

Study Name: No-till lentil tolerance to 2,4-DB

Study Number: 0610

Objectives: Evaluate no-till lentil tolerance to 2,4-DB applied with Assure II or as a split application.

Results:

'Pennell' lentil was seeded on May 8 at 12 plants/ft² into 7.5 inch rows in a no-till system. Glyphosate + Prowl H₂O was applied preemergence (PRE) on May 11 to help control weeds and allow us to see the effect of 2,4-DB on lentil growth and yield. 2,4-DB alone at two rates or tank mixed with Assure II was applied postemergence (POST) on June 6 with lentil at 4-5 inches tall. Individual plots were 10 x 30 ft and replicated three times.

2,4-DB generally caused more crop injury when tank mixed with Assure II compared to 2,4-DB applied alone. Tank mixing 2,4-DB with Assure II resulted in slightly lower lentil yield, especially at the higher 2,4-DB rate. 2,4-DB is not currently labeled for use in lentil, but could be labeled in 2-3 years.

Treatment ^a	Rate	Timing	Lentil						
			Jun 3	Jun 15	Jul 3	Aug 3	Height Jul 3	Yield	Test wt.
Handweeded ^b		POST	pl/ft ²	-----% injury-----			in.	lb/A	lb/bu
2,4-DB / Assure II	0.7 pt / 8 fl oz	POST / + 5 days	12.8	3	2	0	11.7	2071	56.4
2,4-DB / Assure II	1.4 pt / 8 fl oz	POST / + 5 days	11.4	5	6	5	11.8	1850	56.2
2,4-DB + Assure II	0.7 pt + 8 fl oz	POST	11.4	14	10	10	11.4	2061	56.3
2,4-DB + Assure II	1.4 pt + 8 fl oz	POST	11.6	17	11	12	11.9	1709	56.0
Prowl H ₂ O / Assure II	2.6 pt / 8 fl oz	PRE/POST	12.0	23	19	18	11.6	1496	55.7
LSD (0.05)			12.2	0	0	0	11.9	2014	56.2
CV			NS	2	7	5	NS	332	NS
			6.4	10	49	38	5.6	10	1

^a Glyphosate + Prowl H₂O + AMS applied PRE to all plots. COC (1%) was applied with all Assure II treatments.

^b Prowl and Assure II were applied to aid handweeding.