

## 5. PEST PLANT STRATEGIES

The organisms listed in the following Strategies are declared to be pest plants under the Biosecurity Act. The reason for declaration as a pest, management objectives, rules and obligations for land occupiers are defined for each pest plant.

### 5.1. PEST MANAGEMENT STRATEGY FOR AFRICAN FEATHERGRASS



#### Description of the Pest

African feather grass (*Pennisetum macrourum*) is a perennial grass which forms large clumps up to two metres tall. It spreads by advancing its stout rhizomes and by seed dispersal. The leaves of the plants are tough and feel rough when rubbed down the leaf.

The plant has a distinctive flower, being a narrow, cylindrical, contracted panicle up to 300 mm long, yellow to purplish in colour. Prominent bristles up to 10 mm long protrude 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. Flowering of the plant occurs from November to April.

#### Distribution of the Pest

The plant has a very restricted distribution in Northland. It is known to exist at a number of sites most of which are in the Te Kopuru, Mahuta-Redhill area of the Kaipara District. Major infestations occur within the coastal dune area (see Map C).

#### Problems Caused

African feather grass invades poor pasture areas, roadsides and reserves. It can completely suppress all other low growing plants. Its dense clumps restrict the movement of animals, people and machinery. It also impairs drainage and visibility along roads.

The plant is very persistent and is difficult to eradicate. It has a biological success rating of 21 out of 21 and a weediness rating of 18 out of 24 on the Esler, Liefing and Champion weediness index. The plant is an aggressive invader of suitable habitats and can threaten native plant species.

#### Parties Affected

Landowners, particularly farmers and authorities responsible for roads and reserves, are the main parties affected. People who use reserves and roads are also affected to a lesser extent.

Conservation values are also threatened by dense, pure stands of this grass on sand dunes.

#### Impact Evaluation

<u>Impact</u>	<u>Current</u>	<u>Potential</u>
Cultural	Low	Medium
Ecological	Low	High

Human Health	-	-
Soil & Water	-	-
Production	Low	Low
Public Infrastructure	Low	Low
Public Safety	-	-
Recreation	-	-
Trade (International)	-	-
Overall Regional	Low	High

### **Regional Effects**

African feather grass is not at present a major pest plant in Northland because of its restricted distribution. However, its ability to spread on sand country in particular, and to completely invade areas, makes it a pest of Regional significance.

### **Need to Intervene**

The ability of African feather grass to spread to new habitats makes it a threat to a wide range of areas which have ecological, productive and recreational values. The plant is difficult to identify and, at the current low levels of infestation, the public may not fully recognise the threat it poses to the environment. A Regionally coordinated control programme is necessary.

### **Goal (Long Term)**

- To contain the plant within the coastal dune area (see Map C), by ensuring these infestations are managed in accordance with the African Feathergrass Management Plan.
- To eradicate the plant from sites outside the coastal dune area (see Map C) which are not included in the African Feathergrass Management Plan.

### **Objectives (Five Year)**

- To reduce, by half, the number and density of infestations outside the major coastal dune-infestation area.
- To implement the management plans for those sites within the major infestation area (See Map C).

### **Tactics and Technical Methods to be Used**

Education	Advice to occupiers and other interested parties. Media releases and publicity brochures. Research (alternative, replacement species).
Regulation	Rule 6.4.2.7 Management Plans for Properties with African Feathergrass in Infested Area Rule 6.4.2.9 Ban on Sale and Distribution of Pest Plants  Failure to comply with these rules creates an offence under section 154 (r) of the Biosecurity Act 1993.
Services	Regional Council eradication or total control service on sites outside major infestation area.

### **Tactics and Technical Methods Rejected**

Economic	Subsidies on herbicides (difficult to target).
Services	Regional Council eradication service for whole Region (low benefit/cost/ratio)

Full land owner responsibility for eradication (not feasible).

### **Effects of the Strategy**

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| Beneficial  | Enhanced primary production.<br>Protection of native plant life in natural swamp and coastal areas.<br>Enhanced roadside vision and water tabling.   |
| Detrimental | Possible contamination of non target land, waterways and non target plant species by use of herbicides.<br>Possible erosion of sand dune and coastal pasture if alternative vegetation is not established. |

### **Cost of Strategy**

The Strategy is estimated to cost the Regional Council around \$13,000 each year.

Individual landholders in the major area of infestation are expected to spend in the order of \$5,000 to \$10,000 annually.

### **Funding**

The advisory and total control operations which form the basis of the Strategy are to be funded from a Land Management Rate. The costs associated with controlling the plant in the extensively infested area are to be borne by the individual land occupiers. Regional funding of the work on small scattered sites, outside the major infested area, is cost-effective because of difficulties in identification, low infestation levels, and the need for repeated treatments.

### **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 Pest Management Strategy for African feather grass.

### **Monitoring and Reporting**

The Northland Regional Council will maintain a database recording all infestations, density, areas affected and control methods used. All sites will be inspected at least once per year. 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**

#### **6.4.2.7 Management Plans for Properties with African Feathergrass in Infested Area**

Where African feathergrass is present on a property within the area shown on Map C of this document, the occupier in conjunction with the Northland Regional Council, shall implement a management plan to control the Pest Plant and ensure that it does not spread to non-infested areas of the property.

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.