

Faba bean tolerance to PRE and POST herbicides

The objective of the study was to evaluate faba bean tolerance to preemergence (PRE) and postemergence (POST) herbicides. ‘Tabasco’ faba bean was planted May 4. PRE and POST herbicides were applied May 5 and June 8, respectively. Soil conditions were very dry for the first five weeks after the PRE application. Only 0.19 and 0.24 inches of rain fell on May 15 and 16, respectively. About 0.34 and 0.72 inches of rain fell on June 9 and June 14, respectively. Overall, we received only about 1/3 of normal rainfall for the season.

None of the PRE herbicides caused any visible crop injury. However, without much rainfall for the first five weeks of the growing season, crop injury risk was reduced. Raptor applied alone POST and Tough caused moderate to severe crop injury. Raptor and Tough reduced plant height 5-7 inches. Raptor and Tough treatments also tended to reduce yield, although yield was quite low and variable due to extremely dry conditions. In contrast, Raptor applied with Basagran caused only slight crop injury.

Table. Faba bean tolerance to herbicides. (1718)											
Treatment	Rate	Timing	Injury				Density	Height		Yield	Test wt.
			Jun-3	Jun-20	Jun-28	Jul-13	May-30	Jun-22	Jul-18	Aug-23	Aug-23
			-----%-----				m of row	-----cm-----		lb/A	lb/bu
Untreated			0	0	0	0	6.8	25.8	55.4	1251	63.9
Sharpen	2 oz	PRE	0	0	0	0	5.8	26.7	53.8	968	63.5
Spartan	4 oz	PRE	0	0	0	0	6.5	25.2	53.6	828	63.5
Spartan + Sharpen	4 oz + 1 oz	PRE	0	0	0	0	6.5	26.6	57.7	1078	63.4
Authority MTZ	12 oz	PRE	0	0	0	0	5.7	25.8	51.5	859	63.3
BroadAxe	25 oz	PRE	0	0	0	0	6.3	27.3	55.3	950	63.3
Metribuzin	0.5 lb	PRE	0	0	0	0	6.1	26.7	53.3	900	63.5
Prowl H2O	3 pt	PRE	0	0	0	0	5.7	26.5	56.1	1045	63.5
Valor	2 oz	PRE	0	0	0	0	6.4	26.8	54.2	1049	63.1
Fierce	3 oz	PRE	0	0	0	0	5.6	23.4	53.0	1045	63.3
Prowl H2O / Basagran ^b	2 pt / 2 pt	PRE / POST	0	4	3	0	6.7	23.5	52.9	974	64.1
Prowl H2O / Raptor ^{ac}	2 pt / 4 oz	PRE / POST	0	37	50	38	6.3	16.8	46.2	845	65.0
Prowl H2O / Basagran + Raptor ^a	2 pt / 1 pt + 4 oz	PRE / POST	0	6	5	6	6.7	24.8	51.0	1012	63.5
Tough	1.5 pt	POST	0	27	28	36	6.4	19.3	46.2	745	64.0
Prowl H2O	1.5 pt	PRE	0	0	0	0	6.8	24.6	52.3	881	63.7
LSD (0.05)			NS	1.9	4.4	4.1	NS	5.0	NS	NS	0.9
CV			0	23.3	45.6	45.6	9.2	12.1	8.4	19.9	0.9
^a Applied with MSO (1.5 pt)											
^b Applied with COC (1.5 pt)											
^c Applied with 28% N (2.5 gal/100 gal)											