

**Wild oat control in hard red spring wheat and barley with Achieve and CGA-184927 at Crookston, MN - 1997.** Durgan, Beverly R., Eric Spandl, and Jim Cameron. The objective of the this experiment was to evaluate wild oats control with Achieve (tralkoxydim) and CGA-184927 alone and in combination with several broadleaf herbicides. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental area received 100 lb/A of N and was fall plowed. In the spring the experimental area was disked and harrowed. 'Pioneer 2375' hard red spring wheat and 'Robust' barley were seeded on May 15 at rates of 1.5 and and 1.75 Bu/A, respectively. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. The experimental design was a randomized complete block with three replications and plot size was 10 by 16 ft. Application date and environmental conditions are listed below. Wioa control was visually rated on June 30 and July 17. Crop injury was visually rated June 10, June 17, June 23, June 30 and July 17. No visible injury was observed on July 17. Crop yield data were collected. All data are presented in Tables 1 and 2 for wheat and barley, respectively.

Treatment Date	June 6
Target weed or	3-4 lf wild oat

Soil Moisture	adaquate
Sky	clear
Wind	0-2 S
Air Temperature (°F)	63
Rainfall before Application	
Week 1 (inch)	0.60
Rainfall after Application	
Week 1 (inch)	0.00
Week 2 (inch)	1.28
Barley leaf no.	3
Wheat leaf no.	3
Wioa density (#/ft <sup>2</sup> )	51

**Table 1. Wild oat control with Achieve and CGA-184927 in spring wheat at Crookston, MN - 1997 (Durgan, Spandl, and Cameron).**

Treatment	Rate (lb/A)	Wioa Control		Wheat				Yield (Bu/A)
		6/30	7/14	Injury (%)				
				6/10	6/17	6/23	6/30	
<b>Postemergence (June 6)</b>								
Tralkoxydim + TF8035 COC + AMS <sup>1</sup>	0.18 + 0.5% + 1.5	80	91	13	12	22	8	41
Tralkoxydim + TF8035 COC + AMS + bromoxynil & MCPA ester <sup>2</sup>	0.18 + 0.5% + 1.5 + 0.25 & 0.25	83	96	20	15	23	15	46
Tralkoxydim + TF8035 COC + AMS + bromoxynil	0.18 + 0.5% + 1.5 + 0.25	72	96	25	20	25	15	47
Tralkoxydim + TF8035 COC + AMS + MCPA ester	0.18 + 0.5% + 1.5 + 0.25	75	94	18	10	25	8	44
Tralkoxydim + TF8035 COC + AMS + 2,4-D butoxyethyl ester	0.18 + 0.5% + 1.5 + 0.25	75	93	23	8	18	8	45
Tralkoxydim + TF8035 COC + AMS + thifensulfuron & tribenuron <sup>3</sup> + MCPA ester	0.18 + 0.5% + 1.5 + 0.011 & 0.005 + 0.25	45	33	22	8	15	12	42
Imazamethabenz + NIS <sup>4</sup> + COC <sup>5</sup>	0.31 + 0.25% + 2.5%	50	87	25	8	20	8	50
HOE 1133	0.104	78	97	13	15	20	8	48
CGA-184927 & safener + surf <sup>6</sup>	0.05 + 0.86%	77	96	13	10	20	7	50
CGA-184927 & safener + dicamba <sup>7</sup> + surf	0.05 + 0.098 + 0.86%	15	0	10	30	30	17	31
CGA-184927 & safener + 2,4-D diethylamine + surf	0.05 + 0.5 + 0.86%	10	10	5	7	17	7	31
CGA-184927 & safener + MCPA ester + surf	0.05 + 0.5 + 0.86%	62	95	15	10	17	8	50
CGA-184927 & safener + bromoxynil & MCPA ester + surf	0.05 + 0.25 & 0.25 + 0.86%	43	81	8	15	27	8	44
CGA-184927 & safener + triasulfuron + MCPA ester + surf	0.05 + 0.013 + 0.375 + 0.86%	58	82	8	12	18	5	45
Weedy check		--	--	0	0	0	0	22
LSD (0.05)		9	7	12	5	11	5	8

<sup>1</sup> AMS = Spray grade ammonium sulfate. Rate is pounds product per acre.

<sup>2</sup> Premix = Bronate 4E.

<sup>3</sup> Premix = Harmony Extra 75DF.

<sup>4</sup> NIS = Class Preference nonionic surfactant.

<sup>5</sup> COC = Class Crop Crop Oil Concentrate.

<sup>6</sup> surf = Score.

<sup>7</sup> Banvel SGF 2L.

**Table 2. Wild oat control with Achieve and CGA-184927 in barley at Crookston, MN - 1997 (Durgan, Spandl, and Cameron).**

Treatment	Rate (lb/A)	Wioa Control		Barley				Yield (Bu/A)
		6/30	7/14	Injury (%)				
				6/10	6/17	6/23	6/30	
<b>Postemergence (June 6)</b>								
Tralkoxydim + TF8035 COC + AMS <sup>1</sup>	0.18 + 0.5% + 1.5	80	96	13	20	22	15	84
Tralkoxydim + TF8035 COC + AMS + bromoxynil & MCPA ester <sup>2</sup>	0.18 + 0.5% + 1.5 + 0.25 & 0.25	87	97	23	20	17	12	89
Tralkoxydim + TF8035 COC + AMS + bromoxynil	0.18 + 0.5% + 1.5 + 0.25	77	98	27	35	40	30	86
Tralkoxydim + TF8035 COC + AMS + MCPA ester	0.18 + 0.5% + 1.5 + 0.25	77	95	15	12	15	7	97
Tralkoxydim + TF8035 COC + AMS + 2,4-D butoxyethyl ester	0.18 + 0.5% + 1.5 + 0.25	72	93	13	10	12	10	87
Tralkoxydim + TF8035 COC + AMS + thifensulfuron & tribenuron <sup>3</sup> + MCPA ester	0.18 + 0.5% + 1.5 + 0.011 & 0.005 + 0.25	50	27	13	12	22	13	84
Imazamethabenz + NIS <sup>4</sup> + COC <sup>5</sup>	0.31 + 0.25% + 2.5%	47	91	12	10	13	7	98
HOE 1133	0.104	78	97	8	22	12	10	96
CGA-184927 & safener + surf <sup>6</sup>	0.05 + 0.86%	82	98	20	27	30	23	78
CGA-184927 & safener + dicamba <sup>7</sup> + surf	0.05 + 0.098 + 0.86%	13	0	17	43	42	30	65
CGA-184927 & safener + 2,4-D diethylamine + surf	0.05 + 0.5 + 0.86%	13	17	12	10	15	8	77
CGA-184927 & safener + MCPA ester + surf	0.05 + 0.5 + 0.86%	60	95	22	15	25	18	81
CGA-184927 & safener + bromoxynil & MCPA ester + surf	0.05 + 0.25 & 0.25 + 0.86%	47	87	20	23	33	18	86
CGA-184927 & safener + triasulfuron + MCPA ester + surf	0.05 + 0.013 + 0.375 + 0.86%	58	80	15	17	23	13	78
Weedy check		--	--	0	0	0	0	69
LSD (0.05)		10	13	8	10	10	7	16

<sup>1</sup> AMS = Spray grade ammonium sulfate. Rate is pounds product per acre.

<sup>2</sup> Premix = Bronate 4E.

<sup>3</sup> Premix = Harmony Extra 75DF.

<sup>4</sup> NIS = Class Preference nonionic surfactant.

<sup>5</sup> COC = Class Crop Crop Oil Concentrate.

<sup>6</sup> surf = Score.

<sup>7</sup> Banvel SGF 2L.