

Radish control in broadleaf lupins (Albus type)

SUMMARY

Post sowing pre-emergent and early post emergent herbicide applications all reduced radish numbers but not sufficiently to be commercially acceptable. High rates of triazines were more effective in controlling radish and were quite well tolerated by the broadleaf lupins in this trial. For effective control of radish in lupins, a post sowing application of triazine followed by a post emergent application of either Brodal or Eclipse is required.

Wild radish is becoming a common and difficult weed to control. Broadleaf lupins are thought to be less tolerant to the triazine herbicides compared to the narrow leaf varieties. This trial investigates which herbicides have good activity on radish whilst minimising damage to broadleaf lupins.

METHOD

Seven herbicide mixes were investigated. Lupins were sown May 17. All treatments were replicated three times in randomised blocks. Post sowing pre-emergent applications were applied within ten days of sowing on a moist soil, good rains followed within 1 week of herbicide application. Early post emergent applications were applied six weeks after emergence, rain was patchy and below average for the following two months. At the time of post-emergent application radish plants were between seven and 20cm in size. Radish counts and crop scores were done five weeks after the post emergent herbicide application. Each treatment was located adjacent to a control (no herbicide). The controls were used for assessing crop effect of the herbicide. The controls were not harvested due to a very high radish population.

RESULTS

Table 2.10. The effect of various herbicide treatments on the control of radish and yield of lupins

Product	Reg. use	Cost \$/ha	Radish plants/m2	% control	Crop effect [#]	Yield t/ha
Control			53	0	1.0	n/a
<i>post sowing pre-emergent</i>						
Simazine 1.5L	R	9.50	37	27	1.8	0.69
Simazine 2.5L	R	15.60	15	66	2.0	0.78
Simazine 1.5L + Atrazine 1L	NR	15.50	11	79	1.7	0.78
<i>early post emergent</i>						
Brodal 0.15L	R	22.50	16	57	2.9	0.65
Brodal 0.09L + Simazine 0.9L	NR	19.00	15	69	2.8	0.60
Eclipse 10g (no wetter)	R	12.50	32	46	2.0	0.62
Eclipse 10g (plus wetter 0.1%)	NR	13.50	19	34	2.2	0.69
Significant difference			P<0.05 LSD=22	P<0.05 LSD=44	P<0.05 LSD=0.8	NS

[#] 1 = no effect, 5 = severe damage, 9 = dead

INTERPRETATION

On a site where the radish population was very high (more than 50 plants per square metre) post sowing pre-emergent and early post emergent treatments did not

control radish to a commercially acceptable level. Simazine at 1.5L did not control radish very well. The early post emergent treatments were similar in efficacy in controlling radish and had the same yield.

Eclipse without the use of a wetter is registered on lupins. Eclipse with wetter is not registered. Eclipse generally has excellent activity on controlling radish, even quite late in the season (when temperatures warm up). The dry conditions following the post emergent application of Brodal and Eclipse resulted in much lower radish control than can normally be expected with these two herbicides.

COMMERCIAL PRACTICE

Simazine and atrazine are well tolerated by narrow leaf lupins and are the products of choice for suppressing radish. In this trial the broadleaf lupins showed good tolerance to the triazines. In heavy radish situations a post emergent application of Brodal or Eclipse will still be required.