

Control of volunteer canola in dry pea,
flax,
soybean, corn, and sunflower

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Progress Report

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Volunteer canola control in corn

212 Roundup Ready BT corn was seeded May 17 into 30-inch rows. Canola was then seeded over the top to simulate a volunteer canola (VC) situation. Herbicide treatments were applied preemergence (PRE), 3-leaf canola, and 6-leaf canola on May 19, June 16, and June 23, respectively. Individual plots were 10 x 30 ft and replicated three times.

Soil-applied Balance Pro provided excellent VC control. The postemergence herbicides Steadfast, Accent, Option, Callisto, and Distinct provided good to excellent VC control at both application timings. Atrazine and 2,4-D amine provided only fair control at the 3-leaf application.

VC control with Callisto and Distinct dropped about 10% with the later application, while the 6-leaf application of atrazine and 2,4-D amine was 15-20% lower than the 3-leaf application. Starane provided very little control at either application stage. Starane doesn't control VC very well, but causes too much injury to be considered for use in canola.

These results are generally consistent with our 2004 results. The biggest difference was with atrazine. We saw very little VC control with atrazine at 0.25 lb ai in 2004, but saw better control in 2005 with 0.375 lb ai.

Treatment	Rate	Timing	Volunteer canola	
			Jun 30	Jul 14
			—— % control ——	
Untreated			0	0
Balance Pro	3 fl oz	PRE	97	97
Steadfast + MSO + 28% N	0.75 oz + 1% v/v + 2 qt	3-leaf	98	100
Steadfast + MSO + 28% N	0.75 oz + 1% v/v + 2 qt	6-leaf	89	100
Accent + MSO + 28% N	0.5 oz + 1% v/v + 1 qt	3-leaf	94	100
Accent + MSO + 28% N	0.5 oz + 1% v/v + 1 qt	6-leaf	83	99
Option + MSO + 28% N	1.5 oz 1.5 pt 1.5 qt	3-leaf	96	100
Option + MSO + 28% N	1.5 oz 1.5 pt 1.5 qt	6-leaf	83	99
Atrazine + COC	0.375 lb ai + 1 qt	3-leaf	87	81
Atrazine + COC	0.375 lb ai + 1 qt	6-leaf	65	59
2,4-D amine	0.5 pt	3-leaf	84	75
2,4-D amine	0.5 pt	6-leaf	55	60
Callisto + COC + 28% N	3 fl oz + 1% v/v + 2.5% v/v	3-leaf	98	100
Callisto + COC + 28% N	3 fl oz + 1% v/v + 2.5% v/v	6-leaf	72	91
Starane	0.5 pt	3-leaf	35	35
Starane	0.5 pt	6-leaf	28	28
Distinct + NIS + 28% N	4 oz + 0.25% v/v + 1.25% v/v	3-leaf	90	97
Distinct + NIS + 28% N	4 oz + 0.25% v/v + 1.25% v/v	6-leaf	80	88
LSD (0.05)			9	8
CV			8	6

Volunteer canola control in flax

'Neche' flax was seeded May 17 at 60 lb/A into 6-inch rows. Canola was then seeded over the top to simulate a volunteer canola (VC) situation. Herbicide treatments were applied preemergence (PRE), 3-leaf canola, and 6-leaf canola on May 19, June 16, and June 23, respectively. Individual plots were 10 by 30 ft and replicated three times.

Spartan provided poor to fair VC control. Bronate Advanced provided excellent control when applied at the 3-leaf stage, but about 20% less control at the 6-leaf stage. MCPA ester provided 66-82% VC control, which is much less than in 2004 (85-95%). Harmony GT applied at 0.25 oz without an adjuvant provided poor VC control. These results are generally similar to 2004, with the exception of MCPA ester as noted above.

Treatment	Rate	Timing	Volunteer canola	
			Jun 30	Jul 14
			—— % control ——	
Spartan	4 oz	PRE	74	63
Bronate Advanced	0.8 pt	3-leaf	100	100
Bronate Advanced	0.8 pt	6-leaf	85	81
MCPA ester	0.5 pt	3-leaf	70	66
MCPA ester	0.5 pt	6-leaf	55	82
Harmony GT	0.25 oz	3-leaf	81	48
Harmony GT	0.25 oz	6-leaf	70	55
Untreated			0	0
LSD (0.05)			5	8
CV			5	7

Volunteer canola control in dry pea

'Majoret' dry peas were seeded May 12 at 120 lb/A into 6-inch rows. Canola was then seeded over the top to simulate a volunteer canola (VC) situation. Herbicide treatments were applied preemergence (PRE), 3-leaf canola, and 6-leaf canola on May 19, June 16, and June 23, respectively. Individual plots were 10 by 30 ft and replicated three times.

Spartan did not control VC. Sencor applied PRE provided only 80% control at the July evaluation, which is about 18% less than in the 2004 study. Sencor applied postemergence provided excellent (90%) VC control at the 3-leaf stage, but reduced to 62% when applied at the 6-leaf stage. MCPA amine provided poor VC control at either application stage. Basagran at 0.5 pt provided only fair (76%) VC control at the 3-leaf stage and poor control (48%) at the 6-leaf stage. Raptor provided excellent control at either application stage. These results are generally similar to the 2004 study with the exception of MCPA amine, which provided excellent VC control (95%) at the 3-leaf stage in 2004, but provided only poor control in 2005.

			Volunteer canola	
Treatment	Rate	Timing	Jun 30	Jul 14
			—— % control ——	
Spartan	4 oz	PRE	43	36
Sencor	0.375 lb	PRE	77	80
Sencor	0.25 lb	3-leaf	93	90
Sencor	0.25 lb	6-leaf	53	62
MCPA amine	8 fl oz	3-leaf	57	53
MCPA amine	8 fl oz	6-leaf	40	43
Basagran + COC	0.5 pt 2 pt	3-leaf	84	76
Basagran + COC	0.5 pt 2 pt	6-leaf	63	48
Raptor + NIS + 28% N	4 fl oz + 0.25% v/v + 2.5% v/v	3-leaf	93	97
Raptor + NIS + 28% N	4 fl oz + 0.25% v/v + 2.5% v/v	6-leaf	70	95
Untreated			0	0
LSD (0.05)			19	25
CV			23	30

Volunteer canola control in soybean

Roundup Ready DSR0501 Dairyland soybeans were seeded May 17 at 80 lb/A into 6-inch rows. Canola was then seeded over the top to simulate a volunteer canola (VC) situation. Herbicide treatments were applied preemergence (PRE), 3-leaf canola, and 6-leaf canola on May 19, June 16, and June 23, respectively. Individual plots were 10 x 30 ft and replicated three times.

Soil-applied Sencor, Valor, Python, and Extreme provided good to excellent VC control. Flexstar, Basagran, and Raptor at any rate provided good to excellent VC control. Harmony GT, Cobra, and Ultra Blazer provided only poor to fair VC control. These results are generally similar to the 2004 study.

			Volunteer canola	
Treatment	Rate	Timing	Jun 30	Jul 14
			—— % control ——	
Sencor	0.25 lb	PRE	91	89
Valor	2.5 oz	PRE	88	84
Python	1 oz	PRE	95	93
Extreme	1.5 pt	PRE	98	99
Harmony GT + NIS	0.083 oz + 0.125% v/v	3-leaf	86	67
Harmony GT + NIS	0.083 oz + 0.125% v/v	6-leaf	71	65
Basagran + COC	0.5 pt + 1 qt	3-leaf	100	93
Basagran + COC	0.5 pt + 1 qt	6-leaf	83	81
Raptor + NIS + 28% N	4 fl oz + 0.25% v/v + 2.5% v/v	3-leaf	97	99
Raptor + NIS + 28% N	4 fl oz + 0.25% v/v + 2.5% v/v	6-leaf	76	96
Raptor + NIS + 28% N	2 fl oz + 0.25% v/v + 2.5% v/v	3-leaf	95	97
Raptor + NIS + 28% N	2 fl oz + 0.25% v/v + 2.5% v/v	6-leaf	70	94
Raptor + NIS + 28% N	1 fl oz + 0.25% v/v + 2.5% v/v	3-leaf	91	84
Raptor + NIS + 28% N	1 fl oz + 0.25% v/v + 2.5% v/v	6-leaf	60	89
Cobra + COC	6 fl oz + 1 qt	3-leaf	89	78
Cobra + COC	6 fl oz + 1 qt	6-leaf	79	53
Ultra Blazer + NIS	0.5 pt + 0.125% v/v	3-leaf	77	64
Ultra Blazer + NIS	0.5 pt + 0.125% v/v	6-leaf	68	50
Flexstar + MSO + AMS	0.75 pt + 1% v/v + 2.94 gal/100 gal	3-leaf	100	100
Flexstar + MSO + AMS	0.75 pt + 1% v/v + 2.94 gal/100 gal	6-leaf	93	100
Untreated			0	0
LSD (0.05)			10	12
CV			7	9

Volunteer canola control in sunflower

Clearfield sunflowers were seeded May 17 at 20,000 plants/A into 30-inch rows. Canola was then seeded over the top to simulate a volunteer canola (VC) situation. Herbicide treatments were applied preemergence (PRE), 3-leaf canola, and 6-leaf canola on May 19, June 16, and June 23, respectively. Individual plots were 10 x 30 ft and replicated three times.

Spartan provided only fair control of VC. Express and Assert at 0.6 or 0.8 pt provided good to excellent VC control at either application stage. These results are generally similar to the study conducted in 2004.

			Volunteer canola	
Treatment	Rate	Timing	Jun 30	Jul 14
———— % control ————				
Spartan	4 oz	PRE	80	69
Express + NIS	0.167 oz + 0.125% v/v	3-leaf	96	95
Express + NIS	0.167 oz + 0.125% v/v	6-leaf	74	91
Assert + NIS	0.8 pt + 0.25% v/v	3-leaf	92	94
Assert + NIS	0.8 pt + 0.25% v/v	6-leaf	69	87
Assert + NIS	0.6 pt + 0.25% v/v	3-leaf	89	94
Assert + NIS	0.6 pt + 0.25% v/v	6-leaf	66	83
Untreated			0	0
LSD (0.05)			7	6
CV			6	4