

4.3 Containment Plants

Containment plants are generally those pests that are established in the region but are not widespread. These plant pests are present in the region at numbers and distributions that mean eradication is not possible or cost effective. The intention is to prevent the spread of these species beyond a defined containment area.

AFRICAN FEATHER GRASS

(Pennisetum macrourum)

Also known as: *veld grass*

African feather grass is a perennial grass that forms large clumps up to 2m tall. It spreads by advancing its stout rhizomes and by seed dispersal. It has a distinctive yellow to purple flower, with prominent bristles protruding from the body of the spike. When ripe, the spikelets containing the seed fall away, leaving the bare stem. The shape of the panicle readily distinguishes it from the larger pampas grass. African feather grass flowers from November to April.

African feather grass has a very restricted distribution in Northland. It is known to exist at a number of sites most of which are in the Kaipara District, particularly within the coastal dune area. It invades poor pasture areas, roadsides and reserves, and can completely suppress all other low growing plants. Dense clumps restrict the movement of animals, people and machinery, and impair drainage and visibility along roads.

Objectives (Five Year)

- To contain African feather grass to known infestation areas in western Northland and to progressively decrease the size of the containment zone over the course of the Strategy.
- To eradicate African feather grass found outside the containment zone.
- To implement management plans for those sites within the containment zone.
- To raise public awareness of the economic, biodiversity, social and cultural impacts of African feather grass and encourage reports of sightings.
- To prohibit the sale/distribution of African feather grass.

Pest Management Methods

Surveillance:

- NRC will develop and implement a regional surveillance plan in conjunction with MAFBNZ, stakeholders, and other Crown agencies such as DOC, with a particular focus on pathways, vectors and areas of significance.
- Reported sightings will be investigated and response implemented.

NRC Response:

- Eradication of infestations of African feather grass outside the containment area will be attempted by the NRC and their contractors or, with agreement, by other agencies if practicable.

Occupier Control:

- Management plans will determine the level of occupier control in areas where long term control is required.



Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification and control of plant pests.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.

Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.

Rules

1. No person shall knowingly distribute, transport or release any African feather grass (including any seeds or live vegetation) within the Northland region.
2. Where African feather grass is present on a property within the containment area, the occupier shall implement a management plan to contain African feather grass and ensure that it does not spread to non-infested areas of the property.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

See African feather grass containment zone (Figure 5) opposite.

Figure 5: African feather grass containment zone.



BATHURST BUR

(Xanthium spinosum)

Also known as: *spiny cocklebur*

Bathurst bur is an annual plant that grows up to 1m tall. It has well-branched upright stems with triple spines grouped in opposite pairs. The leaves are three-pronged, narrow and pointed. They have a white midrib above and are whitish on the underside. Bathurst bur has inconspicuous flowers and the fruits are bur-like with hooked spines, and spread mainly by attachment to animals, equipment, water, and in produce. The germination period is from November to February.

Bathurst bur has a limited distribution in Northland. Most infestations occur in the cropping areas of the Kaipara District, and in isolated patches throughout Northland. Bathurst bur is usually found on disturbed, bared ground of high fertility, and in cultivated areas. Dense stands of the plant can impede harvesting of field crops and the movement of stock. Young plants may be toxic to stock. Burs can also cause skin irritations and dermatitis in some people. Bathurst bur has a very long lived seed bank, making eradication difficult.

Objectives (Five Year)

- To contain Bathurst bur to existing sites.
- To ensure that all Bathurst bur plants are destroyed each year before they set seed.
- To raise public awareness of the economic, biodiversity, social and cultural impacts of Bathurst bur and encourage reports of sightings.
- To prohibit the sale/distribution of Bathurst bur.

Pest Management Methods

Surveillance:

- NRC will develop and implement a regional surveillance plan in conjunction with MAFBNZ, stakeholders, and other Crown agencies such as DOC, with a particular focus on pathways, vectors and areas of significance.
- Sightings reported from outside the containment area will be investigated and response implemented.

Total Control:

- Occupiers are required to kill all individuals of Bathurst bur prior to seeding wherever they occur on the property.

Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification and control of plant pests.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.

Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.



Rules

1. No person shall knowingly distribute, transport or release any Bathurst bur (including any seeds or live vegetation) within the Northland region.
2. Land owners or occupiers must destroy all Bathurst bur on land they occupy.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

CALIFORNIAN THISTLE

(*Cirsium arvense*) and

NODDING THISTLE

(*Carduus nutans*)

Californian thistle is a perennial thistle, which spreads from rhizomes. The plant produces leafy stems 50-150cm tall and small purple flowers. Leaves are small on top, with numerous teeth. Californian thistle characteristically grows in patches often from a single plant. It establishes readily in light, loamy soils and competes with both crops and pasture. It is a major weed south of Auckland occupying large tracts of pasture land.

Nodding thistle is an annual or biennial herb, with an upright, spiny appearance. The plant has a prostrate rosette and erect flowering stems and grows up to 1.5m tall with a long, fleshy taproot. The leaves are narrow and oblong with scattered hairs, especially on the midrib and veins. Its large, purple head and flowers droop or nod when mature.

Nodding thistle is considered to be the most aggressive thistle in New Zealand. It is capable of total ground cover and establishes quickly in pastures.

The thistles occur in isolated patches throughout Northland, and nodding thistle is common on the Poutō Peninsula. These thistles are not currently major pest plants in Northland, because of the restricted distribution. If left unchecked, they have the potential to be a considerable threat, particularly to coastal farms.

Objectives (Five Year)

- To contain Californian and nodding thistle to the present areas of infestation.
- To ensure that all sites of Californian and nodding thistle are controlled with an annual control programme prior to seeding.
- To ensure the distribution of biological control agents throughout the region on widespread thistle sites.

Pest Management Methods

Total Control:

- Occupiers are required to kill all individuals of Californian and nodding thistle wherever they occur on the property.

Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification and control of plant pests.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.

Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.



Rules

1. No person shall knowingly distribute, transport or release any Californian or nodding thistle (including any seeds or live vegetation) within the Northland region.
2. Land owners or occupiers must destroy all Californian or nodding thistle on land they occupy prior to flowering.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

GIANT REED

(Arundo donax)

Giant reed is a clump-forming, bamboo-like grass with a dense root mass and short rhizomes. It can grow up to 5m in height. Hollow stems, up to 4cm across, are initially erect but become semi-lax over time. They are bluish-white with parallel veins alternately arranged, clasping the stems. A plume-like flower head is produced at the top of the stem in late summer.

Giant reed is widespread throughout Northland. The plant has been sold as an ornamental and used as an erosion control plant, particularly on riverbank slips near roads. Giant reed grows on a wide range of sites from dry banks to semi-aquatic situations forming dense stands. It chokes small rivers and drains causing flooding, spreads slowly onto adjacent land and is very invasive, displacing all other vegetation. It spreads downstream in floods and grows from stem or root fragments.

Objectives (Five Year)

- To identify and record the extent of infestations in Northland.
- To develop a control programme to contain the spread of giant reed in Northland.

Pest Management Methods

Surveillance:

- Ongoing surveillance to locate infestations and record infestation magnitude in Northland.

Site-led Programmes:

- NRC will assist communities and stakeholders to control giant reed where it impacts upon local values.

Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification and control of plant pests.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.

Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.



Rules

1. No person shall sell, offer for sale, propagate, breed or multiply any giant reed within the Northland region.
2. No person shall knowingly distribute, transport or release any giant reed (including any seeds or live vegetation) within the Northland region.
3. Where a management agency has undertaken initial control work on a property and/or supplied resources to reduce pest plant population densities to a level agreed to in a management plan for the area, the occupier of the property shall maintain the pest plant population densities to those agreed to in the management plan.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

LANTANA

(Lantana camara, all varieties)

Also known as: shrub verbena, wild sage, yellow sage, red flowered sage

Lantana is a low, erect or scrambling shrub with backwards-pointing prickles and a strong root system. Its leaves are strong-smelling when crushed, wrinkly and more or less oval, with dense and often prickly hairs on the upper surface. The small flowers can be many different colours and occur in clusters. Flowers are followed by small blue-black fruit. *Lantana camara var aculeata* is the most common variety of lantana found in New Zealand. It has small cream and pink flowers in bunches.

Lantana forms dense impenetrable thickets. It invades bush edges, pasture, roadsides and wasteland, where it replaces all other vegetation. It is poisonous to stock and humans. Lantana is a major weed of both natural and agricultural ecosystems overseas. Lantana is found throughout Northland with the heaviest infestations located near old settlement areas in the Hokianga and near Whangaroa.

Pest Classification

Lantana is a containment pest throughout Northland.

Objectives (Five Year)

- To contain the lantana to core infestation areas.
- To minimise the effects of lantana on environmental and economic values in Northland.
- To raise public awareness of the economic, biodiversity, social and cultural impacts of lantana.

Pest Management Methods

NRC Response:

- NRC will develop plans which identify major lantana populations and encourage or undertake control aimed at eradication of lantana at outlying sites.

Site-led Programmes:

- NRC will assist communities and stakeholders to control lantana where it impacts upon local values.

Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification and control of plant pests.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.

Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.



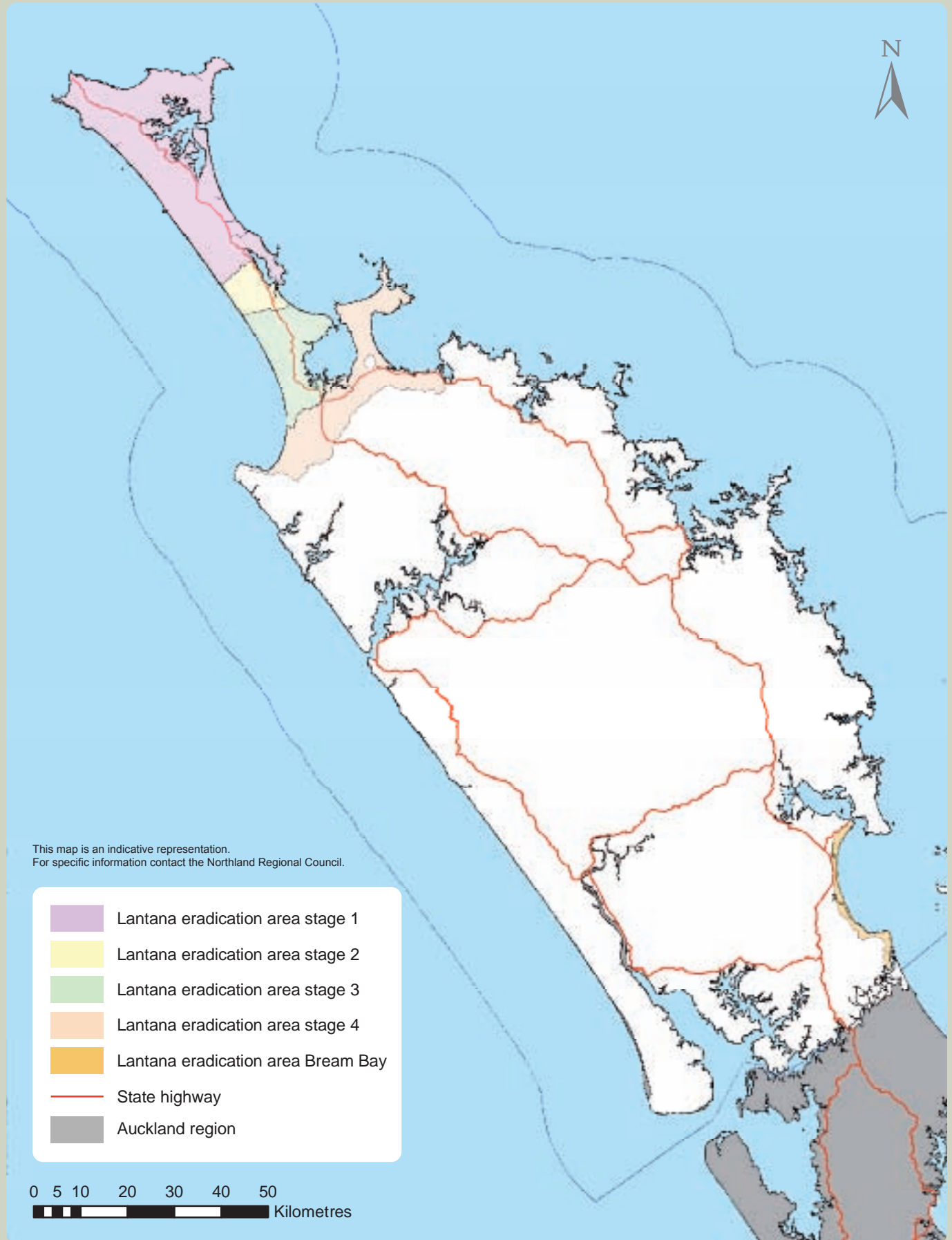
Rules

1. No person shall sell, offer for sale, propagate, breed or multiply any lantana within the Northland region.
2. No person shall knowingly distribute, transport or release any lantana (including any seeds or live vegetation) within the Northland region.
3. No person shall knowingly possess any lantana (including any seeds or live vegetation) within an area which has been defined under an operational plan as a total control area.
4. Where a management agency has undertaken initial control work on a property and/or supplied resources to reduce pest plant population densities to a level agreed to in a management plan for the area, the occupier of the property shall maintain the pest plant population densities to those agreed to in the management plan.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

See lantana eradication areas (Figure 6) overleaf.

Figure 6: Lantana eradication areas.



MANCHURIAN WILD RICE

(Zizania latifolia)

Also known as: Manchurian rice grass

Manchurian wild rice is a tall perennial grass that grows up to 3m tall. It has harsh, erect, dull grey-green leaves, which have a stout midrib and taper to a point. Purplish or red-brown flower heads are produced from November to December. Manchurian wild rice is often confused with native raupo or flax. Raupo is smaller and has shorter, softer leaves with a characteristic twist and flax leaves are smoother and shiny.

Manchurian wild rice is found primarily in the Kaipara area, especially along the banks of the Northern Wairoa river, where it is widespread. There are other small infestations in the Kaipara, Far North and Whāngārei Districts. Manchurian wild rice forms dense stands in aquatic or semi-terrestrial situations. It can block drains, cause flooding, and invade pasture. It can cause good land to become water-logged and swampy. It is very invasive and quickly spreads on land that is not grazed or controlled.

Objectives (Five Year)

- To identify all infestations of Manchurian wild rice outside the containment area.
- To support a MAFBNZ funded control programme to reduce density levels at all sites outside the containment area.
- To raise public awareness of the economic, biodiversity, social and cultural impacts of Manchurian wild rice.

Pest Management Methods

Surveillance:

- NRC will develop and implement a regional surveillance plan in conjunction with MAFBNZ, stakeholders, and other Crown agencies such as DOC, with a particular focus on pathways, vectors and areas of significance.
- Sightings reported from outside the containment area will be investigated and response implemented.

Incursion Response:

- MAFBNZ is the lead agency for Manchurian wild rice and the NRC will provide support as needed during containment of infestations.

Education:

- NRC will provide training to relevant NRC staff and stakeholders in the identification of plant pests to assist in surveillance.
- NRC will provide advice, and attend community meetings and field days.
- NRC will run publicity campaigns to educate the wider public about plant pests.



Research:

- NRC will work cooperatively with other agencies where further research is needed to identify management measures, potential impacts, pathways and/or behaviours.

Rules

1. No person shall sell, offer for sale, propagate, breed or multiply any Manchurian wild rice within the Northland region.
2. No person shall knowingly distribute, transport or release any Manchurian wild rice (including any seeds or live vegetation) within the Northland region.

A breach of these rules, without reasonable excuse, is an offence under Section 154(r) of the Act.

See Manchurian wild rice containment zones (Figure 7) overleaf.

Figure 7: Manchurian wild rice containment zone.

