

5.3. PEST MANAGEMENT STRATEGY FOR BATHURST BUR



Description of the Pest

Bathurst bur (*Xanthium spinosum*) is an annual plant which grows up to 1 metre tall. It has well branched upright stems which are armed with triple spines grouped in opposite pairs. The leaves are three pronged, narrow and pointed. They have a white midrib above and are a whitish colour on the underside. The flowers on the plant are inconspicuous. Its fruits are bur-like with hooked spines. Two seeds are contained in the burs which are spread mainly by attachment to animals, (e.g. in wool), also on sacks, by water, and in produce. One seed from each bur will usually germinate the following year. The second seed may lie dormant for some years before germinating. The germination period is from November to February.

Distribution of the Pest

The plant has a limited distribution in Northland with most infestations occurring in the cropping areas of the Kaipara district, however there are other sites in the Region. There are 111 known sites where the plant occurs.

Problems Caused

Bathurst bur is usually found on disturbed, bared ground of high fertility, and in cultivated areas. Its burs devalue wool, while its spines can injure stock. Young plants may also be toxic to stock.

Dense stands of the plant can impede harvesting of field crops and the movement of stock. It has a biological success rating of 10 out of a 21 and it scores 8 out of 24 when rated for weediness on the Esler, Liefting and Champion index.

Parties Affected

The main parties affected are landowners, especially farmers and horticulturists. Gardeners and agricultural industry field works are also affected to a lesser extent.

Impact Evaluation

<u>Impact</u>	<u>Current</u>	<u>Potential</u>
Cultural	-	-
Ecological	-	-
Human Health	-	-
Soil & Water	-	-
Production	Low	Medium
Public Infrastructure	-	-
Public Safety	-	-
Recreation	-	-
Trade (International)	-	-
Overall Regional	Low	Medium

Regional Effects

Bathurst bur currently has a low impact on primary production because of its restricted distribution. It occurs over a relatively small area of the Region, approximately 5,000 ha, and is currently affecting an estimated 500 ha at low infestation densities. However, its ability to spread quickly on cultivated, high quality

soils makes it a potentially significant pest, particularly as the area of land in crops in Northland increases.

Need to Intervene

The ability of Bathurst bur to spread and seriously affect primary production makes it a threat to the Region. Regional intervention will provide a consistent and coordinated approach to its control and eventual eradication.

Goal (Long Term)

- To eradicate the plant from the Region.

Objectives (Five Year)

- To contain Bathurst Bur to the presently infested sites.
- To ensure that all plants are destroyed each year before they set seed.

Tactics and Technical Methods to be Used

Education Advice to occupiers 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.
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 (difficult to target).

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

Effects of the Strategy

Beneficial Enhanced production for pasture and crops.
Agricultural products, wool and hide, free from contamination.

Detrimental Possible contamination of non target plant species from use of herbicides.

Cost of Strategy

The Strategy is estimated to cost the Regional Council approximately \$16,000 each year.

Funding

The advisory, publicity/education and regulatory provisions of the Strategy are funded from a Land Management Rate. The costs of total control work will be borne by the land occupiers.

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 Bathurst bur.

Monitoring and Reporting

The Northland Regional Council will maintain a database recording all infestations, density, areas affected and control methods used. Progress towards objectives set in the Strategy will be reported in the Regional Council's Annual Plan or LTCCP as appropriate. The Strategy will be reviewed when monitoring or other circumstances indicate changes may be required.

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, Californian thistle, and 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.