

Effect of seeding date on lentil tolerance to Spartan

Spartan is not labeled for use in lentil. Previous tolerance studies have shown minimal injury from Spartan while other studies show moderate to severe injury. The objective of this study was to determine if Spartan injury is correlated with early planting dates and cool temperatures. Lentil was planted on April 28, May 10, and May 18. Spartan was applied PRE at 3 and 6 oz on April 29, May 11, and May 20. For “Seeding Date 1”, 0.42 and 0.73 inches of rain fell within 7 and 14 days after the PRE was applied, respectively. For “Seeding Date 2”, 0 and 1.26 inches of rain fell within 7 and 14 days after the PRE was applied, respectively. For “Seeding Date 3”, 1.26 and 2.97 inches of rain fell within 7 and 14 days after the PRE was applied, respectively. Moderate to severe lentil injury was observed with all seeding dates and Spartan rates. More injury was observed with the last seeding date and the least injury with the middle seeding date. Lentil injury from Spartan may be more correlated with rainfall soon after application as well as soil characteristics than soil temperature. Given these results, it appears that Spartan should not be labeled for use in lentil.

Table. Effect of seeding date on lentil tolerance to Spartan. (1019)

Date Seeded	Lentil								
	Visual Injury					Density	Height	Yield	Test wt.
	18-31 DAP	35-38 DAP	49-56 DAP	67-71 DAP	Jul 24	Jun 4	Jul 13	Sep 3	Sep 3
	-----%-----					m row	cm	lb/A	lb/bu
April 28									
Untreated	0	0	0	0	0	36.1	30.3	1336	60.7
3 oz	29	36	36	36	24	28.1	26.8	1012	61.3
6 oz	39	64	69	70	54	23.8	23.6	693	61.6
May 10									
Untreated	0	0	0	0	0	35.4	31.6	2172	61.6
3 oz	13	28	25	15	11	29.4	27.5	2190	61.9
6 oz	24	63	65	45	34	26.0	23.1	1435	61.9
May 18									
Untreated	0	0	0	0	0	28.4	28.4	1943	62.6
3 oz	81	82	80	50	50	19.4	19.4	1095	62.3
6 oz	96	96	96	85	85	13.4	13.4	412	62.2
LSD (0.05)	9.3	3.2	4.2	12.8	15.7	5	3.3	525	0.48
CV	20	5	7	26	37	13	8.9	26	0.52

^aSpartan applied PRE on April 29, May 11, and May 20