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POST EMERGENCE WEED CONTROL IN LUPINS

TRIAL NUMBER: 87WH56/3965 EX

LOCATION: WONGAN HILLS RESEARCH STATION

OFFICERS: GILBEY

OBJECTIVE: To study the effect of post emergence herbicides on lupins and weeds

CROP VARIETY: 261 - Gundaroo

SEEDING: 13.5.87 at 100 kg/ha with Plain Super at 50 kg/ha

SITE PREPARATION: 13.5.87 sprayed with Sprayseed 200 at 1.5 L/ha

SITE DESCRIPTION: Yellow loamy sand

SPRAYING DETAILS: 13.5.87 Treatments 2-16 were sprayed IBS
30.6.87 Treatments 3-15 were sprayed PE
lupins 4-6 leaf, doublegee 4 leaf
radish 2 leaf, capeweed 4 leaf,
brome grass Z14/27, rye grass Z12-Z14

ASSESSMENTS: Visual rating 3.8.87, 14.10.87
Plant counts 17.8.87
Harvest 12.11.87

RATING SCALE (WEEDS): 0 = no effect
1 = 0 - 25% control
2 = 25 - 50% control
3 = 50 - 75% control
4 = 75 - 98% control
5 = 98 - 100% control
6 = 100% control

RATING SCALE (LUPINS): 0 = no effect
1 = slight effect
2 = moderate effect
3 = severe effect

WEEDS PRESENT IN CROP: Doublegee, radish, capeweed, turnip, brome grass, rye grass, wheat - heavy rye and brome grass infestation.

IBS = Immediately before seeding
PE = Post-emergence

Figures in tables followed by the same letter do not differ significantly (P = 0.05) using Duncans Multiple Range Test.

Table 1. Effect of herbicides on weeds

Treatment/ha	Visual rating			ARG heads/ m ²
	3.8.87*	14.10.87 ARG	Radish	
1. Nil	000	000	000	133 a
2. Simazine 1½ L IBS	000	300	330	131 a
3. Simazine 1½ L IBS + Brodal 100 ml + Fusilade 250 ml PE + wetter	444	555	666	29 d
4. Simazine 1½ L IBS + Brodal 150 ml + Fusilade 250 ml PE + wetter	443	444	666	39 cd
5. Simazine 1½ L IBS + Brodal 200 ml + Fusilade 250 ml PE + wetter	444	555	666	22 d
6. Simazine 1½ L IBS + Brodal 100 PE	000	300	655	117 a
7. Simazine 1½ L IBS + Brodal 200 PE	020	000	666	105 ab
8. Simazine 1½ L IBS + Fusilade 250 ml PE + wetter	445	555	050	15 d
9. Simazine 1½ L IBS + Bladex 2L PE	444	202	666	93 ab
10. Simazine 1½ L IBS + Metribuzin 200 gm PE	230	032	566	89 abc
11. Simazine 1½ L IBS + Atrazine ¾ L PE	320	002	636	112 a
12. Simazine 1½ L IBS + Stomp 1 L PE	120	032	522	83 abc
13. Simazine 1½ L IBS + Stomp 2 L PE	100	032	602	125 a
14. Simazine 1½ L IBS + Stomp 3 L PE	020	230	553	105 ab
15. Simazine 1½ L IBS + Simazine ¾ L PE	020	330	663	105 ab
16. Black Swan TSF 8701 3 L IBS	412	435	000	53 bcd

* Weed ratings are mainly on grass control because broadleaf weeds were low in number.

Table 2. Effect of herbicides on lupins

Treatment/ha	Visual rating		Lupins /m ²	Grain yield kg/ha
	3.8.87	14.10.87		
1. Nil	000	000	53 a	661 ef
2. Simazine 1½ L IBS	000	011	56 a	1214 cd
3. Simazine 1½ L IBS + Brodal 100 ml + Fusilade 250 ml PE + wetter	000	100	62 a	1911 a
4. Simazine 1½ L IBS + Brodal 150 ml + Fusilade 250 ml PE + wetter	000	000	58 a	1607 abe
5. Simazine 1½ L IBS + Brodal 200 ml + Fusilade 250 ml PE + wetter	000	000	52 a	1726 ab
6. Simazine 1½ L IBS + Brodal 100 PE	000	101	57 a	1310 bcd
7. Simazine 1½ L IBS + Brodal 200 PE	000	000	56 a	1250 cd
8. Simazine 1½ L IBS + Fusilade 250 ml PE + wetter	000	100	62 a	1565 abc
9. Simazine 1½ L IBS + Bladex 2L PE	333	333	23 b	435 f
10. Simazine 1½ L IBS + Metribuzin 200 gm PE	102	212	60 a	1220 cd
11. Simazine 1½ L IBS + Atrazine ¾ L PE	212	122	52 a	982 de
12. Simazine 1½ L IBS + Stomp 1 L PE	000	111	55 a	1185 cd
13. Simazine 1½ L IBS + Stomp 2 L PE	000	101	54 a	1250 cd
14. Simazine 1½ L IBS + Stomp 3 L PE	000	211	58 a	1298 bcd
15. Simazine 1½ L IBS + Simazine ¾ L PE	000	102	56 a	1327 bcd
16. Black Swan TSF 8701 3 L IBS	000	000	58 a	1583 abc

COMMENTS:

Annual rye grass and brome grass were the main competitive weeds on this site. Fusilade was the only herbicide to substantially reduce the grass weed population. Highest grain yields were achieved where Fusilade was applied.

This data demonstrates that a tank mixture of Brodal and Fusilade applied post emergence has achieved good control of radish and grass weeds and consequently, the highest grain yields.

POST EMERGENCE WEED CONTROL IN LUPINS

TRIAL NUMBER: 87WH65/3965 EX

LOCATION: WONGAN HILLS RESEARCH STATION

OFFICERS: GILBEY

OBJECTIVE: To study the effect of post emergence herbicides on lupins and weeds

CROP VARIETY: Yandee

SEEDING: 14.5.87 at 100 kg/ha with Plain Super at 50 kg/ha

SITE DESCRIPTION: Yellow loamy sand

SPRAYING DETAILS: 14.5.87 all treatments were sprayed with Simazine 2 L/ha
30.6.87 Treatments 3-15 were sprayed PE
Lupins 4-6 leaf, doublegee 4 leaf,
radish 2 leaf, capeweed 4 leaf,
brome grass Z14/27, rye grass Z12-Z14

ASSESSMENTS: Visual rating 31.8.87, 14.10.87
Plant counts 17.8.87
Harvest 12.11.87

RATING SCALE (WEEDS): 0 = no effect
1 = 0 - 25% control
2 = 25 - 50% control
3 = 50 - 75% control
4 = 75 - 98% control
5 = 98 - 100% control
6 = 100% control

RATING SCALE (LUPINS): 0 = no effect
1 = slight effect
2 = moderate effect
3 = severe effect

WEEDS PRESENT IN CROP: Doublegee, radish, capeweed, brome grass, rye grass and wild oats

IBS = Immediately before seeding

PE = Post-emergence

Figures in tables followed by the same letter do not differ significantly (P = 0.05) using Duncans Multiple Range Test.

Table 1. Effect of herbicides on weeds

Treatment/ha	Visual rating					Plants/m ²		Heads /m ² ARG
	31.8.87 Radish	D'gee	Grass	14.10.87 Radish	ARG	Radish	Doublegee	
1. Simazine 2 L IBS	000	000	000	000	000	1	7 a	214 a
2. Simazine 2 L IBS + Brodal 100 ml + Fusilade 250 ml PE + wetter	666	000	444	566	455	0	4 abcd	64 b
3. Simazine 2 L IBS + Brodal 150 ml + Fusilade 250 ml PE + wetter	666	000	444	666	455	0	3 bcde	65 b
4. Simazine 2 L IBS + Brodal 200 ml + Fusilade 250 ml PE + wetter	666	000	444	566	655	0	3 bcde	56 b
5. Simazine 2 L IBS + Brodal 100 ml	465	000	000	363	000	0	3 bcde	206 a
6. Simazine 2 L IBS + Brodal 200 ml	566	000	000	666	000	0	3 bcde	220 a
7. Simazine 2 L IBS + Fusilade 250 ml PE + wetter	000	000	644	000	455	0	5 ab	48 b
8. Simazine 2 L IBS + Bladex 2 L PE	666	666	442	066	000	0	0 e	199 a
9. Simazine 2 L IBS + Metribuzin 200 gm PE	666	544	300	664	202	0	1 cde	191 a
10. Simazine 2 L IBS + Atrazine ¾ L PE	446	634	400	332	202	0	1 de	203 a
11. Simazine 2 L IBS + Stomp 1 L PE	050	000	000	030	000	0	5 abc	206 a
12. Simazine 2 L IBS + Stomp 2 L PE	063	000	000	050	000	1	4 abcd	192 a
13. Simazine 2 L IBS + Stomp 3 L PE	556	000	000	030	000	0	5 ab	229 a
14. Simazine 2 L IBS + Simazine ¾ L PE	335	300	000	353	203	0	2 bcde	213 a

Table 1 continued ...

Treatment/ha	Visual rating				Plants/m ²		Weeds	
	31.8.87		14.10.87		Radish	Doublegee	/m ²	ARG
	Radish	D'gee	Grass	Radish				
15. Simazine 2 L IBS + Sim 500 ml + Brodal 150 ml (FR1547 - ¼ L) PE	666	000	000	666	000	0	2 bcde	213 a
16. Simazine 2 L IBS + Sim 667 ml + Brodal 200 ml (FR1547 - 1 L) PE	666	464	000	666	000	0	0 e	194 a
						NS		

Table 2. Effect of herbicide on lupins

Treatment/ha	Visual rating		Lupins/m ²	Grain yield kg/ha
	31.8.87	14.10.87		
1. Simazine 2 L IBS	000	110	44 abc	490 cde
2. Simazine 2 L IBS + Brodal 100 ml + Fusilade 250 ml PE + wetter	000	000	46 abc	790 a
3. Simazine 2 L IBS + Brodal 150 ml + Fusilade 250 ml PE + wetter	000	000	49 a	762 ab
4. Simazine 2 L IBS + Brodal 200 ml + Fusilade 250 ml PE + wetter	000	000	50 a	833 a
5. Simazine 2 L IBS + Brodal 100 ml	000	110	48 ab	643 abcd
6. Simazine 2 L IBS + Brodal 200 ml	000	101	50 a	443 def
7. Simazine 2 L IBS + Fusilade 250 ml PE + wetter	000	000	48 ab	662 abc
8. Simazine 2 L IBS + Bladex 2 L PE	333	333	16 e	71 g
9. Simazine 2 L IBS + Metribuzin 200 gm PE	222	332	38 d	252 fg
10. Simazine 2 L IBS + Atrazine $\frac{3}{4}$ L PE	222	233	40 cd	248 fg
11. Simazine 2 L IBS + Stomp 1 L PE	000	110	46 ab	486 cde
12. Simazine 2 L IBS + Stomp 2 L PE	000	101	45 abc	462 cde
13. Simazine 2 L IBS + Stomp 3 L PE	000	110	49 a	390 cf
14. Simazine 2 L IBS + Simazine $\frac{3}{4}$ L PE	000	110	43 bcd	476 cde
15. Simazine 2 L IBS + Sim 500 ml + Brodal 150 ml (FR1547 - $\frac{3}{4}$ L) PE	000	121	45 abc	462 cde

Table 2 continued ...

Treatment/ha	Visual rating		Lupins/m ²	Grain yield kg/ha
	31.8.87	14.10.87		
16. Simazine 2 L IBS + Sim 667 ml + Brodal 200 ml (FR1547 - 1 L) PE	100	201	50 a	586 bcde

COMMENTS:

Simazine, Brodal, Fusilade combinations were the only herbicides that controlled all weeds sufficiently to increase grain yields.