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FABA BEANS, CHICK PEAS, LENTILS AND VETCH
HERBICIDE EFFICACY

TRIAL NUMBER: 87KA82/3250 EX

LOCATION: M. LADYMAN, PUNCHMIRUP

OFFICERS: GILBEY, WALTON, WARREN

OBJECTIVE: To study the effect of several herbicides on weeds,
Faba bean, vetch, lentils and chick peas

CROP VARIETY: Faba bean - FIORD
Vetch - LANGUEDOC
Lentil - LAIRD
Chick pea - AMETHYST

SEEDING: 25.6.87 Faba bean - 150 kg/ha
Vetch - 30 kg/ha
Lentil - 40 kg/ha
Chick peas - 80 kg/ha

with 143 kg/ha Super Cu, Zn, Mo

SITE PREPARATION:

SITE DESCRIPTION: Gravelly, sandy loam

X SPRAYING DETAILS: 17 11.6.87 Treatments 2-9 were sprayed IBS
5.8.87 Treatments 10-17 were sprayed PE
All crops were 4-6 node stage

ASSESSMENTS: Visual rating 2.9.87 & 13.10.87
Plant counts 2.9.87
Harvest Vetch 13.11.87
Chick peas) 10.12.87
Faba bean)

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 (CROP): 0 = no effect
1 = slight effect
2 = moderate effect
3 = severe effect

WEEDS PRESENT IN CROP: Capeweed geranium, and fumitory

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 vetch and lentil

Treatment/ha	Vetch			Lentil	
	Visual rating 2.9.87	Visual rating 13.10.87	Grain yield kg/ha	Visual rating 2.9.87	Visual rating 13.10.87
1. Nil	00	00	510 abcd	00	00
2. Simazine 2 L IBS	12	00	479 abcd	11	11
3. Simazine 4 L IBS	22	10	377 bcde	22	21
4. Diuron 2 L IBS	10	00	795 a	00	00
5. Diuron 4 L IBS	30	00	345 bcde	01	01
6. Metribuzin 400 gm IBS	22	00	323 cde	21	11
7. Metribuzin 800 gm IBS	33	32	207 de	22	22
8. Bladex 1 L IBS	00	00	598 abc	00	00
9. Bladex 2 L IBS	01	00	649 ab	00	00
10. Stomp 1½ L IBS <i>P₀</i>	02	00	491 abcd	00	00
11. Stomp 3 L IBS <i>P₀</i>	21	00	204 de	10	10
12. Brodal 200 ml PO	22	10	315 cde	11	00
13. Brodal 400 ml PO	32	21	85 e	11	00
14. Tribunil 850 gm PO	12	02	302 cde	00	00
15. Tribunil 1700 gm PO	33	12	121 e	01	10
16. Igran 850 ml PO	X1	00	204 de	01	0X
17. Igran 1700 ml PO	33	23	111 e	21	10

x = plot not sown.

Table 2. Effect of herbicides on chickpea and faba bean

Treatment/ha	Chick pea			Faba bean		
	Visual rating 2.9.87 13.10.87		Grain yield kg/ha	Visual rating 2.9.87 13.10.87		Grain yield kg/ha
1. Nil	00	00	386 de	00	00	396 bcd
2. Simazine 2 L IBS	11	00	605 abcd	00	00	549 ab
3. Simazine 4 L IBS	11	01	541 abcd	11	00	471 abcd
4. Diuron 2 L IBS	00	00	713 abcd	01	00	491 abc
5. Diuron 4 L IBS	11	00	824 a	11	00	483 abcd
6. Metribuzin 400 gm IBS	10	00	798 ab	01	00	633 a
7. Metribuzin 800 gm IBS	12	00	747 abc	11	00	526 abc
8. Bladex 1 L IBS	00	00	584 abcd	00	00	468 abcd
9. Bladex 2 L IBS	00	00	642 abcd	00	00	471 abcd
10. Stomp 1½ L IBS <i>PC</i>	01	00	570 abcd	00	00	540 abc
11. Stomp 3 L IBS <i>PC</i>	22	10	420 cd	11	00	552 ab
12. Brodal 200 ml PO	32	22	392 de	11	11	279 def
13. Brodal 400 ml PO	33	33	99 e	22	12	126 f
14. Tribunil 850 gm PO	11	10	504 abcd	1X	11	337 cde
15. Tribunil 1700 gm PO	22	12	507 abcd	22	01	247 def
16. Igran 850 ml PO	2X	01	579 bcd	23	2X	242 ef
17 Igran 1700 ml PO	33	12	430 cd	23	33	95 f

x = plot not sown.

COMMENTS:

Vetch. Bladex was the only product that did not cause early crop damage. By mid October Simazine, Diuron, Bladex and Stomp showed no visual damage.

The highest yielding vetches were sprayed with 2 L diuron, 1-2 L Bladex, 1½ L Stomp or 2 L Simazine.
~~METRIBUZIN~~ Brodal, Tribunil and Igran all caused crop damage.

Lentil. Diuron, Bladex, Stomp and Tribunil caused no more than slight crop damage. Brodal caused slight crop damage to young plants which recovered by mid October.

Chickpea. Diuron, Bladex, caused no more than slight crop damage. By mid October the crop had recovered from early slight/moderate damage by Simazine, Metribuzin and Stomp.

The highest yielding chickpeas were sprayed with Diuron, Metribuzin, Bladex, Simazine or Tribunil. Brodal caused crop damage.

Faba bean. Simazine, Diuron, Metribuzin, Bladex, Stomp caused no more than slight crop damage. All faba beans sprayed with pre-emergence herbicides were highest yielding. Brodal and Igran reduced grain yield.

Overall Bladex was the best herbicide for all crops.

Although weed numbers were too low to count on this site, a visual assessment showed that all herbicides achieved satisfactory weed control. None of the herbicides reduced crop plant numbers in any of the crop species.