

No-till lentil tolerance to herbicides (Williston) (2004)

Lentils were seeded May 4 at the Williston REC. Individual plots were 10 x 30 ft and replicated 3 times. Herbicide treatments were applied preemergence (PRE) on May 7. The primary weeds evaluated were green foxtail (Grft), Russian thistle (Ruth), and kochia (Kocz). Glyphosate was applied with each PRE treatment. Select was applied postemergence to control grasses.

None of the treatments in this study are labeled for use with the exception of glyphosate alone. Prowl is labeled as a PPI application. All herbicide treatments in the study caused visible crop injury. All Spartan treatments caused a slight reduction in lentil density, but yields were generally as high as other treatments. Prowl, Pursuit, and Sencor applied alone or as a tank mix caused slight to moderate crop injury. Express and Harmony GT applied PRE with glyphosate also caused slight to moderate crop injury. Spartan provided good to excellent weed control. Prowl, Sencor, and Pursuit generally provided less Russian thistle control compared to Spartan.

Table. No-till lentil tolerance to herbicides (Williston).

Treatment ^a	Rate	Timing	Lentil			Grft		Ruth		Kocz		Yield
			Jun 2	Jun 6	Jun 30	Jun 6	Jun 30	Jun 6	Jun 30	Jun 6	Jun 30	
	product / A		# / m row	% injury		% control						lb/A
Prowl H20	2 pt	PRE	12.4	10	12	93	95	70	53	92	92	990
Spartan	1 oz	PRE	11.7	16	18	37	95	78	83	97	97	1550
Spartan	1.5 oz	PRE	9.8	23	22	53	95	96	91	100	100	1530
Spartan	2 oz	PRE	9.3	24	33	58	95	96	99	100	100	1400
Pursuit	0.72 oz	PRE	16.2	9	12	82	95	67	70	100	88	1400
Spartan + Prowl H20	1 oz + 2 pt	PRE	10.8	21	22	96	95	99	88	100	97	1560
Spartan + Prowl H20	2 oz + 2 pt	PRE	8.9	30	25	97	95	95	91	100	100	1730
Sencor + Prowl H20	0.25 lb + 2 pt	PRE	12.7	15	13	93	95	78	67	100	100	1540
Prowl H20 + Sencor/ Sencor	2 pt + 0.167 lb/ 0.167 lb	PRE/ 3-node	13.7	18	17	96	95	92	86	100	99	1470
Express	0.083 oz	PRE	15.5	10	12	0	95	13	0	0	0	1190
Express	0.167 oz	PRE	13.7	11	12	0	95	20	0	0	0	1040
Harmony GT	0.125 oz	PRE	14.6	8	17	0	95	7	0	0	0	1140
Harmony GT	0.25 oz	PRE	15.0	9	23	0	95	7	7	0	0	1100
Roundup	11 fl oz	PRE	15.1	0	2	0	95	0	0	0	0	1160
Untreated			14.1	0	0	0	0	0	0	0	0	1280
LSD (0.05)			2.9	6	12	11	NS	17	15	7	10	NS
CV			13.2	25	46	14	0	19	18	7	10	21

^aEach PRE treatment was applied with Roundup UltraMax II at 11 oz. Select at 5 oz plus COC at 1%/v was also applied POST to each treatment for grass control.