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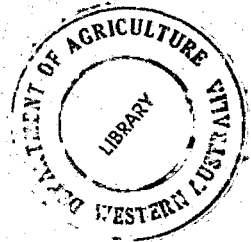
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Department of Agriculture
Western Australia



SUMMARY OF EXPERIMENTAL RESULTS

FIELD TRIALS 1977

Contents

1. Silverleaf Nightshade
2. Blackberry

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1.

76Nall : Rates of three herbicides on Silverleaf Nightshade

Property : J. Sands & Son, Yealering

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

Plot Size : 3m x 3m

Dates : Treatments applied 2/3/76
Liveshoot counts taken 2/3/76
17/12/76
5/12/77

Volume of Water : 2000 l/ha

No.	Treatment	Rate	Liveshoot Count*		%	L.S. Count*	
			2/3/76	17/12/76		Control	5/12/76
1	Nil	-	17	17	0	8	52.9
2	Roundup	3 l/ha	33.3	16.3	51.1	14.7	55.9
3	Roundup	6 l/ha	20.3	18.3	9.9	13.7	32.5
4	Roundup	12 l/ha	24.3	12.7	47.7	5.7	76.5
5	Dowco 290	3 l/ha	20.7	12.3	40.6	12.3	40.6
6	Dowco 290	6 l/ha	26.0	6.0	76.9	10.3	60.4
7	Dowco 290	12 l/ha	32.3	1.0	96.9	6.7	79.3
8	Hyvar X	5.5 kg/ha	27.7	23.0	17.0	2.0	92.8
9	Hyvar X	11.0 kg/ha	16.7	11.0	34.0	0	100
10	Hyvar X	22.0 kg/ha	17.0	7.0	58.8	0	100

* Mean of 3 replications

COMMENTS

1. After 21 months, Hyvar X is significantly better than the other two herbicides. Even at the lowest rate used, the degree of control is acceptable.
2. The S.L.N. is showing signs of recovery from Dowco 290.
3. The performance of Roundup is not much improved since the December 1976 assessment, except possibly at 12 l/ha.

76Na12 : Herbicide Screening trial on Silverleaf Nightshade
Property : J. Sands & Son, Yealering
Site : Annual grasses and Erodium species on edge of salt flats.
Plot size : 3m x 3m
Dates : Treatments applied 2/3/76
 Liveshoot counts 2/3/76
 17/12/76
 5/12/77
Volume of Water: 2000 l/ha

No.	Herbicide	Rate	Liveshoot Count*		% Control	L.S. Count*	
			2/3/76	17/12/76		5/11/77	% Control
1	Nil		35.0	23.0	34.3	15.3	56.3
2	Tordon 255	11 l/ha	33.3	4.0	88.0	8.3	75.1
3	Tordon 255	22 l/ha	22.3	0	100.0	0.3	98.7
4	Tordon 105	22 l/ha	18.3	0	100.0	0	100.0
5	Tordon 105	44 l/ha	23.3	0	100.0	0	100.0
6	Kuron	6 l/ha	21.7	7.7	64.5	5.3	75.6
7	Kuron	12 l/ha	29.7	9.7	67.3	16.0	46.1
8	Banex	11 l/ha	34.7	20.0	42.4	25.7	25.9
9	Banex	22 l/ha	36.7	25.3	31.1	20.7	43.6
10	Residone	11 l/ha	35.7	21.0	41.2	2.7	92.4
11	Residone	22 l/ha	12.0	3.3	72.5	0.3	97.5
12	Asulox	7 kg/ha	27.3	2.7	90.1	4.0	85.3
13	Asulox	14 kg/ha	22.7	12.0	47.1	10.3	54.6
14	2,4,5-T	2 l/ha	35.7	19.7	44.8	19.7	44.8
15	2,4,5-T	6 l/ha	28.7	14.0	51.2	13.6	52.6

* Mean of 3 replications

COMMENTS

1. Tordon 105, Residone and Tordon 255 are significantly better than the other treatments after 21 months. The effect of Residone has improved markedly since the last assessment.
2. The effect of Asulox is reduced.

77Na22 : Herbicide Screening trial on Silverleaf Nightshade
Property : J. Sands & Son, Yealering
Site : Annual grasses and Erodium species on edge of salt flats.
Plot Size : 3m x 3m
Dates : Treatments applied 14/2/77
 Liveshoot counts 14/2/77
 5/12/77
Volume of Water: 2000 l/ha

No.	Herbicide	Rate	Liveshoot Counts*		% Control
			14/2/77	5/12/77	
1	Nil	-	17.3	21.7	- 25.4
2	Tordon 50-D	5 l/ha	10.3	2.7	73.8
3	Tordon 50-D	10 l/ha	19.7	0.3	98.5
4	Tordon 50-D	20 l/ha	17.0	0	100.0
5	Triclopyr	5 l/ha	12.7	8.7	31.5
6	Triclopyr	10 l/ha	20.7	14.7	29.0
7	Triclopyr	20 l/ha	19.0	8.7	54.2
8	Tordon 5-20	5 l/ha	16.7	2.7	83.8
9	Tordon 5-20	10 l/ha	27.7	1.3	95.3
10	Tordon 5-20	20 l/ha	13.0	0	100.0
11	Krenite	5 l/ha	15.0	15.3	- 2.0
12	Krenite	10 l/ha	18.7	15.3	18.2
13	Krenite	15 l/ha	15.6	13.3	14.7
14	Velpar	5 kg/ha	15.6	8.3	46.8
15	Velpar	10 kg/ha	17.0	6.3	52.9
16	Velpar	15 kg/ha	20.7	10.0	51.7
17	Trysben 200	18.5 kg/ha	18.0	15.7	12.8
18	Trysben 200	37.0 kg/ha	18.7	2.6	86.1
19	Trysben 200	74.0 kg/ha	21.0	0.7	96.7
20	Spike	3 kg/ha	18.7	9.7	48.1
21	Spike	6 kg/ha	15.3	6.3	58.8
22	Spike	9 kg/ha	10.7	5.3	50.5
23	Roundup	3 l/ha	17.0	17.3	- 1.8
24	Roundup	6 l/ha	21.0	18.7	11.0
25	Roundup	12 l/ha	11.0	12.0	- 9.1
26	Asulox	5 l/ha	20.3	20.0	1.5
27	Asulox	10 l/ha	12.7	12.0	5.5
28	Asulox	15 l/ha	20.7	17.3	16.4
29	Tordon 105	5 l/ha	9.7	4.7	51.5
30	Tordon 105	10 l/ha	16.0	1.0	93.8
31	Tordon 105	20 l/ha	14.3	0	100.0

* Mean of 3 replications

COMMENTS

1. Predictably, the picloram-based herbicides, (Tordon 50-D, Tordon 5-20 and Tordon 105) are significantly better than the other treatments.
2. Trysben 200 is almost as good as the Tordon's particularly at the highest rate, but has recently been taken off the W.A. market.
3. The results from Asulox show that the good result obtained in 76Nal2 was not repeatable, and inexplicable!
4. Roundup has performed extremely poorly. This may be because the ratio of leaf area to ground area in the infestation is low and leads to poor herbicide uptake compared with root absorbed herbicides.
5. Velpar and Spike (soil residual herbicides) may show better results next year after another season's rainfall.

77AL17 : Non-hormone herbicide screening on Blackberry
Property : Torbay
Site : South - facing slope, Red Gums, Jarrah, loam soil, annual and perennial grasses, some native clovers, Blackberry clumps range from small to very large.
Plot Size : 3.56m x 3.56m
Dates : Treatments applied 4/3/77
 Assessments made 5/1/78
Volume of Water: 2000 l/ha (except Tr 3, 4, 9, 10: 200 l/ha)
 Ratings: 0 = Nil Control 5 = 100% Control

No.	Treatment	Rate	Ratings*
1 2	Weedazol TL Plus	20 l/ha 40 l/ha	0 0
3 4	Krenite	5 l/ha 10 l/ha	0.5 2.0
5 6	Velpar	5 kg/ha 10 kg/ha	3.5 4.8
7 8	Erbotan	5 kg/ha 10 kg/ha	0 1.0
9 10	Roundup	6 l/ha 12 l/ha	1.0 3.8
11 12	Hyvar X Hyvar X + Weedazol	20 kg/ha 20 kg + 20 l/ha	0 0
13 14	Spike	6 kg/ha 12 kg/ha	0 0
15	Control	-	0

* Mean of 2 reps and 2 independant ratings

COMMENTS

- Control by Velpar is very good, especially at higher rate.
- Roundup promising - may be more effective at different time of application, or higher volume.
- The other treatments may be more effective next year after more root uptake has occurred.

77AL18 : Herbicide Screening on Blackberry
Property : G. Wright, Kent River
Site : Small to medium sized blackberry clumps on south facing slope: Annual and perennial grasses, Pennyroyal (*Mentha pulegium*): semi-cleared Red Gum forest; gravelly loam.
Plot size : 3.56m x 3.56m
Dates : Treatments applied: 4/3/77
 Assessment made : 6/1/78
Volume of Water : 2000 l/ha (except Tr 11, 12, 13 - 1000 l/ha)

Ratings: 0 = Nil Control 5 = 100% Control

No.	Treatment	Rate	Ratings*
1	2,4,5-T ester	1.5 l/ha	2.0
2		3.0 l/ha	2.0
3	2,4,5-T amine	6.0 l/ha	0.5
4		12.0 l/ha	0.6
5	Triclopyr	10.0 l/ha	3.5
6		20.0 l/ha	4.5
7	Dowco 290	6.0 l/ha	0
8		12.0 l/ha	0.5
9	Tordon 5-20	10.0 l/ha	3.5
10		20.0 l/ha	4.5
11	Diesoline	1000 l/ha	1.0
12	Tordon 255 + Diesol	10 + 1000 l/ha	4.5
13		20 + 1000 l/ha	3.6
14	2,4,5-T ester (L.V.)	3.3 l/ha	3.0
15		6.6 l/ha	2.5

* Mean of 2 reps and 2 independant ratings

COMMENTS

- 2,4,5-T ester/amine (recommended treatments) performed poorly. Commercial sprayings in the area this year confirm this. The reason is not known.
- Triclopyr (Dow; new translocated residual phenoxy herbicide) and Tordon 5-20 gave excellent control and will be further tested on a larger scale.

77B8 : Non-hormone herbicide screening on Blackberry
Property : Balingup
Site : Annual grasses and sub clovers, west facing steep slope with extensive Blackberry infestation.
Plot size : 3.56m x 3.56m
Volume of Water : 2000 l/ha (except Tr 3, 4, 9, 10 - 200 l/ha)
Dates : Treatments applied: 3/3/77
 Assessed : 24/1/78

Ratings: 0 = Nil Control 5 = 100% Control

No.	Treatment	Rate	Ratings*
1 2	Weedazol TL Plus	20 l/ha 40 l/ha	0 1.0
3 4	Krenite	5 l/ha 10 l/ha	0 2.0
5 6	Velpar	5 kg/ha 10 kg/ha	0 4.0
7 8	Erbotan	5 kg/ha 10 kg/ha	0.5 2.5
9 10	Roundup	6 l/ha 12 l/ha	2.5 4.0
11 12	Hyvar X Hyvar X + Weedazol	20 kg/ha 20 kg + 20 l/ha	0.5 0.5
13 14	Spike	6 kg/ha 12 kg/ha	1.0 3.0
15	Control		0

* Mean of 2 replications and 2 independant ratings

COMMENTS

1. Velpar gave good control at high rate only.
2. Roundup promising, especially at high rates.
3. Other treatments may improve next year with greater root uptake.

77B9 : Herbicide Screening on Blackberry
Property : Balingup
Site : Annual grasses and sub clovers. West facing steep slope with extensive Blackberry infestation.
Plot size : 3.50m x 3.56m
Volume of Water : 2000 l/ha (except Tr 11, 12, 13 - 1000l/ha)
Dates : Treatments applied: 2/3/77
 Rated : 24/1/78

Ratings: 0 = Nil Control 5 = 100% Control

No.	Treatment	Rate	Ratings*
1	2,4,5-T ester	1.5 l/ha	1.5
2		3.0 l/ha	3.0
3	2,4,5-T amine	6.0 l/ha	0
4		12.0 l/ha	0
5	Triclopyr	10.0 l/ha	2.5
6		20.0 l/ha	3.5
7	Dowco 290	6.0 l/ha	1.0
8		12.0 l/ha	1.5
9	Tordon 5-20	10.0 l/ha	3.0
10		20.0 l/ha	3.0
11	Dieseline	1000 l/ha	0
12	Tordon 255 + Diesol	10.0 + 1000 l/ha	1.5
13		20.0 + 1000 l/ha	2.0
14	2,4,5-T ester (L.V.)	6.6 l/ha	2.0
15		13.2 l/ha	4.0
16		3.3 l/ha	0

) Not
) Applied

* Mean of 2 replications and 2 independent ratings

COMMENTS

- Control by 2,4,5-T is barely satisfactory except L.V. formation at high rate.
- New ~~DOW~~ herbicides (Triclopyr and Tordon 5-20) are promising and will be further tested.