

Controlling Pest Tree Invaders

**EVERYONE'S
RESPONSIBILITY**



Pest Tree Invaders

Included in the Tasman-Nelson Regional Pest Management Plan.

These pest trees are spreading in our region. Their seeds or vegetative materials, are invading native habitats and are compromising the biodiversity of; alpine grasslands, forests, shrub lands, dunes or wetlands.

DOUGLAS FIR – *Pseudotsuga menziesii*

Western North America

Site-Led Pest Plant, Abel Tasman National Park



See 'Pine wildings', page 8, for treatment methods.

ENGLISH HOLLY – *Ilex aquifolium*

Europe, West Asia, NW Africa

Site-Led Pest Plant, St Arnaud Village



Remove – Hand pull or dig seedlings.

Stump treat – Fell at ground level and paint stump top with a Glyphosate 450 based herbicide gel (*see back page*) or 20 ml Tordon® Brushkiller XT / 1 litre.

Drill and fill – 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 with 20 ml Tordon® Brushkiller XT / 1 litre.

Basal spray – TAKES EFFECT SLOWLY. Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

QUEENSLAND POPLAR – *Homalanthus populifolius*

Australia & New Guinea

Sustained Control Pest Plant



Remove – Hand pull or dig seedlings.

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

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

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 trunk 2 to 3 times the trunk diameter.

NPPA Pest Plant (*see back page*).

ROWAN TREE – *Sorbus aucuparia*

Europe, parts of Asia and North Africa

Site-Led Pest Plant, St Arnaud Village



Remove – Hand pull seedlings.

Stump treat – Fell at ground level and paint stump top with a Glyphosate 450 based herbicide gel (*see back page*).

Drill and fill – 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.

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

SYCAMORE – *Acer psuedoplatanus*

Central Europe / Southwestern Asia

Site-Led Pest Plant, Abel Tasman National Park & St Arnaud Village



Remove – Hand pull seedlings minimising soil disturbance.

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

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml undiluted Glyphosate 360 or 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre.

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

Basal spray – TAKES EFFECT QUICKLY. Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

TAIWAN CHERRY – *Prunus campanulata*

Taiwan, Japan, S.E China and Vietnam

Eradication Pest Plant



Remove – Hand pull or dig seedlings.

Stump treat – Fell at ground level and paint stump top with a Glyphosate 450 or Metsulfuron-Methyl based herbicide gel (*see back page*) or 10 ml Tordon® Brushkiller XT / 1 litre.

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml undiluted Glyphosate 360 or 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre.

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



Other Pest Tree Invaders

ALDER – *Alnus glutinosa*

Eurasia, North Africa



Remove – Hand pull or dig seedlings.

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

Drill and fill – 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.

Foliar spray – Spray ensuring full coverage with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 150 ml Glyphosate 360 and 20 ml penetrant / 10 litre.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter. IN WETLANDS APPLY CAREFULLY WITH A PAINT BRUSH TO PREVENT WATER CONTAMINATION.

CHERRY LAUREL – *Prunus laurocerasus*

SW Asia, SE Europe



Remove – Hand pull or dig seedlings.

Stump treat – Fell at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*) or 100 ml Tordon® Brushkiller XT / 1 litre.

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

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

JAPANESE SPINDLE TREE – *Eunonymus japonicus*

Japan, China, Korea



Remove – Hand pull or dig seedlings.

Stump treat – Fell at ground level and paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*) or 100 ml Triclopyr 600 EC / 1 litre or 100 ml Tordon® Brushkiller XT / 1 litre.

Drill and fill – 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.

Foliar spray – Spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 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 the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

NPPA Pest Plant (*see back page*).

JAPANESE WALNUT – *Juglans ailantifolia*

Japan and Sakhalin



Remove – Hand pull or dig seedlings.

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

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

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 trunk 2 to 3 times the trunk diameter.

NPPA Pest Plant (*see back page*).

KARO – *Pittosporum crassifolium*

Northern New Zealand



This native tree from Northland is a prolific seeder. It has been widely planted throughout New Zealand. The problem is it cross breeds with our regions endemic Pittosporums, resulting in unwanted hybrids.

Remove – Hand pull seedlings and small plants.

Stump treat – Fell at ground level and paint stump top with a Picloram based herbicide gel (*see back page*) or 20 ml Tordon® Brushkiller XT / 1 litre.

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

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

LOQUAT – *Eriobotrya japonica*

China, Japan



Remove – Hand pull seedlings and small plants.

Stump treat – Fell at ground level and paint stump with a Glyphosate 450 based herbicide gel (*see back page*).

Drill and fill – 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.

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

MONKEY APPLE OR LILLY PILLY – *Syzygium smithii*

Australia



Remove – Hand pull or dig seedlings.

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

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre.

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter. IN WETLANDS APPLY CAREFULLY WITH A PAINT BRUSH TO PREVENT WATER CONTAMINATION.

NPPA Pest Plant (*see back page*).

PINE WILDINGS – *Pinus species*

Northern America and Eurasia



Remove – Hand pull or dig seedlings. Fell trees.

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with or 10 ml of the solution 50 gm Metsulfuron-Methyl 600 / 1 litre. For Maritime pine – *Pinus pinaster*, fill each hole with 10 ml undiluted Glyphosate 450 or Glyphosate 510.

Basal spray – Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter. ONLY SUITABLE FOR TREES LESS THAN 150 MM DIAMETER.

CONTORTA (*pinus contorta*), only, is a **NPPA Pest Plant** (*see back page*).

SILVER BIRCH – *Betula pendula*

Europe and parts of Asia



Remove – Hand pull seedlings.

Stump treat – Fell at ground level and paint stump top with a Glyphosate 450 based herbicide gel (*see back page*).

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml undiluted Glyphosate 360.

Foliar spray – Ensuring full leaf coverage, spray with 200 ml Glyphosate 360 and 20 ml penetrant / 10 litre.

Basal spray – ONLY SUITABLE FOR TREE TRUNKS LESS THAN 150 MM IN DIAMETER. Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

STRAWBERRY DOGWOOD – *Cornus capitata*

Himalayas to Western China



Remove – Hand pull seedlings.

Stump treat – Fell at ground level and paint stump top with a Glyphosate 450 based herbicide gel (*see back page*).

Drill and fill – 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.

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

TREE PRIVET – *Ligustrum lucidum*

Southern China



Remove – Hand pull or dig seedlings.

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

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre or with 10 ml undiluted Glyphosate 360.

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

NPPA Pest Plant (*see back page*).

WATTLES – *Acacia species*

Australia



Remove – Hand pull seedlings minimising soil disturbance.

Stump treat – Fell tree and paint stump top with a Picloram based herbicide gel (*see back page*) or 50 ml Triclopyr 600EC / 1 litre or 50 ml Tordon® Brushkiller XT / 1 litre.

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml undiluted Glyphosate 360 or 5 ml undiluted Triclopyr.

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 trunk, from the root collar up the trunk 2 to 3 times the trunk diameter.

WILLOWS – *Salix species*

Northern hemisphere temperate regions



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

Drill and fill – Drill downward sloping holes (80 mm deep, 20 mm diameter) around the trunk every 200 mm. Fill each hole with 10 ml undiluted Glyphosate 360 or 10 ml of the solution 20 gm Metsulfuron-Methyl 600 / 1 litre.

Foliar spray – Ensuring full leaf coverage, spray with 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre or 150 ml Glyphosate 360 and 20 ml penetrant / 10 litre.

Basal spray – TAKES EFFECT QUICKLY. Using X Tree Wet & Dry® Basal herbicide, thoroughly wet the entire circumference of the lower trunk, from the root collar up the trunk 2 to 3 times the trunk diameter. IN WETLANDS APPLY CAREFULLY WITH A PAINT BRUSH TO PREVENT WATER CONTAMINATION.

CRACK WILLOW (*salix fragilis*) and **GREY WILLOW** (*salix cinerea*) are **NPPA Pest Plants** (*see back page*).

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 any 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.

Caution! Consider the long term risk when poisoning tall standing trees

Standing dead trees located near buildings, vehicles, roads or people may become a hazard as they rot and fall apart. In these situations, remove dead trees while their wood is firm.

Herbicides notes – always read label instructions!

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

Glyphosate 450 – Brand names: Agpro Glyphosate 450, Allout 450, Firstrate 450, Orion Glyphosate 450, Polaris 450.

Glyphosate 510 – Brand names: Agpro Green Glyphosate 510, Country Mile Glyphosate 510, Deal 510 RF, Glypho Super 510.

Herbicide Gel (Glyphosate 450) – Brand names: Cut’N’Paste Glimax™ Professional.

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

Herbicide Gel (Picloram) – Brand name: Agpro Picloram Gel, Cut’N’Paste Picloram, Triumph Gel, Vigilant™II.

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 Triclopyr Herbicide, Scrubcutter®, Vanguard, Victory™.

Tordon® Brushkiller XT – contains Picloram and Triclopyr.

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

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

Herbicide supplies – Are sold locally at garden centres and farm supply businesses.

Helpful websites

Weed Busters: www.weedbusters.org.nz/weed-information/weed-list

Auckland Council Pest Plants identification: www.aucklandcouncil.govt.nz/environment/plants-animals/pests-weeds/pages/identify-weeds.aspx

Agpro, Agrichemicals: www.agpro.co.nz

Rainbow & Brown, Herbicides: www.rainbowbrown.co.nz/herbicides

Cut’N’Paste: www.cutnpaste.co.nz

Explanations



NPPA Pest Plant – National Pest Plant Accord. The Ministry for Primary Industries have prepared a list of pest plants banned from sale or propagation, throughout New Zealand. www.biosecurity.govt.nz/nppa

Dispersal Mechanisms – Most pest tree seeds are dispersed by wind or birds and in a few cases by water. Trees such as willow are dispersed by branch or root fragments, so care should be taken when pruning or removing such trees.

Timing – Herbicides are more potent when they are applied to actively growing trees 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.