

**Wild oat control in spring wheat at Crookston, MN - 2018.** Durgan, Beverly R., Jochum Wiersma, Jim Cameron, Houston Lindell, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with various herbicide treatments. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, 149 lbs/A N and 52 lbs/A P was applied and the area was chisel plowed in the fall of 2017. In the spring of 2018, a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on April 30 at 1.75 bu/a. 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 data and environmental conditions are listed below. Crop injury and wild oat control were visually rated. Yields were measured. All data are presented in the table below.

<b>Treatment Date</b>	<b>May 21</b>
Wild Oat Stage	3-leaf
Air temperature (°F)	74
Soil temperature (°F)	79
Relative humidity (%)	14
Wind	S 2-3 mph
Sky	clear
Rainfall before Application	
Week 1 (inch)	0.40
Rainfall after Application	
Week 1 (inch)	0.23
Week 2 (inch)	1.72

### **Results**

Axial Bold resulted in the best overall wild oat control. Rimfire Max, Wolverine Advanced, and Axial XL resulted in fair wild oat control while the remaining treatments generally resulted in fair to poor control. Axial Bold, Wolverine Advanced, and Axial treatments had the greatest wheat yields.

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Treatment	Rate (Product/A)	Wild Oat Control				Wheat Injury		Wheat
		6/8 (%)	6/22 (%)	7/6 (%)	7/22 (%)	6/8 (%)	6/22 (%)	Yield (Bu/A)
Axial Bold	15 oz	95	92	92	90	0	0	44
Varro + Preference	6.85 oz + 3.2 oz	77	85	77	78	0	0	26
GoldSky + Preference	1 pt + 3.2 oz	77	85	73	73	0	0	28
Everest 3.0 + Preference + AMS	2.0 oz + 3.2 oz + 2.35 pt	72	87	78	77	0	0	25
Rimfire Max + Preference + AMS	3.0 oz + 3.2 oz + 3.53 pt	77	90	83	82	0	0	31
Varro + Bison	6.85 oz + 1 pt	72	83	70	68	0	0	26
Varro + Weld	6.85 oz + 18 oz	78	85	70	70	0	0	24
Varro + Carnivore	6.85 oz + 1 pt	73	80	73	72	0	0	27
Varro + Widematch + MCPA ester	6.85 oz + 1 pt + 0.5 pt	77	77	68	67	0	0	24
Varro + Widematch + Affinity Tankmix	6.85 oz + 1 pt + 0.6 oz	75	80	80	78	0	0	33
Varro + Olympus + Carnivore	6.85 oz + 0.2 oz + 1 pt	75	82	77	75	0	0	30
Huskie Complete	13.7 oz	73	80	73	67	0	0	28
Wolverine Advanced	24.7 oz	78	87	85	80	0	0	42
Everest 3.0 + Supremacy + Preference	1.88 oz + 4.5 oz + 3.2 oz	73	85	75	75	0	0	27
GoldSky + MCPA ester	1 pt + 0.5 pt	73	85	70	67	0	0	28
PerfectMatch + 2,4-D ester LV4 + AMS	1 pt + 0.475 pt + 3.5 pt	73	77	63	63	0	0	24
Axial XL + Talinor + CoAct+	16.3 oz + 13.7 oz + 2.75 oz	83	83	83	82	0	0	41
Varro + Talinor + CoAct+	6.85 oz + 13.7 oz + 2.75 oz	72	80	70	68	0	0	30
Varro + Quelex + WideMatch	6.85 oz + 0.75 oz + 1 pt	73	83	73	70	0	0	28
TeamMate + Hat Trick + Activator 90 + AMS	1 oz + 1.5 pt + 1.6 oz + 3.5 pt	75	82	77	73	0	0	29
OpenSky + Activator 90 + AMS	1 pt + 3.2 oz + 3.5 pt	75	85	75	75	0	0	32
Weedy Check	--	--	--	--	--	0	0	4
LSD (0.05)		6.1	ns	13.7	ns	ns	ns	8.0

Axial Bold 0.685EC = pinoxaden (0.457 lb/gal) and fenoxaprop-p-ethyl (0.228 lb/gal).

Varro 0.083L = thiencazabone-methyl.

Preference = nonionic surfactant.

GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

Everest 3.0 1.75SC = flucarbazone-sodium.

AMS = N-Pak AMS = 34% ammonium sulfate solution (3.4 lbs ammonium sulfate/gal).

Rimfire Max 6.67WDG = propoxycarbazono-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Bison 4E = bromoxynil (2 lb ai/gal) & MCPA (2 lb ae/gal).

Weld 2.89E = clopyralid (0.50 lb ai/gal) & MCPA (1.75 lb ae/gal) & fluroxypyr (0.64 lb ae/gal).

Carnivore 4E = bromoxynil (1.67 lb ai/gal) & MCPA (1.67 lb ae/gal) & fluroxypyr (0.67 lb ae/gal).

Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

MCPA Ester 4E.

Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).

Olympus 70WG = propoxycarbazono-sodium.

Huskie Complete 1.76L = thiencazabone-methyl (0.042 lb ai/gal) & pyrasulfotole (0.26 lb ai/gal) & bromoxynil phenol equivalent (1.46 lb ai/gal).

Wolverine Advanced 1.58E = fenoxaprop-p-ethyl (0.40 lb ai/gal) & pyrasulfotole (0.13 lb ai/gal) & bromoxynil (1.05 lb ai/gal).

Supremacy 42DF = fluroxypyr (36%) + thifensulfuron (4.5%) & tribenuron (1.5%).

PerfectMatch 1.61SE = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal) & pyroxsulam (0.11 lb ai/gal).

2,4-D Ester LV4 (3.8 lb ae/gal).

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

Talinor = bicyclopyrone & bromoxynil.

CoAct+ = adjuvant.

Quelex 20SG = halauxifen-methyl (10%) & flurasulam (10%).

TeamMate 21.5WG = pyroxsulam.

Hat Trick 2.82SE = clopyralid (0.51 lb ae/gal) & fluroxypyr (0.51 lb ae/gal) & MCPA ester (1.8 lb ae/gal).

Activator 90 = nonionic surfactant.

OpenSky 1.057SE = fluroxypyr (0.95 lb/gal) + pyroxsulam (0.107 lb/gal).