# Controlling Ground Cover and Grass Invaders







# **Ground Cover and Grass Invaders**

Included in the Tasman-Nelson Regional Pest Management Plan.

#### **AFRICAN FEATHER GRASS** – Pennisetum macrourum

South America

Eradication Pest Plant



**Remove** – Small individual plants by grubbing. If seed heads are present bag the whole plants and dispose of in a landfill.

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

**Note:** If located please contact your local Biosecurity Officer (see back page).

#### **BATHURST BUR** – Xanthisum spinosum

South America

Fradication Pest Plant



#### Can be spread by livestock.

If located please contact your local Biosecurity Officer (see back page).

#### CAPE TULIP – Moraea flacida

South Africa
Exclusion Pest Plant



Can produce persistant corms underground and are very difficult to control. All parts of this plant are extremely poisonous to both livestock and humans.

If located please contact your local Biosecurity Officer (see back page).

**Notifiable organism** – <u>A serious potential pest.</u> Please contact the MPI hotline 0800 80 99 66 (Ministry for Primary Industries).

#### **CHILEAN NEEDLE GRASS** – Nasella neesiana

Chile and Argentina Exclusion Pest Plant



Can be spread by livestock and farm machinery.

If located please contact your local Biosecurity Officer (see back page).

## **CHINESE PENNISETUM** – Cenchrus purpurascens

Furacia

**Progressive Containment Pest Plant** 



**Remove** – Grub out small infestations. If seed heads are present bag the whole plants and dispose of in landfill.

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

#### NASSELLA TUSSOCK - Nassella trichotoma

South America

Progressive Containment Pest Plant



**Remove** – Small individual plants by grubbing. If seed heads are present, bag the whole plants and dispose of in landfill.

Foliar spray – 150 ml Glyphosate 360 and 10 ml penetrant / 10 litre.



# **PAMPAS GRASS** – Common pampas *Cortaderia selloana* and Purple pampas *Cortaderia jubata*)



South America

Sustained Control Pest Plant – Western Golden Bay (Aorere Valley and Whanganui Inlet to Puponga)



**Remove** – Grub out seedlings and young plants. Large plants can be dug out with a mechanical digger.



Foliar spray – 200 ml Glyphosate 360 and 10 ml penetrant/10 litre. Alternatively, if surrounding broadleaf plants are to be saved, use 30 ml Haloxyfop and 10 ml penetrant/10 litre. If the plants have seeded, repeat treatment to control resultant seedlings or young plants.

**Soil treat** – During warm soil conditions, sprinkle 100 gm (1/2 cup) of Hexazinone granules from above over each 1 m<sup>2</sup> of pampas roots. Hexazinone is a residual herbicide and should be used carefully to avoid adverse effect on surrounding vegetation.

NPPA Pest Plant (see back page).

#### **SAFFRON THISTLE** – Carthamus creticus

Mediterranean

Eradication Pest Plant



#### Limited distribution.

If located please contact your local Biosecurity Officer (see back page).

## **VARIEGATED THISTLE** – Silybum marianum

Mediterranean and SW Europe

Progressive Containment Pest Plant



**Remove** – Grub out small infestations before flowering. If flowering, remove flowers and seed heads, bag them and dispose of in landfill.

Foliar spray – Spot spray with 25 ml Clopyralid 300 and 10 ml penetrant/10 litre.

# **WILD GINGER** – Kahili ginger *Hedychium gardnerianum* and Yellow ginger *H. flavescens*

South Africa

Sustained Control Pest Plant – Golden Bay to Kaiteriteri and Upper Riuwaka





**Remove** – Dig out all rhizomes. Dispose of rhizomes in landfill. Young seedlings can be hand pulled but take care to remove strings of rhizomes.

**Stump treat** – Cut above pink "collar" at base and paint stump top with Metsulfuron-Methyl based herbicide gel (see back page).

Foliar spray – 5 gm Metsulfuron-Methyl 600 and 20 ml penetrant / 10 litre.

NPPA Pest Plant (see back page).

#### **YELLOW BRISTLE GRASS** – Setaria pumila

Europe X Southern Asia hybrid

Sustained Control Pest Plant – Golden Bay and Upper Buller



**Remove** – Growth starts late December / early January, dig out, bag seeding plants and dispose of in landfill.

Foliar spray – Avoid spring spraying at all costs. Spray only on target plants to prevent extensive bare earth patches, where seeding can occur. Spray late December early January, 250 ml TAG™G2 and 20 ml penetrant/10 litre. Farmers removing yellow bristle grass from pasture, should use Fenoxaprop-P-Ethyl (refer Novachem agrichemical manual).

# Other Ground Cover and Grass Invaders

#### **AFRICAN CLUB MOSS** – Selaginella kraussiana

Central and Southern Africa





**Remove** – Rake and hand pull small infestations.

Foliar spray – 100 ml Glyphosate 360 and 2 gm Metsulfuron-Methyl 600 and 10 ml penetrant / 10 litre.

## **AGAPANTHUS** – Agapanthus praecox

South Africa



**Remove** – Dig out isolated plants, removing all rhizomes. Dispose of rhizomes in landfill.

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

Foliar spray – 60 ml Triclopyr 600 EC and 20 ml penetrant / 10 litre.

#### **ARTILLERY PLANT OR ALUMINIUM PLANT** – Lamium galeobdolon

**Europe and West Asia** 



**Remove** – Dig out small infestations, taking care to remove all plant material.



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

NPPA Pest Plant (see back page).

# **BAMBOO** – Phyllostachys species

Asia



**Remove** – Large bamboo clumps can be dug out with a mechanical digger.

**Foliar spray** – Cut close to the ground and spray regrowth with 200 ml Activated Amitrole and 20 ml penetrant/10 litre.

**Stump treat** – Cut about 2 cm above a noad near ground level. IMMEDIATELY paint cut with a Glyphosate 240 based herbicide gel (*see back page*).

**Soil treat** – During warm soil conditions, apply Hexazinone granules 10 cm deep by injection or in cut trenches on the uphill side of the plant roots and at 1m intervals down the slope with exception of down slope away from the roots. Hexazinone is a residual herbicide and should be used carefully to avoid adverse effect on surrounding vegetation.

#### **BLUE IRIS** – Aristea ecklonii

Central and Southern Africa





**Remove** – Dig out all rhizomes. Dispose of rizomes in landfill.

Foliar Spray – 150 ml Glyphosate 360 and 5 gm Metsulfuron-Methyl 600 and 20 ml penetrant/10 litre.

**NPPA Pest Plant** (see back page).

# **CAPE HONEY FLOWER** – Melianthus major

South Africa



**Remove** – Dig out small plants. Dispose of roots in landfill.

**Stump treat** – Cut and remove any suckering shoots, then paint stump top with a Metsulfuron-Methyl based herbicide gel (*see back page*).

**Foliar spray** – 5 gm Metsulfuron-Methyl 600 and 10 ml penetrant/10 litre or 60 ml Tordon® BrushKillerXT and 10 ml penetrant/10 litre.

## **GIANT REED** - Arundo donax

Eurasia



Remove - Can be dug out wilh a mechanical digger.

Foliar spray – Cut close to the ground and spray regrowth with 100 ml Activated Amitrol and 100 ml Haloxyfop and 20 ml penetrant / 10 litre.

**Soil treat** – During warm soil conditions, apply Hexazinone granules 10 cm deep by injection or in cut trenches on the uphill side of the plant roots and at 1 m intervals down the slope with exception of down slope away from the roots. Hexazinone is residual herbicide and should be used carefully to avoid adverse effect on surrounding vegetation.

#### **HORSETAIL** – Equisetum sp

**Temperate Northern Hemisphere** 







**Remove** – Dig out and dispose of plants in landfill. Note that dropped fragments will grow.

**Foliar spray** – 200 ml Glyphosate 360 and 5 gm Metsulfuron-Methyl 600 and 60 ml Triclopyr 600 EC and 20 ml penetrant / 10 litre. Check regularly and spray regrowth.

NPPA Pest Plant (see back page).

## ICE PLANT - Carpobotus edulis

South Africa





**Remove** – Hand pull plants and allow to dry upside down without touching the ground. Best suited to small infestations.

Foliar spray – 200 ml Glyphosate 360, 5 gm Metsuulfuron-Methyl 600 and 20 ml penetrant / 10 litre.

NPPA Pest Plant (see back page).

# **MEXICAN DAISY** – Erigeron karvinskianus

Mexico





**Remove** – Dig out small patches and follow up monthly.

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

#### MONTBRETIA – Crocosmia X crocosmiiflora

Africa



Remove - Dig out bulbs. Dispose of bulbs in landfill.

Foliar spray – 100 ml Glyphosate 360 and 5 gm Metsulfuron-Methyl 600 and 20 ml penetrant/10 litre. Plant is a perennial and the leaves usually die in winter, so spray leaves in summer just before or during flowering to maximise the kill.

#### **MUGWORT** – Artemisia vulgaris

Temperate Europe, Asia, North Africa and Alaska



Remove - Dig out, taking care to remove all roots.

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

## **NASTURTIUM** – Tropaeolum majus

Europe, America, Africa, Asia



Remove - Hand pull.

Foliar spray - 100 ml Glyphosate 360 and 20 ml penetrant / 10 litre.

# **ONION WEED** – Allium triquetum

SW Europe, North Africa



Remove - Dig out bulbs when soil is moist. Dispose of bulbs in landfill.

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

#### **PERIWINKLE** – Vinca major

Mediterranean



**Remove** – Hand pull all plant material including runners. Repeat regularly.

Foliar spray – 200 ml Activated Amitrole and 20 ml penetrant / 10 litre.

# **PURPLE TOADFLAX** – Linaria pupurea

Italy



Remove - Hand pull or dig plants/seedlings.

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

#### **STINKING IRIS** – Iris foetidissima

**Europe and North Africa** 



**Remove** – Remove seed heads and dig out plants when soil is moist. Dispose of all materials in landfill.

Foliar spray – 150 ml Glyphosate 360 and 5 gm Metsulfuron-Methyl 600 and 20 ml penetrant / 10 litre.

#### **TUBER LADDER FERN** – Nephrolepis cordifolia

North Australia and Asia



Remove - Dig out, taking care to remove all tubers.

Foliar spray – 1 gm Metsulfuron-Methyl 600/10 litre.

NPPA Pest Plant (see back page).

# **WANDERING WILLIE** – *Tradescantia fluminensis*

South America



**Remove** – Rake or hand pull small areas during a dry period. Dispose of plants in landfill. Note dropped fragments will grow.

Foliar spray – 60 ml Triclopyr 600 EC and 20 ml penetrant / 10 litre or 300 ml Glyphosate 360 and 30 ml penetrant / 10 litre in areas near water. Check regularly and spray regrowth.

NPPA Pest Plant (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 (see back page) implies neither endorsement of those products, nor criticism of similar products not mentioned.

# Herbicides notes – always read label instructions!

**Activated Amitrole** – Brand names: Activated Amitrole 400, Yates Amitrole.

**Clopyralid 300** – Brand names: Donaghys Cronus, Ravensdown Multiple®, Agpro Ralid.

**Glyphosate 360** – Brand names: Kiwicare Weed Weapon Glyphosate 360, Rainbow & Brown Glyphosate 360, WeedMaster G360.

**Haloxyfop** – Brand names: Gallant™ Ultra, Agpro Haloxyfop 100.

**Herbicide Gel (Glyphosate 120)** – Brand names: Agpro Glyphosate Gel, Cut 'N' Paste Original, Kiwicare Weed Weapon Invade Gel.

**Herbicide Gel (Glyphosate 240)** – Brand name: Cut 'N' Paste Bamboo Buster.

**Herbicide Gel (Picloram)** – Brand names: Cut 'N' Paste Picloram, Triumph Gel, Vigilant® II.

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

**Metsulfuron-Methyl 600** – Brand names: Agpro Meturon®, Associate® 600WDG, Eradicate 600, Kiwicare Weed Weapon Eliminate, Mustang®, Rainbow & Brown MSF600.

**Hexazinone** – Brand names: Agpro Hexagran 750, Hexazinone® 750WG.

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

**TAG™G2** – Contains Terbuthylazine, Amitrole, Oxyfluorfen and Glyphosate.

**Tordon® Brushkiller XT** – Contains Picloram, Aminopyralid and Triclopyr.

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

#### **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/identifyweeds.aspx

#### **Agpro, Agrochemicals:**

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. Has a list of pest
plants banned from sale or
propagation throughout New Zealand and is
administered by Ministry for Primary Industries.

**Dispersal mechanisms**: Most creeping ground cover plants are dispersed by; seeds, stem or root fragments, or bulbs, so care should be taken when removing such plants.

**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.

Contact your local Biosecurity Officer:

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