

### **Wild Oat Control in Imidazolinone Tolerant Canola (1998)**

IMI-tolerant canola was seeded on May 15 at 700,000 plants per acre. Seed bed preparation was conventional with six-inch row spacing. Treatments consisted of preplant incorporated, early-post (June 8), and late-post (June 22) applications. On June 8 canola was 2 to 3-leaf, wild oat was 4-leaf. On June 22 canola was 4 to 5-leaf, wild oat was 6-leaf. Wild oat (Wioa) control was evaluated on July 5 and August 12. The canola was harvested August 19.

<b><u>Treatment</u></b>	<b><u>Rate</u></b>	<b><u>7-5</u></b> <b><u>Wioa</u></b>	<b><u>8-12</u></b> <b><u>Wioa</u></b>	<b><u>Yield</u></b> <b><u>lb/A</u></b>
		--% Control--		
Treflan	1.5 pt/A	75	68	1025
Treflan / Herbicide 273	1.5 pt/A / 1.5 pt/A	80	68	1182
Treflan / Motive + COC + 28% N	1.5 pt/A / 2 fl oz/A + 1.25% + 1.25%	99	96	1553
Treflan / Motive + COC + 28% N	1.5 pt/A / 4 fl oz/A + 1.25% + 1.25%	98	99	1472
Treflan / DPX-M6316 + COC	1.5 pt/A / 0.023 lb A/A + 1.25%	72	73	1068
Motive + COC + 28% N	2 fl oz/A + 1.25% + 1.25%	95	98	1509
Motive + SURF + 28% N	2 fl oz/A + 0.25% + 1.25%	89	88	1264
Motive + COC + 28% N	4 fl oz/A + 1.25% + 1.25%	94	96	1299
Motive + SURF + 28% N	4 fl oz/A + 0.25% + 1.25%	95	95	1441
Motive + COC + 28% N	5 fl oz/A + 1.25% + 1.25%	96	99	1367
Motive + SURF + 28% N	5 fl oz/A + 0.25% + 1.25%	97	98	1524
Poast + Motive + COC + 28% N	1 pt/A + 2 fl oz/A + 1.25% + 1.25%	95	98	1376
Poast + Motive + COC + 28% N	1 pt/A + 4 fl oz/A + 1.25% + 1.25%	96	99	1175
Poast + Stinger + COC + 28% N	1 pt/A + 0.5 pt/A + 1.25% + 1.25%	95	97	1466
Assure II + DPX-M6316 + SURF	8 fl oz/A + 0.023 lb A/A + 0.25%	89	88	1182
Motive + COC + 28% N (II)	4 fl oz/A + 1.25% + 1.25%	88	99	1164
Motive + SURF + 28% N (II)	4 fl oz/A + 0.25% + 1.25%	85	98	1005
Motive + COC + 28% N (II)	5 fl oz/A + 1.25% + 1.25%	90	99	1151
Motive + SURF + 28% N (II)	5 fl oz/A + 0.25% + 1.25%	89	99	1042
Hand-weeded / Treflan / Motive + SURF + 28% N	 1.5 pt/A / 4 fl oz/A + 0.25% + 1.25%	98  	98  	1649  
Weedy Check		0	0	596
Weedy Check		0	0	585
CV		6	6	13
LSD (0.05)		8	8	272

Soil conditions were very dry for the first 30 days after seeding (0.5 inch precip). We received 8 inches of rainfall the remainder of the growing season. Flea beetle population was high during the dry period and damage was significant. Postemergence treatments were delayed due to cold temperatures and high winds. No crop injury or maturity differences were observed. All Motive treatments provided good wild oat control. However, yields were much higher when Motive was applied to smaller wild oat compared to larger wild oat. Canola yields were much higher when early-season wild oat competition was reduced with Treflan, Treflan + Motive, or Motive applied early-post. Although they appeared less competitive, a light population of ALS-resistant kochia was present in the plots and were standing above the crop at the end of the season.