

Controlling Aquatic and Wetland Invaders

**EVERYONE'S
RESPONSIBILITY**



Aquatic and wetland invaders

Identified as pests in the Tasman-Nelson Regional Pest Management Plan.

Consider carefully what plants you buy for ponds and aquariums. If unsure please check with a Biosecurity Officer. Never dump aquarium contents or water into stormwater drains or water ways.

Pest plants in the plan

CHILEAN RHUBARB – *Gunnera tinctoria*

South America

Sustained control pest plant



Stump-treat – Cut off leaf stalks and paint stalk stub tops with a Picloram based herbicide gel (*see page 11*) or 50 ml Triclopyr 600 EC / 1 litre of water.

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

Caution – Ensure that spray does not enter water bodies. If not possible, stump-treat rather than foliar spray.

Note – Seeds spread in flowing water and by birds.

NPPA Pest Plant (*see page 11*).

EGERIA OR OXYGEN WEED – *Egeria densa*

South Africa

Eradication pest plant



Difficult to control in water.

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

NPPA Pest Plant (see page 11).



ENTIRE MARSHWORT – *Nymphoides geminata*

Australia

Eradication pest plant



Difficult to control in water.

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

NPPA Pest Plant (see page 11).



HIMALAYAN BALSUM – *Impatiens glandulifera*

Himalaya

Eradication pest plant



Remove – Hand pull or dig plants/seedlings.

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

HORNWORT – *Ceratophyllum demersum*

Asia, Africa, Australia, North America

Exclusion pest plant



Difficult to control in water.

Please contact a Biosecurity Officer if you find this plant, Ph. 03 543 8400.

Note – Infestations near Mapua, Tasman and Moutere have been eradicated. Now thought to only occur in the North Island.

NPPA Pest Plant (see page 11).



LAGAROSIPHON OR OXYGEN WEED – *Lagarosiphon major*

South Africa

Sustained control pest plant



Remove – Hand-weed small infestations.

Cover – Cover completely with a weed mat to exclude sunlight.

NPPA Pest Plant (see page 11).



PHRAGMITES – *Phragmites australis*

Temperate zones in both hemispheres

Exclusion pest plant



Highly spreadable.

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

Note – The only infestation at Murchison has been eradicated.

NPPA Pest Plant (see page 11).



PURPLE LOOSESTRIFE – *Lythrum salicaria*

Europe and Asia

Progressive containment pest plant



Remove – If the infestation is limited, remove individual plants.

Foliar spray – 100 ml Glyphosate 360 and 10 ml penetrant / 10 litre. Repeat applications will be required as this plant is a prolific and persistent seeder.

NPPA Pest Plant (see page 11).

REED SWEET GRASS – *Glyceria maxima*

Europe

Progressive containment pest plant



Foliar spray – Spring to autumn, 100 ml Glyphosate 360 and 10 ml penetrant / 10 litre. Spray twice during the growth season.

Note – Can be toxic to cattle.

SABELLA OR MEDITERRANEAN FANWORM – *Sabella spallanzanii*

Mediterranean & North Seas and NE Atlantic Ocean

Eradication Marine Pest Plant



Vessel owners to notify – If located on your vessel hull, please immediately contact a Biosecurity Officer, Ph. 03 548 8400.

Note – Sabella has been found at Nelson Haven, Taranaki / Golden Bay and at Waikawa / Picton. "Sabella Small Scale Management Programmes" are set up in all three of the above locations, to limit its spread.

SENEGAL TEA – *Gymnocoronis spilanthoides*

Mexico to Argentina
Exclusion pest plant



Difficult to control in water.

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

Note – Infestations in Motueka and Upper Moutere have been eradicated.

NPPA Pest Plant (see page 11).

SPARTINA – *Spartina species* estuarine environment

North America, England
Eradication pest plant



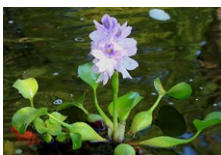
Difficult to control in estuaries.

If located, please contact Department of Conservation or a Biosecurity Officer, Ph. 03 543 8400.

Note – Now isolated to a few plants in; Moutere Inlet, Northern Golden Bay, Waimea Estuary and Whanganui Inlet.

WATER HYACINTH – *Eichhornia crassipes*

Amazon Basin, Brazil
Exclusion Pest Plant



Difficult to control in water.

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

NPPA Pest Plant (see page 11).

YELLOW FLAG – *Iris pseudocorus*

Europe, Asia, North Africa
Sustained control pest plant



Remove – Dig out small infestations, remove all rhizomes.

Foliar Spray – 100 ml Glyphosate 360 and 20 ml penetrant / 10 litre.

Note – This plant is extremely toxic to livestock.

NPPA Pest Plant (see page 11).

Pest fish and a pest reptile, in the plan

These pest fish and a reptile are banned from the Tasman-Nelson region, but are being illegally released here. Please report any suspected sightings of these pest animals to the Department of Conservation or a Biosecurity Officer.



GAMBUSIA OR MOSQUITOFISH – *Gambusia affinis*

Watershed of Gulf of Mexico

Eradication pest fish

Please contact Department of Conservation or a Biosecurity Officer,
Ph. 03 543 8400.



KOI CARP – *Cyprinus carpio*

Japan

Exclusion pest fish

Please contact Department of Conservation or a Biosecurity Officer,
Ph. 03 543 8400.



PERCH – *Perca fluviatilis*

Europe & Asia

Eradication pest fish

Please contact Department of Conservation or a Biosecurity Officer,
Ph. 03 543 8400.



RED-EARED SLIDER TURTLE – *Trachemys scripta elegans*

Mexico & Southern USA

Eradication Pest Animal

If located in the wild, please contact a Biosecurity Officer, Ph 30 548 8400.



RUDD – *Scardinius erythrophthalmus*

Europe, Russia and Central Asia

Eradication pest fish

Please contact Department of Conservation or a Biosecurity Officer,
Ph. 03 543 8400.



TENCH – *Tinca tinca*

Western Europe to Asia including Britain

Eradication pest fish

Please contact Department of Conservation or a Biosecurity Officer,
Ph. 03 543 8400.

Other aquatic and wetland plant invaders

CANADIAN POND WEED OR OXYGEN WEED – *Elodea canadensis*

Canada



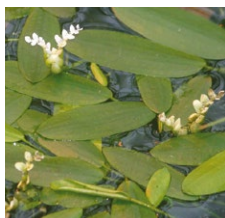
Remove – Use trained divers to hand-weed small infestations.

Cover – Cover completely with a weed mat to exclude sunlight.

Note – This is the only oxygen weed that may be legally sold in New Zealand. In some situations control may become necessary.

CAPE POND WEED – *Aponogeton distachyos*

South Africa



Cover – Cover completely with a weed mat to exclude sunlight.

Foliar spray: Spray emergent foliage 200 ml Glyphosate 360 / 10 litre.
This plant seeds prolifically.

EEL GRASS – *Vallisneria gigantea & spiralis*

Europe, Asia, Africa, & Australia



Remove – Use trained divers to hand-weed small infestations. Very difficult to eradicate.

Cover – Cover completely with a weed mat to exclude sunlight.

NPPA Pest Plant (see page 11).

ELEPHANTS EAR – *Alocasia brisbanensis*

Ceylon, Tahiti

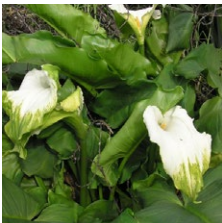


Stump-treat – Cut off leaf stalks and paint the cut stalk stub top with a Metsulfuron-Methyl based herbicide gel (see page 11).

Foliar spray – 3 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

GREEN GODDESS – *Zantedeschia aethiopica* 'Green Goddess'

South Africa



Stump-treat – Cut off leaf stalks and paint the cut stalk stub top with a Metsulfuron-Methyl based herbicide gel (see page 11).

Foliar spray – 3 gm Metsulfuron-Methyl 600 and 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

Note – Poisonous to humans and stock. Listed as one of the National Poisons Centre's top 10 plants, consistently involved in unintentional or childhood poisonings.

Note – White flowered Arum Lily can be similarly treated.

NPPA Pest Plant (see page 11).

MYRIOPHYLLUM OR WATER MILFOIL – *Myriophyllum variifolium*

Australia



Remove – In small ponds, rake up and dispose of plant material.

Cover – Cover completely with a weed mat to exclude sunlight.

Foliar spray – Spray emergent vegetation including banks, 100 ml Glyphosate 360 / 10 litre. Respray recovering growth before it reaches 50 mm high. Check periodically and spray regrowth.

PARROT'S FEATHER – *Myriophyllum aquaticum*

South America



Remove – In small ponds, rake up and dispose of plant material.

Cover – Cover completely with a weed mat to exclude sunlight.

Foliar spray – Spray emergent vegetation, including banks above the present water level. 100 ml Glyphosate 360 / 10 litre. Respray regrowth before growth reaches 50 mm high. Check periodically and spray regrowth.

NPPA Pest Plant (see page 11).

REED CANARY GRASS – *Phalaris arundinacea*

Mediterranean



Foliar spray – Spring to autumn, 100 ml Glyphosate 360 and 10 ml penetrant / 10 litre.

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!

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.

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

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

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

Caution in use of herbicide and penetrant over water bodies

Be very cautious in spraying herbicides and penetrants onto vegetation that is emergent from or over water. Always read label instructions on both herbicides and penetrants to note application rates and toxicity to aquatic environments. Note that **Aquakynde** is a penetrant with low aquatic toxicity. If foliar spraying is not possible, then consider “stump treat” methods.

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.

Dispersal Mechanisms: Most aquatic and wetland plants are dispersed by stem or root fragments, so care should be taken when removing such plants to remove all material.





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