

POST weed control with bentazon and imazamox tank mixtures in field pea, Carrington, 2010. (Greg Endres and Rick Glatt). The experiment was conducted at the NDSU Carrington Research Extension Center in cooperation with BASF. Experimental design was a randomized complete block with three replicates. Field pea was planted April 30. Herbicide treatments were applied with a hand-held boom sprayer delivering 10 gal/A at 35 psi through 8001 flat fan nozzles to the center 6.7 ft of 10- by 25-ft plots on May 28 with 86 F, 47% RH, 60% clear sky, and 3 mph wind to 2- to 4-inch height field pea, 1- to 3-leaf yellow and green foxtail, and 0.5- to 1.5-inch tall common lambsquarters. Average plant density (ft²) in untreated plots on May 28: field pea=9, foxtail=44, and common lambsquarters=15. The trial was harvested with a plot combine on August 2.

Foxtail control was good to excellent (81-92%) among herbicide treatments with the exception of Basagran (Table). During the latest visual evaluation on July 19 (about 7 wk after application), Raptor, Basagran at 16 and 21.4 fl oz/A plus Raptor, and BAS 762AC H provided excellent (91-92%) control of foxtail. Control of common lambsquarters generally was excellent (88-99%) among treatments. Biomass reduction ranged from 15 to 63% with Raptor and Basagran at 16 and 21.4 fl oz/A plus Raptor, compared to minimal crop response with BAS 762AC H and Basagran at 24 and 28 fl oz/A plus Raptor. While significant crop response occurred with Raptor and Basagran at low rates plus Raptor, seed yield generally was similar among treatments. Yield was reduced due to no grass control with Basagran and was similar to yield of the untreated check.

Table.														
Herbicide		Weed control (%) ¹								Field pea				
Treatment ²		Rate	8-Jun		18-Jun		2-Jul		19-Jul		Biomass reduction (%)		Plant maturity	Seed yield
No.		fl oz product/A	fota	colq	fota	colq	fota	colq	fota	colq	4-Jun	18-Jun	Jday	bu/A
1	untreated check	x	0	0	0	0	0	0	0	0	0	0	196	17.3
2	Raptor	4	85	88	83	95	91	97	91	92	30	63	205	42.6
3	Basagran	24	0	97	0	99	0	99	0	99	8	3	196	24.4
4	Basagran + Raptor	16 + 4	90	99	88	97	84	97	91	97	22	15	201	44.2
5	Basagran + Raptor	21.4 + 4	90	98	89	99	92	99	92	99	25	45	204	47.2
6	BAS 762AC H	24	86	98	83	99	88	98	91	98	2	7	201	46.6
7	Basagran + Raptor	24 + 4	84	98	81	99	81	99	85	99	7	0	200	43.3
8	Basagran + Raptor	28 + 4	85	99	81	97	83	99	86	98	6	0	200	43.1
C.V. (%)			5.4	1.8	5.0	1.8	7.1	1.3	3.4	2.6	17.8	22.6	0.7	12.9
LSD (0.05)			6	3	6	3	8	2	4	4	4	7	2	8.7

¹fota=green and yellow foxtail; colq=common lambsquarters.

²Treatments included COC (Destiny - WinField Solutions) at 1% v/v plus UAN at 2% v/v.