

Field pea weed control with Sharpen, Carrington, 2010. (Greg Endres and Rick Glatt). The trial was conducted in cooperation with BASF to evaluate weed control and field pea response with soil-applied Sharpen. Experimental design was a randomized complete block with three replicates. The field trial was established on a Heimdal-Emrick loam soil with 3.9% organic matter, 5.9 pH, 38 lb N/A, 10 ppm P, and 187 ppm K. Inoculated 'Midas' field pea was direct-seeded in wheat stubble at 300,000 pls/A in 7-inch rows on May 3. Herbicide treatments were applied with a CO₂-hand-boom plot sprayer delivering 10 gal/A at 35 psi through 8001 flat-fan nozzles. PRE treatments were applied on May 3 with 54 F, 46% RH, 6 mph wind, 85% clear sky, and dry soil surface to 1- inch tall common lambsquarters. Rainfall totaled 0.9 inches during 4 d after application of herbicides. Crop residue measured using the line-transect method was 83% on May 17. Field pea emerged on May 21. Assure II at 7 fl oz/A plus MSO at 1% v/v were applied across the trial except the untreated check on June 2 with 65 F, 41% RH, and 6 mph wind to 3- to 4-inch tall field pea. POST treatment was applied on June 14 with 71 F, 41% RH, 8 mph wind, and 30% clear sky to 5- to 9-inch tall field pea and 1- to 6-inch tall common lambsquarters. The trial was harvested with a plot combine on August 2.

Table.							
			Weed control ¹				Field pea
Herbicide			5/10	5/20	6/25	7/27	Yield
Treatment ²	Rate	Timing ³	Colq	Colq	Colq	Colq	bu/A
	fl oz product/A		%				
Untreated check	x	x	0	0	0	0	19.6
Glyphosate + NIS	32	PRE	52	85	67	0	34.8
Sharpen + glyt	1+32	PRE	90	95	72	40	39.0
Sharpen + glyt	2+32	PRE	98	98	76	55	40.1
Sharpen + glyt	3+32	PRE	98	95	85	57	38.7
Sharpen + Spartan + glyt	1+4.5+32	PRE	96	99	97	98	43.6
Sharpen + Spartan + glyt	2+9+32	PRE	96	99	98	98	51.2
Reflex + glyt + NIS	12+32	PRE	40	70	40	13	47.6
Reflex + glyt + MSO	12+32+0.5%	PRE	57	82	58	27	43.5
Basagran + Raptor	16+2	POST	0	0	68	72	35.1
C.V. (%)			13.3	14.3	9.1	23.8	16.8
LSD (0.05)			14	18	10	19	11.4

¹Colq=Common lambsquarters.

²Glyphosate=Roundup Original (Monsanto); Sharpen=saflufenacil (BASF); NIS=Preference (Winfield Solutions) at 0.25% v/v. All glyphosate tank mixtures include AMS=N-Pak (Agri-Solutions) at 64 fl oz/A. All Sharpen treatments and Basagran + Raptor include tank mixture of MSO=Destiny (Winfield Solutions) at 1% v/v.

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