

Study Name: Timing of weed control in Liberty Link canola

Study Number: 9907

Objectives: Evaluate weed control with Liberty applied at different rates and stages

Results: Flea beetle pressure was extremely high. The canola seed was treated with Gaucho, but we needed a foliar insecticide application to help reduce the flea beetle pressure. The canola remained in the cotyledon to 2-leaf stage for an extended period due to the flea beetles and wet soil.

The objective of this study was to compare weed control from soil-applied products with Liberty at different rates and timings. The primary weeds were kochia, foxtails, lambsquarters, and pigweed. Other species present were shepherdspurse, field pennycress, and biennial wormwood. Treflan and Sonalan did not control the mustard species or biennial wormwood, but generally provided good control of kochia, foxtails, lambsquarters, and pigweed. Treflan or Sonalan followed by a postemergence application of Liberty was as effective or better than Treflan or Sonalan alone, however, canola yields were not significantly different. Liberty was effective at any rate on kochia, foxtails, lambsquarters, redroot pigweed, biennial wormwood, field pennycress, and shepherdspurse. Liberty applied only at cotyledon to 2-leaf canola controlled emerged weeds, but missed a new flush of weeds that emerged soon after application. Canola yield was lower where 27 fl oz of Liberty was applied at the cotyledon to 2-leaf stage compared to later applications of that same rate. However, where 34 fl oz was applied at the cotyledon to 2-leaf stage, canola yield was similar to the later applications. The split applications of Liberty also provided effective weed control.

Table. Timing of weed control in Liberty Link canola.

Treatment ^a	Rate	Timing ^b	June 25				July 26	Yield
			Kocz	Fxtl ^c	Colq	Rrpw	Kocz	
			-----Control (%)-----					lb/A
Treflan	1.5 pt	A	80	90	93	90	72	1203
Treflan / Assure II	1.5 pt / 8 fl oz	A / C	73	98	94	94	72	1330
Sonalan	2 pt	A	80	95	100	100	77	1308
Sonalan / Assure II	2 pt / 8 fl oz	A / C	92	96	100	98	87	1228
Treflan / Liberty	1.5 pt / 20 fl oz	A / C	99	100	100	100	97	1366
Sonalan / Liberty	2 pt / 20 fl oz	A / C	99	100	100	100	97	1310
Liberty	27 fl oz	B	63	68	77	68	53	1252
Liberty	27 fl oz	C	98	95	100	97	93	1456
Liberty	27 fl oz	D	100	100	100	100	95	1385
Liberty	34 fl oz	B	68	68	80	77	63	1521
Liberty	34 fl oz	C	99	98	99	98	95	1384
Liberty	34 fl oz	D	100	100	100	100	99	1528
Liberty / Liberty	17 fl oz / 17 fl oz	B / D	99	100	100	100	95	1362
Liberty / Liberty	10 fl oz / 10 fl oz	B / D	94	95	100	95	89	1469
Liberty + Assure II	20 fl oz + 5 fl oz	C	97	94	97	100	89	1603
Handweed Check			100	99	100	99	96	1276
Treflan / Liberty	1.5 pt / 20 fl oz	A / C						
Weedy Check			0	0	0	0	0	1198
LSD			10	8	13	12	12	248
CV			7	5	9	8	9	11

^a All Liberty treatments included AMS (3 lb/A)

^b A=PPI; B=cotyledon to 2-lf canola; C=3 to 4-lf canola; D=5 to 6-leaf canola

^c Fxtl=green and yellow foxtail