

Controlling bone-seed (*Chrysanthemoides monilifera*) seedlings with clopyralid

Keith Briden and Ian Popay

Department of Conservation,
Christchurch and Hamilton
kbriden@doc.govt.nz



Bone-seed—a serious weed in coastal areas

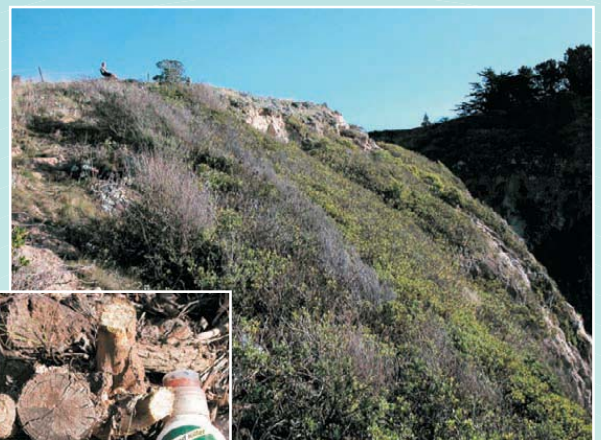
Attractive yellow flowers

Aim of this project

To test a herbicide that kills the bone-seed seedlings, without affecting any grasses.

Our trials

- Bone-seed plants were cleared on a site at Taylor's Mistake, Christchurch in 2002 by cutting shrubs and treating the stumps with picloram gel (Vigilant)
- Treatments applied 11 May 2003:
 - Glyphosate at 10 ml product/litre + 2 ml/litre Pulse
 - Clopyralid, 10 ml product/litre
 - Clopyralid, 5 ml product/litre
 - Untreated
- Twelve plots, each 0.1 m² were pegged to give 3 repeats of 4 treatments, arranged at random.
- Plots were assessed 4, 11 and 12 weeks after treatment



The trial site at Taylors Mistake



Cut stumps were treated with Vigilant

Results



Plot prior to application of clopyralid (5 ml/L)



Plot 12 weeks after application of clopyralid (5 ml/L)

Treatment	At application		12 weeks later	
	Seedlings/m ²	% grass cover	Seedlings/m ²	% grass cover
Glyphosate 10 ml/L	506.7	45.0	0.0	0.0
Clopyralid 5 ml/L	413.3	38.3	0.0	43.0
Clopyralid 10 ml/L	566.7	46.7	0.0	55.0
Untreated	460.0	43.3	483.3	51.7

- At 4 weeks, glyphosate had killed all bone-seed seedlings and grass.
- At 11 weeks, clopyralid at 10 ml/litre had killed all bone-seed seedlings.
- At 12 weeks, clopyralid at 5 ml/litre had killed all bone-seed seedlings.

Conclusions

Clopyralid at 5 ml product/litre, killed bone-seed seedlings up to 5 cm in height. Grass cover was not affected which helps suppress future bone-seed germination and establishment. This concentration is preferred because less chemical is needed.