

Plant Pest Control

BONESEED

Chrysanthemoides monilifera

Introduction

Boneseed is a fast growing shrub that is able to rapidly colonise coastal sites and displace indigenous vegetation. It is capable of forming dense cover which will shade out native seedlings such as Pohutukawa. It is tolerant of low soil fertility levels and is well adapted to dry sites. Boneseed deposits a large reservoir of seed that lies dormant under heavy cover and germinates when the ground is bared by vegetation clearance or fire. Thick growth can hinder public access to the point of preventing the use of beach areas. The Bay of Plenty region has relatively confined infestations of boneseed compared to other areas of the North Island, and control has been given a high priority with the long-term objective of eradication.

PLANT PEST STATUS

BONESEED IS A TOTAL CONTROL PLANT PEST IN THE BAY OF PLENTY.
(ENVIRONMENT B-O-P'S REGIONAL PLANT PEST MANAGEMENT STRATEGY). LAND OCCUPIERS ARE REQUIRED TO CONTROL ALL BONESEED PLANTS GROWING WITHIN THEIR PROPERTY BOUNDARIES.

Origin

Boneseed is a native to the Cape Province in South Africa. Introduced to New Zealand as an ornamental plant and first recorded as growing wild in 1870, it is now prohibited from sale and propagation. Boneseed can be found throughout the North Island, mostly on coastal sites. It can also be found in the South Island around Nelson, Banks Peninsula and Dunedin. Within the Bay of Plenty Region it is common in the Mount Maunganui, Tauranga and Ohope areas. Isolated sites can be found in other coastal parts of the region.

Description

Boneseed is a bushy shrub which grows to 2-3 metres high. It has leathery leaves with toothed edges, tapered leaf bases and a mealy/ powdery surface. Boneseed produces clusters of small, yellow, daisy-like flowers that cover the plant in late winter to early summer. The fruit is initially green, becoming round and black. When ripe, the outside flakes off to leave a hard, whitish, inner coat. The single seed is very hard

and bone-like in colour, hence the name boneseed. Just over half the seeds are viable and can remain dormant inside the unsplit seed coat for up to ten years. Seed is spread by birds and by soil movement. A mature bush can produce up to 50,000 seeds per year, allowing boneseed to build up large seed banks in the soil. Germination of the seed is stimulated by fire. Boneseed is intolerant of heavy shade and wet soils.



Boneseed can be easily distinguished by its bright yellow flowers

Control Methods

Boneseed is easily controlled. For larger plants, cutting and treating the stump with a herbicide mix gives effective control. Overall application of herbicide may be an option. Seedling plants can be controlled by hand pulling. Eradication can be a difficult and slow exercise in coastal cliff areas because of access problems. Germination of seed following the removal of adult boneseed plants can result in heavy reinfestations and regular follow-up is necessary. Environment B-O-P Plant Pest Officers are available to advise on control methods to suit local situations.

Stump Treatment with Herbicide

This is the preferred and most effective method of control. The stem should be cut as close to the ground as possible and all remaining foliage removed from the stump. The herbicide mix must cover the top and sides of the stump. The mix can be applied through a knapsack sprayer, small spray bottle or by paint brush.

Suitable herbicides and dilution rates for stump treatment are:

Roundup® or a similar glyphosate herbicide:

200 ml per litre of water (1 part to 5 parts water)

Grazon®

50 ml per litre of water (1 part to 20 parts water)

Escort®

5 g + 10 ml penetrant (e.g. Pulse ®) per litre of water



Boneseed is best controlled by stump treatment.

Overall spray application

Where plants are small, overall spraying of plants may be more convenient and effective. Herbicides that will give control include:

Roundup® or a similar glyphosate herbicide

100 ml per to 10 litres of water + 20 ml of penetrant (e.g. Pulse®)

Escort®

5 g per 10 litres of water + 20 ml of penetrant (e.g. Pulse®)

Grazon®

60 ml per 10 litres of water + 20 ml of penetrant (e.g. Pulse®)

CAUTION: When using any herbicide please read the label thoroughly to ensure that all instructions and safety requirements are followed.

Following successful control, sites that have been heavily infested with boneseed should be replanted to establish a dense, shady canopy to suppress further seed germination. Use fast growing native shrubs and/or a cover species such as tagasaste. See *Sustainable Options SC12/98* Native Plants for Revegetation Projects, and *SC21/98* Revegetation and Shelter Plants for Coastal Conditions.

Further Information

For further information contact a local Environment B·O·P plant pest officer on freephone 0800 ENVBOP (0800 368 267)

Environment B·O·P offices located at:

6 Rata Street	Mt Maunganui
1125 Arawa Street	Rotorua
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Information in this fact sheet regarding herbicides does not necessarily appear on the labels of the products concerned. Environment B·O·P does not accept liability for any damages that may arise from use of chemicals at non-standard rates. Mention of product trade names implies neither endorsement of those products nor criticism of similar products not mentioned.

This fact sheet was prepared by Richard Mallinson

Photographs by Wendy Baker and courtesy of Auckland Regional Council

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