

Wild oat control in spring wheat at Crookston, MN - 2013. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with several herbicides applied at two wild oat stages. 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 of the following year, the experimental area was disked and harrowed. 'RB07' hard red spring wheat was seeded on May 7 at 1.5 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. Target application stages were 3 leaf and 5 leaf wild oat. 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	June 5
Wild oat stage	3 leaf	5 leaf
Air temperature (°F)	63	60
Soil temperature (°F)	60	60
Relative humidity (%)	52	74
Wind	W 10 mph	NE 6 mph
Sky	overcast	overcast
Rainfall before Application		
Week 1 (inch)	1.73	1.66
Rainfall after Application		
Week 1 (inch)	1.66	0.30
Week 2 (inch)	0.77	0.03

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Treatment	Rate (Product/A)	Wild Oat Control					Wheat Injury					Wheat
		6/6	6/21	6/24	7/7	7/17	6/6	6/21	6/24	7/7	7/17	Yield
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Application #1 (May 26)												
Rimfire Max + Destiny HC	3 oz + 0.75 pt	43	88	90	85	94	10	0	0	0	0	66
Axial XL	16.4 oz	73	92	96	95	98	0	0	0	0	0	70
Wolverive	27.4 oz	68	93	93	93	93	0	0	0	0	0	68
GoldSky + Preference	1 pt + 3.2 oz	37	80	87	91	88	12	0	0	0	0	62
Everest 2.0 + Newton	0.57 oz + 12.8 oz	37	67	85	92	85	3	0	0	0	0	57
Huskie Complete	13.7 oz	50	83	88	92	92	0	0	0	0	0	70
Sierra + Newton	1 oz + 12.8 oz	42	82	87	88	87	7	0	0	0	0	54
Application #2 (June 5)												
Rimfire Max + Destiny HC	3 oz + 0.75 pt	--	47	62	88	78	--	0	0	0	0	38
Axial XL	16.4 oz	--	75	68	80	85	--	0	0	0	0	42
Wolverive	27.4 oz	--	53	82	93	88	--	0	0	0	0	47
GoldSky + Preference	1 pt + 3.2 oz	--	53	63	78	82	--	0	0	0	0	49
Everest 2.0 + Newton	0.57 oz + 12.8 oz	--	33	57	85	82	--	0	0	0	0	35
Huskie Complete	13.7 oz	--	33	55	82	83	--	0	0	0	0	39
Sierra + Newton	1 oz + 12.8 oz	--	52	63	83	85	--	0	0	0	0	40
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	5
LSD (0.05)		16	29	17	ns	ns	6	ns	ns	ns	ns	18

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

Destiny HC = methylated soybean oil, high fructose corn syrup, sorbitan fatty acid esters.

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

Wolverine 1.38E = fenoxaprop-p-ethyl (0.38 lb ai/gal) & pyrasulfotole (0.17 lb ai/gal) & bromoxynil octanoate (0.41 lb ai/gal) & bromoxynil heptanoate (0.42 lb ai/gal).

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

Preference = nonionic surfactant.

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

Newton = ammonium salt, buffering agent, and surfactant blend.

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

Sierra 3.5L = flucarbazone-sodium & cloquintacet (safener).