Biennial wormwood control in dry beans (Site 2-2000)

Dry beans (Othello) were planted June 3 into 30-inch rows at 60 lb/A in a conventional tillage system. Individual plots were 10 x 30 ft and replicated three times. Treatments were applied preplant incorporated (PPI) on May 30, preemergence (PRE) on June 6, or postemergence on July 15 (POST 1) or July 21 (POST 2). The primary weed of interest was biennial wormwood (Biww). Kochia (Kocz), redroot pigweed (Rrpw), and common lambsquarters (Colq) were also present. This site was in wheat in 1998 and fallow 1999. Soil conditions at planting were much better than at Site 1.

		Dry beans Biw		WW	Kocz		Rrpw		Colq			
Treatment ^a	Rate	7-20	8-30	7-20	8-30	7-20	8-30	7-20	8-30	7-20	8-30	Yield
		% Injury				% C			ontrol			
Untreated		0	0	0	0	0	0	0	0	0	0	754
PPI/POST												
Handweeded check ^b		2	0	100	99	100	98	99	100	100	100	2094
Broadstrike + Dual /	2 pt /	0	0	37	33	100	7	93	96	83	78	1481
Assure II	8 oz	U	U	57	55	10	/	15	70	05	70	1401
Python / Assure II	1 oz / 8 oz	0	0	42	37	15	0	69	82	55	47	1534
PRE/POST												
Spartan / Assure II	0.125 lb ai / 8 oz	0	1	92	90	93	89	87	93	97	95	2258
Spartan / Assure II	0.25 lb ai / 8 oz	2	1	99	100	97	97	97	93	100	100	2434
Spartan / Assure II	0.5 lb ai / 8 oz	8	6	100	100	100	100	99	100	100	100	2322
Sencor / Assure II	0.33 lb / 8 oz	4	3	100	98	92	92	84	84	98	93	1866
Valor / Assure II	1.5 oz ai / 8 oz	69	60	100	92	99	98	98	98	99	97	1170
POST/POST 2												
Basagran /	1 pt /	0	0	77	91	92	88	60	70	68	70	1833
Basagran + Poast	1 pt + 1 pt											
POST												
Basagran + Poast	2 pt + 1 pt	0	0	89	80	95	89	73	60	92	73	2041
Reflex + Raptor	1 pt + 2 oz	9	3	37	17	71	32	87	80	63	50	995
Basagran + Raptor + 28% N	1 pt +4 oz + 1 qt	0	0	79	70	89	63	89	83	88	77	1854
LSD	•	6	9	11	15	10	10	15	15	17	18	592
CV		48	93	9	12	8	9	11	11	12	14	20

^a Poast and Assure II were applied with COC at 1%, and Raptor was applied with NIS at 0.25%.

^b Treflan at 1.5 pt (PPI) and Assure II at 8 oz (POST) were applied to aid in handweeding.

We evaluated several registered and non-registered products for controlling biennial wormwood in dry beans. Spartan, Valor, Python, Broadstrike + Dual, Reflex, and Raptor are not registered (Section 3) for use in dry beans. The pH at this site is 5.5 with 4.3% organic matter. Valor was the only product that

caused significant crop injury. Broadstrike + Dual and Python did not control biennial wormwood. Spartan, Sencor, and Valor effectively controlled all weeds. A split application of Basagran was slightly more effective than a single application. Basagran + Raptor provided fair control of biennial wormwood and kochia. Reflex + Raptor provided very poor biennial wormwood control.