

### Conventional-till lentil tolerance to PRE and POST herbicides (2004)

Merrit lentils were seeded May 6 in a conventional-till system at 80 lb/A into 7.5-inch rows. Individual plots were 10 x 30 ft and replicated 3 times. Herbicide treatments were applied preplant incorporated (PPI), preemergence (PRE), 2-node, and 5-node, on May 6, May 10, June 3, and June 16, respectively. The primary weeds evaluated were redroot pigweed (Rrpw), kochia (Kocz), and wild buckwheat (Wibw).

All herbicide treatments caused moderate to severe crop injury. Spartan, Express, and Harmony GT applied PRE reduced crop density. Spartan tank mixed with Prowl caused more crop injury than either herbicide applied alone. Sencor applied PRE or POST caused severe crop injury. Prowl caused more injury applied PRE than PPI, but kochia and pigweed control was significantly less PPI than PRE.

The injury observed in this study may be viewed as a worst case scenario given the weather conditions of 2004. The PRE treatments were applied on May 10. Within three days, 1.3 inches of precipitation fell in the form of rain and snow. Within three weeks after the PRE application, the area had 3.2 inches of precipitation and generally cold conditions.

Treatment	Rate	Timing	Lentil			Rrpw		Kocz		Wibw	
			Jun 3	Jun 23	Jul 13	Jun 23	Jul 13	Jun 23	Jul 13	Jun23	Jul13
product / A			# / m row	—% injury —		% control					
Sonalan	2 pt	PPI	13.4	18	20	94	82	91	78	93	83
Prowl H20	2 pt	PPI	14.1	15	15	86	61	82	47	81	53
Prowl H20	2 pt	PRE	13.4	30	37	96	87	95	88	85	37
Spartan	1.5 oz	PRE	7.6	43	44	96	83	100	98	89	62
Spartan	2 oz	PRE	5.3	69	73	100	96	100	98	98	76
Spartan	2.5 oz	PRE	4.7	77	68	100	92	100	100	98	89
Spartan	3 oz	PRE	3.8	83	82	100	97	100	99	100	96
Spartan + Prowl H20	1.5 oz + 2 pt	PRE	6.8	73	68	100	95	100	95	99	81
Spartan + Prowl H20	2.5 oz + 2 pt	PRE	5.3	86	77	100	96	100	100	99	93
Sencor	0.33 lb	PRE	13.1	42	65	98	95	98	93	85	33
Sencor / Sencor	0.167 lb / 0.167 lb	2-node / 5-node	14.1	85	85	100	95	100	93	100	89
Sencor	0.167 lb	5-node	14.0	43	44	90	52	83	35	85	23
Untreated			14.6	0	0	0	0	0	0	0	0
Express	0.33 oz	PRE	12.4	21	31	30	10	0	3	13	0
Harmony GT	0.6 oz	PRE	10.5	75	68	100	100	0	0	50	0
LSD (0.05)			2.0	14	21	5	18	6	11	10	19
CV			11.6	16	24	3	14	4	10	8	21