

Cultivating weeds

Summary

Students investigate how our aesthetic values can create weed problems.

Learning Objectives

Students will be able to:

- Explain how some weeds arrived in New Zealand.
- Evaluate the role of historic cultural values in introducing weeds.
- Investigate current cultural values and consider how they may affect the creation of new weeds in New Zealand.

Suggested prior lessons

What is a weed?

Curriculum Connections

Social studies, levels 2-7

Vocabulary/Concepts

weed, introduced, exotic, native, invasive, acclimatisation society

Time

1 ½ - 2 hours

Materials

- copies of “What is a weed?”
- copies of “Homesick Travellers”
- Video—Heather: the making of a weed (http://www.youtube.com/watch?v=x1Vtb549_6U&feature=relmfu)
- seed catalogues, garden magazines
- Plant Me Instead booklets for your region (http://www.weedbusters.org.nz/get-involved/plant_me_instead.asp)

Background information

Most New Zealand weeds are plants that were introduced by people. Plants have been introduced for food, wood, shelter, beauty, and to create habitat for introduced game animals. Early European settlers neither knew nor cared about the impact of introduced plants on native flora and fauna. Many introduced plants escaped from gardens to become weeds that now threaten agriculture and native ecosystems. Today there are strict controls on the import of new plants and the propagation of known weeds.

Activity

Why do people intentionally introduce weeds to New Zealand?

Ask students to read “What is a weed?”, if they haven’t completed the What is a weed activity. Discuss what makes a plant a weed.

Ask students to imagine their dream garden. If money, time and space were unlimited, what would their dream garden look like? Ask them to draw a map of their garden, then look through the seed catalogues and garden magazines and cut out pictures of the plants they would include in their garden. They should label each plant with its name.

Ask students to share their gardens with each other in small groups.

Discuss as a class some of the reasons students chose particular plants for their gardens. Did they choose them for their colour, texture, or smell? Did they choose them for the birds or insects they would attract? Or did they choose them

because they are familiar plants?

Ask the students to read “Homesick travellers”, and watch the heather video. Discuss as a group how early Pakeha settlers to New Zealand felt about the plants they found here, and what they did about it. Were there practical reasons they brought European plants here? Discuss the fact that many plants were introduced simply to make New Zealand look more like home. By 19th century European standards, New Zealand plants were dull and unattractive—better suited for the savage bush than the cultivated garden.

Ask students to take another look at their gardens. Using information from the seed catalogues, magazines, books, and the internet, have students determine whether the plants they’ve chosen are native or non-native. Using think, pair, share, have students answer the following questions:

1. How many native plants did you choose for your garden?
2. How do your own values affect your choices of plants?
3. Do you think people are still introducing possible weeds to New Zealand?
4. Why might native plants might be a better choice for your garden?

Have the students use the “Plant me Instead” guides to find native alternatives for their gardens.

Extension/discussion:

1. How could we stop people from introducing new weeds to New Zealand? Have students discuss possible ways (e.g.: laws against bringing in new plants, changing people’s attitudes toward native plants, etc.)

Explain that there are a number of ways the spread of weeds is controlled today in New Zealand:

- National Plant Pest Accord (<http://www.biosecurity.govt.nz/pests-diseases/plants/accord.htm>)--an agreement that prohibits the propagation and sale of particular weedy plants
- Biosecurity Act 1993 (<http://www.biosecurity.govt.nz/biosec/pol/bio-act>)—identifies unwanted plants and creates controls and penalties for their import.
- Hazardous Substances and New Organisms Act 1996 (<http://www.legislation.govt.nz/act/public/1996/0030/latest/DLM381222.html>)—establishes a process for approval of the importation of new organisms to New Zealand to ensure their human and environmental safety.
- Organisations like Weedbusters (http://www.weedbusters.org.nz/about_weedbusters/index.asp) try to change public attitudes toward non native and native plants, and encourage the use of native plants in landscaping.

2. Have students investigate plants that are significant weeds in their community (Weedbusters, regional councils, and your local DOC office are all good resources for identifying local weeds). Ask students to create “Wanted” posters of local weeds that include information on how to identify the weed, why it is a problem, how to remove it, and native garden alternatives.

3. Read *Woody's Weedy Wanderings*, available as a pdf from the Weedbusters website: http://www.weedbusters.org.nz/kids/weedy_reads.asp

Curriculum Connections

Social Studies

Level 2:

- Understand how cultural practices reflect and express peoples' customs, traditions, and values.

Level 3:

- Understand how groups make and implement rules and laws.
- Understand how people make decisions about access to and use of resources.

Level 4:

- Understand how exploration and innovation create opportunities and challenges for people, places, and environments.

Level 5:

- Understand that people move between places and how this has consequences for the people and the places.
- Understand how people's management of resources impacts on environmental and social sustainability.

Level 6:

- Understand how people interact with natural and cultural environments and that this interaction has consequences.

Level 7

- Understand how people's perceptions of and interactions with natural and cultural environments differ and have changed over time.

Level 8

- Understand how people's diverse values and perceptions influence the environmental, social, and economic decisions and responses that they make.

Vocabulary/concepts

Acclimatisation society – a group that introduces plants and animals from other countries and cares for them so that the species will be come established.

Exotic – Not found naturally in New Zealand. Introduced accidentally or deliberately from elsewhere by people. Also called introduced or alien.

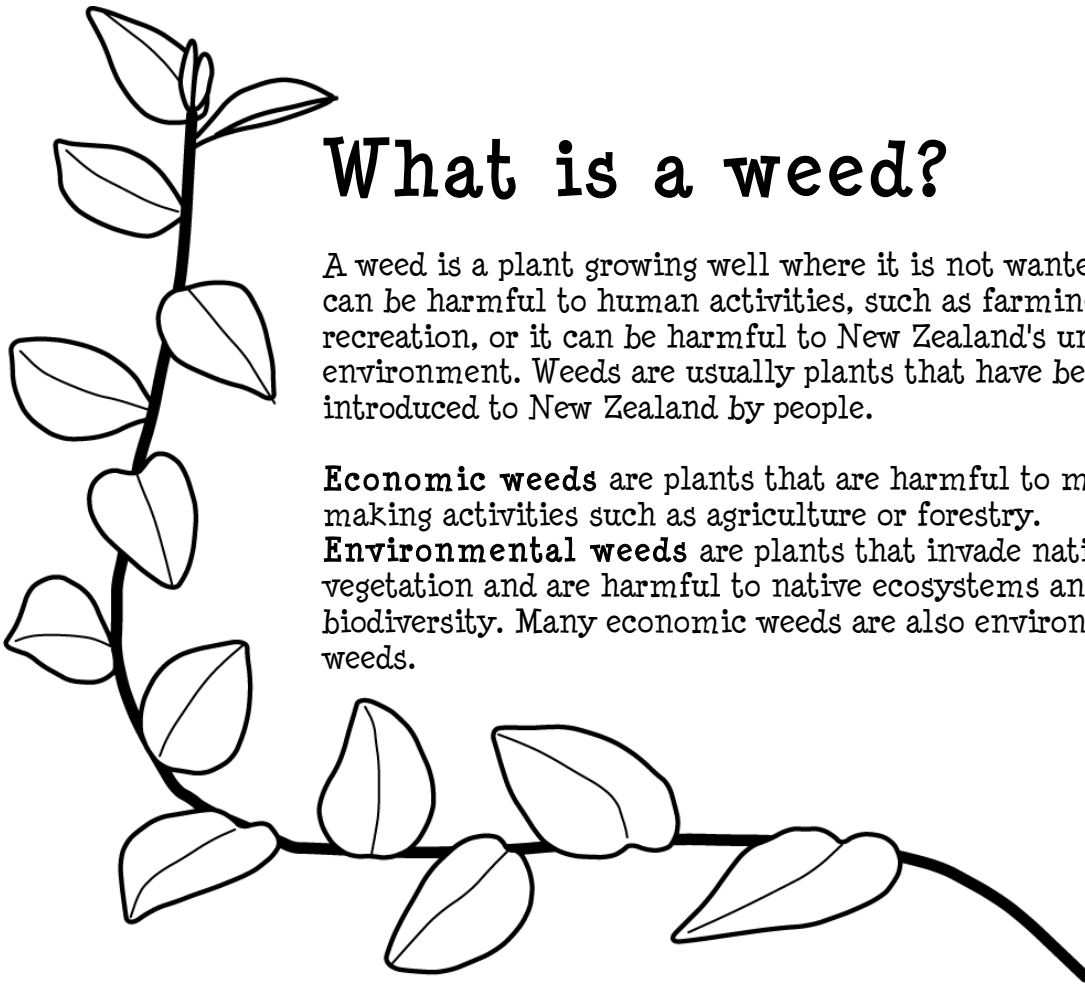
Introduced – see exotic

Invade – to spread from its starting point.

Invasive – plants have spread from the place they were introduced.

Native – Found naturally in New Zealand. Not introduced by people.

Weed – A plant growing well where it is not wanted.



What is a weed?

A weed is a plant growing well where it is not wanted. It can be harmful to human activities, such as farming or recreation, or it can be harmful to New Zealand's unique environment. Weeds are usually plants that have been introduced to New Zealand by people.

Economic weeds are plants that are harmful to money-making activities such as agriculture or forestry.

Environmental weeds are plants that invade native vegetation and are harmful to native ecosystems and/or biodiversity. Many economic weeds are also environmental weeds.

