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SUMMARY OF EXPERIMENTAL RESULTS

FIELD TRIALS 1976

P.A. RUTHERFORD
WEED AGRONOMY SECTION

WESTERN AUSTRALIAN
DEPARTMENT OF AGRICULTURE

Control of Silverleaf Nightshade

75 Na 6 : Rates of Tordon 50-D x times of application on Silverleaf Nightshade (Solanum elaeagnifolium).

Property : Dare & Lloyd, Harrismith.

Site : Pasture (Dwalganup sub-clover & grasses and Erodium species)
Sand/clay with Salmon/white gum.

Plot size : 3 m x 3 m

Dates : Counts on 12.12.75 and 30.12.76.

No.	Rate Tordon 50-D l/ha	Time of Application	Live shoot counts		% Control
			12.12.75	30.12.75	
1.	NIL		68.5	74.0	- 8.0
2.	2.8	Dec.	75.8	99.0	-30.6
3.	5.6		66.0	85.0	-28.8
4.	8.4		49.3	42.0	14.8
5.	2.8	Jan.	57.8	74.0	-28.0
6.	5.6		53.8	66.0	-22.7
7.	8.4		45.3	43.0	5.1
8.	2.8	Feb.	52.5	69.0	-31.4
9.	5.6		50.0	59.0	-18.0
10.	8.4		33.0	30.0	9.1
11.	2.8	Mar.	60.0	34.0	43.3
12.	5.6		45.8	47.0	- 2.6
13.	8.4		29.8	26.0	12.8

COMMENTS:

1. March application was significantly better than December-February application.
2. The 8.4 l/ha rate was only just significantly better than the lower rates overall. This effect was most marked at the December time of application.
3. Even the 8.4 l/ha rate of Tordon 50-D is not high enough to give an acceptable degree of control.

76 Na 11 : Rates of three herbicides on Silverleaf Nightshade.

Property : J, Sands & Son, Yealering.

Site : Annual grasses & Erodium species on edge of salt affected flats.

Plot size : 3 m x 3 m

Dates : Treatments applied : 2.3.76

Counts taken : 2.3.76 and 17.12.76

No.	Treatment	Rate	Live shoot count*		% Control
			Pre Treatment	17.12.76	
1.	NIL	-	17	17	0
2.	Roundup	3 l/ha	33.3	16.3	51.1
3.	Roundup	6 l/ha	20.3	18.3	9.9
4.	Roundup	12 l/ha	24.3	12.7	47.7
5.	Dowco 290	3 l/ha	20.7	12.3	40.6
6.	Dowco 290	6 l/ha	26.0	6.0	76.9
7.	Dowco 290	12 l/ha	32.3	1.0	96.9
8.	Hyvar X	5.5 kg/ha	27.7	23.0	17.0
9.	Hyvar X	11.0 kg/ha	16.7	11.0	34.0
10.	Hyvar X	22.0 kg/ha	17.0	7.0	58.8

* Mean of 3 replications.

COMMENTS:

1. Dowco 290 is significantly better than the other two herbicides.
2. The 12 l/ha rate of Dowco 290 is significantly better than the two lower rates.
3. The performance of Roundup was poor - this may be due to the volume of water used, 2000 l/ha. It is worth re-testing at much lower volumes.

3.

76 Na 12 : Herbicide screening trial on Silverleaf Nightshade.

Property : J. Sands & Son, Yealering.

Site : Annual grasses and Erodium species on edge of salt flats.

Plot Size : 3 m x 3 m

Dates : Treatments applied on : 2.3.76

Plant counts : 2.3.76 and 17.12.76

No.	Treatment	Rate	Mean of 3 reps Live shoot counts		% Control
			2.3.76	17.12.76	
1.	NIL	-	35	23	34.3
2.	Tordon 255	11 l/ha	33.3	4	88.0
3.	Tordon 255	22 l/ha	22.3	0	100
4.	Tordon 105	22 l/ha	18.3	0	100
5.	Tordon 105	44 l/ha	23.3	0	100
6.	Kuron	6 l/ha	21.7	7.7	64.5
7.	Kuron	12 l/ha	29.7	9.7	67.3
8.	Banex	11 l/ha	34.7	20	42.4
9.	Banex	22 l/ha	36.7	25.3	31.1
10.	Residone	11 kg/ha	35.7	21	41.2
11.	Residone	22 kg/ha	12.0	3.3	72.5
12.	Asulox	7 kg/ha	27.3	2.7	90.1
13.	Asulox	14 kg/ha	22.7	12.0	47.1
14.	2,4,5-T	2 l/ha	35.7	19.7	44.8
15.	2,4,5-T	6 l/ha	28.7	14.0	51.2

COMMENTS:

1. Tordon 255 and 105 (both contain picloram) are significantly better than the other herbicides.
2. The other herbicide worth testing further is Asulox, particularly at low rates.

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76Ka5 : Rates of Wetting agent with Tordon 50-D for Silver-leaf Nightshade control,

Property : J.C. Antonio, Katanning.

Site : Dwalganup/Geraldton pasture + annual grasses and Erodium species.

Plot Size : 3m x 3m

Dates : Treatments applied: 3.3.76
Plant Counts: 3.3.76 and 16.12.76
Basal treatment of Tordon 50-D at 5.5 l/ha water volume, 2000 l/ha

No.	Treatment	Live shoot counts		% Control
		3.3.76	16.12.76	
1.	NIL	16.3	4.7	71.2
2.	X-77 0.25%	34.7	5.7	83.6
3.	X-77 1.0%	19.3	3.7	80.1

COMMENTS:

1. There was no significant improvement in the control of S.L.N. by the addition of wetting agent.
2. This could be due to the high volume of water used.

76/Ka6 : Rates of Tordon 50-D x volume of water on Silverleaf Nightshade.

Property : J.C. Antonio, Katanning.

Site : Dwalganup/Geraldton pasture + annual grasses and Erodium species.

Plot size : 3m x 2m

Dates : Treatments applied: 3.3.76
Plant counts: 3.3.76 and 16.12.76

No.	Rate Tordon 50-D	Vol. Water	Live shoot counts*		% Control
			3.3.76	16.12.76	
1	NIL		33.7	40.0	-18.7
2	5.5 l/ha	1000 l/ha	34.0	3.3	90.3)
3	11.0 l/ha	1000 l/ha	23.7	0.3	98.7) 95.5
4	22.0 l/ha	1000 l/ha	22.7	0	100.0)
5	5.5 l/ha	2000 l/ha	33.3	0.3	99.1)
6	11.0 l/ha	2000 l/ha	22.7	0.3	98.7) 99.3
7	22.0 l/ha	2000 l/ha	33.0	0	100.0)

* means of 3 replications

COMMENTS:

1. No significant response to volume of application.
2. No significant response to rate of Tordon 50-D.
3. At 1000 l/ha volume of water, the 5.5 l/ha rate of Tordon just failed to be significantly different (at $p = 0.05$)
4. Even at 5.5 l/ha Tordon 50-D the degree of control of S.L.N. was very high. The trial will be counted again in December 1977 and 1978 to measure any differences between the rates in the time taken for the S.L.N. to recover.