

Chickpea tolerance to experimental herbicides

'B90' chickpea was seeded May 15 at 140 lb/A into 7.5-inch rows into wheat stubble. Glyphosate was applied preplant over the entire study area on May 14. Herbicides treatments were applied preemergence (PRE) on May 18. Individual plots were 10 x 30 ft and replicated three times.

The objective of the study was to evaluate chickpea response to experimental herbicides applied PRE. As of December 2009, Express, KIH-485, and Valor are not labeled for PRE use in chickpea. At the July 25 evaluation, all treatments except Express + Spartan and Valor (2 oz) provided \geq 80% control of redroot pigweed. Treatments including Spartan or Sharpen provided \geq 89% control of lambsquarters, while KIH-485 and Valor provided poor to fair lambsquarters control. Only treatments containing Spartan provided excellent kochia control. Treatment containing Spartan, Sharpen (4 oz), and Valor (3 oz) provided good to excellent wild buckwheat control. No visible chickpea injury was observed in any treatment.

Table. Chickpea tolerance to experimental herbicides (0911).

Treatment ^a	Rate	Rrpw ^b			Colq ^b			Kocz ^b			Wibw ^b	Chickpea ^c	
		Jun 30	Jul 11	Jul 25	Jun 30	Jul 11	Jul 25	Jun 30	Jul 11	Jul 25	Jun 30	Yield	TW
		-----% control-----										lb/A	lb/bu
Untreated		0	0	0	0	0	0	0	0	0	0	1069	60.1
Express + Spartan	0.25 oz + 4.5 fl oz	80	76	77	94	95	94	93	90	90	89	1809	62.1
Sharpen + Spartan	1 fl oz + 4.5 fl oz	84	81	80	98	98	97	99	95	96	95	1908	61.5
Sharpen	4 fl oz	92	88	85	92	89	89	85	77	77	97	2108	61.7
KIH-485	0.15 lb ai	89	89	88	40	40	43	53	50	52	43	1732	61.1
KIH-485	0.3 lb ai	91	91	94	47	62	63	67	63	63	47	1849	59.9
Valor	2 oz	71	78	78	69	62	67	59	62	65	65	1703	61.3
Valor	3 oz	86	85	86	77	74	76	79	72	75	83	2032	61.8
Spartan	4.5 fl oz	84	86	87	95	95	95	95	96	93	95	1967	61.4
Handweeded ^d		100	100	99	100	100	99	100	100	97	100	1855	60.8
LSD (0.05)		10.3	10.9	10.5	15.3	12.4	11.5	12.5	13	10.5	9.6	480	NS
CV		8	8	8	12	10	9	10	11	9	8	16	2

^a All treatments applied PRE

^b Rrpw =Redroot pigweed; Colq =Common lambsquarters; Kocz =Kochia; Wibw =Wild buckwheat

^c No visual chickpea injury was observed in any treatment

^d Prowl H20 (3 pt) was applied PRE to aid handweeding