

A 10

SOUTH AFRICAN SUGAR INDUSTRY
AGRONOMISTS' ASSOCIATION

Code: HW216/81
Cat. No: ~~2579~~ 1384

Title: CHEMICAL CONTROL OF MADEIRA VINE

1. Particulars of the project:

This crop : Weeds only

Site : Mount Edgecombe

Region : North Coast Coastal

Soil system : Berea

Soil form/series: Hutton/Shorrocks

Design : Randomized blocks

Variety : -

Fertilizer/
Ameliorants : N P K
- - -

Irrigation : Hand watering

Spraying dates : 4.8.81
6.9.82

Assessment dates: 26. 8.81
16. 9.81
2.10.81
11.11.82

2. Objectives:

To test a chemical for long term control of Madeira vine (Andredera basseloides) grown in pots.

3. Treatments:

	Chemical	Rate prod/ha
1.	Tordon 101	3
2.	Tordon 101	6
3.	Tordon 101	9
4.	Hand cutting	-

4. Experimental:

Fragsments of Madeira vine tuber were weighed and planted into pots of size 300 mm x 300 mm x 100 mm.

On 4 August treatments were applied directly over the foliage using a gas-operated knapsack sprayer fitted with a Spraying System 8004-E fanjet.

Ratings were taken subsequently of percent kill of foliage, ie degree of necrosis, and also of percent ground cover of regrown foliage.

One year after initial treatments a single rate of 3 l/ha Tordon 101 was applied to foliage in all previously treated pots.

5. Results:

Table 1: Ratings of percent ground cover of actively growing material at spraying and 22, 43 and 59 days after spraying as well as ratings of percent kill taken 22,43 & 59 days after spraying

Treatment	Rate prod (l/ha)	Ground cover % at spray	Percent kill and ground cover					
			22		43		59	
			% kill	Gr.cov	% kill	Gr.cov	% kill	Gr.cov
Tordon 101	3	57	36	0	98	0	100	0
Tordon 101	6	51	88	0	100	0	100	0
Tordon 101	9	48	97	0	100	0	100	0
Hand cutting	-	47	100	9	0	40	0	55

Comments:

Although low rates of Tordon 101 took longer to achieve a 100% kill all rates tested were effective with no regrowth after 59 days.

Hand cutting showed an extremely short length of control and would obviously have to be repeated regularly to get an idea of its efficiency.

After a year some regrowth was evident in most pots.

Table 2: Presence or absence of live root or foliage taken 66 days after repeat treatments

Treatment	Rate prod (l/ha)	Percent of pots with live plant parts	
		Root/tuber	Foliage
Tordon 101	3 + 3	100	40
Tordon 101	6 + 3	100	40
Tordon 101	9 + 3	80	40
Hand cutting	-	100	100

Comments:

The repeat application of 3 l/ha was not sufficient to kill all remaining plant parts from any previous treatment.

6. Conclusions:

Although a complete kill of Madeira vine was not achieved the excellent set back to growth was worthwhile and tends to confirm results of field trial HW219.

3 l/ha of Tordon 101 is probably too low a rate but there does not appear to be a great advantage to rates as high as 9 l/ha. Thus a suggested recommendation would be 4 or 5 l/ha repeated annually onto actively growing foliage.

PETT/HDN
14/7/83