Picking the places to pull plants

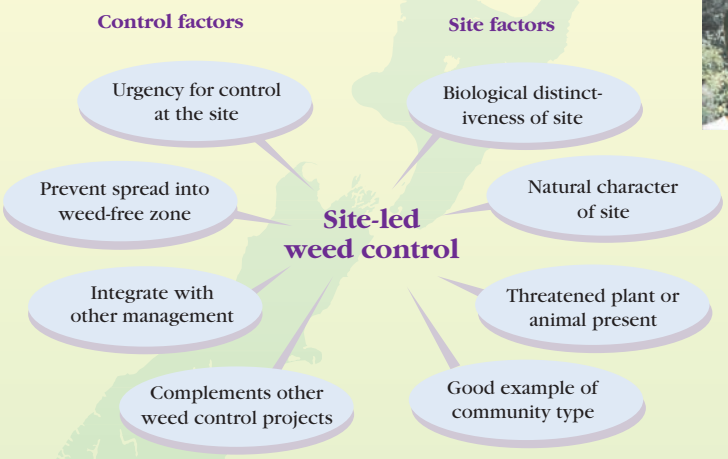
Susan M.Timmins
Science & Research Unit
Department of Conservation
PO Box 10-420, Wellington
New Zealand
stimmins@doc.govt.nz

New Zealand is a weedy island nation:

- Over 240 weed species are of conservation concern
- Most vegetation types are vulnerable to weed invasion
- Three-quarters of the offshore islands have weeds

The New Zealand Department of Conservation does both weed-led and site-led weed control but most is conducted through site-led programmes. These aim to protect the conservation values of particular places. The Department has a system for deciding site-led control priorities based on the conservation values of the sites. The better the site, the higher its priority for weed control.

Even at high-value sites, we only control those weeds that affect the conservation values at the site. Weed management in low-value places is limited to newly naturalised species. We have stopped blindly chasing after weed species that we cannot eradicate or even contain.



Factors involved in picking the places to control weeds.

Some site-led control programmes


Rachael Barker

Raoul Island, home to 21 endemic species, is a very high-value site. Thus, an intensive campaign aims to eradicate several damaging weed species. Mysore thorn *(Caesalpinia decapetala)*—a spiny, leguminous vine that grows prolifically to 20 m tall and can smother canopy trees—is recognised as the worst weed.


Carol West

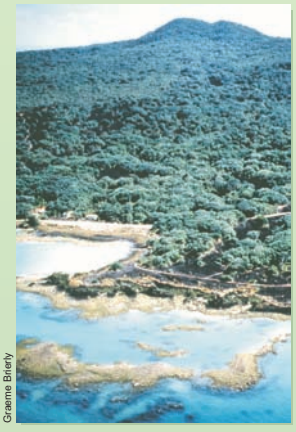
Also at Raoul: Brazilian buttercup *(Cassia floribunda)*. The hundreds of seedlings that spring up after an adult is killed are laboriously hand-pulled.


Mike Aviss

The iconic reptile tuatara is found on the **Hen and Chickens Islands**. Wind-dispersed weeds such as mist flower *(Ageratina riparia)*, moth plant *(Araujia sericifera)* and pampas grass *(Cortaderia selloana)* are controlled, despite the prospect of re-invasion from the mainland.


Dick Veitch

Russell lupin *(Lupinus polyphyllus)* is widespread in Canterbury but only controlled where it compromises conservation values. Along the **Ahuriri River** it destroys the open nesting and feeding sites required by wading birds such as wrybill plover and black stilt.


Graeme Brierly

Rangitoto Island is internationally renowned for its succession from barren lava and rock to full vegetation. Thus, evergreen buckthorn *(Rhamnus alaternus)* is controlled there, but not on adjacent mainland reserves around Auckland City.

Similarly, widespread broom *(Cystisus scoparius)* is only controlled at high-value places such as the world heritage site **Tongariro National Park,** where it alters succession in native tussock and shrubland.


Lisa Sinclair

An undescribed endemic moth *Notoreas* sp. is found in small patches of herbfield along the **Taranaki coast**. The rare sprawling shrub *Pimelea prostrata* var. *urvilleana* grows here and the moth's caterpillars eat its leaves. The herbfield remnants are hand-weeded to remove exotic herbs and grasses that threaten the pimelea and thus the moth. We do not bother to control these herbs and grasses at other sites.

Chilean rhubarb *(Gunnera tinctoria)*, a popular landscaping plant, is spreading at an alarming rate along the wet cliffs of the **Taranaki coast**. It is already too late to attempt eradication in Taranaki. The Department of Conservation is focusing control of this species at sites in Egmont National Park and on coastal sites, where one or more of eight threatened plant species are being outcompeted by this giant rhubarb.


Neville Peat

A recent study showed that controlling wilding pines was the most important management activity protecting these important tussock grassland sites in the **MacKenzie country**. It also showed that delay in taking action would be costly.

The lesson: confine control of widespread weeds to significant sites; tackle only those weeds that compromise conservation values at the site. Pull plants at priority places where conservation benefit is greater than perspiration expended!

Department of Conservation
Te Papa Atawhai

Science Poster no 45 (edition 1 June 2001) prepared by Chris Edkins
Other titles available from Science Publications, Dept. of Conservation, Box 10420, Wellington.