

Controlling Shrub Invaders

**EVERYONE'S
RESPONSIBILITY**



Shrub Invaders

Identified in the Tasman-Nelson Regional Pest Management Plan

ASIATIC KNOTWEED – *Fallopia japonica*

East Asia

Eradication Pest Plant



Remove – Dig out small patches, particularly their extensive invasive root system. Thoroughly remove all roots and vegetative material. Dispose of removed material in a refuse transfer station.

Stump treat – Cut at ground level and paint stump top with a Picloram based herbicide gel (*see back page*).

Foliar spray – Spray with 6 ml Imazapyr and 10 ml penetrant / 10 litre.

NPPA Pest Plant (*see back page*).

BONESEED – *Chrysanthemoides monilifera*

South Africa

Eradication Pest Plant



Remove – Even quite mature plants can be pulled out. If plants are in seed, remove and destroy the seeds, as they are long lived.

Stump treat – Cut at ground level and paint stump top with a Glyphosate based herbicide gel (*see back page*).

Foliar spray – Spray with 100 ml Glyphosate 360 and 20 ml penetrant / 10 litre or 5 gm Metsulfuron-Methyl 600 and 20 ml penetrant / 10 litre.

NPPA Pest Plant (*see back page*).

BOXTHORN – *Lycium ferocissimum*

South Africa

Eradication Pest Plant



Remove – Mechanically dig out hedges and burn or bury.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate based herbicide gel (*see back page*).

Foliar spray – Spray with 150 ml Glyphosate 360 / 10 litre with no penetrant. In coastal areas avoid salt deposits on leaves by spraying after rain wash.

Note: If located, please contact a Biosecurity Officer, Ph 03 543 8400.

NPPA Pest Plant (*see back page*).

COTONEASTER – *Cotoneaster simonsii*

China and Himilayas

Site-Led Pest Plant, Abel Tasman National Park



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

NPPA Pest Plant (*see back page*).

DARWIN'S BARBERRY – *Berberis darwinii*

Chile and Argentina

Site-Led Pest Plant, St Arnaud



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant/10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower stem, for a distance from the root collar, up the stem for 300 mm.

NPPA Pest Plant (*see back page*).

GORSE – *Ulex europaeus*

Europe

Sustained Control Pest Plant, Howard & St Arnaud & Boundary Rules Pest Plant



Remove – Hand pull seedlings minimising soil disturbance.

Stump treat – Cut at ground level and paint stump top with a double-strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant/10 litre or 60 ml Tordon® Brushkiller XT and 10 ml penetrant/10 litre or 60 ml Triclopyr 600 EC and 10 ml penetrant/10 litre or 100 ml Glyphosate 360 and 25 ml penetrant/10 litre.

KUMARAHOU – *Pomaderris kumeraho*

Northern New Zealand

Site-Led Pest Plant, Abel Tasman National Park



Remove – Hand pull or dig seedlings.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl or Picloram based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

Basal spray - Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, for a distance from the root collar up the stem for 300 mm.

ROSEMARY GREVILLEA – *Grevillea rosmarinifolia*

NSW & Victoria, Australia

Site-Led Pest Plant, Abel Tasman National Park



Remove – Hand pull or dig seedlings.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl or Picloram based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

Basal spray - Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower stems, for a distance from the root collar up the stem for 300 mm.

RUSSELL LUPIN – *Lupinus polyphyllus*

North America

Site-Led Pest Plant, St Arnaud Village



Remove – Hand pull or dig seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 15 ml Triclopyr 600 EC and 10 ml penetrant / 10 litre or 5 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

SCOTCH BROOM – *Cytisus scoparius*

Europe, Asia minor, Russia

Sustained Control Pest Plant, Howard & St Arnaud & Boundary Rules Pest Plant



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 25 ml Tordon® Brushkiller XT and 10 ml penetrant / 10 litre or 60 ml Trilopyr 600 EC and 10 ml penetrant / 10 litre or 100 ml Glyphosate 360 and 25 ml penetrant / 10 litre or 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

WHITE-EDGED NIGHTSHADE – *Solanum marginatum*

North Africa

Progressive Containment Pest Plant



Remove – Dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a Picloram based herbicide gel (*see back page*).

Foliar spray – Spray with 60 ml Tordon® Brushkiller XT and 10 ml penetrant / 10 litre.

NPPA Pest Plant (*see back page*).



WOOLY NIGHTSHADE – *Solanum mauritianum*

South Brazil, Uruguay

Sustained Control Pest Plant, Golden Bay



Remove – Hand pull seedlings and small plants.

Stump treat – Cut at ground level and paint stump top with a Picloram based herbicide gel (*see back page*).

Foliar spray – Spray with 60 ml Trilopyr 600 EC and 10 ml penetrant / 10 litre or 50 ml Tordon® Brushkiller XT / 1 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower stem, for a distance from the root collar, up the stem for 300 mm.

NPPA Pest Plant (*see back page*).



YELLOW JASMINE – *Jasminum humile*

Himalayas

Sustained Control Pest Plant



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of all the lower stems, for a distance from the root collar, up the stem for 300 mm.

Note – Only found in eastern Golden Bay

NPPA Pest Plant (*see back page*).

Other Shrub Invaders

BARBERRY – *Berberis glaucocarpa*

Himalayas



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate based herbicide gel (*see back page*).

Drill and fill – (*see back page*).

Foliar spray – Spray with 100 ml Glyphosate 360 / 10 litre or 5 gm Metsulfuron-Methyl 600 / 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower stem, for a distance from the root collar, up the stem for 2 to 3 times the stem diameter.

BUDDLEIA – *Buddleja davidii*

China



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 60 ml Tordon® Brushkiller XT and 10 ml penetrant / 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower stem, for a distance from the root collar, up the stem for 2 to 3 times the stem diameter.

HAWTHORN – *Crataegus monogyna*

Europe



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate or Metsulfuron-Methyl based herbicide gel (*see back page*).

Drill and fill – (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

HIMALAYAN HONEYSUCKLE – *Leycesteria formosa*

Himalayas



Remove – Dig out small clumps in early spring before seed is set.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

HOOKERS HYPERICUM – *Hypericum henryi: subsp henryi*

West China



Remove – Hand pull small plants.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 100 ml Glyphosate 360 and 10 ml penetrant / 10 litre, or 60 ml Tordon® Brushkiller XT and 10 ml penetrant / 10 litre.

JERUSALEM CHERRY – *Solanum psuedocapsicum*

South America



Remove – Hand pull or dig out seedlings.

Foliar spray – Spray with 100 ml Glyphosate 360 and 20 ml penetrant / 10 litre or 20 ml Triclopyr 600 EC and 10 ml penetrant / 10 litre.

LANTANA – *Lantana camara*

Tropical America



Removal not recommended as roots will re-sprout.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate based herbicide gel (*see back page*).

Foliar spray – Spray with 150 ml Glyphosate 360 and 20 ml penetrant / 10 litre Tordon® Brushkiller XT and 10 ml penetrant 10 litre.

NPPA Pest Plant (*see back page*).



MONTPELLIER BROOM – *Genista monpessulana*

Europe



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Foliar spray – Spray with 60 ml Triclopyr 600 EC and 10 ml penetrant / 10 litre.

PRICKLY HAKEA – *Hakea gibbosa*

Australia



Remove – Hand pull or dig out seedlings.

Stump treat – Cut at ground level, no herbicide is necessary on the stump.

Drill and fill – (see back page).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of all the lower stems, for a distance from the root collar, up the stem for 300 mm.

SPANISH HEATH – *Erica lusitanica*

SW Europe



Remove – Hand pull or dig out seedlings.

Foliar spray – Spray with 50 ml 2,4-D Ethylhexyl Ester / 10 litre.

Soil treat – Apply a handful of lime onto small infestations or scattered plants.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of all the lower stems, for a distance from the root collar, up the stem for 300 mm.

SWEET BRIAR – *Rosa rubiginosa*

Europe, NW Africa, West Asia



Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (see back page).

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 50 ml Tordon® Brushkiller XT and 10 ml penetrant / 10 litre.

TREE LUPIN – *Lupinus arboreus*

California



Remove – Hand pull seedlings and small plants.

Stump treat – Cut at ground level and paint stump top with a double strength Glyphosate based herbicide gel (*see back page*).

Foliar spray – Spray with 15 ml Triclopyr 600 EC and 10 ml penetrant/ 10 litre, or 100 ml Glyphosate 360 and 5 gm Metsulfuron-Methyl 600 with 10 ml penetrant/ 10 litre.

WILLOW LEAVED HAKEA – *Hakea salicifolia*

Australia



Remove – Hand pull small plants.

Stump treat – Cut at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

Drill and fill – (*see back page*).

Foliar spray – Spray with 60 ml Triclopyr 600 EC and 10 ml penetrant/ 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of all the lower stems, for a distance from the root collar, up the trunk 2 to 3 times the stem diameter.

Disclaimer

Information in this fact sheet regarding herbicide does not necessarily appear on the labels of the products concerned. Tasman District and Nelson City Councils do not accept liability for any damage to any person, property or thing that may arise from use of chemicals at non-standard rates. Mention of product trade names implies neither endorsement of those products nor criticism, of similar products not mentioned.

Herbicides notes – always read label instructions!

2,4-D Ethylhexyl Ester – Brand names: Agpro 2,4-D Ester.

Glyphosate 360 – Brand names: Agpro Green Glyphosate 360, Rainbow & Brown Glyphosate, Roundup®Renew, Roundup®360 pro, WeedMaster G360.

Herbicide Gel (Glyphosate) – Brand names: AGPRO Gyphosate Gel, Cut 'N' Paste Shrub and Tree, Weed Weapon Invade Gel.

Herbicide Gel (double strength Glyphosate) – Brand names: Cut 'N' Paste Bamboo Buster.

Herbicide Gel (Picloram) – Brand names: AGPRO Piclorum Gel, Cut 'N' Paste Picloram, Triumph Gel, Vigilant™II.

Herbicide Gel (Metsulfuron-Methyl) – Brand names: Cut 'N' Paste Met Gel.

Imazapyr – Brand Name: UniMaZ™ 250SL

Metsulfuron-Methyl 600 – Brand names: Agpro Meturon®, Associate®600WDG, Eradicate 600, Escort®, Mustang®, Rainbow & Brown MSF600.

Triclopyr 600 EC – Brand names: Agpro Triclopyr 600, Brush Off®, Eliminate, Grazon®, Rainbow & Brown Triclo Herbicide, Scrubcutter®.

Tordon® Brushkiller XT – contains Picloram and Triclopyr.

X Tree Wet & Dry® Basal herbicide – contains Triclopyr and Biodiesel.

Helpful websites

Weed Busters:

www.weedbusters.co.nz/weed-information/weed-list

Auckland Council Pest Plants identification:

www.pestplants.aucklandcouncil.govt.nz

Agpro, Agrochemicals:

www.agpro.co.nz/products/herbicides

Rainbow & Brown, Herbicides:

www.rainbowbrown.co.nz/herbicides

Cut 'N' Paste:

www.cutnpaste.co.nz

Explanations

NPPA Pest Plant: National Pest Plant Accord. Has a list of pest plants banned from sale or propagation throughout New Zealand and is administered by Ministry for Primary Industries.



Timing: Herbicides are more potent when they are applied to actively growing shrubs during spring and summer.

Water PH: When mixing water with herbicides, use community supply or stream water. Rain water may be too acidic and will inhibit herbicide potency.

Drill and fill method: Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 100 mm. Fill each hole with 10 ml undiluted Glyphosate 360 or 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre.

Herbicide supplies: These are sold locally at garden centres and farm supply businesses.

Penetrant: Sticking or wetting agent that assists the potency of herbicides. Brand name: Pulse.