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Title Reduction Soursob twelve months after treatment in cereal crops.

Officer J.R. Peirce

Location Greenough

Treatments Linuron, Diuron, Tribunil at 1.5 - 2.5, 5 leaf and tillering stage of cereal. Applied during 1974 growing season.

Cereal Gamanya wheat

Assessment Plant counts 29th April 1975 in pasture.

Soursob Common short-style

TREATMENT		SOURSOB PLANTS/M ²		
		1.5-2.5 leaves	5 leaves	Tillering
Linuron	1 kg/ha	88	77	39
"	2 kg/ha	59	59	26
"	3 kg/ha	29	48	30
Tribunil	1 kg/ha	125	155	57
"	2 kg/ha	118	101	67
"	3 kg/ha	110	69	27
Diuron	1 kg/ha	84	58	41
"	2 kg/ha	42	49	48
"	3 kg/ha	16	31	26
Nil		198		

Mean 3 replications

Title Reduction Soursob twelve months after treatment in cereal crops.

Officer J.R. Peirce

Location Dangin

Treatments Diurex 80, Cereal Diurex 80 and Dosanex applied at 1.5 - 2.5 leaf stage of cereal.

Cereal Gamenya wheat

Assessment Plant counts May 1975 in pasture.

Soursob Mid-style

TREATMENTS		SOURSOP PLANT COUNTS/M ²
1) Diurex 80	1.0 kg/ha	334
2) "	1.5 kg/ha	149
3) "	2.0 kg/ha	102
4) "	3.0 kg/ha	34
5) Cereal Diurex 80	1.0 kg/ha	336
6) "	1.5 kg/ha	279
7) "	2.0 kg/ha	124
8) "	3.0 kg/ha	47
9) Dosanex	2.0 kg/ha	407
10) "	3.0 kg/ha	215
11) "	4.0 kg/ha	203
12) "	6.0 kg/ha	165
13) Nil		1235

Mean 3 replications

Title Effect of nozzle size and pressure of spray application of diuron on tolerance of cereal crop.

Officer J.R. Peirce

Location Greenough - Midstyle variety
Northam - Common short-style variety

Application 1.5 kg diuron/ha in volume of 110 litres/ha of water.
Greenough 4th July 1975
Northam 27th June 1975

Cereal Crop Gamenya wheat

Assessment Grain yields kg/plot
Geraldton 1.22m x 40m
Northam 1.83m x 40m

		YIELDS KG/PLOT	
		GERALDTON	NORTHAM
<u>NOZZLE</u>	<u>PRESSURE</u>		
1 M20	208 kPa	5.60	14.89
2 "	415 kPa	5.84	14.74
3 M32	208 kPa	5.78	15.06
4 "	415 kPa	6.35	15.24
5 M39	203 kPa	6.18	16.04
6 "	415 kPa	6.35	14.71
7 M46	208 kPa	6.24	14.63
8 "	415 kPa	5.98	14.88
9 Nil		5.95	9.81

Mean 4 replications

Comment

There does not appear to be any great difference in crop tolerance by increasing nozzle size or output pressure.

Title Soursob control in Cereals.
Officer J.R. Peirce
Location Dangin - Midstyle variety of soursob
Application Linuron, Tribunil, and diuron at 1,2 & 3 kg/ha
at 1.5 - 2.5 leaf stage of cereal. Volume of
water = 110 litres/ha.
Variety Gamenya wheat
Assessment Grain yeilds kg/plot

TREATMENT		YIELDS KG/PLOT
Diuron	1 kg/ha	5.50
"	2 kg/ha	2.16
"	3 kg/ha	1.22
Linuron	1 kg/ha	5.56
"	2 kg/ha	5.05
"	3 kg/ha	4.48
Tribunil	1 kg/ha	5.95
"	2 kg/ha	5.61
"	3 kg/ha	5.84
CGA 18731	1.68* kg/ha	6.35
Nil		6.18

Mean of 4 replications

* Mean of 2 replications

Comment

With the exception of CGA 18731 all chemicals, especially high rates of diuron depressed the cereal yield.

CGA 18731 warrants further testing if sufficient quantities become available.

Title . Chemical Control of Soursob in Cereals.
Officer J.R. Peirce
Location Wagin - Midstyled variety of soursob.
Application Diuron at 1,2 & 3 kg/ha at 1.5 - 2.5 leaf stage of cereal crop.
Variety Gamenya wheat.
Assessment Grain yields kg/plot

TREATMENT	GRAIN YIELDS KG/PLOT
1 Diuron 1 kg/ha	11.06
2 Diuron 2 kg/ha	9.59
3 Diuron 3 kg/ha	8.68
4 Nil	11.29

Title Bulk crop spraying using diuron through "Computer spray".

Officer J.R. Peirce

Location Wagin, Northam, Dangin

Application Diuron at 1.5 kg/ha in 100 litres water per hectare. Applied at 1.5 - 2.5 leaf stage of cereal crop.

Soursob Variety Location Cereal	Hand harvested kg/1m x 1 row *		Bulk harvesting kg/ha		
	Mid	Short	Short	Mid	
	Dangin G. Wheat	Northam D. Barley	Wagin G. Wheat	Warup G. Wheat B. Wheat	
<u>Treatments</u>					
Diuron 1.5 kg/ha	48.32	69.74	1,950	2,152	3,734
Nil	44.15	43.21	1,547	2,216	3,418

* Twenty samples/treatment

G = Gamenya
D = Dampier
B = Bokal

Comment

Grain yields from diuron treated areas having the mid-style form of soursob, show little if any increase over the untreated areas.

Title Chemical Control of Matricaria (Pentzia suffruticosa).

Officer J.R. Peirce

Location Mt Monger Station - Kalgoorlie

Application Brominil M and Paraquat at 1,2,3 & 4 litres per hectare, in three volumes of water 150, 300 & 600 litres/hectare, at three times of spraying; 28th April, 4th June and 17th July.

Assessment Visual Rating

Table XI

Comment

Moisture stress to plants affected control at 2nd time of spraying.

Four litres of Paraquat or Brominil M were the only rates to give some measure of control.

Results Table XI

Treatment	Rate l/ha	Volume Water l/ha	% Control		
			1st Time Spraying	2nd Time Spraying	3rd Time Spraying
1 Paraquat	1	150	20	16	18
2	1	300	35	27	28
3	1	600	35	27	41
4	2	150	45	20	32
5	2	300	45	27	59
6	2	600	65	36	54
7	3	150	65	58	47
8	3	300	57	53	56
9	3	600	60	57	71
10	4	150	70	77	72
11	4	300	70	49	72
12	4	600	82	57	63
13 Brominil M	1	150	7	1	3
14	1	300	14	7	20
15	1	600	16	10	51
16	2	150	20	24	24
17	2	300	57	20	34
18	2	600	52	4	42
19	3	150	40	24	33
20	3	300	40	32	44
21	3	600	70	20	70
22	4	150	74	24	52
23	4	300	60	27	80
24	4	600	74	41	53
25 No Treatment			1	20	2

Time of spraying

1. 28/4/75
2. 4/6/75
3. 17/7/75

Title Germination of 1 leafed Cape Tulip seed collected from plants treated with 2l/ha 50% 2,4-D amine in combination with various dilutions of 2 wetting agents.

Officer J.R. Peirce

Location Wagin

Application Late flowering stage of Cape Tulip.

Assessment Germination percentage 2 x 100 seeds per replication, two replications/treatment.

TREATMENT	DILUTION IN WATER	GERMINATION PERCENTAGE
1. Agral	1: 10,000	95
2. Agral	1: 5,000	95.5
3. Agral	1: 2,000	93.5
4. Agral	1: 1,000	96
5. Agral	1: 500	95.5
6. Agral	1: 250	96
7. 23CX	1: 10,000	94
8. 23CX	1: 5,000	92
9. 23CX	1: 2,000	96.5
10. 23CX	1: 1,000	89
11. 23CX	1: 500	97.5
12. 23CX	1: 250	96
13. Nil		97

Comment

Late spraying of one-leafed with 2l/ha 50% 2,4-D amine does not decrease the viability of seed.

Title Ryegrass control in Cereals.
Officer J.R. Peirce
Location Quairading
Application Diuron at 1,2,3 kg/ha and CGA 18731 at 1.68 kg/ha. Volume of water 110 litres/ha.
Assessment Visual ratings of ryegrass control and grain yields at crop maturity, 1.83m x 20m plots.
Cereal Oats

Treatments	Grain Yields kg/plot	Percentage Control of ryegrass
1. Diuron 1 kg/ha	1.81	9
2. Diuron 2 kg/ha	2.69	78
3. Diuron 3 kg/ha	2.55	94
4. CGA-18731* 1.68 kg/ha	2.95	73
5. Nil	1.81	0

* Mean 2 replications Treatment 1,2,3 & 5
Mean of 4 replications

Comment

Higher rates of diuron appeared to cause some crop damage. CGA-18731 warrants further testing.