

Study Name: Weed control programs in Clearfield sunflowers

Study Number: 0523

Objectives:

Results:

Clearfield sunflowers were seeded May 31 into 30-inch rows. Herbicide treatments were applied early preplant (EPP) on May 10, preplant (PP) on May 24, and postemergence on July 1 to 10 to 12-inch sunflower. Individual plots were 10 x 30 ft and replicated three times.

Herbicide treatments caused minimal crop injury except for Valor, which reduced sunflower stand almost 50%. Valor provided excellent weed control, but caused excessive crop injury. Combinations of Prowl and/or Spartan followed by Beyond provided better weed control than Prowl alone or Beyond alone. Prowl applied PP provided better weed control than Prowl EPP. Statistically, there were no significant yield differences, which may be due, in part, to a heavy October snowstorm that delayed harvest and resulted in some stem breakage and possible yield loss.

Table. Weed control programs in Clearfield sunflowers.

Treatment ^a	Rate	Sunflower			Kochia		Prowl		Wibw		Biww	Yield	TW	
		Jun	Jun	Aug	Jun	Aug	Jun	Aug	Jun	Aug	Aug	Oct	Oct	
		no. ^b	% ^c	% inj	% control								lb/A	lb/bu
PP														
Prowl	2.6 pt	55	93	0	95	74	95	73	85	73	0	1857	29.8	
Prowl + Spartan	2.6 pt + 1 oz	56	95	0	100	100	99	99	99	95	42	2021	30.0	
Prowl + Spartan	2.6 pt + 2 oz	57	97	0	98	100	98	97	100	97	57	1863	30.0	
PP/POST														
Prowl/	2.6 pt/	55	93	3	98	84	94	99	82	81	58	1756	29.7	
Prowl + Spartan/	2.6 pt + 1 oz/	56	95	3	98	98	98	100	100	100	73	2159	29.6	
Prowl + Spartan/	2.6 pt + 2 oz/	60	103	3	98	100	99	100	100	97	75	1804	29.9	
Prowl + Spartan/	2.6 pt + 2 oz/	55	94	7	100	100	99	100	99	97	91	1753	29.5	
Spartan/	1 oz/	57	97	3	98	100	95	99	90	83	77	1947	29.6	
Spartan/	2 oz/	56	95	2	100	100	99	100	99	91	87	1725	29.6	
EPP														
Prowl	2.6 pt	55	93	0	90	75	89	73	63	33	0	2090	29.7	
Prowl + Valor	2.6 pt + 2 oz	32	54	33	100	93	99	92	100	91	100	1650	29.0	
EPP/POST														
Prowl + Valor/	2.6 pt + 2 oz/	33	56	42	99	93	99	100	99	97	95	1577	28.8	
Valor/	2 oz/	34	57	37	100	96	99	100	96	94	93	1273	28.8	
POST														
Beyond	4 fl oz	56	95	4	--	52	--	87	--	13	49	2014	29.5	
Untreated		59	100	0	0	0	0	0	0	0	0	1715	29.6	
LSD (0.05)		8	14	5	5	8	4	6	14	19	17	NS	NS	
CV		10	10	31	4	6	3	4	10	15	17	18	1.8	

^aProwl = Prowl H2O; Beyond was applied with NIS and 28% N at 0.25% v/v and 2.5% v/v, respectively.

^bSunflower density reported in number of sunflower plants in two 30-foot rows.

^cSunflower density reported as percent of untreated check.