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SUMMARY OF WEED TRIALS 1975

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CHEMICAL PLOUGHING HERBICIDES TRIAL 1976

Location - Wongan Hills Research Station 76WH98
 Avondale Research Station 76A25

Details - The following treatments were applied on the 21/7/76 during a fairly dry spell. Cultivation was poorly performed 5 days after spraying and definite strips of unturned soil were evident.

Weeds present in 76WH98 were clover 15%; flatweeds 20%; ryegrass 25%; Brome 20%; in 76A25 clover 20%; flatweeds 20%; ryegrass 30%.

Weeds present at Avondale included Sub clover, Ryegrass, Capeweed and Brodiaea.

Treatment	VISUAL ESTIMATES % WEED CONTROL		
	To August '76		13/10/76
	WONGAN	AVONDALE	
Roundup 340 ml/ha.	70	75	Both trials showed that the two high rates of Roundup were still best, with the Weedazol and Sprayseed treatments not being as effective but better than the other treatments.
" 680 ml/ha.	80	85	
" 1000 ml/ha.	95	90	
" 1300 ml/ha.	95	95	
Weedazol TL Plus 3 l/ha.	Grass still dying	Grass still dying	
Sprayseed 1.4 l/ha.	90	90	
Nil			

Comments

Roundup is leaf absorbed, highly effective against annual weeds and perennial grasses and had practically no residual effect. At about \$18 per litre it is too costly for chemical ploughing, the price could drop if a large market developed.

SOWING SYSTEMS PRELIMINARY TRIAL(1) 1976

- Location - M Brown Narrogin N
 T Kettle Kendenup K
 J Ericson Bolgart B
- Seeding - All treatments sown on same date at each site
- Spraying - 10 days before sowing Tr. 4 sprayed 1.2 l sprayseed/ha.
 5 days before sowing Tr. 2 sprayed 1.2 l sprayseed/ha.
 1 day before sowing Tr. 4 sprayed 0.8 l sprayseed/ha.
- Details - The cultivation with treatment 3 was carried out at the same time as ploughing for treatment 1.
- Results -

Treatment	Ryegrass counts per M ²			Yield Kg/ha.		
	N	K	B	N	K	B
1. Conv. Plough, Sc, Seed	198	469	128	910	1650	1648
2. Spray Seed	192	244	129	907	320	1483
3. Cultivate+TDD	165	436	127	818	1452	1445
4. TDD	72	113	188	1010	707	1089

Sc = scarify TDD = triple disc drill

Tr 2 was not planted correctly at Kendenup large clods resulting and a poor wheat germination

Tr 4 was not satisfactory at Kendenup and Bolgart. Planting was too shallow and the slots did not close.

Continued overleaf..

Conclusion

It is necessary to acquire skill in using new techniques and different machines.

All treatments at the Narrogin site looked satisfactory from the commencement of the trial.

SOWING SYSTEMS - PRELIMINARY TRIAL(2) 1976

Location - A DeRusso Hyden
Esperance Research Station

Seeding - All treatments planted on the same day.

Details - Crop at Hyden affected by rust late in season. Some treatments affected more than others because of possible maturity differences.

The cultivation for treatment 3 was at the same time as treatment 1.

Results -

Treatment	Weed Counts per sq. m. (Hyden)		Yield Kg/ha.	
	Ryegrass	Mustard	Hyden	Esperance
1. Plough, Sc, Seed	123	110	1133	1713
2. Spray Seed	188	179	609	1002
3. Scarify, TDD	87	151	1130	1926
4. TDD - 2 sprays	81	241	780	1217
5. TDD - 1 spray	31	165	574	1464

Conclusions Some ryegrass seed germinates after each cultivation. In the case of treatments 3-5 no soil disturbance occurred after the weeds had been killed by spraying. The additional cultivation with the TDD has increased the yield at both sites.

HERBICIDES FOR WILD OAT CONTROL

DISTRICT OFFICE DEMONSTRATION TRIAL

- Location - Katanning
Northam
Moora
- Details - Katanning treatments 1,2 and 3 applied in 4 leaf stage 4 and 5 applied in early tillering

Northam all treatments applied in 4 leaf stage

Moora treatments 1,2 and 3 applied in 4 leaf stage 4 and 5 applied in early tillering
- Results - At harvesting all herbicides had given excellent control of wild oats, except where mishaps occurred..

Treatments per ha.	SITE/YIELD Kg/Ha.		
	Katanning	Northam	Moora
1. H23408 3l	2731	1880	1870
2. " 2l+wetter	2699	-	1769
3. Avenge 1.2 kg	2620	1062	1064
4. Mataven 3l	2223	742	1435
5. " 2.5 l	2220	827(41)	1445
6. Nil	1112	602	1240

Note Katanning - some grain spilled tr 3 hence lower yield.

Moora - tr 2 applied without wetting agent
Two reps. of tr 5 not sprayed at all.

Conclusion Applications not always made at correct growth stage. H23408 best treatment and can be applied in 2-3 leaf stage. Avenge will be recommended for use at 3-4 leaf stage and Mataven will be recommended by Shell for use at 5 leaf stage into the tillering stage.

WHEAT TOLERANCE - HERBICIDES 1976

Location - Wongan Hills Research Station 76WH100

Details - The following treatments were applied to wheat crop (EGRET) on the 21/7/76. The site was exceptionally clear of weeds and the crop was in the 2-3 leaf stage.

Treatment	Yield Kilo/ha.
1. Amidi 1l	1450
2. " 1.4l	1531
3. Buckshot 1.0l	1829
4. " 1.4l	1897
5. Tribunil D 850gm	1788
6. " 1.2 kilo	1897
7. 2.4 Damine 500 ml	1355
8. " 1.0l	1192
9. Banex 350ml	2398
10. " 700ml	1869
11. Nil	1992

Comments

Malformed heads were present on all treatments except the last three. The 2,4-D treatments caused the most damage followed by Amidi. The spray damage was accentuated by the poor growing conditions at the time of spraying. The same treatments used in other districts did not cause similar damage.

NEW HERBICIDES FOR BROADLEAVED WEEDS

Location - Ron Adams
Beverley
Experiment 76A24

Details - The following treatments were applied on
the 28/7/76.

The wheat was in the early tillering stage.

Treatment		Rates/ha.	Yield/ha. Mean of 3 Reps
Tribunil D	1	850 gms/ha.	3877
Amidi	2	1 l/ha.	3691
Buckshot	3	1 l/ha.	3938
Igran	4	550 gms/ha.	3910
2.4.D. Amine	5	700 mls/ha.	3738
Linuron 50	6	550 gms/ha.	3537
Buctril M	7	1.4 l/ha.	4034
Banex	8	700 ml/ha.	3611
Dosaanex	9	170 gms/ha.	3769
Igran +2.4.D Amine	10	400+500 mls/ha.	3639
Nil	11	Nil	3802

Visual estimates on the 13/10/76 showed that Buctril M had best weed kills and the crop was unaffected. Banex and Igran showed worst control and Radish was quite prevelant!

Comments

Herbicides should have been applied in the three leaf stage. This may have given a yield increase with more treatments. Radish was the main weed and was not very thick.