

Weed control in conventional-till chickpea (2002)

B-90 chickpea was seeded May 13 into 7.5-inch rows at 130 lb/A. Individual plots were 10 x 30 ft and replicated three times. Treatments were applied preplant incorporated (PPI) or preemergence (PRE) on May 13, postemergence (POST) on June 14, and POST II on June 20. The primary weeds were wild buckwheat (Wibw), prostrate and redroot pigweed (Pigweed), and yellow foxtail (Yeft).

Treatment ^a	Rate	Timing	Wibw		Pigweed		Yeft		Chickpea Injury		Stand	Yield
			Jun 15	Jul 10	Jun 15	Jul 10	Jun 15	Jul 10	Jun 15	Jul 10	Jun 28	Sep 3
			% control						—%—		pl/m ^d	lb/A
Spartan ^a	2.67 oz	PRE	70	47	63	28	60	78	3	0	7.9	1773
Spartan ^a	4 oz	PRE	83	68	75	56	70	81	4	0	7.2	2080
Spartan ^a	5.33 oz	PRE	87	81	81	65	75	89	4	1	6.6	2235
Balance + Spartan ^a	1.5oz + 4oz	PRE	83	72	74	61	68	94	3	1	6.6	2014
Balance + Sonalan ^a	1.5 oz + 2 pt	PPI	89	82	97	98	97	100	5	1	7.5	2354
Spartan + Sencor ^a	4oz + 0.5lb	PRE	81	85	77	54	78	88	6	25	6.3	1832
Spartan + Sonalan ^a	4oz + 2pt	PPI	90	80	99	85	98	100	8	3	7.0	2456
Sonalan + Sencor ^a	2pt + 0.5lb	PPI	93	80	100	96	99	100	15	24	5.5	2201
Sonalan ^a	2 pt	PPI	90	83	100	95	98	100	5	1	6.6	2423
Sonalan / Tough ^a	2pt / 1.5pt	PPI/POST	90	92	99	100	98	98	4	3	6.1	2313
Spartan / Tough ^a	4 oz/1.5 pt	PRE/POST	83	94	80	98	73	85	4	1	6.7	2270
Spartan + Sonalan/ Sencor ^a	5.33 oz+2 pt/ 0.25 lb	PPI/ POST	90	92	95	98	97	98	6	20	6.6	2517
Spartan + Sonalan/ Sencor ^b	5.33 oz+2 pt/ 0.25 lb	PPI/ POST	92	93	95	100	99	100	6	24	6.1	2388
Spartan/ Sencor ^b	4oz/ 0.25lb	PPI/ POSTII	78	84	73	94	71	91	3	31	5.5	2175
Handweeded check ^c			100	100	100	100	100	100	4	0	6.1	2341
LSD (0.05)			7	12	7	10	7	7	3	10	NS	309
CV			5	9	5	7	5	5	35	67	16.2	

^a Select at 5 fl oz/A with COC at 1% v/v was applied June 14.

^b Select at 5 fl oz/A with COC at 1% v/v was applied June 20.

^c Spartan + Treflan followed by Tough + Select + COC were applied to aid handweeding.

^d pl/m = plants per meter of row

We evaluated weed control and chickpea tolerance to several herbicides. Spartan was granted a specific exemption (Section 18) for use in chickpea in 2001 and 2002. All treatments caused very low crop injury with the exception of tank mixes that included Sencor. Sencor soil-applied at 0.5 lb/A or applied postemergence at 0.25 lb/A caused moderate crop injury at the early July rating. Spartan caused minimal injury at any rate. There was no significant difference in crop stand between treatments on June 28; however, treatments that included Sencor tended to have lower stands.

Treatments with Sonalan provided good to excellent wild buckwheat control. Spartan provided poor to good wild buckwheat control with control increasing as the rate increased. Soil conditions were very dry until June 9 when we received 1.20 inches of rain. Up to that point, Spartan at any rate was not controlling the wild buckwheat; however, the moisture appeared to activate the Spartan, which eventually killed many of the already emerged wild buckwheat plants.

Treatments that included Sonalan or Tough provided good to excellent pigweed control. Spartan provided only poor to fair pigweed control. Sonalan provided excellent yellow foxtail control, while Select generally provided good yellow foxtail control.