

5.16. PEST MANAGEMENT STRATEGY FOR THISTLES



Description of the Pest

Nodding thistle (*Carduus nutans*) 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 1.5 m 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.



Californian Thistle (*Cirsium arvense*) is a true perennial, which spreads from rhizomes. The plant produces leafy stems 50 – 150 cm tall, small purple flowers, leaves are small on top and have numerous teeth. Californian thistle characteristically grows in patches often from a single plant.

Distribution of the Pest

Both plants are relatively limited distribution throughout the Region with most sites occurring on the lighter coastal soils. There are currently 124 known sites in Northland.

Problems Caused

Nodding thistle is considered to be the most aggressive thistle in New Zealand. It can invade pastures at all stages of development, even high producing swards. It is capable of total ground cover and will quickly establish in pastures suffering the effects of summer drought.

Californian thistle establishes readily in light loamy soils and through rapid rhizome growth competes with both crop and pasture. It is a major weed south of Auckland occupying large tracts of pasture land.

Parties Affected

The main parties affected are crop and pastoral farmers.

Impact Evaluation

<u>Impact</u>	<u>Current</u>	<u>Potential</u>
Cultural	-	-
Ecological	-	-
Human Health	-	-
Soil & Water	-	-
Production	Low	High

Public Infrastructure	-	-
Public Safety	-	-
Recreation	-	-
Trade (International)	-	-
Overall Regional	Low	High

Regional Effects

Nodding thistle and californian thistle are not at present major pest plants in Northland. Both have a low impact on overall primary production because of their restricted distribution. If left unchecked, they have the potential to be a considerable threat, particularly to coastal farms. These plants are not easy to eradicate, with herbicide control being costly.

Need to Intervene

The ability of nodding thistle and californian thistle to spread to new sites and seriously affect pastoral production means they pose a threat to Northland's economy. Intervention is seen as necessary to ensure these plants are kept under control and do not spread to other clear land. Landowners recognise that total control is necessary and achievable where the plant is currently at low levels of infestation.

Goal (Long Term)

- To eradicate nodding thistle and californian thistle from Northland
- To reduce the economic impact of widespread thistle species eg scotch and wing thistle through the distribution of appropriate biological control agents.

Objectives (Five Year)

- To contain nodding thistle and californian thistle to the present areas of infestation.
- To ensure all nodding thistle plants are destroyed before plants set seed.
- Ensure all sites of californian thistle are controlled with an annual control programme.
- Ensure the distribution of biological control agents throughout the Region on widespread thistle species.

Tactics and Technical Methods to be Used

Education Advice to landowners and other interested parties.
Community meetings and field days.
Media releases and publicity brochures.

Regulation Rule 6.4.2.8 Total control of Pest Plants on Properties
Rule 6.4.2.9 Prohibition on Distribution and Sale of Pest Plants.

Failure to comply with these rules creates an offence under section 154 (r) of the Biosecurity Act 1993.

Tactics and Technical Methods Rejected

Economic Subsidies on herbicides (not effective).

Regulation Rules on boundary clearance (less effective than other alternatives).

Services Regional Council eradication service (low benefit - cost).

Effects of the Strategy

Beneficial Enhanced productivity from farmland.

Detrimental Possible contamination of non-target land and waterways by use of herbicides.
Possible loss of food source for bees.

Cost Of Strategy

The Strategy is estimated to cost the Regional Council approximately \$25,000 each year

Funding

The Strategy is funded from a Land Management Rate. Individual land occupiers will be expected to bear the costs of control work on their properties

Management Agency

The Northland Regional Council is responsible for managing the Strategy

Relationship Of Strategy To Other Pest Management Strategies

The Auckland Regional Council has a similar Strategy for nodding thistle.

Monitoring And Reporting

The Regional Council will maintain a database recording all infestations of nodding thistle, levels of density, areas affected and control methods used. All sites will be inspected annually and this information updated. Progress towards objectives set in the Strategy will be reported in the Regional Council's Annual Plan or LTCCP as appropriate.

Term of Strategy

5 years

Rules

6.4.2.8 Total Control of Pest Plants on Properties

The occupier or owner of a property on which any of the following pest plants are growing shall prepare and implement a programme aimed at achieving eradication of that plant on that property:

- Bathurst bur
- Nodding thistle and Californian thistle
- Spartina

6.4.2.9 Prohibition on Distribution and Sale of Pest Plants

- (i) No person shall distribute to other persons or offer for sale, or hold in a premises where plants are offered for sale, any pest plant which is subject to a Northland Regional Council Pest Management Strategy or included in the National Accord List of Plants Banned from Sale & Distribution.
- (ii) No person shall distribute or offer for sale to other persons any agricultural lime, roading aggregate, sand or fill material which contains the seeds or any other vegetative material capable of propagation from a pest plant subject of a Northland Regional Council

Pest Management Strategy or included in the National Accord List of Plants Banned from Sale & Distribution.

- (iii) No person shall transport or use any equipment, machinery or product which contains the seeds or any other vegetative material capable of propagation from a pest plant subject of a Pest Management Strategy or included in the National Accord List of Plants Banned from Sale & Distribution.
- (iv) No person shall plant, transplant or re-distribute any pest plant subject of a Pest Management Strategy or included in the National Accord List of Plants Banned from Sale & Distribution.