

Wild oat control in spring wheat with Varro at Crookston, MN - 2015. Durgan, Beverly R., Jochum J. Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with Varro alone and in tank mixes with broadleaf herbicides. Several other products were also included for comparison. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the standing residue was shredded and, after receiving 100 lbs/A as urea, was chisel plowed. In the spring of the following year, a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on April 17 at 1.8 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.

Treatment Date	May 26
Wheat stage	3 leaf
Air temperature (°F)	80
Soil temperature (°F)	76
Relative humidity (%)	35
Wind	SW 3-5 mph
Rainfall before Application	
Week 1 (inch)	0.0
Rainfall after Application	
Week 1 (inch)	0.85
Week 2 (inch)	2.42

Results

Varro alone (Varro + AMS) had slightly greater wild oat control than the Varro + broadleaf combinations at each rating date. These differences were generally not statistically significant with the exception of the July 10 rating date. Of the comparison treatments, Wolverine Advanced and the Rimfire Max tank mixes had the best wild oat control over all rating dates but those differences were not always statistically significant, particularly at the earlier rating dates. On the July 10 rating date, Wolverine Advanced had excellent wild oat control followed by the Rimfire Max tank mixes and Varro alone, which had good to excellent control.

Wolverine Advanced resulted in the highest yield followed by Rimfire Max + Huskie and then Rimfire Max + WideMatch, Varro alone, Varro + Carnivore and Varro + Bison. Varro + WideMatch + Affinity Tankmix was the lowest yielding treatment.

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Treatment	Rate (Product/A)	Wild Oat Control				Wheat Injury			Wheat Yield (Bu/A)
		6/4 (%)	6/16 (%)	6/30 (%)	7/10 (%)	6/4 (%)	6/16 (%)	6/30 (%)	
Varro + AMS	6.85 oz + 1.18 pt	73	92	95	91	0	0	0	48
Varro + Bison + AMS	6.85 oz + 1 pt + 1.18 pt	70	90	92	84	0	0	0	45
Varro + Weld + AMS	6.85 oz + 1.3 pt + 1.18 pt	50	88	83	82	0	0	0	37
Varro + Carnivore + AMS	6.85 oz + 1 pt + 1.18 pt	67	88	90	82	0	0	0	48
Varro + Widematch + 2,4-D ester + AMS	6.85 oz + 1 pt + 0.33 pt + 1.18 pt	62	88	87	85	0	0	0	39
Varro + Widematch + MCPA ester + AMS	6.85 oz + 1 pt + 0.5 pt + 1.18 pt	60	87	87	85	0	0	0	44
Varro + Widematch + Affinity Tankmix + AMS	6.85 oz + 1 pt + 0.6 oz + 1.18 pt	47	85	87	85	0	0	0	33
Varro + Olympus + Carnivore + AMS	6.85 oz + 0.2 oz + 1 pt + 1.18 pt	58	85	84	84	0	0	0	36
Huskie Complete + N-Pak AMS	13.7 oz + 1.18 pt	63	83	93	83	0	0	0	44
Wolverine Advanced	27.4 oz	70	96	99	98	0	0	0	59
Everest 2.0 + Supremecy + Preference	0.75 oz + 4.5 oz + 3.2 oz	65	92	94	87	0	0	0	42
GoldSky + MCPA ester	1 pt + 0.5 pt	72	92	91	87	0	0	0	42
Rimfire Max + Huskie + MSO	3 oz + 11 oz + 1.5 pt	70	95	99	96	0	0	0	55
Rimfire Max + WideMatch	3 oz + 1.5 pt	68	93	96	93	0	0	0	48
Weedy Check	--	--	--	--	--	--	--	--	6
LSD (0.05)		ns	8	10	5	ns	ns	ns	14

Varro 0.083L = thien carbazono-methyl.

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

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).

2,4-D Ester 6E.

MCPA Ester 4E.

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

Olympus 70WDG = propoxycarbazone-sodium.

Huskie Complete 1.76L = thien carbazono-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).

Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).

Supremacy 31WG = thifensulfuron (4.5%) & tribenuron 1.5%) & fluroxypyr (25% ae).

Preference = nonionic surfactant.

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

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

Huskie 2.08 EC = pyrasulfotole (0.23 lb ai/gal) & bromoxynil 1.85 lb ai/gal) & safener.

MSO = methylated soybean oil.