

Pre and Post sowing pre-emergent herbicide control of wild radish in wheat and barley

The aim of this trial was to determine the effectiveness of using pre- and post-sowing, pre-emergent herbicides for the control of radish.

Summary

Residual control of herbicides applied before crop emergence was not effective for short to medium term control or suppression of radish. It appears that in-crop control techniques are more effective.

Method

Pre-sowing and post-sowing pre-emergent herbicides were applied to wheat and barley. At the time of spraying no weeds were present. All treatments were replicated three times, all treatments were adjacent to an unsprayed control. The wheat variety was Rosella and the barley variety was Arapiles, both were sown on May 1 with 80kg of MMI (and pre-drilled with 80 kg of Urea).

Results

Yields were low due to the dry season. There were no differences in yield and effectiveness in radish control between the products (Table 2.3).

Table 2.3 Radish plants/m² and grain yield of pre sowing and post sowing pre-emergent treatments

	Cost \$/ha	Radish plants/m ²		Yield t/ha	
		Wheat	Barley	Wheat	Barley
Control		36.1	28.0	0.99	1.92
pre-sowing					
Glean 20g	6.80	30.0		0.93	
Logran 35g	14.30	20.0		1.02	
Eclipse 10g	12.50		30.3		1.99
post sowing pre-emergent					
Diuron 1L	7.75	47.5	17.0	0.95	2.00
Eclipse 10g	12.50		20.3		1.98
Brodal 0.1L	15.00		15.3		2.05
Significant difference		NS	NS	NS	NS

Interpretation

At the time of applying the herbicides there were no radish plants present, all growth occurred following sowing. Residual wild radish control was not effective enough and a follow up herbicide was required to reduce competition and reduce radish seed set. The use of Brodal PSPE is not registered.

Commercial Practice

For effective radish control, in-crop herbicides are more effective than depending on residual pre-sowing herbicides. To reduce seed set, a follow up herbicide is often required. A number of targeted control mechanisms is best, cultivation and knockdown herbicides before sowing, presowing or pre-emergent herbicides followed by none selective herbicides in-crop or late crop. Rotation of herbicides is essential.