

No-till lentil response to preemergence herbicides (2004)

Merrit lentils were direct-seeded May 6 at 80 lb/A into 7.5-inch rows. Individual plots were 10 x 30 ft and replicated 3 times. Herbicide treatments were applied preemergence (PRE) on May 10.

Express and Harmony GT applied PRE caused moderate to severe lentil injury at the June and July ratings. Harmony GT caused more visible crop injury as well as a greater reduction in crop density. Aim caused little or no crop injury. 2,4-D ester caused very severe crop injury and reduced crop density by one-half.

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 ^a | Rate product / A | Timing | Lentil | | | | |
|------------------------|---------------------|--------|----------------|-------------|--------|--------|--|
| | | | Jun 3 | Jul 6 | Jun 22 | Jul 13 | |
| | | | plants / m row | —% injury — | | | |
| Roundup UltraMax II | 11 fl oz | PRE | 13.8 | 11.0 | 0 | 0 | |
| Express | 0.167 oz | PRE | 14.5 | 10.1 | 18 | 14 | |
| Express | 0.33 oz | PRE | 13.2 | 10.7 | 23 | 23 | |
| Harmony GT | 0.3 oz | PRE | 12.7 | 8.5 | 50 | 53 | |
| Harmony GT | 0.6 oz | PRE | 13.3 | 7.9 | 83 | 78 | |
| Aim | 0.5 fl oz | PRE | 15.0 | 10.1 | 2 | 3 | |
| 2,4-D ester | 0.5 pt | PRE | 7.3 | 4.6 | 87 | 87 | |
| Untreated | | | 15.2 | 10.2 | 0 | 0 | |
| LSD (0.05) | | | 2.4 | 2.4 | 8 | 9 | |
| CV | | | 10.5 | 14.8 | 14 | 16 | |

^aRoundup UltraMax II at 11 oz plus AMS at 2.5 gal/100 gal were applied PRE with all treatments.