron smithii</i>
9269	<i>Pythium afertile</i> - Soil	9374	<i>Clavibacter</i> sp. - <i>Agropyron trachycaulum</i>
9270	<i>Pythium irregulare</i> - <i>Medicago sativa</i>	9375	<i>Clavibacter</i> sp. - <i>Agropyron triparium</i>
9271	<i>Beauveria bassiana</i> - <i>Vespula germanica</i>	9376	<i>Rhizobium</i> sp. - Peat culture
9274	<i>Pseudomonas viridiflava</i> - <i>Actinidia deliciosa</i>	9377	<i>Pseudomonas</i> sp. - <i>Allium sativum</i>
9275	<i>Pseudomonas cichorii</i> - <i>Gerbera jamesonii</i>	9378	<i>Pseudomonas</i> sp. - <i>Allium sativum</i>
9276	<i>Pseudomonas cichorii</i> - <i>Abelmoschus esculentus</i>	9379	<i>Pseudomonas</i> sp. - <i>Allium sativum</i>
9277	<i>Pseudomonas cichorii</i> - <i>Coffea arabica</i>	9380	<i>Pseudomonas</i> sp. - <i>Allium sativum</i>
9278	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	9381	<i>Pseudomonas</i> sp. - <i>Allium sativum</i>
		9382	<i>Pseudomonas</i> sp. - <i>Gladiolus</i> sp.

- 9383 *Pseudomonas* sp. - *Gladiolus* sp.
 9384 *Pseudomonas* sp. - *Gladiolus* sp.
 9385 *Xanthomonas* sp. - *Pilea cadierei*
 9386 *Xanthomonas* sp. - *Pilea cadierei*
 9387 *Xanthomonas* sp. - *Pilea cadierei*
 9388 *Xanthomonas* sp. - *Pilea cadierei*
 9389 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9390 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9391 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9392 *Pseudomonas fluorescens* - *Triticum monococcum*
 9393 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9394 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9395 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9396 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9397 *Pseudomonas syringae* pv. *atrofaciens* - *Triticum aestivum*
 9399 *Rhizobacter daucus* - *Daucus carota* var. *sativus*
 9400 *Rhizobacter daucus* - *Daucus carota* var. *sativus*
 9401 *Rhizobacter daucus* - *Daucus carota* var. *sativus*
 9402 *Rhizobacter daucus* - *Daucus carota* var. *sativus*
 9405 *Pseudomonas syringae* - *Protea cynaroides*
 9406 *Pseudomonas syringae* - *Protea cynaroides*
 9407 *Pseudomonas syringae* - *Protea cynaroides*
 9408 *Pseudomonas syringae* - *Protea cynaroides*
 9413 *Erwinia* sp. - *Zantedeschia* sp.
 9414 *Escherichia coli*
 9415 *Escherichia coli*
 9416 *Pseudomonas cichorii* - *Triticum aestivum*
 9417 *Pseudomonas cichorii* - *Triticum aestivum*
 9418 *Pseudomonas cichorii* - *Triticum aestivum*
 9419 *Pseudomonas syringae* pv. *castaneae* - *Castanea crenata*
 9420 *Pseudomonas syringae* pv. *castaneae* - *Castanea crenata*
 9421 *Pseudomonas syringae* pv. *castaneae* - *Castanea crenata*
 9422 *Erwinia chrysanthemi* - *Allium cepa*
 9423 *Xanthomonas campestris* pv. *boerhaaviae* - *Boerhaavia rep*
 9424 *Burkholderia plantarii* - *Oryza sativa*
 9425 *Burkholderia plantarii* - Bed Soil of nursery box
 9426 *Burkholderia plantarii* - *Oryza sativa*
 9427 *Burkholderia plantarii* - *Oryza sativa*
 9428 *Burkholderia plantarii* - *Oryza sativa*
 9429 *Burkholderia plantarii* - *Oryza sativa*
 9434 *Rhynchosporium secalis* - *Hordeum murinum*
 9435 *Rhynchosporium secalis* - *Agropyron repens*
 9436 *Rhynchosporium secalis* - *Agropyron repens*
 9437 *Rhynchosporium secalis* - *Agropyron repens*
 9438 *Rhynchosporium secalis* - *Hordeum vulgare*
 9440 *Rhynchosporium secalis* - *Hordeum vulgare*
 9441 *Rhynchosporium secalis* - *Hordeum vulgare*
 9442 *Rhynchosporium secalis* - *Hordeum vulgare*
 9443 *Rhynchosporium secalis* - *Secale cereale*
 9445 *Diplodia zeae* - *Zea mays*
 9446 *Diplodia zeae* - *Zea mays*
 9448 *Gibberella baccata* - *Passiflora edulis*
 9449 *Gibberella baccata* - *Passiflora edulis*
 9450 *Gibberella stilboides* - *Passiflora edulis*
 9451 *Gibberella stilboides* - *Passiflora edulis*
 9452 *Fusarium oxysporum* - *Cucumis melo*
 9453 *Fusarium oxysporum* - *Passiflora edulis*
 9454 *Fusarium oxysporum* - *Passiflora edulis*
 9455 *Monilinia fructicola* - *Prunus persica*
 9456 *Monilinia fructicola* - *Prunus persica*
 9457 *Monilinia fructicola* - *Prunus persica*
 9458 *Microdochium bolleyi* - *Agrostis* sp.
 9459 *Verticillium sphaerosporum* - *Ditylenchus dipsaci*
 9464 *Aspergillus flavus* - Shoe sole
 9465 *Aspergillus tamarii* - Rubber or plastic insulation
 9466 *Aureobasidium pullulans* var. *melanigenum* - Painted wood
 9467 *Gliocladium virens*
 9468 *Penicillium ochrochloron*
 9469 *Stemphylium* sp. - *Asparagus officinalis*
 9470 *Stemphylium* sp. - *Asparagus officinalis*
 9471 *Stemphylium* sp. - *Asparagus officinalis*
 9472 *Nectria galligena* - *Malus X domestica*
 9476 *Botryosphaeria parva* - *Prunus armeniaca*
 9477 *Trichoderma longibrachiatum* - Mushroom compost trays
 9478 *Trichoderma pseudokoningii* - Mushroom compost trays
 9479 *Gliomastix murorum* var. *felina* - *Cordylone australis*
 9481 *Nectria sesquiphialis*
 9482 *Cladosporium colocasiae* - *Colocasia esculenta*
 9483 *Phoma wasabiae* - *Eutrema wasabi*
 9484 *Glomerella cingulata* - *Cymbidium* sp.
 9485 *Botryosphaeria xanthocephala* - *Vigna unguiculata* subsp.
 9486 *Phytophthora megasperma* Drechsler var. *sojae* - Soil from
 9487 *Phytophthora megasperma* Drechsler var. *sojae* - Soil from
 9488 *Phytophthora megasperma* Drechsler var. *sojae* - Soil from
 9489 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9490 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9491 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9492 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9493 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9494 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9495 *Phytophthora megasperma* Drechsler var. *sojae* - *Asparagu*
 9496 *Streptovorticillium* sp. - Soil
 9497 *Pseudomonas syringae* - *Acer rubrum*
 9498 *Pseudomonas syringae* - *Acer rubrum*
 9499 *Pseudomonas syringae* pv. *tomato* - *Lycopersicon esculentum*
 9500 *Pseudomonas syringae* pv. *tomato*
 9501 *Pseudomonas syringae* pv. *tomato* - *Solanum muricatum*
 9503 *Pseudomonas marginalis* - *Actinidia deliciosa*
 9505 *Pseudomonas marginalis* - *Actinidia deliciosa*
 9508 *Xanthomonas campestris* pv. *hederae* - *Schefflera arboricol*
 9509 *Xanthomonas campestris* pv. *hederae* - *Schefflera arboricol*
 9510 *Xanthomonas campestris* pv. *hederae* - *Brassaia actinophyll*
 9511 *Xanthomonas campestris* pv. *hederae* - *Brassaia actinophyll*
 9512 *Xanthomonas campestris* pv. *poinsetticola* - *Codiaeum varie*
 9513 *Xanthomonas campestris* pv. *poinsetticola* - *Codiaeum varie*
 9514 *Xanthomonas* sp. - *Strelitzia reginae*
 9515 *Xanthomonas* sp. - *Strelitzia reginae*
 9516 *Xanthomonas* sp. - *Strelitzia reginae*
 9517 *Xanthomonas* sp. - *Pellionia pulchra*
 9518 *Xanthomonas* sp. - *Pilea spruceana*
 9519 *Xanthomonas* sp. - *Pilea cadierei*
 9520 *Erwinia carotovora* subsp. *carotovora* - *Polianthes tuberosa*
 9521 *Erwinia carotovora* subsp. *carotovora* - *Polianthes tuberosa*
 9522 *Pseudomonas* sp. - *Agaricus bisporus*
 9525 *Clavibacter toxicus* - *Lolium rigidum*
 9526 *Clavibacter toxicus* - *Lolium rigidum*
 9527 *Clavibacter toxicus* - *Lolium rigidum*
 9528 *Xanthomonas albilineans* - *Saccharum officinarum*
 9529 *Heterobasidium araucariae* - *Agathis australis*
 9530 *Heterobasidium araucariae* - *Agathis australis*
 9531 *Heterobasidium araucariae* - *Agathis australis*
 9532 *Heterobasidium araucariae* - *Agathis australis*
 9533 *Heterobasidium araucariae* - *Agathis australis*
 9534 *Heterobasidium araucariae* - *Agathis australis*
 9535 *Heterobasidium araucariae* - *Agathis vitiensis*
 9536 *Heterobasidium araucariae* - *Pinus taeda*
 9537 *Heterobasidium araucariae* - *Pinus taeda*
 9538 *Heterobasidium araucariae* - *Araucaria cunninghamii*
 9539 *Heterobasidium araucariae* - *Araucaria cunninghamii*
 9540 *Heterobasidium araucariae* - *Araucaria bidwillii*
 9541 *Heterobasidium annosum* - *Picea* sp.
 9542 *Heterobasidium annosum* - *Pinus pinaster*
 9543 *Heterobasidium annosum* - *Picea glauca*
 9544 *Heterobasidium annosum* - *Pinus sylvestris*
 9545 *Heterobasidium annosum*
 9546 *Heterobasidium annosum*
 9547 *Heterobasidium annosum* - *Tsuga heterophylla*
 9548 *Heterobasidium annosum* - *Picea glauca*
 9549 *Heterobasidium annosum* - *Pinus sylvestris*
 9550 *Heterobasidium annosum*
 9551 *Heterobasidium araucariae* - *Agathis australis*
 9552 *Heterobasidium araucariae* - *Agathis australis*
 9553 *Heterobasidium araucariae* - *Agathis australis*
 9554 *Heterobasidium araucariae* - *Agathis australis*
 9555 *Heterobasidium araucariae* - *Agathis australis*
 9556 *Heterobasidium araucariae* - Aerial spores in plantation of
 9557 *Heterobasidium araucariae* - *Araucaria cunninghamii*
 9558 *Heterobasidium araucariae* - *Araucaria cunninghamii*
 9559 *Heterobasidium araucariae* - *Araucaria cunninghamii*
 9560 *Heterobasidium araucariae* - *Agathis australis*
 9561 *Heterobasidium araucariae* - *Agathis australis*
 9562 *Pseudomonas* sp. - *Saccharum officinarum*
 9563 *Xanthomonas campestris* pv. *malvacearum* - *Hibiscus rosa*
 9564 *Xanthomonas campestris* pv. *dieffenbachiae* - *Anthurium*
 9565 *Xanthomonas campestris* pv. *dieffenbachiae* - *Anthurium*
 9566 *Xanthomonas campestris* pv. *dieffenbachiae* - *Philodendron*
 9567 *Xanthomonas campestris* pv. *fici* - *Ficus benjamina*
 9568 *Xanthomonas campestris* pv. *dieffenbachiae* - *Philodendron*
 9569 *Xanthomonas campestris* pv. *dieffenbachiae* - *Dieffenbachia*
 9570 *Xanthomonas campestris* pv. *dieffenbachiae* - *Epipremnum*
 9571 *Xanthomonas* sp. - *Fittonia verschaaffeltii*
 9572 *Xanthomonas campestris* pv. *pelargonii* - *Pelargonium X hort*
 9573 *Xanthomonas campestris* pv. *nigromaculans* - *Zinnia elegans*
 9574 *Xanthomonas campestris* pv. *nigromaculans* - *Zinnia elegans*
 9575 *Xanthomonas campestris* pv. *fici* - *Ficus benjamina*
 9576 *Xanthomonas* sp. - Fern
 9577 *Xanthomonas* sp. - *Chrysanthemum X morifolium*
 9578 *Xanthomonas* sp. - *Salvia* sp.
 9579 *Xanthomonas* sp. - *Myrica* sp.
 9580 *Xanthomonas campestris* pv. *hederae* - *X Fatschedera lizei*

9581	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> X <i>hort</i>	9686	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9582	<i>Xanthomonas</i> sp. - <i>Illicium</i> sp.	9687	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9583	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> X <i>hort</i>	9688	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9584	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca</i> sp.	9689	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9585	<i>Xanthomonas</i> sp. - <i>Fittonia verschaffeltii</i>	9690	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9586	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Philodendron</i>	9691	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>
9587	<i>Xanthomonas campestris</i> pv. <i>begoniae</i> - <i>Begonia</i> sp.	9692	<i>Fusicoccum</i> sp. - <i>Knighthia excelsa</i>
9588	<i>Xanthomonas campestris</i> pv. <i>begoniae</i> - <i>Begonia X rex-culto</i>	9693	<i>Fusicoccum</i> sp. - <i>Phyllocladus glaucus</i>
9589	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i>	9694	<i>Fusicoccum</i> sp. - <i>Libocedrus plumosa</i>
9590	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i>	9695	<i>Pestalotiopsis</i> sp. - <i>Phyllocladus glaucus</i>
9591	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>	9696	<i>Pestalotiopsis</i> sp. - <i>Libocedrus plumosa</i>
9592	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>	9697	<i>Pestalotiopsis</i> sp. - <i>Knighthia excelsa</i>
9593	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>	9698	<i>Plectosphaerella cucumeris</i> - <i>Cucumis</i> sp.
9594	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>	9699	<i>Plectosphaerella cucumeris</i> - <i>Cucumis</i> sp.
9595	<i>Xanthomonas</i> sp.	9700	<i>Gibberella intricans</i> - <i>Persea americana</i>
9596	<i>Burkholderia solanacearum</i> - <i>Solanum sisymbriifolium</i>	9702	<i>Botryosphaeria dothidea</i> - <i>Persea americana</i>
9597	<i>Burkholderia solanacearum</i> - <i>Ageratum conzoides</i>	9703	<i>Nectria westlandica</i> - Bark
9598	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	9704	<i>Nectria</i> sp. - <i>Pittosporum</i> sp.
9599	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	9705	<i>Nectria</i> sp. - <i>Hoheria populnea</i>
9600	<i>Burkholderia solanacearum</i> - <i>Musa</i> sp.	9706	<i>Nectria illudens</i> - Tree
9601	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	9707	<i>Nectria illudens</i> - <i>Metrosideros</i> sp.
9602	<i>Burkholderia solanacearum</i> - <i>Eucalyptus urophylla</i>	9708	<i>Nectria illudens</i> - <i>Melicactus ramiflorus</i>
9603	<i>Burkholderia solanacearum</i> - <i>Eucalyptus grandis</i> X <i>E. uroph</i>	9709	<i>Phomopsis</i> sp. - <i>Persea americana</i>
9604	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	9710	<i>Phomopsis</i> sp. - <i>Persea americana</i>
9605	<i>Burkholderia solanacearum</i> - <i>Eucalyptus urophylla</i>	9711	<i>Penicillium simplicissimum</i> - Fibre packing tray
9606	<i>Agrobacterium</i> sp. - Soil	9712	<i>Talaromyces flavus</i> - Fibre packing tray
9607	<i>Bacillus thuringiensis</i> - Soil	9713	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9608	<i>Bacillus thuringiensis</i> - Soil	9714	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9609	<i>Bacillus thuringiensis</i> - Soil	9715	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9610	<i>Bacillus thuringiensis</i>	9716	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9611	<i>Pseudomonas syringae</i> pv. <i>berberidis</i> - <i>Berberis</i> sp.	9717	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9613	<i>Streptococcus faecium</i> - Animal feed	9718	<i>Colletotrichum lindemuthianum</i> - <i>Phaseolus vulgaris</i>
9614	<i>Xanthomonas</i> sp. - <i>Photinia glabra</i>	9719	<i>Penicillium expansum</i> - <i>Pyrus communis</i>
9615	<i>Xanthomonas</i> sp. - <i>Dianthus caryophyllus</i>	9720	<i>Penicillium expansum</i> - <i>Pyrus communis</i>
9616	<i>Xanthomonas campestris</i> pv. <i>vitians</i> - <i>Lactuca</i> sp.	9722	<i>Penicillium expansum</i> - <i>Pyrus communis</i>
9617	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> - <i>Actinidia deliciosa</i>	9723	<i>Penicillium expansum</i> - <i>Pyrus communis</i>
9623	<i>Pseudomonas syringae</i> pv. <i>hibisci</i> - <i>Hibiscus rosa-sinensis</i>	9724	<i>Pezizula alba</i> - <i>Malus X domestica</i>
9624	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Capsicum annuu</i>	9725	<i>Allophylaria</i> sp. - <i>Dicksonia squarrosa</i>
9625	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9726	<i>Rhizoctonia solani</i> - <i>Zea mays</i>
9626	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9727	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9627	<i>Xanthomonas campestris</i> pv. <i>pennamericanum</i> - <i>Pennisetu</i>	9728	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Beta vulgar</i>
9628	<i>Leucogyrophana mollusca</i> - <i>Pinus patula</i>	9729	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Beta vulgar</i>
9629	<i>Pleurotus purpureo-olivaceus</i> - <i>Nothofagus</i> sp.	9730	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Beta vulgar</i>
9630	<i>Pleurotus purpureo-olivaceus</i> - <i>Nothofagus</i> sp.	9731	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Beta vulgar</i>
9631	<i>Hypholoma brunnea</i> - <i>Nothofagus</i> sp.	9732	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Beta vulgar</i>
9632	<i>Hypholoma brunnea</i> - <i>Nothofagus</i> sp.	9733	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9633	<i>Panellus longinquus</i> - <i>Nothofagus</i> sp.	9734	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9634	<i>Panellus longinquus</i>	9735	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9636	<i>Lentinula edodes</i>	9736	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9637	<i>Lentinula edodes</i>	9737	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
9638	<i>Lentinula edodes</i>	9738	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
9639	<i>Lentinula edodes</i>	9739	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
9640	<i>Lentinula edodes</i>	9740	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>
9641	<i>Lentinula edodes</i>	9742	<i>Pseudomonas</i> sp. - <i>Pyrus communis</i>
9642	<i>Lentinula edodes</i>	9745	<i>Pseudomonas syringae</i> pv. <i>dysoxylis</i> - <i>Dysoxylum spectabile</i>
9643	<i>Lentinula edodes</i>	9746	<i>Pseudomonas syringae</i> pv. <i>avellanae</i> - <i>Corylus avellana</i>
9644	<i>Lentinula edodes</i>	9747	<i>Pseudomonas syringae</i> pv. <i>avellanae</i> - <i>Corylus avellana</i>
9645	<i>Lentinula edodes</i>	9748	<i>Pseudomonas syringae</i> pv. <i>avellanae</i> - <i>Corylus avellana</i>
9646	<i>Lentinula edodes</i>	9749	<i>Pseudomonas syringae</i> pv. <i>avellanae</i> - <i>Corylus avellana</i>
9647	<i>Lentinula edodes</i>	9750	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9648	<i>Lentinula edodes</i>	9751	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9649	<i>Lentinula edodes</i>	9752	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9661	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>	9753	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9662	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>	9754	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9663	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>	9755	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
9664	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - Soil from asparagus	9756	<i>Pseudomonas syringae</i> pv. <i>rhaphiolepidis</i> - <i>Rhaphiolepis</i>
9665	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - Soil from asparagus	9757	<i>Pseudomonas syringae</i> pv. <i>daphniphylli</i> - <i>Daphniphyllum teij</i>
9666	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - Soil from asparagus	9758	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>
9667	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - Soil from asparagus	9759	<i>Xanthomonas</i> sp. - <i>Mangifera</i> sp.
9668	<i>Phytophthora</i> sp. - <i>Asparagus officinalis</i>	9760	<i>Phytophthora megasperma</i> - <i>Asparagus officinalis</i>
9669	<i>Phytophthora</i> sp. - <i>Asparagus officinalis</i>	9761	<i>Phytophthora megasperma</i> - <i>Asparagus officinalis</i>
9670	<i>Phytophthora</i> sp. - <i>Asparagus officinalis</i>	9762	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>
9671	<i>Phytophthora</i> sp. - <i>Asparagus officinalis</i>	9763	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>
9672	<i>Phytophthora</i> sp. - <i>Asparagus officinalis</i>	9764	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>
9673	<i>Phytophthora cryptogea</i> - <i>Asparagus officinalis</i>	9765	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>
9674	<i>Phytophthora cryptogea</i> - <i>Asparagus officinalis</i>	9766	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>
9675	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - <i>Asparagus officinalis</i>	9767	<i>Phytophthora cryptogea</i> - <i>Asparagus officinalis</i>
9676	<i>Phytophthora megasperma</i> var. <i>sojiae</i> - Soil from asparagus	9768	<i>Phytophthora cryptogea</i> - <i>Asparagus officinalis</i>
9677	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9769	<i>Phytophthora cryptogea</i> - <i>Asparagus officinalis</i>
9678	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9770	<i>Phytophthora cryptogea</i>
9679	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9771	<i>Phytophthora drechsleri</i>
9680	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9772	<i>Bisporella discedens</i> - <i>Rhopalostylis sapida</i>
9681	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9773	<i>Phaeoramularia eupatorii-odorati</i> - <i>Eupatorium glandulosum</i>
9682	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9774	<i>Nectria flammea</i> - Scale insect parasite on pepino
9683	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9775	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea
9684	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9776	<i>Nectria haematococca</i> Berkeley & Broome var. <i>cucurbitae</i>
9685	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	9777	<i>Fusarium solani</i> f. sp. <i>xanthoxyli</i> - <i>Zanthoxylum piperitum</i>

9778	<i>Fusarium solani</i> f. sp. <i>robiniae</i> - <i>Robinia pseudoacacia</i>	9867	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9779	<i>Nectria haematococca</i> Berkeley & Broome var. <i>cucurbitae</i>	9868	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>
9780	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea	9869	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>
9781	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea	9870	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>
9782	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea	9871	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>
9783	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea	9872	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus orientalis</i>
9784	<i>Fusarium solani</i> f. sp. <i>pisi</i> - Pea	9873	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9785	<i>Fusarium solani</i> f. sp. <i>pisi</i> - <i>Pisum sativum</i>	9874	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9786	<i>Fusarium solani</i> f. sp. <i>phaseoli</i>	9875	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9787	<i>Nectria haematococca</i> var. <i>cucurbitae</i>	9876	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9788	<i>Nectria haematococca</i> var. <i>cucurbitae</i>	9877	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9789	<i>Fusarium solani</i> f. sp. <i>mori</i> - <i>Morus</i> sp.	9878	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>
9790	<i>Fusarium solani</i> f. sp. <i>xanthoxyli</i> - <i>Zanthoxylum piperitum</i>	9879	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i>
9791	<i>Fusarium solani</i> f. sp. <i>robiniae</i> - <i>Robinia pseudoacacia</i>	9880	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Aglaonema commutatum</i>
9792	<i>Fusarium solani</i> f. sp. <i>phaseoli</i> - Bean	9881	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Aglaonema commutatum</i>
9793	<i>Fusarium solani</i> f. sp. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	9882	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Aglaonema commutatum</i>
9794	<i>Fusarium solani</i> f. sp. <i>phaseoli</i> - <i>Phaseolus</i> sp.	9883	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Aglaonema commutatum</i>
9795	<i>Nectria haematococca</i> var. <i>cucurbitae</i>	9884	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Yucca elephantipes</i>
9796	<i>Nectria haematococca</i> var. <i>cucurbitae</i>	9885	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
9797	<i>Nectria haematococca</i> var. <i>cucurbitae</i>	9886	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>
9798	<i>Fusarium solani</i> f. sp. <i>mori</i> - <i>Morus</i> sp.	9887	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>
9799	<i>Nectria haematococca</i> var. <i>cucurbitae</i> - <i>Cucurbita</i> sp.	9888	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
9800	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	9889	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
9801	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	9890	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Citrus limon</i>
9802	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	9891	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Phaseolus vulgaris</i>
9803	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	9892	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus communis</i>
9804	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>	9893	<i>Xanthomonas populi</i> - <i>Populus koreana</i> X <i>P. trichocarpa</i>
9805	<i>Sclerotinia draytonii</i> - <i>Ixia polystachya</i>	9894	<i>Xanthomonas</i> sp. - <i>Liquidambar</i> sp.
9806	<i>Botryosphaeria parva</i> - <i>Persea americana</i>	9895	<i>Xanthomonas</i> sp. - <i>Liquidambar</i> sp.
9807	<i>Botrytis elliptica</i> - <i>Lilium</i> sp.	9896	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
9808	<i>Botrytis elliptica</i> - <i>Lilium</i> sp.	9897	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
9809	<i>Botryosphaeria obtusa</i> - <i>Malus X domestica</i>	9898	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
9810	<i>Botryosphaeria obtusa</i> - <i>Malus X domestica</i>	9899	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
9811	<i>Monilinia fructicola</i> - <i>Prunus persica</i>	9900	<i>Erwinia herbicola</i> - <i>Beta vulgaris</i>
9812	<i>Monilinia fructicola</i> - <i>Prunus persica</i>	9901	<i>Curtobacterium flaccumfaciens</i> pv. <i>oortii</i> - <i>Tulipa gesnerana</i>
9814	<i>Verticillium albo-atrum</i> - <i>Dianthus caryophyllus</i>	9902	<i>Curtobacterium flaccumfaciens</i> pv. <i>oortii</i> - <i>Tulipa gesnerana</i>
9816	<i>Aureobasidium pullulans</i> var. <i>melanigenum</i> - <i>Wattle</i> stained	9903	<i>Erwinia rhapontici</i> - <i>Hyacinthus orientalis</i>
9818	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9904	<i>Erwinia rhapontici</i> - <i>Hyacinthus orientalis</i>
9819	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9905	<i>Burkholderia andropogonis</i> - <i>Triplaris filipensis</i>
9820	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9906	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
9821	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9907	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
9822	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9908	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
9823	<i>Trichoderma harzianum</i> - <i>Cocos nucifera</i>	9909	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
9824	<i>Bipolaris</i> sp. - <i>Puccinellia fasciculata</i>	9910	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
9825	<i>Cochliobolus ravenelii</i> - <i>Sporobolus</i> sp.	9911	<i>Pseudomonas cichorii</i> - <i>Magnolia X soulangiana</i>
9826	<i>Xanthomonas</i> sp. - <i>Mangifera</i> sp.	9912	<i>Pseudomonas cichorii</i> - <i>Magnolia X soulangiana</i>
9827	<i>Xanthomonas</i> sp. - <i>Mangifera</i> sp.	9913	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Canna paniculata</i>
9829	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9914	<i>Burkholderia solanacearum</i> - <i>Curcuma domestica</i>
9830	<i>Pseudomonas fluorescens</i> - <i>Coriandrum sativum</i>	9915	<i>Burkholderia solanacearum</i> - <i>Syzygium aromaticum</i>
9831	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9916	<i>Pseudomonas syringae</i> - <i>Brassica napus</i>
9832	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9917	<i>Pseudomonas syringae</i> - <i>Catalpa bignonioides</i>
9833	<i>Pseudomonas fluorescens</i> - <i>Coriandrum sativum</i>	9919	<i>Pseudomonas syringae</i> pv. <i>atrofaciens</i> - <i>Triticum turgidum</i>
9834	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9920	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>
9835	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9921	<i>Pseudomonas caricapapayae</i> - <i>Carica papaya</i>
9836	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativ</i>	9922	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Secale cereale</i>
9837	<i>Xanthomonas</i> sp. - <i>Pyrus pyrifolia</i>	9923	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine wightii</i>
9838	<i>Xanthomonas</i> sp. - <i>Pyrus pyrifolia</i>	9924	<i>Pseudomonas syringae</i> - <i>Glycine max</i>
9839	<i>Xanthomonas</i> sp. - <i>Pyrus pyrifolia</i>	9925	<i>Pseudomonas syringae</i> - <i>Wisteria floribunda</i>
9840	<i>Xanthomonas</i> sp. - <i>Citrus</i> sp.	9926	<i>Cochliobolus ravenelii</i> - <i>Sporobolus</i> sp.
9841	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Anthurium</i> sp.	9927	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9842	<i>Erwinia</i> sp. - <i>Acer buergeranum</i>	9928	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
9843	<i>Erwinia</i> sp. - <i>Acer buergeranum</i>	9929	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9844	<i>Erwinia</i> sp. - <i>Acer buergeranum</i>	9930	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9845	<i>Erwinia</i> sp. - <i>Acer buergeranum</i>	9931	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
9846	<i>Erwinia</i> sp. - <i>Acer buergeranum</i>	9932	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
9847	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	9933	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
9848	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	9934	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9849	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	9935	<i>Cochliobolus intermedius</i> - <i>Digitaria</i> sp.
9850	<i>Pseudomonas syringae</i> pv. <i>aceris</i> - <i>Acer buergeranum</i>	9936	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9851	<i>Pseudomonas syringae</i> pv. <i>aceris</i> - <i>Acer buergeranum</i>	9937	<i>Cochliobolus intermedius</i> - <i>Digitaria</i> sp.
9852	<i>Pseudomonas syringae</i> pv. <i>aceris</i> - <i>Acer buergeranum</i>	9938	<i>Bipolaris brizae</i> - <i>Briza minor</i>
9853	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> - <i>Actinidia deliciosa</i>	9939	<i>Cochliobolus cynodontis</i> - <i>Paspalum conjugatum</i>
9854	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> - <i>Actinidia deliciosa</i>	9940	<i>Bipolaris brizae</i> - <i>Briza maxima</i>
9855	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> - <i>Actinidia deliciosa</i>	9941	<i>Drechslera</i> sp. - <i>Grass debris</i>
9856	<i>Xanthomonas campestris</i> pv. <i>cannabis</i> - <i>Cannabis sativa</i>	9942	<i>Curvularia</i> sp. - <i>Dactyloctenium aegyptium</i>
9857	<i>Xanthomonas campestris</i> pv. <i>cannabis</i> - <i>Cannabis sativa</i>	9943	<i>Drechslera</i> sp. - <i>Zoysia</i> sp.
9858	<i>Pseudomonas</i> sp. - <i>Lycopersicon esculentum</i>	9944	<i>Drechslera</i> sp. - <i>Dactyloctenium aegyptium</i>
9859	<i>Pseudomonas</i> sp. - <i>Lycopersicon esculentum</i>	9945	<i>Cochliobolus ravenelii</i> - <i>Sporobolus</i> sp.
9860	<i>Pseudomonas</i> sp. - <i>Lycopersicon esculentum</i>	9946	<i>Sphaeropsis sapinea</i> - <i>Pinus sylvestris</i>
9861	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Lycopersicon escul</i>	9947	<i>Sphaeropsis sapinea</i> - <i>Pinus</i> sp.
9862	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Lycopersicon escul</i>	9948	<i>Sphaeropsis sapinea</i> - <i>Pinus nigra</i> subsp. <i>nigra</i>
9863	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Helianthus annuus</i>	9949	<i>Sphaeropsis sapinea</i> - <i>Pinus sylvestris</i>
9864	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Capsicum annuum</i>	9950	<i>Sphaeropsis sapinea</i> - <i>Pinus sylvestris</i>
9865	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Dieffenbachia macul</i>	9951	<i>Sphaeropsis sapinea</i> - <i>Pinus nigra</i> subsp. <i>larico</i>
9866	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Dieffenbachia macul</i>	9952	<i>Sphaeropsis sapinea</i> - <i>Pseudotsuga menziesii</i>

9953	<i>Sphaeropsis sapinea</i> - <i>Pinus nigra</i> var. <i>maritima</i>	10052	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>
9954	<i>Sphaeropsis sapinea</i> - <i>Picea abies</i>	10053	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Avena sativa</i>
9955	<i>Sphaeropsis sapinea</i> - <i>Pinus sylvestris</i>	10054	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i>
9956	<i>Sphaeropsis sapinea</i>	10055	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Phleum pratense</i>
9957	<i>Monographella nivalis</i> - Turf	10056	<i>Pseudomonas syringae</i> pv. <i>coronafaciens</i> - <i>Zea mays</i>
9958	<i>Monographella nivalis</i> - Turf	10057	<i>Pseudomonas syringae</i> pv. <i>strifaciens</i> - <i>Avena sativa</i>
9959	<i>Pseudomonas syringae</i> - <i>Philadelphus coronarius</i>	10058	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
9960	<i>Pseudomonas syringae</i> - <i>Philadelphus coronarius</i>	10059	<i>Calonectria kytensis</i> - <i>Acca sellowiana</i>
9961	<i>Rhodococcus fascians</i> - <i>Pelargonium 'sonata'</i> cv. Orange	10060	<i>Monographella nivalis</i> - Turf
9962	<i>Rhodococcus fascians</i> - <i>Pelargonium zonale</i>	10061	<i>Gibberella intricans</i> - <i>Carica papaya</i>
9963	<i>Xanthomonas</i> sp. - <i>Syzygium aromaticum</i>	10062	<i>Fusarium proliferatum</i> - <i>Carica papaya</i>
9964	<i>Xanthomonas campestris</i> pv. <i>argemones</i> - <i>Argemone mexica</i>	10064	<i>Microdochium bolleyi</i> - Turf
9965	<i>Xanthomonas campestris</i> pv. <i>cerealis</i> - <i>Triticum aestivum</i>	10065	<i>Microdochium bolleyi</i> - Turf
9966	<i>Xanthomonas campestris</i> pv. <i>coracanae</i> - <i>Eleusine coracana</i>	10066	<i>Microdochium bolleyi</i> - Turf
9967	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>	10068	<i>Phomopsis juniperivora</i>
9968	<i>Xanthomonas campestris</i> pv. <i>cyamopsidis</i> - <i>Cyamopsis tetr</i>	10069	<i>Phomopsis</i> sp. - <i>Malus X domestica</i>
9969	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>	10070	<i>Phomopsis obscurans</i> - <i>Fragaria</i> sp.
9970	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum</i> sp.	10071	<i>Phomopsis</i> sp. - <i>Nandina domestica</i>
9971	<i>Xanthomonas</i> sp. - <i>Matthiola incana</i>	10072	<i>Diaporthe eres</i> - <i>Juglans regia</i>
9972	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	10073	<i>Phomopsis obscurans</i> - <i>Fragaria</i> sp.
9973	<i>Xanthomonas</i> sp. - <i>Maranta arundinacea</i>	10074	<i>Phomopsis obscurans</i> - <i>Fragaria</i> sp.
9974	<i>Xanthomonas campestris</i> pv. <i>rhynchosiae</i> - <i>Rhynchosia pha</i>	10075	<i>Phomopsis</i> sp. - <i>Rubus fruticosus</i>
9975	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Lolium multifloru</i>	10076	<i>Diaporthe eres</i> - <i>Malus X domestica</i>
9976	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Triticum turgidu</i>	10077	<i>Fusicoccum</i> sp. - <i>Ribes nigrum</i>
9977	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Triticum aestivu</i>	10078	<i>Lasioidiplodia theobromae</i> - <i>Mangifera</i> sp.
9978	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Hordeum vulgare</i>	10079	<i>Botryosphaeria stevensii</i> - <i>Malus X domestica</i>
9979	<i>Xanthomonas campestris</i> pv. <i>translucens</i> - <i>Triticum aestivu</i>	10080	<i>Botryosphaeria obtusa</i> - <i>Prunus armeniaca</i>
9980	<i>Xanthomonas campestris</i> pv. <i>vignicola</i> - <i>Vigna angularis</i>	10081	<i>Botryosphaeria obtusa</i> - <i>Malus X domestica</i>
9981	<i>Xanthomonas</i> sp. - <i>Calendula officinalis</i>	10082	<i>Botryosphaeria obtusa</i> - <i>Malus X domestica</i>
9982	<i>Xanthomonas</i> sp. - <i>Cayratia carnosa</i>	10083	<i>Botryosphaeria dothidea</i> - <i>Ribes nigrum</i>
9983	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>	10084	<i>Gibberella zeae</i> - <i>Dianthus caryophyllus</i>
9984	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	10085	<i>Fusarium culmorum</i> - <i>Dianthus caryophyllus</i>
9985	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	10086	<i>Gibberella zeae</i> - <i>Dianthus caryophyllus</i>
9986	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	10087	<i>Gibberella zeae</i> - <i>Dianthus caryophyllus</i>
9987	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	10088	<i>Gibberella avenacea</i> - <i>Dianthus caryophyllus</i>
9988	<i>Xanthomonas populi</i> - <i>Salix X dasyclados</i>	10089	<i>Phoma</i> sp. - <i>Lonicera japonica</i>
9991	<i>Xanthomonas campestris</i> pv. <i>brunneovaginae</i> - <i>Oryza sativa</i>	10090	<i>Rhizoctonia</i> like species - non basidiomycete - <i>Leptinella dioi</i>
9992	<i>Pseudomonas marginalis</i> - <i>Brassica oleracea</i> var. <i>italica</i>	10091	<i>Rhizoctonia</i> like species - non basidiomycete - <i>Leptinella dioi</i>
9995	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	10092	<i>Ascosphaera apis</i> - <i>Apis mellifera</i>
9996	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	10093	<i>Phycomyces nitens</i> - Carpet
9997	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	10094	<i>Setosphaeria monoceras</i> - <i>Echinochloa colona</i>
9998	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	10095	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
9999	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	10096	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
10000	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	10097	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
10001	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	10098	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
10002	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	10099	<i>Bipolaris</i> sp. - <i>Poa anceps</i> subsp. <i>polyphylla</i>
10003	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	10100	<i>Cochliobolus cynodontis</i> - <i>Digitaria</i> sp.
10004	<i>Pseudomonas syzygii</i> - <i>Syzygium aromaticum</i>	10101	<i>Cochliobolus ravenelii</i> - <i>Sporobolus africanus</i>
10006	<i>Pseudomonas</i> sp. - <i>Syzygium aequum</i>	10102	<i>Drechslera</i> sp. - <i>Puccinellia fasciculata</i>
10007	<i>Xanthomonas campestris</i> pv. <i>asclepiadis</i> - <i>Asclepias syriaca</i>	10103	<i>Drechslera</i> sp. - <i>Puccinellia fasciculata</i>
10009	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10104	<i>Cochliobolus sativus</i> - <i>Bromus willdenowii</i>
10010	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Citrus X paradi</i>	10105	<i>Pezizula alba</i> - <i>Malus X domestica</i>
10011	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Citrus</i> sp.	10106	<i>Cladosporium cladosporioides</i> - <i>Ulex europaeus</i>
10012	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Citrus X paradi</i>	10107	<i>Colletotrichum malvarum</i> - <i>Lavatera</i> sp. cv. Mont Blanc
10013	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10108	<i>Gnomonia comari</i> - <i>Fragaria X ananassa</i>
10014	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10109	<i>Mycosphaerella fragariae</i> - <i>Fragaria X ananassa</i>
10015	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10110	<i>Ramularia rhabdospora</i> - <i>Plantago lanceolata</i>
10016	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus sinensis</i>	10111	<i>Diaporthe adunca</i> - <i>Plantago lanceolata</i>
10017	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10112	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
10018	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10113	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
10019	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Poncirus trifoli</i>	10114	<i>Gibberella pulicaris</i> - <i>Ulex europaeus</i>
10020	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus sinensis</i>	10115	<i>Gibberella pulicaris</i> - <i>Ulex europaeus</i>
10021	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group E) - <i>Citrus sinensis</i>	10116	<i>Gibberella pulicaris</i> - <i>Ulex europaeus</i>
10022	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus aurantiif</i>	10117	<i>Phomopsis subordinaria</i> - <i>Plantago lanceolata</i>
10023	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus X paradi</i>	10118	<i>Didymella bryoniae</i> - <i>Cucurbita maxima</i>
10024	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus paradisi</i>	10119	<i>Verticillium lecanii</i> - <i>Cecidophyopsis ribis</i>
10025	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus reticulat</i>	10120	<i>Verticillium lecanii</i> - <i>Cecidophyopsis ribis</i>
10026	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group A) - <i>Citrus reticulat</i>	10121	<i>Alternaria brassicicola</i> - <i>Brassica oleracea</i> var. <i>botrytis</i>
10027	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group B) - <i>Citrus limon</i>	10122	<i>Alternaria petroselini</i> - <i>Petroselinum crispum</i>
10028	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group B) - <i>Citrus limon</i>	10123	<i>Alternaria radicina</i> - <i>Daucus carota</i> var. <i>sativus</i>
10029	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group C) - <i>Citrus aurantiif</i>	10124	<i>Alternaria radicina</i> - <i>Daucus carota</i> var. <i>sativus</i>
10030	<i>Xanthomonas campestris</i> pv. <i>citri</i> (Group D) - <i>Citrus aurantiif</i>	10125	<i>Erwinia</i> sp. - <i>Pyrus pyrifolia</i>
10034	<i>Xanthomonas campestris</i> pv. <i>citri</i>	10126	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
10035	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i>	10127	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
10037	<i>Xanthomonas campestris</i> pv. <i>oryzae</i>	10128	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
10038	<i>Xanthomonas campestris</i> pv. <i>translucens</i>	10129	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
10040	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>	10130	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i>
10041	<i>Xanthomonas albilineans</i> - <i>Saccharum officinarum</i>	10131	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cucumis melo</i>
10042	<i>Xanthomonas campestris</i> pv. <i>dieffenbachiae</i> - <i>Anthurium</i> sp.	10132	<i>Erwinia ananas</i> pv. <i>ananas</i> - <i>Saccharum</i> sp.
10043	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10133	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
10044	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10134	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Carica papaya</i>
10045	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10135	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>
10046	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10136	<i>Pseudomonas</i> sp. - <i>Lycopersicon esculentum</i>
10048	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10137	<i>Pseudomonas fuscovaginae</i> - <i>Triticum aestivum</i>
10049	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10138	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10050	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10139	<i>Pseudomonas</i> sp. - <i>Pisum sativum</i>
10051	<i>Pseudomonas syringae</i> pv. <i>tabaci</i> - <i>Nicotiana tabacum</i>	10140	<i>Pseudomonas</i> sp. - <i>Pisum sativum</i>

10141	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10233	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Cymbidium</i> sp.
10142	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10234	<i>Gibberella fujikuroi</i> - <i>Cymbidium</i> sp.
10143	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10235	<i>Alternaria cinerariae</i> - <i>Senecio cruentus</i>
10144	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10236	<i>Alternaria cucumerina</i> - <i>Cucumis melo</i>
10145	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10237	<i>Alternaria dauci</i> - <i>Daucus carota</i> var. <i>sativus</i>
10146	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10238	<i>Alternaria passiflorae</i> - <i>Passiflora subpeltata</i>
10147	<i>Xanthomonas</i> sp. - <i>Allium cepa</i>	10239	<i>Alternaria passiflorae</i> - <i>Passiflora</i> sp.
10149	<i>Rhizobium</i> sp. - <i>Hedysarum coronarium</i>	10240	<i>Alternaria solani</i> - <i>Hordeum vulgare</i>
10150	<i>Enterobacter aerogenes</i> - Sputum	10241	<i>Alternaria solani</i> - <i>Lycopersicon esculentum</i>
10151	<i>Escherichia coli</i> - Clinical isolate	10242	<i>Alternaria solani</i> - <i>Vicia faba</i>
10152	<i>Listeria monocytogenes</i> - Guinea pig lymph node	10243	<i>Alternaria solani</i> - <i>Solanum tuberosum</i>
10153	<i>Erwinia</i> sp. - <i>Salix matsudana</i> X <i>S. alba</i>	10244	<i>Alternaria</i> sp. - <i>Phaseolus</i> sp.
10154	<i>Erwinia</i> sp. - <i>Salix matsudana</i> X <i>S. alba</i>	10245	<i>Alternaria</i> sp. - <i>Hordeum vulgare</i>
10155	<i>Erwinia</i> sp. - <i>Salix matsudana</i> X <i>S. alba</i>	10246	<i>Alternaria</i> sp. - <i>Hordeum vulgare</i>
10156	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Vitis vinifera</i>	10247	<i>Alternaria</i> sp. - <i>Ligularia</i> sp.
10157	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Vitis vinifera</i>	10248	<i>Alternaria</i> sp. - <i>Raphanus sativus</i>
10158	<i>Amylostereum sacratum</i> - <i>Malus X domestica</i>	10249	<i>Alternaria</i> sp.
10159	Unknown fungus - Basidiomycete - <i>Rubus idaeus</i>	10250	<i>Arthrinium phaeospermum</i>
10160	<i>Chondrostereum purpureum</i> - <i>Actinidia deliciosa</i>	10251	<i>Arthrobotrys oligospora</i> - <i>Solanum tuberosum</i>
10161	<i>Chondrostereum purpureum</i> - <i>Malus X domestica</i>	10252	<i>Arthrobotrys oligospora</i>
10162	<i>Chondrostereum purpureum</i> - <i>Leucodendron</i> sp.	10253	<i>Beauveria</i> sp. - Insect
10163	<i>Phytophthora cactorum</i> - <i>Malus X domestica</i>	10254	<i>Bimuria novae-zelandiae</i>
10164	<i>Phytophthora cactorum</i> - <i>Malus X domestica</i>	10255	<i>Alternaria alternata</i> - <i>Pseudopanax</i> sp.
10165	<i>Phytophthora cinnamomi</i> - <i>Erica</i> sp.	10256	<i>Botrytis cinerea</i> - Aerial contaminant
10166	<i>Phytophthora cryptogea</i> - <i>Spinacia oleracea</i>	10257	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>
10167	<i>Phytophthora drechsleri</i> - Conifer	10258	<i>Botrytis cinerea</i> - <i>Lycopersicon esculentum</i>
10168	<i>Phytophthora</i> sp. - <i>Idesia polycarpa</i>	10259	<i>Botrytis</i> sp. - <i>Allium cepa</i>
10169	<i>Pythium gracile</i> - <i>Ixia</i> sp.	10260	<i>Botrytis</i> sp. - <i>Pelargonium</i> sp.
10170	<i>Rhizoctonia</i> sp. - <i>Trifolium repens</i>	10261	<i>Cochliobolus lunatus</i> - <i>Capsicum</i> sp.
10171	<i>Rhizoctonia</i> sp. - <i>Avena byzantina</i>	10262	<i>Cochliobolus miyabeanus</i> - <i>Oryza sativa</i>
10172	<i>Rhizoctonia</i> sp. - <i>Fragaria</i> sp.	10263	<i>Cochliobolus spicifer</i> - <i>Oryza sativa</i>
10173	<i>Rhizoctonia</i> sp. - <i>Fragaria</i> sp.	10264	<i>Colletotrichum acutatum</i> - <i>Xylosma</i> sp.
10174	<i>Rhizoctonia</i> sp. - <i>Brassica</i> sp.	10265	<i>Colletotrichum acutatum</i> - <i>Lycopersicon esculentum</i>
10175	<i>Rhizoctonia</i> sp. - <i>Prunus persica</i>	10266	<i>Colletotrichum acutatum</i> - <i>Rhododendron</i> sp.
10176	<i>Rhizoctonia</i> sp. - <i>Casurina</i> sp.	10267	<i>Colletotrichum acutatum</i> - <i>Rhododendron</i> sp.
10177	<i>Rhizoctonia</i> sp. - <i>Gladiolus</i> sp.	10268	<i>Colletotrichum acutatum</i> - <i>Metrosideros</i> sp.
10178	<i>Rhizoctonia</i> sp.	10269	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>
10179	<i>Rhizoctonia</i> sp. - <i>Prunus persica</i>	10270	<i>Colletotrichum acutatum</i> - <i>Litchi chinensis</i>
10180	<i>Rhizoctonia</i> sp. - <i>Dianthus</i> sp.	10271	<i>Colletotrichum acutatum</i> - <i>Protea cynaroides</i>
10181	<i>Rhizoctonia</i> sp. - <i>Lycopersicon esculentum</i>	10272	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
10182	<i>Schizophyllum commune</i> - <i>Linum</i> sp.	10273	<i>Colletotrichum acutatum</i> - <i>Camellia</i> sp.
10183	<i>Thanatephorus cucumeris</i> - <i>Lycopersicon esculentum</i>	10274	<i>Colletotrichum acutatum</i>
10184	<i>Phytophthora cactorum</i> - <i>Malus X domestica</i>	10275	<i>Colletotrichum coccodes</i> - <i>Solanum tuberosum</i>
10185	<i>Pythium acanthicum</i> - <i>Ixia</i> sp.	10276	<i>Colletotrichum dematium</i> - <i>Capsicum</i> sp.
10186	<i>Armillaria?</i> sp. - <i>Ribes uva-crispa</i>	10277	<i>Colletotrichum dematium</i>
10187	<i>Amorphotheca resiniae</i>	10278	<i>Colletotrichum dematium</i> - <i>Murraya koenigii</i>
10188	<i>Arthrobotrys oligospora</i> - <i>Cucurbita maxima</i>	10279	<i>Colletotrichum dematium</i> - <i>Modiola caroliniana</i>
10189	<i>Aspergillus cervinus</i> - <i>Fragaria</i> sp.	10280	<i>Colletotrichum destructivum</i> - <i>Medicago sativa</i>
10190	<i>Emericella nidulans</i> - <i>Rosa</i> sp.	10281	<i>Colletotrichum destructivum</i> - <i>Rumex pulcher</i>
10191	<i>Pseudomonas</i> sp. - <i>Actinidia</i> sp.	10282	<i>Colletotrichum destructivum</i> - <i>Trifolium repens</i>
10193	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	10283	<i>Colletotrichum fuscum</i> - <i>Digitalis purpurea</i>
10194	<i>Xanthomonas campestris</i> pv. <i>asclepiadis</i> - <i>Asclepias syriaca</i>	10284	<i>Alternaria</i> sp. - <i>Hordeum vulgare</i>
10195	<i>Xanthomonas campestris</i> pv. <i>asclepiadis</i> - <i>Asclepias syriaca</i>	10285	<i>Fusarium oxysporum</i> - <i>Hoheria</i> sp.
10196	<i>Xanthomonas campestris</i> pv. <i>asclepiadis</i> - <i>Asclepias syriaca</i>	10286	<i>Gibberella avenacea</i> - <i>Lens culinaris</i>
10197	<i>Xanthomonas campestris</i> pv. <i>asclepiadis</i> - <i>Asclepias syriaca</i>	10287	<i>Gibberella avenacea</i> - <i>Poa annua</i>
10198	<i>Pseudomonas</i> sp. - <i>Luffa aegyptiaca</i>	10288	<i>Aspergillus niger</i> - Polyester butcher's twine
10199	<i>Pseudomonas</i> sp. - <i>Luffa aegyptiaca</i>	10289	<i>Cochliobolus lunatus</i> - <i>Curcuma domestica</i>
10200	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10290	<i>Lasiodiplodia theobromae</i> - <i>Theobroma cacao</i>
10201	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - Anise	10291	<i>Trichoderma harzianum</i> - Polyester butcher's twine
10202	<i>Pseudomonas syringae</i> - <i>Carum carvi</i>	10292	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>
10203	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10293	<i>Colletotrichum acutatum</i> - <i>Fragaria</i> sp.
10204	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10294	<i>Alternaria dichondrae</i> - <i>Dichondra repens</i>
10205	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10295	<i>Alternaria dichondrae</i> - <i>Dichondra repens</i>
10206	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10296	<i>Alternaria padwickii</i> - <i>Oryza sativa</i>
10207	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	10297	<i>Alternaria solani</i> - <i>Lycopersicon esculentum</i>
10213	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10298	<i>Apiospora montagnei</i> - <i>Prunus persica</i>
10214	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10299	<i>Ascochyta rabei</i> - <i>Cicer arietinum</i>
10215	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10300	<i>Botryosphaeria dothidea</i> - <i>Hebe</i> sp.
10216	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10301	<i>Botrytis</i> sp. - <i>Allium cepa</i>
10217	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10302	<i>Botryosphaeria stevensii</i> - <i>Pisum sativum</i>
10218	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10303	<i>Ceuthospora</i> sp.
10219	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10304	<i>Chaetomium</i> sp. - Aerial contaminant
10220	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10305	<i>Chaetomium indicum</i> - Soil
10221	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10306	<i>Cochliobolus nodulosus</i> - <i>Eleusine</i> sp.
10222	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10307	<i>Cochliobolus sativus</i> - <i>Hordeum vulgare</i>
10223	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>	10308	<i>Colletotrichum acutatum</i> - <i>Lycopersicon esculentum</i>
10224	<i>Aspergillus niger</i> - <i>Hyacinthus</i> sp.	10309	<i>Colletotrichum acutatum</i> - <i>Carica papaya</i>
10225	<i>Aureobasidium pullulans</i> - <i>Narcissus</i> sp.	10310	<i>Colletotrichum dematium</i> - <i>Ranunculus repens</i>
10226	<i>Botrytis allii</i> - <i>Allium cepa</i>	10311	<i>Colletotrichum trifolii</i>
10227	<i>Botryosporium pulchrum</i> - <i>Diospyros</i> sp.	10312	<i>Leptosphaerulina australis</i> - <i>Leptinella</i> sp.
10228	<i>Fusarium oxysporum</i> - <i>Sandersonia aurantiaca</i>	10313	<i>Leptosphaerulina australis</i> - <i>Agrostis capillaris</i>
10229	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>	10314	<i>Botryosphaeria parva</i> - <i>Persea americana</i>
10230	<i>Fusarium culmorum</i> - <i>Poa</i> sp.	10315	<i>Colletotrichum acutatum</i> - <i>Persea americana</i>
10231	<i>Gibberella fujikuroi</i> var. <i>subglutinans</i> - <i>Cymbidium</i> sp.	10316	<i>Fusicoccum luteum</i> - <i>Persea americana</i>
10232	<i>Gibberella fujikuroi</i> - <i>Cymbidium</i> sp.	10317	<i>Fusicoccum luteum</i> - <i>Persea americana</i>

10318	<i>Cladosporium chlorocephalum</i> - <i>Paeonia</i> sp.	10408	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus caryophyllus</i>
10319	<i>Cladosporium cladosporioides</i> - <i>Viola</i> sp.	10409	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus caryophyllus</i>
10320	<i>Cladosporium phlaeospermum</i> - <i>Viola</i> sp.	10410	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus caryophyllus</i>
10321	<i>Cochliobolus sativus</i> - <i>Zea mays</i>	10411	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus barbatus</i>
10322	<i>Cochliobolus sativus</i> - <i>Hordeum vulgare</i>	10412	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> - <i>Lycopersicon esculum</i>
10323	<i>Colletotrichum</i> sp.	10413	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> - <i>Lycopersicon esculum</i>
10324	<i>Colletotrichum</i> sp. - Soil	10414	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>
10325	<i>Colletotrichum</i> sp.	10415	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>
10326	<i>Colletotrichum</i> sp.	10416	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>
10327	<i>Colletotrichum</i> sp.	10417	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>
10328	<i>Colletotrichum</i> sp. - <i>Acacia</i> sp.	10418	<i>Fusarium oxysporum</i> f. sp. <i>melonis</i> - <i>Cucumis melo</i> var. <i>retic</i>
10330	<i>Colletotrichum</i> sp.	10419	<i>Fusarium oxysporum</i> f. sp. <i>melongenae</i> - <i>Solanum melongena</i>
10331	<i>Colletotrichum</i> sp.	10420	<i>Fusarium oxysporum</i> f. sp. <i>niveum</i> - <i>Citrullus lanatus</i>
10332	<i>Colletotrichum</i> sp.	10421	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10333	<i>Colletotrichum</i> sp.	10422	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10334	<i>Colletotrichum</i> sp. - <i>Iris</i> sp.	10423	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10335	<i>Colletotrichum</i> sp. - <i>Juglans</i> sp.	10424	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10336	<i>Colletotrichum</i> sp. - <i>Cucurbita</i> sp.	10425	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10337	<i>Colletotrichum</i> sp. - <i>Lycopersicon esculentum</i>	10426	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10338	<i>Colletotrichum</i> sp. - <i>Camellia</i> sp.	10427	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10339	<i>Colletotrichum</i> sp. - <i>Cucurbita maxima</i>	10428	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10340	<i>Colletotrichum trifolii</i>	10429	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10341	<i>Colletotrichum trifolii</i>	10430	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10342	<i>Athelia rolfsii</i> - <i>Colocasia esculenta</i>	10431	<i>Botryosphaeria dothidea</i> - <i>Diospyros kaki</i>
10343	<i>Corynespora cassiicola</i> - <i>Cucumis sativus</i>	10432	<i>Fusarium oxysporum</i> - Machinery oil
10344	<i>Curvularia cf. clavata</i> - Lawn	10433	<i>Monographella nivalis</i> - <i>Festuca arundinacea</i>
10345	<i>Curvularia trifolii</i> - <i>Gladiolus</i> sp.	10434	<i>Phomopsis</i> sp. - <i>Diospyros kaki</i>
10346	<i>Colletotrichum acutatum</i> - <i>Persea americana</i>	10435	<i>Nectria haematococca</i> - Machinery oil
10347	<i>Colletotrichum acutatum</i> - <i>Persea americana</i>	10436	<i>Rhizopus stolonifer</i> - <i>Ipomoea batatas</i>
10348	<i>Fusarium crookwellense</i> - <i>Persea americana</i>	10437	<i>Enterobacter cloacae</i> - <i>Bactrodera megarotus</i>
10349	<i>Fusarium semitectum</i> - <i>Persea americana</i>	10438	<i>Klebsiella oxytoca</i> - <i>Bactrodera megarotus</i>
10350	<i>Gibberella intricans</i> - <i>Persea americana</i>	10439	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
10351	<i>Gibberella zeae</i> - <i>Persea americana</i>	10440	<i>Rhizobium</i> sp. - <i>Astragalus sinicus</i>
10352	<i>Botryosphaeria parva</i> - <i>Persea americana</i>	10441	<i>Agrobacterium</i> sp. (tumorigenic strain)
10353	<i>Botryosphaeria parva</i> - <i>Persea americana</i>	10442	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Hyacinthus</i> sp.
10354	<i>Botryosphaeria dothidea</i> - <i>Persea americana</i>	10443	<i>Pseudomonas syringae</i> pv. <i>atrofaciens</i> - <i>Secale cereale</i>
10355	<i>Diaporthe citri</i> - <i>Citrus reticulata</i>	10444	<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> - <i>Phaseolus vulg</i>
10356	<i>Aureobasidium pullulans</i> var. <i>melanigenum</i> - Oil	10445	<i>Pseudomonas syringae</i> - <i>Vicia faba</i>
10357	<i>Paecilomyces variotii</i> - Oil	10446	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica olerace</i>
10358	<i>Phialophora richardsiae</i> - Oil	10447	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc</i>
10359	<i>Cladosporium herbarum</i> - <i>Brassica</i> sp.	10448	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10360	<i>Cladosporium macrocarpum</i> - <i>Malus X domestica</i>	10449	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10361	<i>Cochliobolus bicolor</i> - <i>Oryza sativa</i>	10450	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10362	<i>Cochliobolus sativus</i> - <i>Ornithopus sativus</i>	10451	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10363	<i>Dictyochaeta fertilis</i> - <i>Trifolium repens</i>	10452	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10364	<i>Colletotrichum fructigenum</i> - <i>Salix alba X S. matsudana</i>	10453	<i>Pseudomonas savastanoi</i> pv. <i>glycinea</i> - <i>Glycine max</i>
10365	<i>Colletotrichum</i> sp. - <i>Modiola caroliniana</i>	10454	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i> - <i>Gossypium barba</i>
10366	<i>Colletotrichum</i> sp.	10455	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i> - <i>Gossypium barba</i>
10367	<i>Cryptocline</i> sp. - <i>Cortaderia</i> sp.	10456	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i> - <i>Gossypium barba</i>
10368	<i>Phomopsis viticola</i>	10457	<i>Dendryphon nanum</i> - <i>Chrysanthemum</i> sp.
10369	<i>Nectria tawa</i>	10458	<i>Epicoccum nigrum</i>
10370	<i>Cylindrocarpon</i> sp. - <i>Pinus</i> sp.	10459	<i>Epicoccum nigrum</i> - <i>Persea americana</i>
10371	<i>Cylindrocarpon</i> sp. - <i>Prunus persica</i>	10460	<i>Epicoccum nigrum</i> - <i>Asparagus officinalis</i>
10372	<i>Cylindrocarpon tenue</i> - <i>Colocasia</i> sp.	10461	<i>Fusarium anthophilum</i> - <i>Asparagus officinalis</i>
10373	<i>Cylindrocladium floridanum</i> - <i>Liquidambar</i> sp.	10462	<i>Fusarium anthophilum</i> - <i>Cymbidium</i> sp.
10375	<i>Cylindrocladium parvum</i> - <i>Rheum rhabarbarum</i>	10463	<i>Fusarium anthophilum</i> - <i>Cymbidium</i> sp.
10376	<i>Cylindrocladium parvum</i> - <i>Rheum</i> sp.	10464	<i>Fusarium anthophilum</i> - <i>Amaryllis</i> sp.
10377	<i>Cylindrocladium parvum</i> - <i>Asparagus officinalis</i>	10465	<i>Fusarium arthrosporioides</i>
10378	<i>Calonectria kyotensis</i>	10466	<i>Fusarium arthrosporioides</i>
10379	<i>Cylindrocladium</i> sp. - <i>Phaseolus vulgaris</i>	10467	<i>Fusarium arthrosporioides</i>
10380	<i>Cylindrocladium</i> sp. - <i>Rumex pulcher</i>	10468	<i>Fusarium arthrosporioides</i>
10381	<i>Ascochyta leptospora</i> - <i>Bromus willdenowii</i>	10469	<i>Fusarium arthrosporioides</i>
10382	<i>Nectria rigidiuscula</i>	10470	<i>Fusarium arthrosporioides</i>
10383	<i>Chaetomium</i> sp. - Plant (unidentified)	10471	<i>Gibberella avenacea</i>
10384	<i>Colletotrichum acutatum</i> - <i>Camellia</i> sp.	10472	<i>Fusarium campyoceras</i>
10385	<i>Colletotrichum</i> sp.	10473	<i>Fusarium solani</i> var. <i>coeruleum</i> - <i>Solanum tuberosum</i>
10386	<i>Cryptocline</i> sp. - <i>Cortaderia</i> sp.	10474	<i>Fusarium culmorum</i> - <i>Dianthus caryophyllus</i>
10387	<i>Nectria lucida</i> - <i>Rosa</i> sp.	10475	<i>Fusarium culmorum</i> - <i>Fragaria</i> sp.
10389	<i>Cylindrocarpon</i> sp. - <i>Malus X domestica</i>	10476	<i>Microdochium dimerum</i> - <i>Triticum aestivum</i>
10390	<i>Cylindrocarpon</i> sp. - <i>Pseudopanax</i> sp.	10477	<i>Microdochium dimerum</i> - <i>Beta vulgaris</i>
10391	<i>Cylindrocladium floridanum</i> - <i>Liquidambar</i> sp.	10478	<i>Microdochium dimerum</i> - <i>Agropyron</i> sp.
10392	<i>Cylindrocladium</i> sp. - <i>Zingiber</i> sp.	10479	<i>Microdochium dimerum</i>
10393	<i>Didymella bryoniae</i> - <i>Cucurbita pepo</i>	10480	<i>Fusarium eumartii</i> - Orchid
10394	<i>Didymella bryoniae</i> - <i>Carica papaya</i>	10481	<i>Fusarium fusarioides</i>
10395	<i>Lasiodiplodia theobromae</i> - <i>Mangifera</i> sp.	10482	<i>Gibberella baccata</i> var. <i>longum</i> - <i>Citrus sinensis</i>
10396	<i>Lasiodiplodia theobromae</i>	10483	<i>Gibberella baccata</i>
10397	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>	10484	<i>Fusarium longipes</i>
10398	<i>Pyrenophora erythrospila</i> - <i>Agrostis capillaris</i>	10485	<i>Fusarium merismoides</i>
10399	<i>Drechslera poae</i> - Soil	10486	<i>Fusarium merismoides</i>
10400	<i>Drechslera</i> sp. - <i>Croton</i> sp.	10487	<i>Didymella applanata</i> - <i>Rubus idaeus</i>
10401	<i>Drechslera</i> sp. - <i>Cortaderia</i> sp.	10488	<i>Discogloeum veroniae</i> - <i>Veronica tournefortii</i>
10402	<i>Drechslera</i> sp. - Orchid	10489	<i>Penicillium</i> sp. - <i>Gladiolus</i> sp.
10403	<i>Verticillium fungicola</i> - <i>Agaricus bisporus</i>	10490	<i>Penicillium</i> sp. - <i>Gladiolus</i> sp.
10404	<i>Verticillium fungicola</i> - <i>Agaricus bisporus</i>	10491	<i>Sclerotinia draytonii</i> - <i>Gladiolus</i> sp.
10405	<i>Verticillium fungicola</i> - <i>Agaricus bisporus</i>	10492	<i>Gloeosporium kaki</i> - <i>Diospyros kaki</i>
10406	<i>Neurospora crassa</i>	10493	<i>Phoma</i> sp. - <i>Cordylone australis</i>
10407	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus caryophyllus</i>	10494	<i>Monographella nivalis</i> - <i>Triticum aestivum</i>

10495	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i> - <i>Dianthus caryophyllus</i>	10580	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>
10496	<i>Fusarium oxysporum</i> - <i>Fragaria</i> sp.	10581	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium lupinaster</i>
10497	<i>Fusarium oxysporum</i> - <i>Pisum sativum</i>	10582	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium lupinaster</i>
10498	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>	10583	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium subterraneum</i>
10499	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>	10584	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium ruppellianum</i>
10500	<i>Fusarium oxysporum</i> - <i>Asparagus officinalis</i>	10585	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium dasyphyllum</i>
10501	<i>Fusarium oxysporum</i> - <i>Nerine</i> sp.	10586	<i>Acremonium uncinatum</i> - <i>Festuca arundinacea</i>
10502	<i>Fusarium poae</i> - <i>Avena sativa</i>	10587	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10503	<i>Fusarium poae</i> - <i>Dianthus caryophyllus</i>	10588	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10504	<i>Fusarium redolens</i> - <i>Asparagus officinalis</i>	10589	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10505	<i>Fusarium redolens</i> - <i>Daucus carota</i> var. <i>sativus</i>	10590	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10506	<i>Fusarium redolens</i> - <i>Dianthus caryophyllus</i>	10591	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10507	<i>Fusarium redolens</i>	10592	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10508	<i>Fusarium reticulatum</i>	10593	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>
10509	<i>Fusarium sambucinum</i> var. <i>coeruleum</i> - <i>Triticum aestivum</i>	10594	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10510	<i>Fusarium semitectum</i> - <i>Musa</i> sp.	10595	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10511	<i>Fusarium semitectum</i> - <i>Musa</i> sp.	10596	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10512	<i>Fusarium semitectum</i> - <i>Capsicum</i> sp.	10597	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10513	<i>Fusarium semitectum</i> - <i>Capsicum</i> sp.	10598	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10514	<i>Fusarium semitectum</i> - <i>Monstera</i> sp.	10599	<i>Acremonium lolii</i> - <i>Lolium perenne</i>
10515	<i>Fusarium semitectum</i>	10600	<i>Acremonium</i> sp. - <i>Festuca arundinacea</i>
10516	<i>Fusarium</i> sp.	10601	<i>Acremonium</i> sp. - <i>Festuca arundinacea</i>
10517	<i>Fusarium</i> sp.	10602	<i>Acremonium</i> sp. - <i>Festuca arundinacea</i>
10518	<i>Fusarium trichothecioides</i> - <i>Rumex pulcher</i>	10603	<i>Acremonium</i> sp. - <i>Festuca arundinacea</i>
10519	<i>Endomyces geotrichum</i> - <i>Solanum tuberosum</i>	10604	<i>Acremonium</i> sp. - <i>Festuca arundinacea</i>
10520	<i>Gibberella acuminata</i>	10605	<i>Acremonium</i> sp. - <i>Lolium perenne</i>
10521	<i>Gibberella acuminata</i>	10606	<i>Acremonium</i> sp. - <i>Lolium perenne</i>
10522	<i>Gibberella acuminata</i> - <i>Sporobolus africanus</i>	10607	<i>Acremonium</i> sp. - <i>Lolium perenne</i>
10523	<i>Gibberella acuminata</i>	10608	<i>Acremonium</i> sp. - <i>Lolium perenne</i>
10524	<i>Gibberella acuminata</i> - <i>Triticum aestivum</i>	10609	<i>Acremonium</i> sp. - <i>Lolium perenne</i>
10525	<i>Gibberella acuminata</i> - <i>Rubus fruticosus</i>	10610	<i>Mycosphaerella macrospora</i> - <i>Iris</i> sp.
10526	<i>Gibberella acuminata</i> - <i>Malus X domestica</i>	10611	<i>Nectria galligena</i> - <i>Malus X domestica</i>
10527	<i>Gibberella avenacea</i> - <i>Malus X domestica</i>	10612	<i>Nectria aurantiicola</i> - <i>Hemiberlesia lataniae</i>
10528	<i>Gibberella avenacea</i> - <i>Malus X domestica</i>	10613	<i>Sphaceloma perseae</i> - <i>Persea americana</i>
10529	<i>Gibberella avenacea</i> - <i>Sporobolus africanus</i>	10614	<i>Glomerella cingulata</i> - <i>Fragaria</i> sp.
10530	<i>Gibberella avenacea</i> - <i>Prunus persica</i>	10615	<i>Glomerella cingulata</i> - <i>Carica papaya</i>
10531	<i>Gibberella avenacea</i> - <i>Trifolium repens</i>	10616	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
10532	<i>Gibberella baccata</i> - <i>Juglans</i> sp.	10617	<i>Glomerella cingulata</i> - <i>Leucodendron</i> sp.
10533	<i>Gibberella cyanogena</i> - <i>Solanum tuberosum</i>	10618	<i>Glomerella cingulata</i>
10534	<i>Gibberella cyanogena</i> - <i>Solanum tuberosum</i>	10620	<i>Glomerella cingulata</i> - <i>Citrus limon</i>
10535	<i>Gibberella cyanogena</i> - <i>Solanum tuberosum</i>	10622	<i>Gibberella pulicaris</i> - <i>Medicago</i> sp.
10536	<i>Gibberella cyanogena</i>	10623	<i>Gibberella stilboides</i>
10537	<i>Gibberella cyanogena</i> - <i>Actinidia deliciosa</i>	10624	<i>Gibberella stilboides</i> - <i>Citrus</i> sp.
10538	<i>Gibberella cyanogena</i> - <i>Cucurbita maxima</i>	10625	<i>Gibberella stilboides</i> - <i>Carya</i> sp.
10539	<i>Gibberella fujikuroi</i> - <i>Odontoglossum</i> sp.	10626	<i>Gibberella zeae</i> - <i>Triticum aestivum</i>
10540	<i>Gibberella fujikuroi</i> - <i>Orchid</i>	10627	<i>Gibberella zeae</i> - <i>Triticum aestivum</i>
10541	<i>Gibberella fujikuroi</i> - <i>Zea mays</i>	10628	<i>Nectria ochroleuca</i> - <i>Zantedeschia</i> sp.
10542	<i>Gibberella gordonii</i> - <i>Lolium</i> sp.	10629	<i>Nectria ochroleuca</i> - <i>Asparagus officinalis</i>
10543	<i>Gibberella gordonii</i> - <i>Lycopersicon esculentum</i>	10630	<i>Nectria ochroleuca</i> - <i>Solanum tuberosum</i>
10544	<i>Gibberella intricans</i> - <i>Asparagus</i> sp.	10631	<i>Nectria ochroleuca</i> - <i>Orchid</i>
10545	<i>Gibberella intricans</i> - <i>Asparagus</i> sp.	10632	<i>Glomerella cingulata</i> - <i>Orchid</i>
10546	<i>Gibberella intricans</i> - <i>Beta vulgaris</i>	10633	<i>Glomerella cingulata</i> - <i>Earina mucronata</i>
10547	<i>Gibberella intricans</i> - <i>Asparagus</i> sp.	10634	<i>Glomerella cingulata</i> - <i>Cymbidium</i> sp.
10548	<i>Drechslera</i> sp. - <i>Eleusine indica</i>	10635	<i>Glomerella cingulata</i> - <i>Macropiper excelsum</i>
10549	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>	10636	<i>Glomerella cingulata</i> - <i>Macropiper excelsum</i>
10550	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>	10637	<i>Glomerella cingulata</i> - <i>Geniostoma</i> sp.
10551	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>	10638	<i>Glomerella cingulata</i>
10552	<i>Acremonium coenophialum</i> - <i>Festuca arundinacea</i>	10641	<i>Glomerella cingulata</i> - <i>Syngonium</i> sp.
10553	<i>Staphylococcus aureus</i>	10642	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.
10554	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>	10643	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.
10555	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>	10644	<i>Glomerella cingulata</i> - <i>Camellia sinensis</i>
10556	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	10645	<i>Glomerella cingulata</i> - <i>Macropiper excelsum</i>
10557	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	10646	<i>Glomerella cingulata</i> - <i>Camellia</i> sp.
10558	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	10647	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
10559	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	10648	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
10560	<i>Pseudomonas syringae</i> - <i>Prunus cerasus</i>	10649	<i>Glomerella phacidiomorpha</i> - <i>Hemerocallis</i> sp.
10561	<i>Pseudomonas syringae</i> - <i>Prunus cerasus</i>	10650	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
10562	<i>Pseudomonas syringae</i> - <i>Prunus cerasus</i>	10651	<i>Gnomonia comari</i> - <i>Fragaria</i> sp.
10563	<i>Pseudomonas syringae</i> - <i>Prunus cerasus</i>	10652	<i>Guignardia dracaenae</i> - <i>Dracaena</i> sp.
10564	<i>Pseudomonas syringae</i> pv. <i>helianthi</i> - <i>Helianthus annuus</i>	10653	<i>Leptosphaeria coniothyrium</i> - <i>Rosa</i> sp.
10565	<i>Pseudomonas syringae</i> pv. <i>helianthi</i> - <i>Helianthus annuus</i>	10654	<i>Leptosphaeria coniothyrium</i> - <i>Camellia</i> sp.
10566	<i>Pseudomonas syringae</i> pv. <i>helianthi</i> - <i>Helianthus annuus</i>	10655	<i>Leptosphaeria maculans</i> - <i>Brassica oleracea</i> var. <i>botrytis</i>
10567	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10656	<i>Glomerella cingulata</i> var. <i>minor</i>
10568	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10657	<i>Glomerella cingulata</i> var. <i>minor</i>
10569	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10658	<i>Glomerella cingulata</i> - <i>Citrus X paradisi</i>
10570	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10659	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
10571	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10660	<i>Glomerella phomoides</i> - <i>Lycopersicon esculentum</i>
10572	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Triticum aestivum</i>	10662	<i>Glomerella cingulata</i> - <i>Orchid</i>
10573	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Prunus avium</i>	10663	<i>Glomerella phacidiomorpha</i> - <i>Phormium tenax</i>
10574	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	10664	<i>Itersonila pastinacae</i> - <i>Senecio vulgaris</i>
10575	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	10665	<i>Leptosphaeria maculans</i> - <i>Brassica oleracea</i> var. <i>botrytis</i>
10576	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.	10666	<i>Macrophomina phaseolina</i> - <i>Actinidia deliciosa</i>
10577	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium</i> sp.	10667	<i>Macrophomina phaseolina</i> - <i>Chrysanthemum X morifolium</i>
10578	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	10668	<i>Monacrosporium bembicodes</i>
10579	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium repens</i>	10669	<i>Monochaetia karstenii</i> - <i>Camellia</i> sp.

- 10670 *Monochaetia karstenii* - *Camellia* sp.
10671 *Mortierella ramanniana* - *Fragaria* sp.
10672 *Mycosphaerella ligulicola* - *Chrysanthemum* sp.
10673 *Mycosphaerella ligulicola* - *Chrysanthemum* sp.
10674 *Mycosphaerella pinodes* - *Pisum sativum*
10675 *Mycosphaerella pinodes* - *Pisum sativum*
10676 *Mycosphaerella pinodes* - *Pisum sativum*
10677 *Mycosphaerella pinodes* - *Eucalyptus gontea*
10678 *Nectria haematococca* - *Daucus carota* var. *sativus*
10679 *Nectria haematococca* - *Solanum tuberosum*
10680 *Nectria haematococca* - *Persea americana*
10681 *Phomopsis* sp.
10682 *Embellisia novae-zelandiae* - *Leptinella maniototo*
10683 *Embellisia novae-zelandiae* - *Leptinella dioica*
10684 *Mucor* sp. - *Freycinetia arborea*
10685 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10686 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10687 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10688 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10689 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium uniflorum*
10690 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium vesiculosu*
10691 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium ambiguum*
10692 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium ambiguum*
10693 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium pallescens*
10694 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10695 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium burchellian*
10696 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
10697 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium africanum*
10698 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
10699 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens*
10700 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium carolinianum*
10701 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium rydbergii*
10702 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium ambiguum*
10703 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium ambiguum*
10704 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium burchellian*
10705 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium pratense*
10706 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium neglectum*
10707 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium pallidum*
10708 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium rueppellian*
10709 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium usambare*
10710 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium tembense*
10711 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium polymorph*
10712 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium polymorph*
10713 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium polymorph*
10714 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium beckwithii*
10715 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium repens* X
10716 *Rhizobium loti* - *Lotus corniculatus*
10717 *Rhizobium loti* - *Lotus corniculatus*
10718 *Repetophragma cambrense* - *Freycinetia arborea*
10719 *Fusarium oxysporum* f. sp. *lycopersici* - *Lycopersicon esculentum*
10720 *Fusarium oxysporum* f. sp. *lycopersici* - *Lycopersicon esculentum*
10721 *Fusarium oxysporum* f. sp. *lycopersici* - *Citrullus lanatus*
10722 *Fusarium oxysporum* f. sp. *vasinfectum* - *Gossypium barba*
10723 *Monodictys levis* - *Fragaria* sp.
10724 *Mycocentrospora acerina* - *Daucus carota* var. *sativus*
10726 *Myrioconium* sp. - *Olearia traversii*
10727 *Myrothecium roridum* - *Syngonium* sp.
10728 *Nectria radiculicola* - *Daucus carota* var. *sativus*
10729 *Nectria radiculicola* - *Liquidambar* sp.
10730 *Nectria radiculicola* - *Armoracia rusticana*
10731 *Nectria radiculicola* - *Telopea* sp.
10732 *Nectria radiculicola* - *Pseudopanax* sp.
10733 *Paecilomyces farinosus* - *Weevil*
10734 *Paecilomyces variotii* - Aerial contaminant
10735 *Penicillium hirsutum* - *Iris* sp.
10736 *Penicillium digitatum* - *Citrus sinensis*
10737 *Pestalotia photiniae* - *Photinia* sp.
10738 *Pezizula malicorticis* - *Malus X domestica*
10739 *Pezizella oenotherae* - *Fragaria* sp.
10740 *Phaciidiopycnis* sp.
10741 *Phaeostalogmus* sp. - *Iris* sp.
10742 *Phialocephala* sp. - *Fragaria* sp.
10743 *Phialophora asteris* - Papermill slime
10744 *Phialophora asteris* - *Aster* sp.
10745 *Phoma chrysanthemicola* - *Chrysanthemum* sp.
10746 *Acremonium* sp. - *Rheum* sp.
10747 *Acremonium* sp. - *Polygonum* sp.
10748 *Acremonium* sp.
10749 *Botrytis cinerea* - *Actinidia deliciosa*
10750 *Botrytis cinerea* - *Actinidia deliciosa*
10751 *Agrobacterium vitis* - *Vitis vinifera*
10752 *Agrobacterium vitis* - *Vitis vinifera*
10753 *Agrobacterium vitis* - *Vitis champinii*
10754 *Agrobacterium vitis* - *Vitis champinii*
10755 *Agrobacterium vitis* (saprophytic strain) - *Vitis vinifera*
10756 *Agrobacterium vitis* - *Vitis vinifera*
10757 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium polymorph*
10758 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium polymorph*
10759 *Rhizobium* sp. - *Chamaecytisus palmensis*
10760 *Bradyrhizobium* sp. (*Ornithopus*) - *Ornithopus compressus*
10761 *Rhizobium leguminosarum* biovar *trifolii* - *Trifolium subterrane*
10762 *Rhizobium loti* - *Lotus pedunculatus*
10763 *Rhizobium loti* - *Lotus corniculatus*
10764 *Rhizobium loti* - *Lotus corniculatus*
10765 *Rhizobium loti* - *Lotus pedunculatus*
10766 *Rhizobium loti* - *Lotus pedunculatus*
10767 *Rhizobium loti* - *Lotus corniculatus*
10768 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10769 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10770 *Rhizobium loti* - *Lotus corniculatus*
10771 *Rhizobium loti* - *Lotus corniculatus*
10772 *Rhizobium loti* - *Lotus corniculatus*
10773 *Rhizobium loti* - *Lotus pedunculatus*
10774 *Rhizobium loti* - *Lotus pedunculatus*
10775 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10776 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10777 *Rhizobium loti* - *Lotus corniculatus*
10778 *Bradyrhizobium* sp. (*Lotus*) - *Lotus corniculatus*
10779 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10780 *Rhizobium loti* - *Lotus tenuis* Waldst. & Kit. ex Willd.
10781 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10782 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10783 *Rhizobium loti* - *Lotus pedunculatus* Cav. X *corniculatus*
10801 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10802 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10803 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10804 *Bradyrhizobium* sp. (*Lotus*) - *Lotus corniculatus*
10805 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10806 *Rhizobium loti* - *Lotus tenuis*
10807 *Rhizobium loti* - *Lotus tenuis*
10808 *Rhizobium loti* - *Lotus corniculatus*
10809 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10810 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10811 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10812 *Rhizobium loti* - *Lotus tenuis*
10813 *Rhizobium loti* - *Lotus tenuis*
10814 *Rhizobium loti* - *Lotus tenuis*
10815 *Bradyrhizobium* sp. (*Lotus*) - *Lotus pedunculatus*
10816 *Bradyrhizobium* sp. (*Lotus*) - *Lotus angustissimus*
10817 *Botrytis cinerea* - *Actinidia deliciosa*
10818 *Botrytis cinerea* - *Actinidia deliciosa*
10819 *Botrytis cinerea* - *Actinidia deliciosa*
10820 *Botrytis cinerea* - *Actinidia deliciosa*
10821 *Botrytis cinerea* - *Actinidia deliciosa*
10822 *Botrytis cinerea* - *Actinidia deliciosa*
10823 *Botrytis cinerea* - *Actinidia deliciosa*
10824 *Botrytis cinerea* - *Actinidia deliciosa*
10825 *Botrytis cinerea* - *Paeonia lactiflora*
10826 *Fusarium oxysporum* f. sp. *lycopersici* - *Lycopersicon esculentum*
10827 *Mycocleptodiscus indicus* - *Orchid*
10828 *Zetia splozna thuenenii* - *Malus X domestica*
10829 *Pezizula alba* - *Salix matsudana*
10830 *Phialophora chrysanthemi* - *Chrysanthemum* sp.
10831 *Phoma destructiva* - *Lycopersicon esculentum*
10832 *Stachybotrys* sp. - *Cordyline australis*
10833 *Verticillium fungicola* - *Agaricus bisporus*
10834 *Verticillium fungicola* - *Agaricus bisporus*
10835 *Paecilomyces lilacinus* - *Mullet*
10836 *Cladorrhinum* sp. - *Cordyline australis*
10837 *Trichothecium roseum* - *Persea americana*
10838 *Phoma exigua* - *Nicotiana tabacum*
10839 *Phoma exigua* - *Lycopersicon esculentum*
10840 *Phoma exigua* - *Ranunculus sardous*
10841 *Phoma glomerata* - *Malus X domestica*
10842 *Phoma jolyana* - *Gleditsia triacanthos*
10843 *Phoma macrostoma* - *Prunus persica*
10844 *Phoma pinodella* - *Pisum sativum*
10845 *Phoma negriana* - *Vitis vinifera*
10846 *Phoma pomorum* - *Prunus persica*
10847 *Phoma rumicicola* - *Rumex obtusifolius*
10848 *Phoma* sp.
10849 *Phoma* sp. - *Rheum rhabarbarum*
10850 *Erwinia chrysanthemi* - *Phalaenopsis* sp.
10851 *Erwinia chrysanthemi* - *Phalaenopsis* sp.
10852 *Agrobacterium tumefaciens* (tumorigenic strain) - *Prunus*
10853 *Agrobacterium tumefaciens* (tumorigenic strain) - *Salix vimi*
10854 *Agrobacterium tumefaciens* (tumorigenic strain) - *Salix vimi*
10855 *Agrobacterium tumefaciens* (tumorigenic strain) - *Prunus*
10856 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
10857 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
10858 *Erwinia carotovora* subsp. *atroseptica* - *Solanum tuberosum*
10859 *Erwinia nigrifluens* - *Juglans regia*
10860 *Erwinia nigrifluens* - *Juglans regia*
10861 *Pseudomonas corrugata* - *Lycopersicon esculentum*

10862	<i>Pseudomonas corrugata</i> - <i>Capsicum annuum</i>	10957	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
10863	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	10958	<i>Glomerella cingulata</i> - <i>Capsicum annuum</i>
10864	<i>Pseudomonas corrugata</i> - <i>Lycopersicon esculentum</i>	10959	<i>Colletotrichum</i> sp. - <i>Persea americana</i>
10865	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	10960	<i>Colletotrichum</i> sp. - <i>Persea americana</i>
10866	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10961	<i>Colletotrichum</i> sp. - <i>Persea americana</i>
10867	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10962	<i>Phoma leveillei</i> - <i>Chrysanthemum</i> sp.
10868	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10963	<i>Phoma macrostoma</i> - <i>Lycopersicon esculentum</i>
10869	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10964	<i>Phoma</i> sp. - <i>Phormium</i> sp.
10870	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10965	<i>Phoma</i> sp.
10871	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10966	<i>Phoma</i> sp. - <i>Cucurbita maxima</i>
10872	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10967	<i>Phyllosticta</i> sp. - <i>Eucalyptus</i> sp.
10873	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10968	<i>Plectosphaerella cucumerina</i> - <i>Ranunculus sardous</i>
10874	<i>Bradyrhizobium</i> sp. (<i>Trigonella</i>) - <i>Trigonella suavissima</i>	10969	<i>Plectosphaerella cucumerina</i> - <i>Ranunculus repens</i>
10875	<i>Rhizobium meliloti</i> - <i>Medicago falcata</i>	10970	<i>Pleospora papaveracea</i> - <i>Papaver nudicaule</i>
10876	<i>Rhizobium meliloti</i> - <i>Medicago falcata</i>	10971	<i>Pyrenophora avenae</i> - <i>Triticum aestivum</i>
10877	<i>Rhizobium meliloti</i> - <i>Medicago</i> sp.	10972	<i>Pyrenophora avenae</i> - <i>Avena sativa</i>
10878	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10973	<i>Pyrenophora japonica</i> - <i>Triticum aestivum</i>
10879	<i>Rhizobium meliloti</i> - <i>Medicago laciniata</i>	10974	<i>Pyrenophora teres</i> - <i>Triticum aestivum</i>
10880	<i>Rhizobium meliloti</i> - <i>Medicago</i> sp.	10975	<i>Sclerotinia minor</i> - <i>Pisum sativum</i>
10881	<i>Rhizobium meliloti</i> - <i>Medicago</i> sp.	10976	<i>Botryotinia porri</i> - <i>Allium sativum</i>
10882	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus angustissimus</i>	10977	<i>Sclerotinia</i> sp.
10883	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10978	<i>Sclerotium cepivorum</i> - <i>Allium cepa</i>
10884	<i>Rhizobium loti</i> - <i>Lotus maroccanus</i>	10979	<i>Sclerotium cepivorum</i> - <i>Allium cepa</i>
10885	<i>Rhizobium</i> sp. - <i>Lotus angustissimus</i>	10980	<i>Scoleciasis atkinsonii</i> - <i>Hebe stricta</i>
10886	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus hispidus</i>	10981	<i>Seimatosporium grevilleae</i> - <i>Protea</i> sp.
10887	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10982	<i>Sepedonium</i> sp.
10888	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10983	<i>Septoria betae</i> - <i>Beta vulgaris</i>
10890	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus hispidus</i>	10984	<i>Septoria citri</i> - <i>Citrus</i> sp.
10891	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10985	<i>Septoria drummondii</i> - <i>Phlox paniculata</i>
10892	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10986	<i>Septoria</i> sp.
10893	<i>Rhizobium loti</i> - <i>Lotus corniculatus</i>	10987	<i>Stromatinia gladioli</i> - <i>Gladiolus</i> sp.
10894	<i>Rhizobium meliloti</i> - <i>Medicago sativa</i>	10988	<i>Stromatinia gladioli</i> - <i>Gladiolus</i> sp.
10895	<i>Rhizobium meliloti</i> - <i>Medicago scutellata</i>	10989	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10896	<i>Rhizobium meliloti</i> - <i>Medicago</i> sp.	10990	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10898	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>	10991	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10900	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10992	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10901	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10993	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10902	<i>Rhizobium loti</i> - <i>Lotus pedunculatus</i>	10994	<i>Nectria haematococca</i>
10903	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>	10995	<i>Nectria haematococca</i> - <i>Liriodendron tulipifera</i>
10905	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus isthmocarpus</i>	10996	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10906	<i>Rhizobium</i> sp. - <i>Ornithopus sativus</i>	10997	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10907	<i>Bradyrhizobium</i> sp. (<i>Lotononis</i>) - Commercial inoculum - pea	10998	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10908	<i>Bradyrhizobium</i> sp. (<i>Macropitilium</i>) - Commercial inoculum -	10999	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10909	<i>Micrococcus luteus</i>	11000	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10916	<i>Sclerotium cepivorum</i> - <i>Allium cepa</i>	11001	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10917	<i>Phoma exigua</i> - <i>Wellingtonia</i> sp.	11002	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10918	<i>Phoma</i> sp. - <i>Glycyrrhiza</i> sp.	11003	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10919	<i>Phoma</i> sp.	11004	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10920	<i>Phyllosticta</i> sp.	11005	<i>Nectria haematococca</i> - <i>Cucurbita maxima</i>
10921	<i>Plectosphaerella cucumerina</i> - <i>Chrysanthemum</i> sp.	11006	<i>Nectria haematococca</i> - <i>Cucurbita</i> sp.
10922	<i>Plectosphaerella cucumerina</i> - <i>Ranunculus repens</i>	11007	<i>Nectria haematococca</i> - <i>Medicago sativa</i>
10923	<i>Plectosphaerella cucumerina</i> - <i>Anthurium</i> sp.	11008	<i>Nectria haematococca</i> - <i>Medicago sativa</i>
10924	<i>Pyrenophora semeniperda</i> - <i>Avena sativa</i>	11009	<i>Nectria haematococca</i> - <i>Medicago sativa</i>
10925	<i>Athelia rolfsii</i> - <i>Cucurbita</i> sp.	11010	<i>Nectria haematococca</i> - <i>Medicago sativa</i>
10926	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>	11011	<i>Nectria haematococca</i> - <i>Medicago sativa</i>
10927	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11012	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10928	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11013	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10929	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11014	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10930	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11015	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
10931	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11016	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
10932	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11017	<i>Alternaria citri</i> - <i>Citrus X tangelo</i>
10933	<i>Stemphylium vesicarium</i> - <i>Asparagus officinalis</i>	11018	<i>Alternaria citri</i> - <i>Citrus X tangelo</i>
10934	<i>Botrytis cinerea</i> - Laboratory cross	11019	<i>Alternaria citri</i> - <i>Citrus X tangelo J.</i>
10935	<i>Botrytis cinerea</i> - Laboratory cross	11020	<i>Pezicula alba</i> - <i>Malus X domestica</i>
10936	<i>Phoma fallens</i> - <i>Olea</i> sp.	11021	<i>Colletotrichum graminicola</i> - <i>Bromus willdenowii</i>
10937	<i>Phoma macra</i> - <i>Citrus</i> sp.	11022	<i>Drechslera biseptata</i> - <i>Ulex europaeus</i>
10938	<i>Phoma medicaginis</i> - <i>Medicago sativa</i>	11023	<i>Cochliobolus pallescens</i> - <i>Oryza sativa</i>
10939	<i>Phoma senecionis</i> - <i>Senecio jacobea</i>	11024	<i>Cochliobolus lunatus</i> - <i>Canna</i> sp.
10940	<i>Phoma</i> sp. - <i>Leucodendron</i> sp.	11025	<i>Cochliobolus verruculosus</i> - <i>Oryza sativa</i>
10941	<i>Phoma</i> sp. - <i>Zantedeschia aethiopica</i>	11026	<i>Curvularia trifolii</i> - <i>Trifolium</i> sp.
10942	<i>Phoma sorghina</i> - <i>Saccharum officinarum</i>	11027	<i>Cochliobolus pallescens</i> - <i>Oryza sativa</i>
10943	<i>Leptosphaerulina chartarum</i> - <i>Malus X domestica</i>	11028	<i>Curvularia</i> cf. <i>clavata</i> - <i>Zea mays</i>
10944	<i>Pleiochaeta setosa</i> - <i>Lupinus</i> sp.	11029	<i>Curvularia</i> cf. <i>clavata</i> - <i>Setaria</i> sp.
10945	<i>Pleospora bjoerlingii</i> - <i>Beta vulgaris</i>	11030	<i>Curvularia lunata</i> var. <i>aeria</i> - <i>Oryza sativa</i>
10946	<i>Pleospora herbarum</i> - <i>Medicago sativa</i>	11031	<i>Nectria flammea</i> - Scale insect on tobacco weed
10947	<i>Pyrenophora graminea</i> - <i>Hordeum vulgare</i>	11032	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
10948	<i>Pyrenophora teres</i> - <i>Hordeum vulgare</i>	11033	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
10949	<i>Colletotrichum</i> sp. - <i>Cucumis melo</i>	11035	<i>Alternaria alternata</i> - <i>Brassica napus</i>
10950	<i>Glomerella cingulata</i> - <i>Citrus limon</i>	11036	<i>Alternaria alternata</i> - <i>Brassica rapa</i>
10951	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>	11037	<i>Alternaria brassicae</i> - <i>Brassica rapa</i>
10952	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>	11038	<i>Alternaria brassicae</i> - <i>Brassica rapa</i>
10953	<i>Glomerella cingulata</i> - <i>Capsicum annuum</i>	11039	<i>Alternaria raphani</i> - <i>Brassica rapa</i>
10954	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>	11040	<i>Alternaria raphani</i> - <i>Brassica rapa</i>
10955	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>	11041	<i>Botrytis cinerea</i> - <i>Gastrodia cunninghamii</i>
10956	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>	11042	<i>Botrytis elliptica</i> - <i>Lilium</i> sp.

11043	<i>Ascosphaera apis</i> - <i>Apis mellifera</i>	11154	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>
11044	<i>Gibberella avenacea</i> - <i>Agrostis capillaris</i>	11155	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>
11045	<i>Fusarium oxysporum</i> - <i>Persea americana</i>	11156	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>
11046	<i>Fusarium</i> sp. - <i>Persea americana</i>	11157	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>
11047	<i>Nectria aurantiicola</i> - Scale insect on <i>Salix X reichardtii</i>	11158	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>
11048	<i>Erwinia rhapontici</i> - <i>Pisum sativum</i>	11159	<i>Pseudomonas</i> sp. - <i>Cucumis melo</i>
11049	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Bellis perennis</i>	11160	<i>Pseudomonas</i> sp. - <i>Cucumis melo</i>
11050	<i>Pseudomonas syringae</i> - <i>Saccharum officinarum</i>	11161	<i>Pseudomonas syringae</i> pv. <i>tagetis</i> - <i>Tagetes erecta</i>
11051	<i>Pseudomonas viridiflava</i> - <i>Citrus macrophylla</i>	11162	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>
11053	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>	11163	<i>Xanthomonas</i> sp. - <i>Capsicum annuum</i>
11054	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	11164	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>
11055	<i>Xanthomonas campestris</i> pv. <i>cerealis</i> - <i>Triticum aestivum</i>	11165	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>
11056	<i>Xanthomonas campestris</i> pv. <i>cerealis</i> - <i>Triticum aestivum</i>	11166	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>
11058	<i>Xanthomonas campestris</i> pv. <i>zinniae</i> - <i>Zinnia elegans</i>	11167	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>
11059	<i>Xanthomonas campestris</i> pv. <i>fici</i> - <i>Ficus oinckenowensis</i>	11168	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>
11060	<i>Xanthomonas campestris</i> pv. <i>fici</i> - <i>Ficus microcarpa</i> var. <i>hill</i>	11169	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>
11061	<i>Xanthomonas campestris</i> pv. <i>fici</i> - <i>Ficus microcarpa</i> var. <i>hill</i>	11170	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>
11063	<i>Pseudomonas syringae</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>	11172	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>
11064	<i>Pseudomonas syringae</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>	11176	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
11065	<i>Pseudomonas syringae</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>	11180	<i>Nectria aurantiicola</i> - Scale insect on poplar
11066	<i>Pseudomonas syringae</i> pv. <i>sesami</i> - <i>Sesamum indicum</i>	11181	<i>Nectria aurantiicola</i> - Scale insect on kiwifruit
11067	<i>Rhizobium huakuii</i> - <i>Astragalus sinicus</i>	11182	<i>Nectria aurantiicola</i> - Scale insect on poplar
11068	<i>Rhizobium huakuii</i> - <i>Astragalus sinicus</i>	11184	<i>Phoma exigua</i> - <i>Cynara scolymus</i>
11069	<i>Rhizobium huakuii</i> - <i>Astragalus sinicus</i>	11185	<i>Phoma exigua</i> - <i>Nerium</i> sp.
11070	<i>Sinorhizobium xinjiangensis</i> - <i>Glycine max</i>	11186	<i>Phoma macrostoma</i> - <i>Narcissus</i> sp.
11071	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Sunki</i>	11187	<i>Phoma</i> sp.
11072	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Touyu</i>	11188	<i>Phoma</i> sp.
11073	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus maxima</i>	11189	<i>Phoma</i> sp.
11081	<i>Rhizobium</i> sp. - <i>Pachyrhizus erosus</i>	11190	<i>Pyrenochaeta</i> sp. - <i>Fragaria X ananassa</i>
11082	<i>Rhizobium</i> sp. - <i>Calopogonium caeruleum</i>	11191	<i>Sclerotinia draytonii</i> - <i>Freesia</i> sp.
11083	<i>Rhizobium</i> sp. - <i>Crotalaria juncea</i>	11192	<i>Septoria ranunculacearum</i> - <i>Ranunculus sardous</i>
11084	<i>Rhizobium</i> sp. - <i>Arachis hypogaea</i>	11193	<i>Septoria</i> sp. - <i>Metrosideros excelsa</i>
11085	<i>Burkholderia solanacearum</i> - <i>Eucalyptus grandis</i>	11194	<i>Septoria</i> sp. - <i>Pseudopanax</i> sp.
11086	<i>Burkholderia solanacearum</i> - <i>Eucalyptus pellita</i>	11195	<i>Septoria</i> sp. - <i>Ficus</i> sp.
11087	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	11196	<i>Setosphaeria rostrata</i> - <i>Allium cepa</i>
11088	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	11197	<i>Sphaeronema</i> sp. - <i>Acacia</i> sp.
11089	<i>Burkholderia solanacearum</i> - <i>Eucalyptus urophylla</i>	11198	<i>Stemphylium lycopersici</i> - <i>Platycodon grandiflorus</i>
11090	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	11199	<i>Stemphylium</i> sp. - <i>Asparagus</i> sp.
11091	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	11200	<i>Stemphylium</i> sp. - <i>Asparagus</i> sp.
11093	<i>Burkholderia solanacearum</i> - <i>Eucalyptus</i> sp.	11201	<i>Trichocladium basicola</i> - <i>Citrus</i> sp.
11094	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Zea mays</i>	11202	<i>Stigmia carpophila</i> - <i>Prunus persica</i>
11095	<i>Xanthomonas campestris</i> pv. <i>zinniae</i> - <i>Zinnia elegans</i>	11203	<i>Trichocladium basicola</i> - <i>Casurina</i> sp.
11096	<i>Pseudomonas gladioli</i> pv. <i>agaricicola</i> - <i>Agaricus bitorquis</i>	11204	<i>Phoma macrostoma</i> - <i>Malus X domestica</i>
11097	<i>Pseudomonas gladioli</i> pv. <i>agaricicola</i> - <i>Agaricus bitorquis</i>	11205	<i>Sclerotinia draytonii</i> - <i>Ixia</i> sp.
11098	<i>Pseudomonas gladioli</i> pv. <i>agaricicola</i> - <i>Agaricus bitorquis</i>	11206	<i>Septoria azaleae</i> - <i>Rhododendron</i> sp.
11099	<i>Pseudomonas gladioli</i> pv. <i>agaricicola</i> - <i>Agaricus bitorquis</i>	11207	<i>Septoria eucalypti</i> - <i>Eucalyptus leucoxylon</i>
11100	<i>Pseudomonas gladioli</i> pv. <i>agaricicola</i> - <i>Agaricus bitorquis</i>	11208	<i>Septoria</i> sp. - <i>Vicia faba</i>
11101	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Clivia miniata</i>	11209	<i>Stachybotrys atra</i> - <i>Trifolium</i> sp.
11102	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Clivia miniata</i>	11210	<i>Stemphylium</i> sp. - <i>Allium porrum</i>
11105	<i>Erwinia chrysanthemi</i> pv. <i>zeae</i> - <i>Oryza sativa</i>	11211	<i>Stemphylium</i> sp. - <i>Asparagus</i> sp.
11106	<i>Burkholderia solanacearum</i> - <i>Arachis hypogaea</i>	11212	<i>Trichoderma</i> sp. - Aerial contaminant
11107	<i>Burkholderia solanacearum</i> - <i>Arachis hypogaea</i>	11213	<i>Truncatella conorum-piceae</i> - <i>Cedrus deodara</i>
11110	<i>Burkholderia solanacearum</i> - <i>Casuarina equisetifolia</i>	11214	<i>Truncatella laurocerasi</i> - <i>Prunus persica</i>
11111	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	11215	<i>Truncatella angustata</i> - <i>Rubus ursinus</i>
11112	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	11216	<i>Ulocladium cucurbitae</i> - <i>Cucumis sativus</i>
11113	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	11217	<i>Ulocladium cucurbitae</i> - <i>Cucumis sativus</i>
11114	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	11218	<i>Ulocladium</i> sp. - <i>Raphanus sativus</i>
11116	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>escul</i>	11219	<i>Verticillium albo-atrum</i> - <i>Medicago sativa</i>
11117	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>escul</i>	11220	<i>Verticillium albo-atrum</i> - <i>Lycopersicon esculentum</i>
11119	<i>Burkholderia solanacearum</i> - <i>Zingiber mioga</i>	11221	<i>Verticillium bulbiliosum</i> - <i>Adiantum</i> sp.
11120	<i>Burkholderia solanacearum</i> - <i>Zingiber mioga</i>	11222	<i>Verticillium dahliae</i> - <i>Pimelia</i> sp.
11121	<i>Burkholderia solanacearum</i> - <i>Zingiber mioga</i>	11223	<i>Verticillium lecanii</i> - <i>Myzus persicae</i>
11123	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	11224	<i>Verticillium lecanii</i> - Plastic contact lens
11124	<i>Pseudomonas viridiflava</i> - <i>Brassica rapa</i>	11225	<i>Verticillium nigrescens</i> - <i>Lupinus</i> sp.
11125	<i>Pseudomonas viridiflava</i> - <i>Brassica rapa</i>	11226	<i>Verticillium</i> sp. - <i>Dianthus caryophyllus</i>
11126	<i>Pseudomonas viridiflava</i> - <i>Brassica rapa</i>	11227	<i>Verticillium</i> sp. - <i>Citrullus lanatus</i>
11128	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	11228	<i>Verticillium theobromae</i> - <i>Musa</i> sp.
11129	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	11229	<i>Verticillium tricorpus</i> - <i>Lycopersicon esculentum</i>
11131	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	11230	<i>Verticillium tricorpus</i> - <i>Persea americana</i>
11132	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	11231	<i>Verticillium vilmoninii</i> - <i>Aster</i> sp.
11133	<i>Xanthomonas campestris</i> pv. <i>zingibericola</i> - <i>Zingiber mioga</i>	11232	<i>Phoma exigua</i> Desmazieres var. <i>foveata</i> - <i>Solanum tuberosum</i>
11134	<i>Xanthomonas campestris</i> pv. <i>zingibericola</i> - <i>Zingiber mioga</i>	11233	<i>Phoma macrostoma</i> - <i>Malus X domestica</i>
11135	<i>Xanthomonas campestris</i> pv. <i>zingibericola</i> - <i>Zingiber mioga</i>	11234	<i>Ulocladium botrytis</i> - <i>Fragaria</i> sp.
11136	<i>Erwinia cacticida</i> - <i>Carnegiea gigantea</i>	11235	<i>Verticillium dahliae</i> - <i>Lathyrus odoratus</i>
11139	<i>Sinorhizobium fredii</i> - <i>Glycine max</i>	11236	<i>Verticillium dahliae</i> - <i>Erica</i> sp.
11141	<i>Sinorhizobium xinjiangensis</i> - <i>Glycine max</i>	11237	<i>Verticillium dahliae</i> - <i>Nicotiana tabacum</i>
11143	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11238	<i>Verticillium dahliae</i> - <i>Cinnamomum camphora</i>
11144	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11239	<i>Verticillium dahliae</i> - <i>Fragaria</i> sp.
11145	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11240	<i>Verticillium dahliae</i> - <i>Hebe</i> sp.
11146	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11241	<i>Verticillium dahliae</i> - <i>Phyllica</i> sp.
11147	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11242	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>
11148	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11243	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>
11149	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11244	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>
11150	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11245	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>
11151	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11246	<i>Erwinia amylovora</i> - <i>Malus X domestica</i>
11152	<i>Pseudomonas</i> sp. - <i>Musa</i> sp.	11249	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>
11153	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	11254	<i>Erwinia amylovora</i> - <i>Pyrus communis</i>

11259	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>	11349	<i>Fusarium oxysporum</i> f. sp. <i>perniciosum</i> - <i>Albizia julibrissin</i>
11260	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>	11350	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
11261	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Pyrus calleryana</i>	11351	<i>Nectria haematococca</i> - <i>Pisum sativum</i>
11262	<i>Xanthomonas</i> sp. - <i>Hardenbergia</i> sp.	11352	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>
11263	<i>Erwinia</i> sp. - <i>Colocasia esculenta</i>	11354	<i>Stagonosporopsis curtisii</i> - <i>Amaryllis</i> sp.
11264	<i>Erwinia</i> sp. - <i>Colocasia esculenta</i>	11355	<i>Thielaviopsis</i> sp.
11265	<i>Erwinia</i> sp. - <i>Colocasia esculenta</i>	11356	<i>Ustilago maydis</i> - <i>Zea mays</i>
11266	<i>Erwinia</i> sp. - <i>Phialophora</i> sp.	11357	<i>Fusarium sporotrichioides</i>
11269	<i>Xanthomonas campestris</i> pv. <i>vitiens</i> - <i>Lactuca sativa</i>	11358	<i>Fusarium sporotrichioides</i>
11270	<i>Burkholderia solanacearum</i> - <i>Casuarina equisetifolia</i>	11359	<i>Acremonium alternatum</i> - <i>Actinidia deliciosa</i>
11271	<i>Burkholderia solanacearum</i> - <i>Solanum melongena</i> var. <i>escul</i>	11360	<i>Beauveria</i> sp. - <i>Ochrocydus huttoni</i>
11272	<i>Agrobacterium tumefaciens</i> - <i>Humulus lupulus</i>	11361	<i>Periconia</i> sp. - <i>Cortaderia</i> sp.
11273	<i>Agrobacterium tumefaciens</i> - <i>Humulus lupulus</i>	11362	<i>Stachybotrys freycinetiae</i> - <i>Freycinetia baueriana</i> subsp.
11274	<i>Agrobacterium rhizogenes</i> - <i>Prunus persica</i>	11363	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11275	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>	11364	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11276	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus</i>	11365	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11277	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>	11366	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11278	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>	11367	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11279	<i>Pseudomonas marginalis</i> pv. <i>marginalis</i> - <i>Brassica rapa</i>	11368	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11280	<i>Pseudomonas marginalis</i> pv. <i>marginalis</i> - <i>Brassica rapa</i>	11369	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11281	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> - <i>Brassica rapa</i>	11370	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11282	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> - <i>Brassica rapa</i>	11371	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11283	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	11372	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11284	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	11373	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11285	<i>Pseudomonas fluorescens</i> - <i>Actinidia deliciosa</i>	11374	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11286	<i>Pseudomonas fluorescens</i> - <i>Actinidia deliciosa</i>	11375	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11287	<i>Pseudomonas fluorescens</i> - <i>Actinidia deliciosa</i>	11376	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11288	<i>Pseudomonas fluorescens</i> - <i>Actinidia deliciosa</i>	11377	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11289	<i>Pseudomonas marginalis</i> - <i>Actinidia deliciosa</i>	11378	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11290	<i>Pseudomonas marginalis</i> - <i>Actinidia deliciosa</i>	11379	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11291	<i>Pseudomonas marginalis</i> - <i>Actinidia deliciosa</i>	11380	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
11292	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	11381	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
11293	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	11382	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
11294	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	11383	<i>Venturia pyrina</i> - <i>Pyrus communis</i>
11295	<i>Pseudomonas syringae</i> - <i>Actinidia deliciosa</i>	11384	<i>Phoma</i> sp. - <i>Angelica</i> sp.
11296	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	11385	<i>Phoma</i> sp. - <i>Bupleurum</i> sp.
11297	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	11386	<i>Colletotrichum</i> sp. - <i>Medicago sativa</i>
11298	<i>Erwinia</i> sp. - <i>Rubus</i> sp.	11387	<i>Colletotrichum</i> sp. - <i>Medicago sativa</i>
11299	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	11388	<i>Phytophthora citrophthora</i> - <i>Citrus limon</i>
11300	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>	11389	<i>Phytophthora hibernalis</i> - <i>Citrus limon</i>
11301	<i>Pseudomonas marginalis</i> - <i>Solanum tuberosum</i>	11391	<i>Rhizoctonia solani</i>
11304	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	11392	<i>Rhizoctonia solani</i>
11305	<i>Pseudomonas marginalis</i> - <i>Solanum tuberosum</i>	11393	<i>Rhizoctonia solani</i>
11306	<i>Pseudomonas viridiflava</i> - <i>Allium cepa</i>	11394	<i>Rhizoctonia solani</i>
11307	<i>Burkholderia gladioli</i> pv. <i>alliiicola</i> - <i>Allium cepa</i>	11395	<i>Rhizoctonia solani</i>
11308	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Allium cepa</i>	11396	<i>Rhizoctonia solani</i>
11309	<i>Pseudomonas marginalis</i> - <i>Allium cepa</i>	11397	<i>Colletotrichum</i> sp. - <i>Medicago sativa</i>
11310	<i>Pseudomonas marginalis</i> - <i>Daucus carota</i> var. <i>sativus</i>	11398	<i>Colletotrichum</i> sp. - <i>Medicago sativa</i>
11311	<i>Pseudomonas marginalis</i> - <i>Daucus carota</i> var. <i>sativus</i>	11399	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11312	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11400	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11313	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11401	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11314	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11402	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11315	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11403	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11316	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11404	<i>Venturia inaequalis</i> - <i>Malus X domestica</i>
11317	<i>Nectria haematococca</i> - <i>Pterocarpus indicus</i>	11405	<i>Colletotrichum</i> sp. - <i>Cordyline australis</i>
11318	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11406	<i>Stemphylium</i> sp. - <i>Hebe</i> sp. cv. <i>Waireka</i>
11319	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11407	<i>Phoma</i> sp. - <i>Hebe</i> sp. cv. <i>Waireka</i>
11320	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11408	<i>Septoria</i> sp. - <i>Parahebe</i> sp.
11321	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11409	<i>Cladosporium</i> sp. - <i>Hebe</i> sp.
11322	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11410	<i>Colletotrichum</i> sp. - <i>Blechnum procerum</i>
11323	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11411	<i>Alternaria</i> sp. - <i>Pseudopanax</i> sp.
11324	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11412	<i>Colletotrichum</i> sp. - <i>Cordyline australis</i>
11325	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11413	<i>Alternaria</i> sp. - <i>Coprosma robusta</i>
11326	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11414	Unknown fungus from <i>Cordyline banksii</i>
11327	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11415	<i>Alternaria</i> sp. - <i>Pseudopanax</i> sp.
11328	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11416	<i>Microsphaeropsis</i> sp. - <i>Pittosporum tenuifolium</i>
11329	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11417	<i>Nimbya</i> sp. - <i>Carex secta</i>
11330	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11418	<i>Microsphaeropsis</i> sp. - <i>Pittosporum eugenioides</i>
11331	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11419	<i>Microsphaeropsis</i> sp. - <i>Pittosporum</i> sp. cv. <i>ralphsii</i>
11332	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11420	<i>Dactylaria</i> sp. - <i>Carex virgata</i>
11333	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11422	<i>Stagonospora</i> sp. - <i>Cortaderia toetoe</i>
11334	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11423	Unknown fungus from <i>Hebe stricta</i>
11335	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11424	<i>Alternaria</i> sp. - <i>Cordyline australis</i>
11336	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11425	<i>Phialophora</i> sp. - <i>Carex "ventosa"</i>
11337	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11426	Unknown fungus from <i>Leptospermum scoparium</i>
11338	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11427	Unknown fungus from <i>Olearia arborescens</i>
11339	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11428	<i>Alternaria</i> sp. - <i>Pseudopanax laetus</i>
11340	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11429	<i>Colletotrichum</i> sp. - <i>Pseudopanax arboreus</i>
11341	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11430	<i>Microsphaeropsis</i> sp. - <i>Pittosporum eugenioides</i>
11342	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11431	<i>Microsphaeropsis</i> sp. - <i>Pittosporum colensoi</i>
11343	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11432	Unknown fungus from <i>Metrosideros excelsa</i>
11344	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11433	<i>Botrytis</i> sp. - <i>Podocarpus totara</i>
11345	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11434	Unknown fungus from <i>Hebe hulkeana</i>
11346	<i>Fusarium oxysporum</i> - <i>Pterocarpus indicus</i>	11435	Unknown fungus from <i>Metrosideros excelsa</i>
11347	<i>Fusarium oxysporum</i> f. sp. <i>perniciosum</i> - <i>Albizia</i> sp.	11436	<i>Alternaria</i> sp. - <i>Griselinia littoralis</i>

11437	<i>Pestalotiopsis</i> sp. - <i>Podocarpus totara</i>	11524	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Zantedeschia elliotia</i>
11438	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>	11525	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
11439	<i>Botrytis</i> sp. - <i>Arthropodium cirrhatum</i>	11526	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>
11440	<i>Microsphaeropsis</i> sp. - <i>Pittosporum</i> sp. cv. <i>ralphsii</i>	11527	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>
11441	<i>Ascochyta</i> sp. - <i>Corokia</i> sp.	11528	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>
11442	<i>Septoria</i> sp. - <i>Lophomyrtus</i> sp.	11529	<i>Pseudomonas</i> sp. - <i>Malus X domestica</i>
11443	<i>Alternaria</i> sp. - <i>Hebe elliptica</i>	11530	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> - <i>Medicago satii</i>
11444	<i>Phoma</i> sp. - <i>Hebe elliptica</i>	11531	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Apium graveolens</i> var.
11445	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>	11532	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Cichorium intybus</i>
11446	<i>Phoma</i> sp. - <i>Dacrydium cupressinum</i>	11533	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Cichorium intybus</i>
11447	<i>Alternaria</i> sp. - <i>Dacrydium cupressinum</i>	11534	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Cichorium intybus</i>
11448	<i>Phoma</i> sp. - <i>Vitex lucens</i>	11535	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Cichorium intybus</i>
11449	<i>Alternaria</i> sp. - <i>Blechnum (capense)</i> sp.	11536	<i>Xanthomonas campestris</i> pv. <i>mallotii</i> - <i>Mallotus japonicus</i>
11450	<i>Phoma</i> sp. - <i>Blechnum (capense)</i> sp.	11537	<i>Rhizobium</i> sp. - <i>Galega officinalis</i>
11451	<i>Acremonium</i> sp. - <i>Collosporum</i> sp.	11538	<i>Rhizobium</i> sp.
11452	<i>Phoma</i> sp. - <i>Celmisia armstrongii</i>	11539	<i>Rhizobium</i> sp. - <i>Psoralea pinnata</i>
11453	<i>Alternaria</i> sp. - <i>Celmisia armstrongii</i>	11540	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
11454	<i>Mycocentrospora acerina</i> - <i>Daucus carota</i> var. <i>sativus</i>	11541	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
11455	<i>Colletotrichum</i> sp. - Orchid (native)	11542	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
11456	<i>Colletotrichum</i> sp. - <i>Rhopalostylis sapida</i>	11543	<i>Selenosporella</i> sp. - <i>Malus X domestica</i>
11457	<i>Colletotrichum</i> sp. - <i>Phormium cookianum</i>	11545	<i>Phialophora</i> sp. - <i>Actinidia deliciosa</i>
11458	Unknown fungus from <i>Hebe (parviflora)</i> sp.	11546	<i>Phomopsis</i> sp. - <i>Actinidia deliciosa</i>
11459	Unknown fungus from <i>Leptospermum scoparium</i>	11547	<i>Pleospora</i> sp. - <i>Malus X domestica</i>
11460	<i>Phoma</i> sp. - <i>Entelia arborescens</i>	11548	<i>Selenosporella</i> sp. - <i>Actinidia deliciosa</i>
11461	<i>Phoma</i> sp. - <i>Entelia arborescens</i>	11549	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11462	<i>Colletotrichum</i> sp. - <i>Pittosporum tennifolium</i>	11550	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11463	Unknown fungus from <i>Pittosporum</i> sp.	11551	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11464	<i>Alternaria</i> sp. - <i>Pittosporum</i> sp.	11552	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11465	<i>Alternaria</i> sp. - <i>Pittosporum</i> sp.	11553	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11466	<i>Phoma</i> sp. - <i>Pittosporum eugenioides</i>	11554	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11467	<i>Phoma</i> sp. - <i>Pittosporum eugenioides</i>	11555	<i>Septoria</i> sp. - <i>Nothofagus solandri</i> var. <i>solandri</i>
11468	<i>Alternaria</i> sp. - <i>Pittosporum tennifolium</i>	11556	<i>Colletotrichum</i> sp. - <i>Maclaerina sinclairii</i>
11469	<i>Alternaria</i> sp. - <i>Pittosporum</i> sp.	11557	<i>Septoria</i> sp. - <i>Myrsine australis</i>
11470	<i>Microsphaeropsis</i> sp. - <i>Pittosporum tennifolium</i>	11558	<i>Phoma</i> sp. - <i>Myrsine australis</i>
11471	<i>Septoria</i> sp. - <i>Hebe speciosa</i>	11559	<i>Mycosphaerella</i> sp. - <i>Blechnum</i> sp.
11472	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>	11560	<i>Alternaria</i> sp. - <i>Olearia chatamica</i>
11473	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>	11561	<i>Septoria</i> sp. - <i>Metrosideros excelsa</i>
11474	<i>Colletotrichum</i> sp. - <i>Phormium</i> sp.	11562	Unknown fungus from <i>Coprosma repens</i>
11475	<i>Colletotrichum</i> sp. - <i>Cordyline australis</i>	11563	Unknown fungus from <i>Coprosma repens</i>
11476	<i>Alternaria</i> sp. - <i>Grisebinia</i> sp.	11564	Unknown fungus from <i>Myrsine australis</i>
11477	<i>Phoma</i> sp. - <i>Vitex lucens</i>	11565	<i>Pleurotus opuntiae</i> - <i>Cordyline australis</i>
11478	<i>Phoma</i> sp. - <i>Alectryon excelsus</i>	11566	<i>Pleurotus opuntiae</i> - <i>Liquidambar styraciflua</i>
11479	Unknown fungus from <i>Ripogonum scandens</i>	11567	<i>Pleurotus opuntiae</i> - <i>Cordyline australis</i>
11480	Unknown fungus from <i>Metrosideros excelsa</i>	11568	<i>Pleurotus opuntiae</i> - <i>Araucaria heterophylla</i>
11481	Unknown fungus from <i>Dianella nigra</i>	11569	<i>Pleurotus purpureo-olivaceus</i> - <i>Nothofagus solandri</i> var. <i>cliff</i>
11482	<i>Dactylaria</i> sp. - <i>Carex virgata</i>	11570	<i>Pleurotus purpureo-olivaceus</i> - <i>Nothofagus solandri</i> var. <i>cliff</i>
11483	<i>Phoma</i> sp. - <i>Coprosma robusta</i>	11571	<i>Pleurotus australis</i> - <i>Leptospermum</i> sp.
11484	<i>Phomopsis</i> sp. - <i>Agathis australis</i>	11572	<i>Pleurotus australis</i> - <i>Leptospermum</i> sp.
11485	<i>Colletotrichum</i> sp. - <i>Knightia excelsa</i>	11573	<i>Pleurotus pulmonarius</i>
11486	<i>Colletotrichum</i> sp. - <i>Cordyline</i> sp.	11574	<i>Pleurotus pulmonarius</i>
11487	<i>Alternaria brassicae</i> - <i>Brassica napus</i>	11575	<i>Pleurotus pulmonarius</i>
11488	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>	11576	<i>Pleurotus pulmonarius</i>
11489	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>	11577	<i>Pleurotus pulmonarius</i>
11490	<i>Penicillium</i> sp. - <i>Sandersonia aurantiaca</i>	11578	<i>Pleurotus pulmonarius</i>
11491	<i>Stagonosporopsis curtisii</i> - <i>Nerine bowdenii</i>	11579	<i>Pleurotus pulmonarius</i> - <i>Cassia</i> sp.
11492	<i>Phomopsis</i> sp. - <i>Corynocarpus laevigatus</i>	11580	<i>Myrsine australis</i> - <i>Myrsine australis</i>
11493	<i>Phomopsis</i> sp. - <i>Corynocarpus laevigatus</i>	11581	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11494	<i>Phoma</i> sp. - <i>Coprosma</i> sp.	11582	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11495	<i>Phyllosticta</i> sp. - <i>Corynocarpus laevigatus</i>	11583	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11496	<i>Phyllosticta</i> sp. - <i>Corynocarpus laevigatus</i>	11584	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11497	<i>Geotrichum</i> sp. - <i>Actinidia deliciosa</i>	11585	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11498	<i>Gibberella baccata</i> - <i>Actinidia deliciosa</i>	11586	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11499	<i>Phoma exigua</i> - <i>Actinidia deliciosa</i>	11587	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11500	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>	11588	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11501	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>	11589	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11502	<i>Colletotrichum acutatum</i> - <i>Actinidia deliciosa</i>	11590	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11503	<i>Epicoccum nigrum</i> - <i>Malus X domestica</i>	11591	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11504	<i>Phomopsis</i> sp. - <i>Actinidia deliciosa</i>	11592	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11505	<i>Phoma macrostoma</i> - <i>Actinidia deliciosa</i>	11593	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11506	<i>Pestalotiopsis</i> sp. - <i>Actinidia deliciosa</i>	11594	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11507	<i>Phomopsis</i> sp. - <i>Actinidia deliciosa</i>	11595	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11508	<i>Phomopsis</i> sp. - <i>Actinidia deliciosa</i>	11596	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11509	<i>Phoma exigua</i> - <i>Malus X domestica</i>	11597	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11510	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	11598	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11511	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	11599	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11512	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	11600	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11513	<i>Pseudomonas syringae</i> pv. <i>myricae</i> - <i>Myrica rubra</i>	11601	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11514	<i>Streptomyces</i> sp. - <i>Solanum tuberosum</i>	11602	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11515	<i>Streptomyces</i> sp. - <i>Solanum tuberosum</i>	11603	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11516	<i>Streptomyces</i> sp. - <i>Solanum tuberosum</i>	11604	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11517	<i>Streptomyces</i> sp. - <i>Solanum tuberosum</i>	11605	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11518	<i>Streptomyces</i> sp. - <i>Solanum tuberosum</i>	11606	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11519	<i>Pseudomonas</i> sp. - <i>Delphinium elatum</i>	11607	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11520	<i>Pseudomonas</i> sp. - <i>Delphinium elatum</i>	11608	<i>Phoma</i> sp. - <i>Delphinium</i> sp.
11521	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	11609	<i>Athelia rolfsii</i> - <i>Delphinium X cultorum</i>
11522	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	11610	<i>Athelia rolfsii</i> - <i>Leptinella dioica</i>
11523	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Zantedeschia elliotia</i>	11611	<i>Athelia rolfsii</i> - <i>Rumex obtusifolius</i>

11612	<i>Athelia rolfsii</i> - <i>Spergula arvensis</i>	11698	Unknown fungus from <i>Rhopalosyllis sapida</i>
11613	<i>Athelia rolfsii</i> - <i>Amaranthus powellii</i>	11699	Unknown fungus from <i>Alectryon excelsus</i>
11614	<i>Athelia rolfsii</i> - <i>Allium cepa</i>	11700	Unknown fungus from <i>Alectryon excelsus</i>
11615	<i>Athelia rolfsii</i> - <i>Cucurbita maxima</i>	11701	<i>Cochliobolus sativus</i> - <i>Cucurbita moschata</i>
11616	<i>Athelia rolfsii</i> - <i>Allium cepa</i>	11702	<i>Acremonium</i> sp. - Lily
11617	<i>Athelia rolfsii</i> - <i>Allium cepa</i>	11703	<i>Phomopsis</i> sp. - <i>Corynocarpus laevigatus</i>
11618	<i>Athelia rolfsii</i> - <i>Allium cepa</i>	11704	<i>Pestalotiopsis</i> sp. - <i>Cyathodes robusta</i>
11619	<i>Athelia rolfsii</i> - <i>Solanum tuberosum</i>	11708	<i>Rhizobium</i> sp. - <i>Carmichaelia orbiculata</i>
11620	<i>Rhizoctonia solani</i> - <i>Gypsophila paniculata</i>	11709	<i>Rhizobium</i> sp.
11621	<i>Agaricus arvensis</i>	11710	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
11622	<i>Agaricus arvensis</i> - Grass	11711	<i>Bradyrhizobium</i> sp. (<i>Lotononis</i>) - <i>Lotononis bainesii</i>
11623	<i>Agaricus arvensis</i> - Lawn	11712	<i>Rhizobium</i> sp. - <i>Corallospartium crassicaule</i>
11624	<i>Agaricus arvensis</i> - Lawn	11713	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus sativus</i>
11625	<i>Agaricus arvensis</i> - Lawn	11714	<i>Rhizobium</i> sp. - <i>Ornithopus perpusillus</i>
11626	<i>Agaricus arvensis</i> - Lawn	11715	<i>Rhizobium</i> sp. - <i>Ulex europaeus</i>
11627	<i>Agaricus arvensis</i> - Lawn	11716	<i>Rhizobium</i> sp.
11628	<i>Agaricus arvensis</i> - Grass under nectarine trees	11717	<i>Rhizobium</i> sp. - <i>Albizia distachya</i>
11629	<i>Agaricus arvensis</i> - Grass under nectarine trees	11718	<i>Rhizobium</i> sp. - <i>Ornithopus pinnatus</i>
11630	<i>Agaricus arvensis</i> - Grass under nectarine trees	11719	<i>Rhizobium</i> sp. - <i>Sophora tetraptera</i>
11631	<i>Agaricus arvensis</i> - Lawn	11720	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
11632	<i>Agaricus arvensis</i> - Lawn	11721	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
11633	<i>Agaricus arvensis</i> - Lawn	11722	<i>Rhizobium</i> sp.
11634	<i>Agaricus arvensis</i> - Lawn	11723	<i>Rhizobium</i> sp. - <i>Corallospartium crassicaule</i>
11635	<i>Agaricus bisporus</i>	11724	<i>Rhizobium</i> sp. - <i>Ornithopus perpusillus</i>
11636	<i>Agaricus bisporus</i>	11725	<i>Erwinia carotovora</i> subsp. <i>odorifera</i> - <i>Cichorium intybus</i>
11637	<i>Agaricus bisporus</i>	11726	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
11638	<i>Agaricus bisporus</i>	11727	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
11639	<i>Agaricus bisporus</i>	11729	<i>Bradyrhizobium</i> sp. (<i>Lotus</i>) - <i>Lotus pedunculatus</i>
11640	<i>Agaricus bisporus</i>	11730	<i>Rhizobium</i> sp. - <i>Trigonella suavissima</i>
11641	<i>Agaricus bisporus</i>	11731	<i>Bradyrhizobium</i> sp. (<i>Macrotyloma</i>) - <i>Macrotyloma africanum</i>
11642	<i>Agaricus bisporus</i>	11732	<i>Bradyrhizobium</i> sp. (<i>Ulex</i>) - <i>Ulex europaeus</i>
11643	<i>Agaricus bisporus</i>	11733	<i>Rhizobium</i> sp. - <i>Ornithopus perpusillus</i>
11644	<i>Agaricus bisporus</i> - Tussock grassland	11734	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium ambiguum</i>
11645	<i>Agaricus bisporus</i> - Goat shelter area	11736	<i>Bradyrhizobium</i> sp. (<i>Sophora</i>) - <i>Sophora microphylla</i>
11646	<i>Agaricus bernardii</i>	11737	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus pinnatus</i>
11647	<i>Agaricus bernardii</i>	11738	<i>Bradyrhizobium</i> sp. (<i>Ornithopus</i>) - <i>Ornithopus pinnatus</i>
11648	<i>Agaricus bernardii</i> - Tussock grassland	11739	<i>Pseudomonas syringae</i> - <i>Broussonetia papyrifera</i>
11649	<i>Agaricus bitorquis</i> - Driveway	11740	<i>Pseudomonas syringae</i> - <i>Broussonetia papyrifera</i>
11650	<i>Agaricus bitorquis</i>	11751	<i>Pithomyces funiculosa</i> - Termite mound
11651	<i>Agaricus bitorquis</i>	11752	<i>Pithomyces graminicola</i> - Rhizosphere of wheat
11652	<i>Agaricus bitorquis</i>	11753	<i>Pithomyces karoo</i> - <i>Gnidia polycephala</i>
11653	<i>Agaricus bitorquis</i>	11754	<i>Pithomyces quadratus</i> - Leaf litter
11654	<i>Agaricus bitorquis</i>	11755	<i>Pithomyces sacchari</i> - <i>Medicago sativa</i>
11655	<i>Agaricus campestris</i> - Cow paddock	11756	<i>Pithomyces valparadisiacus</i> - Soil
11656	<i>Agaricus campestris</i> - Cow paddock	11757	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11657	<i>Agaricus campestris</i> - Cow paddock	11758	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11658	<i>Agaricus campestris</i> - Cow paddock	11759	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11659	<i>Agaricus campestris</i> - Sheep paddock	11760	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11660	<i>Agaricus campestris</i> - Grassed track	11761	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
11661	<i>Agaricus cupreobrunneus</i>	11762	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11662	<i>Agaricus porphyrocephalus</i>	11763	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11663	<i>Agaricus semotus</i> - Humus under kanuka	11764	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11664	<i>Agaricus lanipes</i> - Bark mulch	11765	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11665	<i>Agaricus</i> sp. Lawn beneath monkey puzzle tree	11766	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11666	<i>Agaricus</i> sp. - Soil under <i>Populus nigra</i> shelter belt	11767	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11667	<i>Leucoagaricus leucothites</i> - Cow paddock	11768	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11668	<i>Agrocybe parasitica</i> - <i>Plagianthus</i> sp.	11769	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11669	<i>Langermannia gigantea</i> - Paddock	11770	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11670	<i>Pleurotus opuntiae</i> - <i>Cordylina australis</i>	11771	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11671	<i>Pleurotus opuntiae</i> - <i>Cordylina australis</i>	11772	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11672	<i>Pleurotus sajor-caju</i>	11773	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11673	<i>Pleurotus ostreatus</i>	11774	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11674	<i>Pleurotus ostreatus</i>	11775	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
11675	<i>Athelia rolfsii</i> - <i>Daucus carota</i> var. <i>sativus</i>	11776	Unknown fungus from <i>Carex virgata</i>
11676	<i>Athelia rolfsii</i> - <i>Plantago lanceolata</i>	11777	Unknown fungus from <i>Cortaderia toetoe</i>
11677	<i>Verticillium dahliae</i> - <i>Scutellaria</i> sp.	11778	<i>Microsphaeropsis</i> sp. - <i>Pittosporum eugeniooides</i>
11678	<i>Pleurotus ostreatus</i>	11779	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>
11679	<i>Pleurotus ostreatus</i>	11780	<i>Pleurotus pulmonarius</i>
11680	<i>Pleurotus purpureo-olivaceus</i> - <i>Nothofagus solandri</i> var. <i>sola</i>	11781	<i>Pleurotus pulmonarius</i>
11681	<i>Athelia rolfsii</i> - <i>Nerine bowdenii</i>	11782	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>
11682	<i>Alternaria alternata</i> - <i>Malus X domestica</i>	11783	<i>Pestalotiopsis</i> sp. - <i>Phyllocladus trichomanoides</i>
11683	<i>Phoma exigua</i> - <i>Malus X domestica</i>	11784	<i>Pestalotiopsis</i> sp. - <i>Pseudowintera</i> sp.
11684	<i>Phoma macrostoma</i> - <i>Actinidia deliciosa</i>	11785	<i>Alternaria</i> sp. - <i>Griselinia littoralis</i>
11685	<i>Pleospora herbarum</i> - <i>Malus X domestica</i>	11786	<i>Microsphaeropsis</i> sp. - <i>Phormium</i> sp.
11686	<i>Gibberella gordonii</i>	11787	<i>Eutypa lata</i> - <i>Vitis vinifera</i>
11687	<i>Mycosphaerella pomi</i> - <i>Malus X domestica</i>	11788	<i>Eutypa lata</i> - <i>Vitis vinifera</i>
11688	<i>Pestalotiopsis</i> sp. - <i>Cyathodes robusta</i>	11789	<i>Piptoporus cretaceus</i> - <i>Nothofagus cunninghamii</i>
11689	<i>Pestalotiopsis</i> sp. - <i>Cyathodes robusta</i>	11790	<i>Tyromyces falcatus</i> - <i>Nothofagus fusca</i>
11690	<i>Pestalotiopsis</i> sp. - <i>Cyathodes robusta</i>	11791	<i>Piptoporus cretaceus</i> - <i>Nothofagus cunninghamii</i>
11691	<i>Sclerotinia sclerotiorum</i> - <i>Coxella dieffenbachii</i>	11792	<i>Alternaria</i> sp. - <i>Brachyglottis monroi</i>
11692	<i>Athelia rolfsii</i> - <i>Zantedeschia elliotiana</i> X <i>pentlandii</i>	11793	<i>Alternaria</i> sp. - <i>Celmisia semicordata</i>
11694	Unknown fungus from <i>Cordylina australis</i>	11794	<i>Phoma</i> sp. - <i>Weinmannia racemosa</i>
11695	Unknown fungus from <i>Pseudowintera colorata</i>	11795	<i>Cladosporium</i> sp. - <i>Hebe</i> sp. (cultivated)
11696	Unknown fungus from <i>Pseudowintera colorata</i>	11796	<i>Phoma</i> sp. - <i>Phormium tenax</i>
11697	Unknown fungus from <i>Rhopalosyllis sapida</i>	11797	Unknown fungus from <i>Oryzopsis lessoniana</i>

11798	Unknown fungus from <i>Oryzopsis lessoniana</i>	11885	<i>Septoria</i> -like sp. - <i>Northfagus fusca</i>
11799	<i>Alternaria</i> sp. - <i>Pseudopanax</i> sp.	11886	<i>Phoma</i> sp. - <i>Olearia arborescens</i>
11800	<i>Ramularia</i> sp. - <i>Corynocarpus laevigatus</i>	11887	Unknown fungus from <i>Cordyline indivisa</i>
11801	<i>Ramularia</i> sp. - <i>Dodonaea viscosa</i>	11888	Unknown fungus from <i>Cordyline</i> sp.
11802	<i>Microsphaeropsis</i> sp. - <i>Hebe</i> sp.	11889	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>
11803	<i>Cladosporium</i> sp. - <i>Pittosporum</i> sp.	11890	<i>Microsphaeropsis</i> sp. - <i>Pittosporum crassifolium</i>
11804	<i>Alternaria</i> sp. - <i>Arthropodium cirrhatum</i>	11891	<i>Botrytis</i> sp. - <i>Cordyline australis</i>
11805	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>	11892	<i>Phomopsis</i> sp. - <i>Fuchsia excorticata</i>
11806	<i>Phoma</i> sp. - <i>Dodonaea viscosa</i>	11893	<i>Phyllosticta</i> sp. - <i>Vaccinium ashei</i>
11807	<i>Pseudomonas syringae</i> - <i>Broussonetia papyrifera</i>	11894	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11808	<i>Pseudomonas syringae</i> - <i>Broussonetia papyrifera</i>	11895	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11809	<i>Erwinia</i> sp. - <i>Panax pseudoginseng</i> var. <i>notoginseng</i>	11896	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11810	<i>Erwinia</i> sp. - <i>Panax pseudoginseng</i> var. <i>notoginseng</i>	11897	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11811	<i>Erwinia</i> sp. - <i>Panax pseudoginseng</i> var. <i>notoginseng</i>	11898	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11812	<i>Erwinia amylovora</i> - <i>Cydonia oblonga</i>	11899	<i>Pseudomonas syringae</i> pv. <i>cunninghamiae</i> - <i>Cunninghamia</i>
11813	<i>Erwinia chrysanthemi</i> - <i>Cichorium intybus</i>	11900	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
11814	<i>Erwinia chrysanthemi</i> - <i>Brachiaria ruziziensis</i>	11901	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>
11815	<i>Erwinia chrysanthemi</i> - <i>Apium graveolens</i> var. <i>dulce</i>	11902	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Oryza sativa</i>
11816	<i>Erwinia chrysanthemi</i> pv. <i>dianthicola</i> - <i>Dianthus caryophyllus</i>	11903	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i> var. <i>rugosa</i>
11817	<i>Erwinia chrysanthemi</i> pv. <i>dieffenbachiae</i> - <i>Dieffenbachia</i> sp.	11904	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Zea mays</i> var. <i>rugosa</i>
11818	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Nerium oleander</i>	11905	<i>Erwinia nigrifluens</i> - <i>Juglans regia</i>
11819	<i>Erwinia chrysanthemi</i> - <i>Cichorium intybus</i>	11906	<i>Pseudomonas marginalis</i> pv. <i>marginalis</i> - <i>Solanum tuberosum</i>
11820	<i>Burkholderia solanacearum</i> - <i>Ensete ventricosum</i>	11907	<i>Xanthomonas campestris</i> pv. <i>glycines</i> - <i>Glycine hispida</i>
11821	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Primula</i> sp.	11908	<i>Pseudomonas viridiflava</i> - <i>Forsythia suspensa</i>
11822	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cichorium intybus</i>	11909	<i>Pseudomonas syringae</i> - <i>Pueraria montana</i>
11823	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Carica papaya</i>	11910	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>
11824	<i>Pseudomonas fuscovaginae</i> - <i>Oryza sativa</i>	11911	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Lycopersicon</i>
11825	<i>Burkholderia caryophylli</i> - <i>Dianthus caryophyllus</i>	11912	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus</i> sp.
11826	<i>Agrobacterium tumefaciens</i> - <i>Lycopersicon esculentum</i>	11913	<i>Agrobacterium tumefaciens</i> - <i>Dahlia</i> sp.
11827	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Nicotiana tabacum</i>	11914	<i>Rhodococcus fascians</i> - <i>Dahlia</i> sp.
11828	<i>Arthrobacter</i> sp. - <i>Pseudotsuga menziesii</i>	11915	<i>Xanthomonas</i> sp. - <i>Agropyron repens</i>
11829	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	11916	<i>Erwinia chrysanthemi</i> - <i>Cichorium intybus</i>
11830	<i>Erwinia rhapontici</i> - <i>Triticum aestivum</i>	11917	<i>Erwinia chrysanthemi</i> - <i>Cichorium intybus</i>
11831	<i>Erwinia rhapontici</i> - <i>Triticum aestivum</i>	11918	<i>Erwinia chrysanthemi</i> - <i>Cichorium intybus</i>
11832	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cyclamen</i> sp.	11919	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Rosa</i> sp.
11833	<i>Agrobacterium rubi</i> - <i>Rubus</i> sp.	11920	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>
11834	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Chrysanthemum</i> X	11921	<i>Xanthomonas</i> sp. - <i>Bromus carinatus</i>
11835	<i>Xanthomonas campestris</i> pv. <i>incanae</i> - <i>Matthiola incana</i>	11922	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>
11836	<i>Pseudomonas cichorii</i> - <i>Lactuca serriola</i>	11923	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cucurbita pepo</i>
11837	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Iris</i> sp.	11924	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Cyclamen persicum</i>
11838	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica oleracea</i>	11925	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Capsicum annuum</i>
11839	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Helianthus annuus</i>	11926	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Lycopersicon esculentum</i>
11840	<i>Phytophthora colocasiae</i> - <i>Colocasia esculenta</i>	11927	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Philodendron floridum</i>
11841	<i>Phytophthora colocasiae</i> - <i>Colocasia esculenta</i>	11928	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Zantedeschia</i> sp.
11842	<i>Phytophthora colocasiae</i> - <i>Colocasia esculenta</i>	11929	<i>Xanthomonas campestris</i> pv. <i>campestris</i> - <i>Brassica oleracea</i>
11843	<i>Phytophthora colocasiae</i> - <i>Colocasia esculenta</i>	11930	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>
11844	<i>Phytophthora colocasiae</i> - <i>Colocasia esculenta</i>	11931	<i>Erwinia chrysanthemi</i> - <i>Nicotiana tabacum</i>
11845	<i>Seimatosporium leptospermi</i> - <i>Leptospermum scoparium</i>	11932	<i>Pseudomonas fluorescens</i> - <i>Allium sativum</i>
11846	<i>Phoma</i> sp. - <i>Phormium tenax</i>	11933	<i>Pseudomonas syringae</i> pv. <i>helianthi</i> - <i>Helianthus annuus</i>
11847	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>	11934	<i>Rhodococcus fascians</i> - <i>Pelargonium X peltatum</i>
11848	<i>Botrytis</i> sp. - <i>Cordyline australis</i>	11935	<i>Pseudomonas syringae</i> pv. <i>aptata</i> - <i>Beta vulgaris</i>
11849	<i>Phoma</i> sp. - <i>Schefflera digitata</i>	11936	<i>Pseudomonas syringae</i> pv. <i>pisi</i> - <i>Pisum sativum</i>
11850	<i>Phoma</i> sp. - <i>Schefflera digitata</i>	11937	<i>Rhodococcus fascians</i> - <i>Brassica oleracea</i>
11851	<i>Colletotrichum</i> sp. - <i>Rhopalostylis sapida</i>	11938	<i>Xanthomonas campestris</i> pv. <i>begoniae</i> - <i>Begonia X hiemalis</i>
11852	<i>Pestalotiopsis</i> sp. - <i>Rhopalostylis sapida</i>	11939	<i>Xanthomonas fragariae</i> - <i>Fragaria</i> sp.
11853	<i>Phytophthora cactorum</i> - <i>Malus X domestica</i>	11940	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> - <i>Solanum</i>
11854	<i>Ascochyta</i> sp. - <i>Ulex europaeus</i>	11941	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>
11855	<i>Ascochyta</i> sp. - <i>Ulex europaeus</i>	11942	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>
11856	<i>Botryosphaeria</i> sp. - <i>Ulex europaeus</i>	11943	<i>Xylophilus ampelinus</i> - <i>Vitis vinifera</i>
11857	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11944	<i>Xanthomonas fragariae</i> - <i>Fragaria</i> sp.
11858	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11945	<i>Xanthomonas</i> sp. - <i>Spondias cytherea</i>
11859	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11946	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Lolium</i> sp.
11860	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11947	<i>Pseudomonas syringae</i> pv. <i>apii</i> - <i>Apium graveolens</i> var. <i>dulce</i>
11861	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11948	<i>Rhodococcus fascians</i> - <i>Gladiolus</i> sp.
11862	<i>Colletotrichum</i> sp. - <i>Ulex europaeus</i>	11949	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Allium cepa</i>
11863	<i>Gibberella avenacea</i> - <i>Ulex europaeus</i>	11950	<i>Pseudomonas syringae</i> pv. <i>mori</i> - <i>Morus</i> sp.
11864	<i>Gibberella avenacea</i> - <i>Ulex europaeus</i>	11951	<i>Pseudomonas syringae</i> pv. <i>aptata</i> - <i>Beta vulgaris</i>
11865	<i>Fusarium gramineum</i> - <i>Ulex europaeus</i>	11952	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> - <i>Solanum</i>
11866	<i>Fusarium gramineum</i> - <i>Ulex europaeus</i>	11953	<i>Pseudomonas cichorii</i> - <i>Lactuca sativa</i>
11867	<i>Gibberella baccata</i> - <i>Ulex europaeus</i>	11954	<i>Pseudomonas viridiflava</i> - <i>Pyrus communis</i>
11868	<i>Gibberella baccata</i> - <i>Ulex europaeus</i>	11955	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>
11869	<i>Gibberella pulicaris</i> - <i>Ulex europaeus</i>	11956	<i>Xanthomonas campestris</i> pv. <i>corylina</i> - <i>Corylus avellana</i>
11870	<i>Microsphaeropsis</i> sp. - <i>Ulex europaeus</i>	11957	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Thuja</i> sp.
11871	<i>Microsphaeropsis</i> sp. - <i>Ulex europaeus</i>	11958	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Forsythia</i> sp.
11872	<i>Microsphaeropsis</i> sp. - <i>Ulex europaeus</i>	11959	<i>Xanthomonas campestris</i> pv. <i>arrhenatheri</i> - <i>Arrhenatherum</i>
11873	<i>Microsphaeropsis</i> sp. - <i>Ulex europaeus</i>	11960	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
11874	<i>Pestalotiopsis</i> sp. - <i>Ulex europaeus</i>	11961	<i>Xanthomonas campestris</i> pv. <i>cassiae</i>
11875	<i>Pestalotiopsis</i> sp. - <i>Ulex europaeus</i>	11962	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Euonymus japonica</i>
11876	<i>Phomopsis</i> sp. - <i>Ulex europaeus</i>	11963	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>
11877	<i>Phomopsis</i> sp. - <i>Ulex europaeus</i>	11964	<i>Pseudomonas syringae</i> pv. <i>syringae</i> - <i>Corylus avellana</i>
11878	<i>Phomopsis</i> sp. - <i>Ulex europaeus</i>	11965	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus deltoides</i>
11879	<i>Phomopsis</i> sp. - <i>Ulex europaeus</i>	11966	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>
11880	<i>Pleiochaeta setosa</i> - <i>Ulex europaeus</i>	11967	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Cydonia</i>
11881	<i>Pleiochaeta setosa</i> - <i>Ulex europaeus</i>	11968	<i>Agrobacterium tumefaciens</i> - <i>Actinidia deliciosa</i>
11882	<i>Septoria slaptonensis</i> - <i>Ulex europaeus</i>	11969	<i>Erwinia chrysanthemi</i> - <i>Aglaonema</i> sp.
11883	<i>Septoria slaptonensis</i> - <i>Ulex europaeus</i>	11971	<i>Agrobacterium rhizogenes</i> (saprophytic strain) - <i>Populus X</i>
11884	<i>Septoria</i> -like sp. - <i>Hebe</i> sp. cv. <i>Waikare</i>	11972	<i>Agrobacterium tumefaciens</i> - <i>Populus X P. tremula X P. alba</i>

11973	<i>Xanthomonas campestris</i> pv. <i>mangiferaeindicae</i> - <i>Mangifera</i>	12058	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>
11974	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus X euramerica</i>	12059	<i>Flammulina velutipes</i>
11975	<i>Xanthomonas campestris</i> pv. <i>populi</i> - <i>Populus X interamerica</i>	12060	<i>Phomopsis</i> sp. - <i>Ulex europaeus</i>
11976	<i>Burkholderia solanacearum</i> - <i>Cucurbita pepo</i>	12061	<i>Septoria</i> sp. - <i>Ulex europaeus</i>
11977	<i>Burkholderia solanacearum</i> - <i>Acacia mountforeiaie</i>	12062	<i>Septoria</i> sp. - <i>Ulex europaeus</i>
11978	<i>Burkholderia solanacearum</i> - <i>Capsicum annuum</i>	12063	<i>Gibberella avenacea</i> - <i>Cytisus scoparius</i>
11979	<i>Burkholderia solanacearum</i> - <i>Solanum tuberosum</i>	12064	<i>Glomerella cingulata</i> - <i>Citrus</i> sp.
11980	<i>Burkholderia solanacearum</i> - <i>Strelitzia reginae</i>	12065	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
11981	<i>Burkholderia solanacearum</i> - <i>Heliconia</i> sp.	12066	<i>Glomerella cingulata</i> - <i>Ficus carica</i>
11982	<i>Burkholderia solanacearum</i> - <i>Zingiber officinale</i>	12067	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>
11983	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	12068	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
11984	<i>Burkholderia andropogonis</i> - <i>Dianthus caryophyllus</i>	12069	<i>Glomerella cingulata</i>
11985	<i>Burkholderia andropogonis</i> - <i>Gypsophila</i> sp.	12070	<i>Glomerella cingulata</i>
11986	<i>Burkholderia andropogonis</i> - <i>Vaccinium</i> sp.	12071	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
11987	<i>Burkholderia andropogonis</i> - <i>Limonium sinuatum</i>	12072	<i>Glomerella cingulata</i>
11988	<i>Burkholderia andropogonis</i> - <i>Sorghum</i> sp.	12073	<i>Glomerella cingulata</i>
11989	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>	12074	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
11990	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>	12075	<i>Glomerella cingulata</i>
11991	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>	12076	<i>Glomerella cingulata</i>
11992	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Panicum miliaceum</i>	12077	<i>Glomerella cingulata</i> - <i>Malus X domestica</i>
11993	<i>Acidovorax avenae</i> subsp. <i>avenae</i> - <i>Setaria italica</i>	12078	<i>Glomerella cingulata</i>
11994	<i>Burkholderia andropogonis</i> - <i>Bougainvillea spectabilis</i>	12079	<i>Glomerella cingulata</i>
11995	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus maxima</i>	12080	Unknown fungus from <i>Dodonea viscosa</i>
11996	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus sinensis</i>	12081	Unknown fungus from <i>Dodonea viscosa</i>
11997	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	12082	Unknown fungus from <i>Metrosideros excelsa</i>
11998	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus X paradisi</i>	12083	Unknown fungus from <i>Metrosideros excelsa</i>
11999	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus X paradisi</i>	12084	<i>Phoma</i> sp. - <i>Pseudopanax laetusa</i>
12000	<i>Xanthomonas campestris</i> pv. <i>citri</i> - <i>Citrus aurantiifolia</i>	12085	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>
12001	<i>Pseudomonas syringae</i> - <i>Parrotia persica</i>	12086	<i>Glomerella phacidomorpha</i> - <i>Phormium tenax</i>
12002	<i>Pseudomonas syringae</i> - <i>Parrotia persica</i>	12087	<i>Phoma</i> sp. - <i>Olearia avicenniaefolia</i>
12003	<i>Rhodococcus fascians</i> - <i>Pelargonium X hortorum</i>	12088	<i>Cladosporium</i> sp. - <i>Coprosma australis</i>
12004	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>	12089	<i>Phoma</i> sp. - <i>Hoheria populnea</i>
12005	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i> - <i>Pelargonium X hort.</i>	12090	<i>Colletotrichum graminicola</i> - <i>Hierochloa redolens</i>
12006	<i>Xanthomonas</i> sp. - <i>Primula vulgaris</i>	12091	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>
12007	<i>Xanthomonas</i> sp. - <i>Dendranthema hypargyrum</i>	12092	<i>Phoma</i> sp. - <i>Hebe stricta</i>
12008	<i>Pseudomonas syringae</i> - <i>Ligustrum lucidum</i>	12093	<i>Phoma</i> sp. - <i>Brachyglottis greyii</i>
12009	<i>Pseudomonas syringae</i> - <i>Ligustrum lucidum</i>	12094	<i>Phoma</i> sp. - <i>Hebe obtusata</i>
12010	<i>Xanthomonas campestris</i> pv. <i>holcicola</i> - <i>Sorghum bicolor</i>	12095	<i>Alternaria</i> sp. - <i>Olearia furfuracea</i>
12011	<i>Xanthomonas campestris</i> pv. <i>hordei</i> - <i>Hordeum vulgare</i>	12096	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>
12012	<i>Burkholderia solanacearum</i> - <i>Lycopersicon esculentum</i>	12097	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12013	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	12098	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>
12014	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	12099	<i>Alternaria</i> sp. - <i>Olearia traversii</i>
12015	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	12100	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12016	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12101	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12017	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12102	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12018	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12103	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12019	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	12104	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12020	<i>Xanthomonas campestris</i> pv. <i>oryzicola</i> - <i>Oryza sativa</i>	12105	<i>Microsphaeropsis</i> sp. - <i>Cytisus scoparius</i>
12021	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12106	<i>Phomopsis</i> sp. - <i>Cytisus scoparius</i>
12022	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12107	<i>Phomopsis</i> sp. - <i>Cytisus scoparius</i>
12023	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> - <i>Oryza sativa</i>	12108	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>
12024	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> - <i>Lycopersicon esc.</i>	12109	<i>Microsphaeropsis</i> sp. - <i>Pittosporum eugenioides</i>
12025	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Vitis vinifera</i>	12110	<i>Colletotrichum</i> sp. - <i>Alectryon excelsus</i>
12026	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Vitis vinifera</i>	12112	<i>Alternaria</i> sp. - <i>Pseudopanax arboreus</i>
12027	<i>Xanthomonas</i> sp. - <i>Cynara scolymus</i>	12113	<i>Colletotrichum</i> sp. - <i>Phormium tenax</i>
12028	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i> - <i>Phaseolus vulgaris</i>	12114	<i>Coelomycete</i> - unidentified genus - <i>Peraxilla tetrapetala</i>
12029	<i>Xanthomonas campestris</i> pv. <i>graminis</i> - <i>Lolium perenne</i>	12115	<i>Coelomycete</i> - unidentified genus - <i>Peraxilla tetrapetala</i>
12030	<i>Erwinia chrysanthemi</i> - <i>Euphorbia pulcherrima</i>	12116	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
12031	<i>Xanthomonas</i> sp. - <i>Cynara scolymus</i>	12117	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
12032	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Olea europaea</i>	12118	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
12033	<i>Pseudomonas savastanoi</i> pv. <i>savastanoi</i> - <i>Fraxinus excelsior</i>	12119	<i>Guignardia</i> sp. - <i>Leptospermum scoparium</i>
12034	<i>Phomopsis</i> sp. - <i>Cytisus scoparius</i>	12120	<i>Guignardia</i> sp. - <i>Leptospermum scoparium</i>
12035	<i>Septoria</i> sp. - <i>Ulex europaeus</i>	12121	<i>Guignardia</i> sp. - <i>Leptospermum scoparium</i>
12036	<i>Septoria</i> sp. - <i>Ulex europaeus</i>	12130	<i>Fusarium oxysporum</i> - <i>Prunus persica</i>
12037	<i>Septoria slaptonensis</i> - <i>Ulex europaeus</i>	12131	<i>Gibberella baccata</i> - <i>Prunus persica</i>
12038	<i>Gibberella avenacea</i> - <i>Cytisus scoparius</i>	12132	<i>Diaporthe</i> sp. - <i>Peraxilla colensoi</i>
12039	<i>Gibberella avenacea</i> - <i>Cytisus scoparius</i>	12133	<i>Erwinia amylovora</i> - <i>Cydonia</i> sp.
12040	<i>Gibberella baccata</i> - <i>Cytisus scoparius</i>	12134	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Primula</i> sp.
12041	<i>Gibberella baccata</i> - <i>Cytisus scoparius</i>	12135	<i>Erwinia chrysanthemi</i> - <i>Kalanchoe blossfeldiana</i>
12042	<i>Microsphaeropsis</i> sp. - <i>Ulex europaeus</i>	12136	<i>Pseudomonas syringae</i> - <i>Euonymus</i> sp.
12043	<i>Botryosphaeria dothidea</i> - <i>Cytisus scoparius</i>	12142	<i>Erwinia herbicola</i> - <i>Euonymus</i> sp.
12044	<i>Gibberella avenacea</i> - <i>Cytisus scoparius</i>	12143	<i>Erwinia herbicola</i> - <i>Euonymus</i> sp.
12045	<i>Gibberella avenacea</i> - <i>Ulex europaeus</i>	12144	<i>Pseudomonas</i> sp. - <i>Geranium traversii</i>
12046	<i>Gibberella avenacea</i> - <i>Ulex europaeus</i>	12146	<i>Pseudomonas</i> sp. - <i>Geranium traversii</i>
12047	<i>Agaricus tabularis</i>	12147	<i>Pseudomonas syringae</i> - <i>Hoheria populnea</i>
12048	<i>Agaricus tabularis</i>	12150	<i>Pseudomonas syringae</i> - <i>Hoheria populnea</i>
12049	<i>Agaricus bisporus</i>	12160	<i>Pseudomonas syringae</i> - <i>Hoheria populnea</i>
12050	<i>Lentinula edodes</i>	12161	<i>Pseudomonas syringae</i> - <i>Carmichaelia williamsii</i>
12051	<i>Ganoderma</i> sp.	12164	<i>Pseudomonas syringae</i> - <i>Carmichaelia williamsii</i>
12052	<i>Hericium erinaceus</i>	12167	<i>Xanthomonas</i> sp. - <i>Metrosideros excelsa</i>
12053	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	12168	<i>Xanthomonas</i> sp. - <i>Metrosideros excelsa</i>
12054	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	12169	<i>Xanthomonas</i> sp. - <i>Metrosideros excelsa</i>
12055	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	12170	<i>Pseudomonas syringae</i> - <i>Weinmannia racemosa</i>
12056	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	12173	<i>Pseudomonas syringae</i> - <i>Weinmannia racemosa</i>
12057	<i>Mycosphaerella brassicicola</i> - <i>Brassica oleracea</i> var. <i>capitata</i>	12174	<i>Pseudomonas syringae</i> - <i>Hoheria populnea</i>

- 12177 *Pseudomonas syringae* - *Hoheria populnea*
12178 *Pseudomonas* sp. - *Olearia traversii*
12181 *Agrobacterium tumefaciens* - *Vitis vinifera*
12182 *Erwinia carotovora* subsp. *carotovora* - *Cucumis melo*
12183 *Erwinia ananas* pv. *ananas* - *Cassia pectinata*
12184 *Xanthomonas campestris* pv. *arracaciae* - *Arracacia xanthor*
12185 *Xanthomonas campestris* pv. *vesicatoria* - *Capsicum frutescens*
12186 *Erwinia psidii* - *Psidium guajava*
12187 *Bacillus licheniformis* - *Cucumis melo*
12188 *Xanthomonas campestris* pv. *campestris* - *Brassica napus*
12189 *Xanthomonas campestris* pv. *passiflorae* - *Passiflora edulis*
12190 *Acidovorax avenae* subsp. *citrulli* - *Cucumis melo*
12191 *Erwinia carotovora* subsp. *carotovora* - *Cucumis melo*
12192 *Pseudomonas syringae* pv. *tabaci* - *Desmodium canum*
12193 *Erwinia chrysanthemi* pv. *zeae* - *Dianthus caryophyllus*
12194 *Erwinia chrysanthemi* pv. *zeae* - *Dianthus caryophyllus*
12195 *Serratia marcescens* - *Allium cepa*
12196 *Acidovorax avenae* subsp. *citrulli* - *Citrullus lanatus*
12197 *Xanthomonas campestris* pv. *passiflorae* - *Passiflora edulis*
12198 *Acidovorax avenae* subsp. *citrulli* - *Citrullus lanatus*
12199 *Erwinia carotovora* subsp. *carotovora* - *Phalaenopsis* sp.
12200 *Erwinia chrysanthemi* pv. *zeae* - *Phalaenopsis* sp.
12201 *Erwinia chrysanthemi* pv. *zeae* - *Phalaenopsis* sp.
12202 *Enterobacter agglomerans* - *Cucumis melo*
12203 *Enterobacter agglomerans* - *Cucumis melo*
12204 *Enterobacter agglomerans* - *Cucumis melo*
12205 *Enterobacter agglomerans* - *Cucumis melo*
12212 *Pseudomonas savastanoi* pv. *glycinea* - *Glycine max*
12214 *Pseudomonas fluorescens* - *Agaricus bisporus*
12215 *Pseudomonas fluorescens* - *Agaricus bisporus*
12216 *Pseudomonas tolaasii* - Mushroom bed casing layer for white
12217 *Pseudomonas tolaasii* - *Agaricus bisporus*
12218 *Pseudomonas tolaasii* - *Agaricus bisporus*
12219 *Pseudomonas fluorescens* - *Agaricus bisporus*
12220 *Pseudomonas gladioli* pv. *agaricicola* - *Agaricus bitorquis*
12221 *Pseudomonas gladioli* pv. *agaricicola* - *Agaricus bitorquis*
12222 *Pseudomonas gladioli* pv. *agaricicola* - *Agaricus bitorquis*
12223 *Bacillus thuringiensis* - Mixed grains/animal feed
12224 *Bacillus thuringiensis* - Mixed grains/animal feed
12225 *Bacillus thuringiensis* - Mixed grains/animal feed
12226 *Bacillus thuringiensis* - Mixed grains/animal feed
12227 *Bacillus thuringiensis* - Mixed grains/animal feed
12228 *Acidovorax avenae* subsp. *cattleyae* - *Phalaenopsis* sp.
12229 *Acidovorax avenae* subsp. *cattleyae* - *Phalaenopsis* sp.
12230 *Pseudomonas syringae* - *Sandersonia* sp.
12231 *Pseudomonas syringae* - *Sandersonia* sp.
12232 *Diaporthe* sp. - *Peraxilla colensoi*
12233 *Diaporthe* sp. - *Peraxilla tetrapetala*
12234 *Colletotrichum acutatum* - *Cytisus scoparius*
12235 *Colletotrichum acutatum* - *Cytisus scoparius*
12236 *Colletotrichum acutatum* - *Cytisus scoparius*
12237 *Gibberella pulicaris* - *Cytisus scoparius*
12238 *Gibberella pulicaris* - *Cytisus scoparius*
12239 *Gibberella pulicaris* - *Cytisus scoparius*
12241 *Phoma exigua* - *Cytisus scoparius*
12242 *Phoma exigua* - *Cytisus scoparius*
12243 *Pleospora herbarum* - *Ulex europaeus*
12244 *Pleospora herbarum* - *Ulex europaeus*
12245 *Pleospora herbarum* - *Ulex europaeus*
12246 *Septoria slaptonensis* - *Cytisus scoparius*
12247 *Septoria slaptonensis* - *Cytisus scoparius*
12248 *Chaetomella* sp. - *Leptospermum scoparium*
12249 *Phyllosticta* sp. - *Leptospermum scoparium*
12250 *Chaetomella* sp. - *Leptospermum scoparium*
12251 *Chaetomella* sp. - *Leptospermum scoparium*
12252 *Pyrenochaeta* sp. - *Leptospermum scoparium*
12253 *Pyrenochaeta* sp. - *Leptospermum scoparium*
12254 *Pyrenochaeta* sp. - *Leptospermum scoparium*
12255 *Botrytis cinerea* - *Vitis vinifera*
12256 *Botrytis cinerea* - *Lycopersicon esculentum*
12257 *Botrytis cinerea* - *Lycopersicon esculentum*
12258 *Botrytis cinerea* - *Fragaria X ananassa*
12259 *Botrytis cinerea* - *Fragaria X ananassa*
12260 *Nectria inventa* - *Zantedeschia* sp.
12261 *Colletotrichum acutatum* - *Persea americana*
12262 *Alternaria solani* - *Solanum melongena* var. *esculentum*
12263 *Phoma* sp. - *Solanum melongena* var. *esculentum*
12264 *Ganoderma* cf. *applanatum* - *Agathis australis*
12265 *Ganoderma* cf. *applanatum* - NZ native tree
12266 *Ganoderma* cf. *applanatum*
12267 *Ganoderma* cf. *applanatum* - *Pinus radiata*
12268 *Ganoderma* cf. *applanatum* - *Beilschmiedia tawa*
12269 *Ganoderma* cf. *applanatum* - *Beilschmiedia tawa*
12270 *Ganoderma* cf. *applanatum*
12271 *Ganoderma* cf. *applanatum* - *Nothofagus?* sp.
12272 *Pleurotus cystidiosus* - *Quercus nuttallii*
12273 *Pleurotus abalonus*
12274 *Pleurotus abalonus*
12275 *Pleurotus cystidiosus* - *Populus deltoides*
12276 *Pleurotus cystidiosus* - *Populus deltoides*
12277 *Pleurotus cystidiosus* - *Populus deltoides*
12278 *Pleurotus cystidiosus* - *Populus deltoides*
12279 *Pleurotus abalonus*
12280 *Pleurotus abalonus*
12281 *Auricularia polytricha* - *Aleurites moluccana*
12282 *Auricularia cornea* - *Acacia koa*
12283 *Auricularia polytricha* - *Aleurites moluccana*
12284 *Pleurotus pulmonarius*
12285 *Diaporthe* sp. - *Juglans regia*
12286 *Monilochaetes infuscans* - *Ipomoea batatas*
12287 *Monilochaetes infuscans* - *Ipomoea batatas*
12288 *Monilochaetes infuscans* - *Ipomoea batatas*
12289 *Monilochaetes infuscans* - *Ipomoea batatas*
12290 *Aphanomyces euteiches* - *Pisum sativum*
12291 *Aphanomyces euteiches* - *Pisum sativum*
12292 *Aphanomyces euteiches* - *Pisum sativum*
12293 *Aphanomyces euteiches* - *Pisum sativum*
12294 *Aphanomyces euteiches* - *Pisum sativum*
12295 *Aphanomyces euteiches* - *Pisum sativum*
12296 *Aphanomyces euteiches* - *Pisum sativum*
12297 *Phoma* sp. - *Rubus ursinus* var. *loganobaccus*
12298 *Xanthomonas campestris* pv. *begoniae* - *Begonia X hiemalis*
12301 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12303 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12304 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12305 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12306 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12307 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12308 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12309 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12310 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12311 *Pseudomonas syringae* pv. *syringae* - *Cucurbita maxima*
12312 *Xanthomonas campestris* pv. *zinniae* - *Zinnia* sp.
12313 *Xanthomonas campestris* pv. *zinniae* - *Zinnia* sp.
12316 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
12317 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
12318 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
12319 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
12320 *Clavibacter michiganensis* subsp. *michiganensis* - *Lycopersi*
12321 *Xanthomonas campestris* pv. *leersiae* - *Leersia hexandra*
12322 *Xanthomonas campestris* pv. *vesicatoria* - *Capsicum annuum*
12323 *Xanthomonas campestris* pv. *vesicatoria* - *Capsicum annuum*
12324 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
12325 *Xanthomonas campestris* pv. *phaseoli* - *Phaseolus vulgaris*
12326 *Xanthomonas campestris* pv. *oryzae* - *Oryza sativa*
12327 *Xanthomonas campestris* pv. *oryzae* - *Oryza sativa*
12328 *Xanthomonas campestris* pv. *oryzicola* - *Oryza sativa*
12329 *Xanthomonas campestris* pv. *oryzicola* - *Oryza sativa*
12330 *Xanthomonas campestris* pv. *oryzicola* - *Oryza sativa*
12331 *Pseudomonas syringae* pv. *syringae* - *Malus X domestica*
12332 *Pseudomonas syringae* pv. *syringae* - *Malus X domestica*
12333 *Pseudomonas syringae* pv. *syringae* - *Malus X domestica*
12334 *Pseudomonas syringae* - *Magnolia* sp.
12335 *Pseudomonas syringae* - *Magnolia* sp.
12336 *Pseudomonas syringae* - *Magnolia* sp.
12337 *Pseudomonas syringae* - *Ricinus communis*
12338 *Pseudomonas syringae* - *Ricinus communis*
12339 *Pseudomonas syringae* - *Ricinus communis*
12340 *Pseudomonas syringae* - *Coriandrum sativum*
12341 *Pseudomonas syringae* pv. *coriandricola* - *Coriandrum sativum*
12342 *Pseudomonas syringae* pv. *coriandricola* - *Coriandrum sativum*
12343 *Pseudomonas* sp. - *Lycopersicon esculentum*
12344 *Pseudomonas* sp. - *Lycopersicon esculentum*
12345 *Pseudomonas marginalis-like* - *Helianthus annuus*
12346 *Pseudomonas marginalis-like* - *Helianthus annuus*
12347 *Pseudomonas marginalis-like* - *Helianthus annuus*
12348 *Pseudomonas marginalis-like* - *Helianthus annuus*
12349 *Pseudomonas* sp. - *Solanum nigrum*
12350 *Pseudomonas* sp. - *Solanum nigrum*
12351 *Pseudomonas viridiflava-like* - *Solanum nigrum*
12352 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays* var. *rugosa*
12353 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays* var. *rugosa*
12354 *Erwinia chrysanthemi* pv. *zeae* - *Zea mays* var. *rugosa*
12355 *Pseudomonas* sp. - *Zea mays* var. *rugosa*
12356 *Pseudomonas* sp. - *Cucumis melo*
12357 *Pseudomonas* sp. - *Cucumis melo*
12358 *Pseudomonas* sp. - *Cucumis melo*
12359 *Burkholderia solanacearum* - *Solanum tuberosum*
12360 *Erwinia carotovora* subsp. *carotovora* - *Iris spuria*
12361 *Erwinia carotovora* subsp. *carotovora* - *Primula vulgaris*
12362 *Pseudomonas viridiflava* - *Calendula officinalis*
12363 *Pseudomonas viridiflava* - *Ocimum basilicum*
12364 *Rhodococcus fascians* - *Petunia X hybrid Hort.*
12365 *Erwinia amylovora* - *Stranvaesia* sp.

12366	<i>Erwinia amylovora</i> - <i>Chaenomeles</i> sp.	12483	<i>Burkholderia cepacia</i> - <i>Lycopersicon esculentum</i>
12367	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Solanum tuberosum</i>	12484	<i>Bacillus circulans</i>
12368	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	12485	<i>Bacillus megaterium</i>
12369	<i>Erwinia carotovora</i> subsp. <i>atroseptica</i> - <i>Solanum tuberosum</i>	12486	<i>Bacillus subtilis</i>
12370	<i>Bacillus cereus</i>	12488	<i>Burkholderia gladioli</i> - Compromised human patient with cysti
12371	<i>Bacillus thuringiensis</i> - <i>Ephestia kuhniella</i>	12489	<i>Burkholderia gladioli</i> - Compromised human patient with cysti
12372	<i>Pseudomonas</i> sp. - <i>Magnolia</i> sp.	12490	<i>Burkholderia gladioli</i> - Compromised human patient with cysti
12373	<i>Pseudomonas</i> sp. - <i>Vitex lucens</i>	12491	<i>Burkholderia gladioli</i> - Compromised human patient with cysti
12376	<i>Pseudomonas</i> sp. - <i>Vitex lucens</i>	12492	<i>Burkholderia gladioli</i> - Compromised human patient with cysti
12377	<i>Pseudomonas</i> sp. - <i>Magnolia</i> sp.	12493	<i>Erwinia rhapontici</i> - <i>Narcissus</i> sp.
12378	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12494	<i>Pseudomonas syringae</i> - <i>Lolium</i> sp.
12379	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12495	Unknown bacterium - Oil contaminated Soil
12380	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12496	<i>Embellisia allii</i> - <i>Allium sativum</i>
12381	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12497	<i>Embellisia allii</i> - <i>Allium sativum</i>
12382	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12498	<i>Embellisia allii</i> - <i>Allium sativum</i>
12383	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12499	<i>Gnomonia rostellata</i> - <i>Rubus fruticosus</i>
12384	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12500	<i>Gnomonia rostellata</i> - <i>Rubus fruticosus</i>
12385	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12501	<i>Gnomonia rostellata</i> - <i>Rubus fruticosus</i>
12386	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12502	<i>Gnomonia rostellata</i> - <i>Rubus fruticosus</i>
12387	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12503	<i>Mycosphaerella graminicola</i> - <i>Triticum aestivum</i>
12388	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12504	<i>Mycosphaerella graminicola</i> - <i>Triticum aestivum</i>
12389	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12505	<i>Mycosphaerella graminicola</i> - <i>Triticum aestivum</i>
12390	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12507	<i>Septocytia ruborum</i> - <i>Rubus fruticosus</i>
12391	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12508	<i>Septocytia ruborum</i> - <i>Rubus fruticosus</i>
12392	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12509	<i>Septoria</i> sp. - <i>Rhamnus cathartica</i>
12393	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12510	<i>Septoria</i> sp. - <i>Rhamnus cathartica</i>
12394	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12511	<i>Verticillium dahliae</i> - <i>Prunus persica</i>
12395	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12512	<i>Verticillium dahliae</i> - <i>Prunus persica</i>
12396	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12513	<i>Verticillium dahliae</i> - <i>Prunus persica</i>
12397	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12514	<i>Verticillium dahliae</i> - <i>Helianthus annuus</i>
12398	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12515	<i>Sclerotinia sclerotiorum</i> - <i>Petroselinum crispum</i>
12399	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12516	<i>Sclerotinia sclerotiorum</i> - <i>Petroselinum crispum</i>
12400	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12517	<i>Septoria helianthi</i> - <i>Helianthus annuus</i>
12401	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12518	<i>Septoria helianthina</i> - <i>Helianthus annuus</i>
12402	<i>Pseudomonas syringae</i> pv. <i>persicae</i> - <i>Prunus persica</i>	12519	<i>Septoria helianthina</i> - <i>Helianthus annuus</i>
12404	<i>Pseudomonas</i> sp. - <i>Magnolia</i> sp.	12520	<i>Diaporthe</i> sp. - <i>Ileostylis micranthus</i>
12409	<i>Bacillus thuringiensis</i>	12521	<i>Diaporthe</i> sp. - <i>Ileostylis micranthus</i>
12410	<i>Bacillus thuringiensis</i>	12522	<i>Diaporthe</i> sp. - <i>Ileostylis micranthus</i>
12411	<i>Bacillus thuringiensis</i>	12523	<i>Gibberella baccata</i> - <i>Ileostylis micranthus</i>
12412	<i>Bacillus thuringiensis</i>	12524	<i>Drechmeria coniospora</i> - Pasture soil
12413	<i>Bacillus thuringiensis</i>	12525	<i>Harposporium</i> sp. - Sheep dung
12414	<i>Bacillus thuringiensis</i>	12526	<i>Harposporium helicoides</i> - Sheep dung
12415	<i>Bacillus thuringiensis</i>	12527	<i>Harposporium leptospora</i> - Sheep dung
12416	<i>Bacillus thuringiensis</i>	12528	<i>Hirsutella rhossiliensis</i> - Pasture Soil
12417	<i>Bacillus thuringiensis</i>	12530	<i>Enterobacter pyrinus</i> - <i>Pyrus pyriformis</i>
12418	<i>Bacillus thuringiensis</i>	12531	<i>Erwinia herbicola</i> pv. <i>gypsophillae</i> - <i>Gypsophila paniculata</i>
12419	<i>Bacillus thuringiensis</i>	12532	<i>Erwinia persicina</i> - <i>Lycopersicon esculentum</i>
12420	<i>Bacillus thuringiensis</i>	12534	<i>Enterobacter agglomerans</i> - Knee laceration
12421	<i>Bacillus thuringiensis</i>	12536	<i>Streptomyces acidiscabies</i> - <i>Solanum tuberosum</i>
12422	<i>Bacillus thuringiensis</i>	12538	<i>Streptomyces candidus</i> - Soil
12423	<i>Bacillus thuringiensis</i>	12539	<i>Streptomyces collinus</i> - Soil
12424	<i>Bacillus thuringiensis</i>	12540	<i>Streptomyces intermedius</i>
12425	<i>Bacillus thuringiensis</i>	12541	<i>Streptomyces ipomoeae</i>
12426	<i>Bacillus thuringiensis</i>	12542	<i>Streptomyces scabies</i> - <i>Solanum tuberosum</i>
12427	<i>Bacillus thuringiensis</i>	12543	<i>Streptomyces setonii</i> - <i>Solanum tuberosum</i>
12428	<i>Bacillus thuringiensis</i>	12544	<i>Streptomyces wedmorensis</i>
12429	<i>Bacillus thuringiensis</i>	12545	<i>Xanthomonas bromi</i> - <i>Bromus fontkii</i>
12430	<i>Bacillus thuringiensis</i>	12546	<i>Xanthomonas campestris</i> pv. <i>daturae</i> - <i>Datura metel</i>
12431	<i>Bacillus thuringiensis</i>	12547	<i>Xanthomonas campestris</i> pv. <i>obscurae</i> - <i>Ipomoea obscura</i>
12432	<i>Bacillus thuringiensis</i>	12548	<i>Acidovorax delafieldii</i> - Pond water of the coal carbonisation
12433	<i>Bacillus thuringiensis</i>	12549	<i>Acidovorax delafieldii</i> - Soil
12434	<i>Bacillus thuringiensis</i>	12550	<i>Acidovorax facilis</i> - Lawn Soil
12435	<i>Bacillus thuringiensis</i>	12551	<i>Alcaligenes denitrificans</i> - Anthranilic acid
12436	<i>Bacillus cereus</i>	12552	<i>Alcaligenes denitrificans</i> - Phenol waste pond
12438	<i>Bacillus cereus</i>	12553	<i>Comamonas acidovorans</i> - Soil
12439	<i>Bacillus cereus</i>	12554	Unknown bacterium - River sediment
12440	<i>Bacillus cereus</i>	12555	<i>Escherichia coli</i>
12441	<i>Bacillus cereus</i>	12556	<i>Hydrogenophaga pseudoflava</i> - River water
12442	<i>Bacillus cereus</i>	12557	<i>Pseudomonas aeruginosa</i> - Oil contaminated Soil
12443	<i>Pseudomonas syringae</i> - <i>Primula X polyantha</i>	12558	<i>Pseudomonas aeruginosa</i> - Oil contaminated Soil
12445	<i>Pseudomonas</i> sp. - <i>Actinidia deliciosa</i>	12559	<i>Pseudomonas paucimobilis</i> - Human vagina
12462	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica oleracea</i>	12560	<i>Pseudomonas</i> sp. - Lake water
12463	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica oleracea</i>	12561	<i>Pseudomonas stutzeri</i> - Human spinal fluid
12464	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica oleracea</i>	12562	<i>Verticillium balanoides</i> - <i>Ditylenchus dipsaci</i>
12465	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> - <i>Brassica oleracea</i>	12563	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>
12466	<i>Erwinia alni</i> - <i>Alnus glutinosa</i>	12564	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12467	<i>Agrobacterium vitis</i> - <i>Vitis vinifera</i>	12565	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12468	<i>Burkholderia cepacia</i> - Hydrocarbon-contaminated Soil	12566	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12469	<i>Xanthomonas</i> sp. - Hydrocarbon-contaminated Soil	12567	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12470	<i>Pseudomonas</i> sp. - Hydrocarbon-contaminated Soil	12568	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12471	<i>Pseudomonas syringae</i> pv. <i>coriandricola</i> - <i>Coriandrum sativum</i>	12569	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12475	<i>Xanthomonas campestris</i> pv. <i>pruni</i> - <i>Prunus persica</i>	12570	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
12477	<i>Bacillus mycoides</i>	12571	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
12481	<i>Erwinia alni</i> - <i>Alnus cordata</i>	12572	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>
12482	<i>Erwinia alni</i> - <i>Alnus glutinosa</i>	12573	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>

12574	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>	12669	<i>Rhizobium</i> sp. - <i>Neptunia gracilis</i>
12575	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>	12670	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
12576	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>	12671	<i>Rhizobium</i> sp. - <i>Lupinus angustifolius</i>
12577	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>	12672	<i>Rhizobium</i> sp. - <i>Sophora microphylla</i>
12578	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>	12673	<i>Rhizobium</i> sp. - <i>Ulex europaeus</i>
12579	<i>Gibberella tumida</i> - <i>Ulex europaeus</i>	12674	<i>Rhizobium</i> sp. - <i>Ulex europaeus</i>
12580	<i>Gibberella tumida</i> - <i>Cytisus scoparius</i>	12675	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
12581	<i>Glomerella cingulata</i> - <i>Lupinus albus</i>	12676	<i>Rhizobium</i> sp. - <i>Carmichaelia</i> sp.
12582	<i>Harposporium bysmatosporum</i>	12677	<i>Rhizobium</i> sp. - <i>Carmichaelia odorata</i>
12583	<i>Pezizula alba</i> - <i>Malus X domestica</i>	12678	<i>Rhizobium</i> sp. - <i>Carmichaelia odorata</i>
12584	<i>Waydora typica</i> - <i>Metrosideros excelsa</i>	12679	<i>Rhizobium</i> sp. - <i>Goodia lotifolia</i>
12585	<i>Gibberella avenacea</i> - <i>Daucus carota</i> var. <i>sativus</i>	12680	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
12586	<i>Gibberella avenacea</i> - <i>Daucus carota</i> var. <i>sativus</i>	12681	<i>Rhizobium</i> sp. - <i>Sutherlandia frutescens</i>
12595	<i>Alcaligenes eutrophus</i>	12682	<i>Rhizobium</i> sp. - <i>Ulex europaeus</i>
12596	<i>Flavobacterium</i> sp. - Freshwater sediments	12683	<i>Rhizobium</i> sp. - <i>Parochetus communis</i>
12597	<i>Burkholderia cepacia</i>	12684	<i>Rhizobium</i> sp. - <i>Swainsona novae-zelandiae</i>
12598	<i>Pseudomonas mendocina</i>	12685	<i>Rhizobium</i> sp. - <i>Swainsona novae-zelandiae</i>
12599	<i>Pseudomonas putida</i>	12686	<i>Rhizobium</i> sp.
12600	<i>Pseudomonas putida</i>	12687	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
12601	<i>Pseudomonas putida</i>	12688	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
12602	<i>Pseudomonas</i> sp. - PCB-contaminated soil	12689	<i>Rhizobium</i> sp. - <i>Swainsona novae-zelandiae</i>
12603	<i>Pseudomonas</i> sp. - PCB-contaminated site	12690	<i>Rhizobium</i> sp. - <i>Swainsona novae-zelandiae</i>
12604	<i>Pseudomonas</i> sp. - Garden soil	12691	<i>Rhizobium</i> sp.
12605	<i>Rhizobium</i> sp. - <i>Lathyrus latifolius</i>	12692	<i>Rhizobium</i> sp. - <i>Robina pseudoacacia</i>
12606	<i>Rhizobium leguminosarum</i> biovar <i>trifolii</i> - <i>Trifolium polymorph</i>	12693	<i>Rhizobium</i> sp. - <i>Parochetus communis</i> Buch.
12607	<i>Rhizobium</i> sp. - <i>Lotus pedunculatus</i>	12694	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>
12608	<i>Rhizobium</i> sp. - <i>Lotus hybrid</i>	12695	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>
12609	<i>Rhizobium</i> sp.	12696	<i>Rhizobium</i> sp. - <i>Onobrychis viciifolia</i>
12610	<i>Rhizobium</i> sp. - <i>Lotus angustissimus</i>	12697	<i>Rhizobium</i> sp. - <i>Spartium junceum</i>
12611	<i>Rhizobium</i> sp.	12698	<i>Rhizobium</i> sp. - <i>Lupinus angustifolius</i>
12612	<i>Rhizobium</i> sp. - <i>Hosackia</i> sp.	12699	<i>Rhizobium</i> sp. - <i>Stylosanthes guianensis</i>
12613	<i>Rhizobium</i> sp. - <i>Lotus corniculatus</i>	12700	<i>Rhizobium</i> sp. - <i>Macrotyloma uniflorum</i>
12614	<i>Rhizobium</i> sp. - <i>Lotus pedunculatus</i>	12701	<i>Rhizobium</i> sp. - <i>Teramnus uncinatus</i>
12615	<i>Rhizobium</i> sp. - <i>Lotus hispidus</i>	12702	<i>Rhizobium</i> sp. - <i>Stylosanthes guianensis</i>
12616	<i>Rhizobium</i> sp. - <i>Lotus pedunculatus</i>	12703	<i>Rhizobium</i> sp. - <i>Swainsona galegifolia</i>
12617	<i>Rhizobium</i> sp. - <i>Lotus hispidus</i>	12704	<i>Rhizobium</i> sp. - <i>Swainsona galegifolia</i>
12618	<i>Rhizobium</i> sp. - <i>Lotus hispidus</i>	12705	<i>Rhizobium</i> sp.
12619	<i>Rhizobium</i> sp. - <i>Lotus corniculatus</i>	12706	<i>Rhizobium</i> sp. - <i>Astragalus onobrychis</i>
12620	<i>Rhizobium</i> sp. - <i>Lotus</i> sp.	12707	<i>Rhizobium</i> sp. - <i>Carmichaelia exsul</i>
12621	<i>Rhizobium</i> sp. - <i>Lotus corniculatus</i>	12708	<i>Rhizobium</i> sp.
12622	<i>Rhizobium melliloti</i> - <i>Medicago rugosa</i>	12709	<i>Rhizobium</i> sp. - <i>Sophora howinsula</i>
12623	<i>Rhizobium melliloti</i>	12710	<i>Rhizobium</i> sp. - <i>Hedysarum coronarium</i>
12624	<i>Rhizobium</i> sp. - <i>Cytisus scoparius</i>	12711	<i>Rhizobium</i> sp. - <i>Glycine max</i>
12625	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>	12712	<i>Rhizobium</i> sp. - <i>Glycine max</i>
12626	<i>Rhizobium</i> sp. - <i>Galega officinalis</i>	12713	<i>Rhizobium</i> sp. - <i>Glycine max</i>
12627	<i>Rhizobium</i> sp. - <i>Albizia lophantha</i>	12714	<i>Rhizobium</i> sp. - <i>Glycine max</i>
12628	<i>Rhizobium</i> sp.	12715	<i>Rhizobium</i> sp. - <i>Lupinus nanus</i>
12629	<i>Rhizobium</i> sp. - <i>Ornithopus sativus</i>	12716	<i>Rhizobium</i> sp. - <i>Lupinus nanus</i>
12630	<i>Rhizobium</i> sp.	12717	<i>Rhizobium</i> sp. - <i>Lupinus vallicola</i>
12631	<i>Rhizobium</i> sp.	12718	<i>Rhizobium</i> sp. - <i>Lupinus vallicola</i>
12632	<i>Rhizobium</i> sp.	12719	<i>Rhizobium</i> sp. - <i>Astragalus glycyphyllus</i>
12633	<i>Rhizobium</i> sp. - <i>Carmichaelia enysii</i>	12720	<i>Rhizobium</i> sp. - <i>Clianthus formosus</i>
12634	<i>Rhizobium</i> sp. - <i>Carmichaelia monroi</i>	12721	<i>Rhizobium</i> sp. - <i>Swainsona canescens</i>
12635	<i>Rhizobium</i> sp. - <i>Carmichaelia petriei</i>	12722	<i>Rhizobium</i> sp. - <i>Swainsona canescens</i>
12636	<i>Rhizobium</i> sp.	12723	<i>Rhizobium</i> sp.
12637	<i>Rhizobium</i> sp. - <i>Sophora microphylla</i>	12724	<i>Rhizobium</i> sp. - <i>Mimosa invisa</i>
12638	<i>Rhizobium</i> sp. - <i>Psoralea pinnata</i>	12725	<i>Rhizobium</i> sp. - <i>Leucaena glauca</i>
12639	<i>Rhizobium</i> sp. - <i>Carmichaelia</i> sp.	12726	<i>Rhizobium</i> sp.
12640	<i>Rhizobium</i> sp. - <i>Sophora prostrata</i>	12727	<i>Rhizobium</i> sp. - <i>Styphnolobium japonicum</i>
12641	<i>Rhizobium</i> sp. - <i>Sophora tomentosa</i>	12728	<i>Rhizobium</i> sp. - <i>Caragana sinica</i>
12642	<i>Rhizobium</i> sp. - <i>Clianthus puniceus</i>	12729	<i>Rhizobium</i> sp. - <i>Caragana sinica</i>
12643	<i>Rhizobium</i> sp. - <i>Carmichaelia aligera</i>	12730	<i>Rhizobium</i> sp. - <i>Robinia pseudoacacia</i>
12644	<i>Rhizobium</i> sp. - <i>Lupinus densiflorus</i>	12731	<i>Rhizobium</i> sp. - <i>Colutea arborescens</i>
12645	<i>Rhizobium</i> sp. - <i>Carmichaelia flagelliformis</i>	12732	<i>Rhizobium</i> sp. - <i>Sophora secundiflora</i>
12646	<i>Rhizobium</i> sp. - <i>Lupinus angustifolius</i>	12733	<i>Rhizobium</i> sp. - <i>Sophora secundiflora</i>
12647	<i>Rhizobium</i> sp. - <i>Carmichaelia violacea</i>	12734	<i>Rhizobium</i> sp. - <i>Sophora formosa</i>
12648	<i>Rhizobium</i> sp. - <i>Carmichaelia ovata</i>	12735	<i>Rhizobium</i> sp. - <i>Sophora formosa</i>
12649	<i>Rhizobium</i> sp. - <i>Carmichaelia petriei</i>	12736	<i>Rhizobium</i> sp. - <i>Lupinus angustifolius</i>
12650	<i>Rhizobium</i> sp. - <i>Sutherlandia frutescens</i>	12737	<i>Rhizobium</i> sp. - <i>Lupinus densiflorus</i>
12651	<i>Rhizobium</i> sp. - <i>Carmichaelia angustata</i>	12738	<i>Rhizobium</i> sp. - <i>Lupinus densiflorus</i>
12652	<i>Rhizobium</i> sp. - <i>Pisum sativum</i>	12739	<i>Rhizobium</i> sp. - <i>Lupinus luteus</i>
12653	<i>Rhizobium</i> sp. - <i>Pisum sativum</i>	12740	<i>Rhizobium</i> sp. - <i>Onobrychis viciifolia</i>
12654	<i>Rhizobium</i> sp. - <i>Arachis hypogaea</i>	12741	<i>Rhizobium</i> sp.
12655	<i>Rhizobium</i> sp. - <i>Arachis hypogaea</i>	12742	<i>Rhizobium</i> sp. - <i>Onobrychis viciifolia</i>
12656	<i>Rhizobium</i> sp.	12743	<i>Rhizobium</i> sp. - <i>Phaseolus vulgaris</i>
12657	<i>Rhizobium</i> sp. - <i>Arachis hypogaea</i>	12744	<i>Rhizobium</i> sp. - <i>Leucaena insularum</i>
12658	<i>Rhizobium</i> sp. - <i>Arachis hypogaea</i>	12745	<i>Rhizobium</i> sp. - <i>Leucaena insularum</i>
12659	<i>Rhizobium</i> sp.	12746	<i>Rhizobium</i> sp. - <i>Leucaena leucocephala</i>
12660	<i>Rhizobium</i> sp.	12747	<i>Rhizobium</i> sp. - <i>Lathyrus sativa</i>
12661	<i>Rhizobium</i> sp. - <i>Lupinus angustifolius</i>	12748	<i>Rhizobium</i> sp. - <i>Lathyrus japonicus</i>
12662	<i>Rhizobium</i> sp. - <i>Adesmia bicolor</i>	12749	<i>Rhizobium</i> sp. - <i>Vicia faba</i>
12663	<i>Rhizobium</i> sp. - <i>Adesmia lotoides</i>	12750	<i>Rhizobium</i> sp. - <i>Vicia faba</i>
12664	<i>Rhizobium</i> sp. - <i>Astragalus sinicus</i>	12751	<i>Rhizobium</i> sp. - <i>Vicia faba</i>
12665	<i>Rhizobium</i> sp. - <i>Hedysarum boreale</i>	12752	<i>Rhizobium</i> sp. - <i>Pisum hortense</i>
12666	<i>Rhizobium</i> sp. - <i>Leucaena leucocephala</i>	12753	<i>Rhizobium</i> sp. - <i>Vicia faba</i>
12667	<i>Rhizobium</i> sp.	12754	<i>Rhizobium</i> sp. - <i>Pisum sativum</i>
12668	<i>Rhizobium</i> sp.	12755	<i>Rhizobium</i> sp. - <i>Pisum sativum</i>

12756	<i>Rhizobium</i> sp. - <i>Phaseolus vulgaris</i>	12836	<i>Rhizobium</i> sp. - <i>Lupinus arboreus</i>
12757	<i>Rhizobium</i> sp. - <i>Phaseolus acutifolius</i>	12837	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>
12758	<i>Rhizobium</i> sp. - <i>Vigna radiata</i>	12838	<i>Rhizobium</i> sp. - <i>Lathyrus japonicus</i>
12759	<i>Rhizobium</i> sp. - <i>Cajanus cajan</i>	12839	<i>Rhizobium</i> sp. - <i>Swainsona canescens</i>
12760	<i>Rhizobium</i> sp. - <i>Centrosema</i> sp.	12840	<i>Rhizobium</i> sp. - <i>Sophora angustifolia</i>
12761	<i>Rhizobium</i> sp. - <i>Prosopis chilensis</i>	12841	<i>Rhizobium</i> sp. - <i>Coronilla varia</i>
12762	<i>Rhizobium</i> sp. - <i>Prosopis chilensis</i>	12842	<i>Rhizobium</i> sp. - <i>Onobrychis viciifolia</i>
12763	<i>Rhizobium</i> sp. - <i>Acacia koa</i>	12844	<i>Stenotrophomonas maltophilia</i> - <i>Malus X domestica</i>
12764	<i>Rhizobium</i> sp.	12845	<i>Streptomyces parvulus</i> - Soil
12765	<i>Rhizobium</i> sp. - <i>Onobrychis viciifolia</i>	12846	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Prunus avium</i>
12766	<i>Rhizobium</i> sp.	12847	<i>Agrobacterium vitis</i> (tumourigenic strain) - <i>Vitis vinifera</i>
12767	<i>Rhizobium</i> sp. - <i>Phaseolus vulgaris</i>	12848	<i>Agrobacterium vitis</i> (tumourigenic strain) - <i>Actinidia deliciosa</i>
12768	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12849	<i>Agrobacterium</i> sp. (tumourigenic strain) - <i>Actinidia deliciosa</i>
12769	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12850	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12770	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12851	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12771	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12852	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12772	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12853	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12773	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12854	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12774	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12855	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Pyrus com</i>
12775	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12856	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
12776	<i>Rhizobium</i> sp.	12857	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
12777	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12858	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
12778	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12892	<i>Leptosphaerulina chartarum</i>
12779	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12894	<i>Pythium mastophorum</i> - <i>Fragaria X ananassa</i>
12780	<i>Rhizobium</i> sp.	12895	<i>Pythium mastophorum</i> - <i>Fragaria X ananassa</i>
12781	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12896	<i>Limonomyces roseipellis</i> - <i>Leptinella</i> sp.
12782	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12897	<i>Fusarium oxysporum</i> - <i>Allium cepa</i>
12783	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12898	<i>Fusarium oxysporum</i> - <i>Ocimum basilicum</i>
12784	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12899	<i>Fusarium solani</i> f. sp. <i>cucurbitae</i> - <i>Cucurbita maxima</i>
12785	<i>Rhizobium</i> sp. - <i>Glycine max</i>	12900	<i>Fusarium oxysporum</i> f. sp. <i>cucumerina</i> - <i>Cucumis sativus</i>
12786	<i>Rhizobium</i> sp. - <i>Caragana arborescens</i>	12914	<i>Thozetella tocklaiensis</i> - <i>Anthoxanthum odoratum</i>
12787	<i>Rhizobium</i> sp. - <i>Caragana arborescens</i>	12915	<i>Verticillium dahliae</i> - <i>Fagus sylvatica</i>
12788	<i>Rhizobium</i> sp. - <i>Caragana arborescens</i>	12916	<i>Dilophospora alopecuri</i> - <i>Holcus lanatus</i>
12789	<i>Rhizobium</i> sp. - <i>Aeschynomene falcata</i>	12917	<i>Dilophospora alopecuri</i> - <i>Holcus lanatus</i>
12790	<i>Rhizobium</i> sp. - <i>Phaseolus vulgaris</i>	12918	<i>Dilophospora alopecuri</i> - <i>Holcus lanatus</i>
12791	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	12919	<i>Gibberella tumida</i> - Sphagnum
12792	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	12920	<i>Mucor plumbeus</i> - Rubber
12793	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	12921	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
12794	<i>Xanthomonas campestris</i> pv. <i>juglandis</i> - <i>Juglans regia</i>	12922	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
12796	<i>Pseudomonas putida</i>	12923	<i>Colletotrichum acutatum</i> - <i>Malus X domestica</i>
12797	<i>Pseudomonas putida</i> - Garden Soil	12924	<i>Colletotrichum acutatum</i> - <i>Pyrus communis</i>
12798	<i>Pseudomonas putida</i>	12925	<i>Rigidoporus lineatus</i> - Cut log
12799	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12926	<i>Colletotrichum acutatum</i> - <i>Pyrus communis</i>
12800	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12927	<i>Colletotrichum coccodes</i> - <i>Capsicum annuum</i>
12801	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12928	<i>Colletotrichum coccodes</i> - <i>Cucurbita</i> sp.
12802	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12929	<i>Colletotrichum coccodes</i> - <i>Lycopersicon esculentum</i>
12803	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12930	<i>Colletotrichum musae</i> - <i>Musa</i> sp.
12804	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12931	<i>Colletotrichum musae</i> - <i>Musa</i> sp.
12805	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12932	<i>Colletotrichum orbiculare</i> - <i>Citrullus lanatus</i>
12806	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12933	<i>Colletotrichum orbiculare</i> - <i>Citrus sinensis</i>
12807	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12934	<i>Colletotrichum trifolii</i> - <i>Medicago sativa</i>
12808	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12935	<i>Glomerella cingulata</i> - <i>Cucurbita maxima</i>
12809	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12936	<i>Glomerella cingulata</i> - <i>Cyphomandra betacea</i>
12810	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12937	<i>Glomerella cingulata</i> - <i>Cyphomandra betacea</i>
12811	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12938	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
12812	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12939	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
12813	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12940	<i>Glomerella cingulata</i> - <i>Citrus sinensis</i>
12814	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12941	<i>Glomerella cingulata</i> - <i>Citrus limon</i>
12815	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12942	<i>Glomerella cingulata</i> - <i>Diospyros kaki</i>
12816	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12943	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12817	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12944	<i>Glomerella cingulata</i> - <i>Capsicum annuum</i>
12818	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12945	<i>Glomerella cingulata</i> - <i>Capsicum annuum</i>
12819	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12946	<i>Glomerella cingulata</i> - <i>Citrus</i> sp.
12820	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12947	<i>Glomerella cingulata</i> - <i>Citrus</i> sp.
12821	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12948	<i>Phoma macrostoma</i> - Rubber
12822	<i>Pseudomonas viridiflava</i> - <i>Actinidia chinensis</i>	12949	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>
12823	<i>Pseudomonas viridiflava</i> - <i>Actinidia chinensis</i>	12950	<i>Glomerella cingulata</i> - <i>Lycopersicon esculentum</i>
12824	<i>Pseudomonas viridiflava</i> - <i>Actinidia chinensis</i>	12951	<i>Glomerella cingulata</i> - <i>Diospyros kaki</i>
12825	<i>Pseudomonas viridiflava</i> - <i>Actinidia chinensis</i>	12952	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12826	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12953	<i>Glomerella cingulata</i> - <i>Persea americana</i>
12827	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12954	<i>Glomerella miyabeana</i> - <i>Fragaria X ananassa</i>
12828	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12955	<i>Glomerella miyabeana</i> - <i>Fragaria X ananassa</i>
12829	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12956	<i>Glomerella miyabeana</i> - <i>Salix</i> sp.
12830	<i>Pseudomonas</i> sp. - <i>Actinidia chinensis</i>	12957	<i>Glomerella miyabeana</i> - <i>Pyrus pyrifolia</i>
12831	<i>Clavibacter iranicus</i> - <i>Triticum aestivum</i>	12958	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
12832	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	12959	<i>Agrobacterium rhizogenes</i> (tumourigenic strain) - <i>Prunus per</i>
12833	<i>Pseudomonas tolaasii</i> - <i>Agaricus bisporus</i>	12987	<i>Bacillus thuringiensis</i> serotype unknown
12834	<i>Rhizobium</i> sp. - <i>Lotus corniculatus</i>	12988	<i>Staphylococcus epidermidis</i> - Nose
12835	<i>Rhizobium</i> sp. - <i>Acacia dealbata</i>	12989	<i>Listeria innocua</i> - Brain of cow