

What can you do?

Farmers:

- Pull out isolated plants as they emerge.
- Spray established plants before leaves turn red/brown (Nov).
- Replant bare sites with more desirable plants to prevent tutsan regrowth.

Councils:

- Educate landowners to recognise tutsan and prevent spread.
- Cease mowing roadsides when plants are seeding.

Websites for control programme information:

www.ew.govt.nz/environmental-information
www.arc.govt.nz/environment/biosecurity

Where to from here?

Funding is now sought for a 3-year project costing \$430,000, for Landcare Research to:

- survey natural enemies of tutsan in NZ
- compare DNA of NZ tutsan plants and rust strains with those in Australia, where biocontrol appears to be successful
- survey tutsan in its native range for potential control agents

If the 3-yr project yields positive results, a further project would then:

- analyse costs/benefits of biocontrol of tutsan in NZ
- host-range test potential agents
- mass-rear and release successful agents into NZ

TAG must now raise \$120,000 to be eligible for \$310,000 SFF funding.

If you can you assist, please contact:

Ros Burton (TAG Secretary/Treasurer) ph 07 895 8052, gtb@xtra.co.nz

TUTSAN ACTION GROUP

TAUMARUNUI 2009



www.maf.govt.nz/sff

MEAT & WOOL
NEW ZEALAND



Tutsan, *Hypericum androsaemum*.

Tutsan (*Hypericum androsaemum*) – What is it?

- Perennial, semi-evergreen shrub.
- Grows to about 1.5m with invasive, fibrous roots.
- Fragrant, ovalish, greenish leaves (35-100 x 25-50 mm), usually opposite, bluish underneath, turning red in autumn.
- Reddish, ridged stems.
- Yellow 5-petalled flowers with long stamens, Nov-Feb.
- Round green berries (1 cm diameter) ripen to red, then black. Berries contain cylindrical or curved seeds (9-10 mm long).

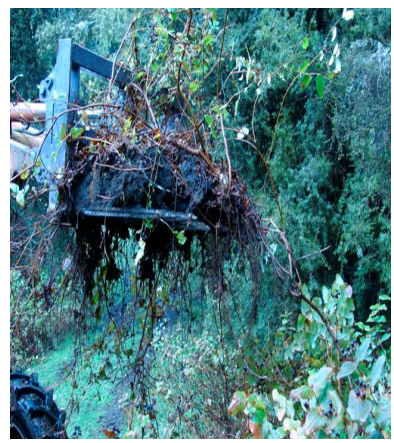


Findings of 1-Year Project

- Most regions in NZ report tutsan, ranging from minimal to rapidly increasing infestations - % area unknown.
- Tutsan is gaining momentum in conservation areas, along waterways, retired areas, in established forest, disturbed and low fertility land.
- Council mowing of roadsides believed to have increased tutsan spread in recent years.
- Estimated cost to Ruapehu region of \$1.2m per year, with a potential capital cost of approx. \$28m.
- No effective biological control agent in NZ.
- No biocontrol programmes attempted worldwide and it is not known how it is controlled in its native habitats.
- St John's wort beetle not effective on Taumarunui tutsan.
- Newspaper articles and educational booklet produced.

TAG 1-Year Project Action

- Horizons canvassed other Councils for tutsan distribution and mapped known tutsan infestations in Ruapehu.
- DoC mapped tutsan along the Wanganui River from Whakahoro to Taumarunui.
- Geoff Burton estimated the cost of tutsan to the Ruapehu region.
- Landcare Research was funded to:
 - review the literature to identify potential biocontrol agents and assess the feasibility of their release in NZ
 - assess the prospects of achieving successful biocontrol in NZ
 - estimate the cost of a programme for biocontrol in NZ.
- St John's wort beetles (previously released in NZ in the 1950s) were re-released on 2 badly infested sites in Taumarunui.
- The project increased farmer and council awareness of potential tutsan problem.



Tutsan – Why is it a Pest Plant?

- Tolerates light shade and a wide range of temperatures and soil types, so large parts of NZ provide a suitable habitat.
- Can form dense stands on regenerating sites, its dense cover of branches and rotting leaves smothering existing low growing plant communities and seriously inhibiting regeneration of native plant seedlings.
- Increasing problem in conservation areas, coastal areas, along rivers, creeks, gullies, roadsides, disturbed land and less well grazed areas of farmland.
- Often grows in places where spraying and mechanical control are difficult.
- Clearing of scrub or pine forests allows a high population of latent tutsan seeds to germinate.
- Increased spread in recent years appears significantly due to council mowing of roadsides - Ruapehu & Waikato regions in particular.
- Can be spread by birds and possibly possums as well as soil and water movement.
- Contains hypericin which is unpalatable to livestock, inducing photosensitisation and dermatitis in sheep and cattle.
- Extensive root system makes plants extremely difficult to remove once well established, with any remaining roots continuing to grow.
- Difficult to kill so herbicide timing is important. Can also resprout from roots after poor spray kill.
- Long term control on extensive infestations uneconomic and unsustainable.



Tutsan Action Group (TAG) - Background

- Formed in Taumarunui in 2007 by Horizons Regional Council, Department of Conservation, a local farm consultant and farmers concerned about increasing spread of tutsan in the Ruapehu region.
- Major funders: MAF's Sustainable Farming Fund (SFF) and Meat & Wool NZ's Farmer Initiated Technology & Transfer (FITT).
- Co-funders: Horizons, Ruapehu District Council and DoC
- "In-kind" contributors: Geoff Burton (farm consultant), Horizons, DoC and farmer members.



TAG 1-Year Project Objectives

1. Survey distribution of tutsan in NZ, particularly the Wanganui/Ruapehu region.
2. Estimate the cost of tutsan to the Ruapehu region.
3. Fund Landcare Research feasibility study into biological control of tutsan in NZ.
4. Find out if St John's Wort beetle can control tutsan in Taumarunui.
5. Educate farmers and councils about increasing tutsan threat.

The Committee

Back L to R:

David Jurgens (farmer), Jim Campbell (DoC, Wanganui), Graham Wheeler (Chairman, farmer), Dave Alker (Horizons, Taumarunui)

Front L to R:

Don Clark (Horizons, Palmerston North), Trevor Schroeder (farmer), Ros Burton (Secretary/Treasurer).

Absent:

Geoff Burton (farm consultant/farmer), Mike Gibbs (farmer), Ken Malcolm (farmer).