## 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. Faba bean was planted on May 4. PRE and POST herbicides were applied May 5 and June 4, respectively. Sharpen, Metribuzin, Valor, Fierce, Raptor, and Tough are not labeled for use in faba bean as of 2018.

Treatments containing Metribuzin caused significant faba bean injury where many plants just turned black and died. We have not observed this Metribuzin injury in previous years, which may be attributed, in part, to the sandy loam soil. Raptor and Tough caused moderate to severe injury. Faba bean in the Raptor treatment recovered more than in previous years. Raptor applied with Basagran caused significantly less crop injury. The yield data in the table are confounded by crop injury as well as weed pressure, primarily lambsquarters. Basagran and Raptor treatments effectively controlled lambsquarters. Spartan-containing products generally provided good lambsquarters control, but had a few escapes. Valor and Fierce provided fair to good control of lambsquarters. Sharpen at 2 oz did not control lambsquarters. Dry soil conditions in May likely hindered activation of soil-applied herbicides.

Table. Faba bean tolerance to PRE and POST herbicides. (1818)								
			Injury			Height	Yield	Test wt.
Treatment	Rate	Timing	Jun-14	Jul-16	Aug-2	Jul-24	Aug-15	Aug-15
			%		-cm-	lb/A	lb/bu	
Untreated			0	0	0	105	937	65.2
Sharpen	2 oz	PRE	0	0	0	104	1379	65.6
Spartan	4 oz	PRE	0	0	0	100	2024	66.0
Spartan + Sharpen	4 oz + 1 fl oz	PRE	0	0	0	104	2305	66.2
Authority MTZ	12 oz	PRE	30	25	26	92	1786	65.8
BroadAxe	25 oz	PRE	0	0	0	98	2553	65.9
Metribuzin	0.5 lb	PRE	60	51	52	88	1260	65.6
Prowl H2O	3 pt	PRE	0	0	0	99	1983	66.0
Valor	2 oz	PRE	0	0	0	106	1806	66.1
Fierce	3 oz	PRE	0	0	0	99	2176	65.9
Prowl H2O / Basagran + COC	2 pt / 2 pt + 1.5 pt	PRE / POST	9	8	8	93	2053	65.6
Prowl H2O / Raptor <sup>a</sup>	2 pt / 4 fl oz	PRE / POST	35	22	24	85	1954	65.4
Prowl H2O / Basagran + Raptor <sup>b</sup>	2 pt / 1 pt + 4 fl oz	PRE / POST	9	6	6	96	2741	66.0
Tough	1.5 pt	POST	65	49	53	83	1063	65.1
LSD (0.05)			6.2	12.0	12.1	11.6	675	0.6
CV							22	
<sup>a</sup> Applied with MSO (1.5 pt) and 28% N (2.5%)								
<sup>b</sup> Applied with MSO (1.5 pt)								