

Wild oat control in spring wheat with reduced rates of Rimfire Max, Axial XL, Wolverine, GoldSky, Everest 2.0 and Huskie Complete at Crookston, MN - 2012. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas W. Miller. This experiment was designed to evaluate wild oat control with Rimfire Max (propoxycarbazone & mesosulfuron), Axial XL (pinoxaden & adjuvant), Wolverine (fenoxaprop & pyrasulfotole & bromoxynil), GoldSky (pyroxsulam & fluroxypyr & florasulam), Everest 2.0 (flucarbazone-sodium & safener) and Huskie Complete (thiencarbazone-methyl & pyrosulfotole & bromoxynil) applied at the labeled rate and at a reduced rate and at two application times. 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 plowed in the fall. In the spring of the following year, the experimental area was disked and harrowed. 'RB07' hard red spring wheat was seeded on April 9 at 1.5 Bu/A. The experimental design was a randomized complete block with treatments in a split plot arrangement with three replications. Application date comprised whole plots and herbicide treatments, subplots. Subplot size was 10 by 16 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. Application data and environmental conditions are listed below. Crop injury and wild oat control were rated visually. Yields were measured. All data are presented in the table below.

Treatment Date	May 16	May 22
Wild oat stage	3.5 leaf	5-5.5 leaf
Wheat Stage	4.5 leaf	5-5.5 leaf
Air temperature (°F)	52	71
Relative humidity (%)	34	42
Soil temperature (°F)	56	60
Wind	SE 3.8 mph	S 7 mph
Rainfall before Application		
Week 1 (inch)	0.02	0.02
Rainfall after Application		
Week 1 (inch)	0.09	0.84
Week 2 (inch)	0.80	0.03

Early injury symptoms were yellowing. Yellowing cause by Axial XL occurred at he leaf tips. Injury symptoms at the later rating dates were delayed heading and crop shortening.

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Treatment	Rate (Product/A)	Wild Oat Control			Wheat Injury						Wheat Yield (Bu/A)
		6/14 (%)	6/21 (%)	7/18 (%)	5/23 (%)	5/30 (%)	6/8 (%)	6/14 (%)	6/21 (%)	7/18 (%)	
Application #1 (May 16)											
Rimfire Max + Destiny HC	3 oz + 12 oz	93	97	99	8	5	8	3	4	2	61
Rimfire Max + Destiny HC	2.25 oz + 12 oz	96	99	99	10	3	7	5	3	0	60
Axial XL	16.2 oz	98	99	99	2	0	0	0	2	0	63
Axial XL	12.2 oz	99	96	98	0	0	2	0	1	2	62
Wolverine	27.4 oz	98	99	99	0	0	0	0	0	0	62
Wolverine	20.5 oz	99	99	99	0	0	0	0	0	2	68
GoldSky + Preference	16 oz + 3.2	98	97	99	10	10	7	3	6	3	59
GoldSky + Preference	12 oz + 3.2	98	98	98	8	12	5	4	1	3	66
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	99	97	99	7	3	5	2	2	3	64
Everest 2.0 + Newtone	0.57 oz + 12.8 oz	98	98	97	2	2	2	0	0	0	68
Huskie Complete	13.7 oz	95	97	99	10	12	13	10	4	3	65
Huskie Complete	10.3 oz	97	97	98	10	10	12	7	3	5	66
Weedy Check	--	--	--	--	0	0	0	0	0	0	63
Application #2 (May 22)											
Rimfire Max + Destiny HC	3 oz + 12 oz	93	99	99	3	7	3	7	0	0	66
Rimfire Max + Destiny HC	2.25 oz + 12 oz	93	98	99	0	7	5	2	0	3	68
Axial XL	16.4 oz	98	99	98	0	3	0	0	0	2	67
Axial XL	12.2 oz	99	98	97	0	2	0	0	2	0	70
Wolverine	27.4 oz	99	98	98	0	0	0	2	1	2	67
Wolverine	20.5 oz	98	99	99	0	0	0	2	0	2	73
GoldSky + Preference	16 oz + 3.2	98	99	98	2	7	0	0	1	3	72
GoldSky + Preference	12 oz + 3.2	99	99	99	0	8	2	0	1	0	71
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	95	98	98	2	5	2	0	0	2	69
Everest 2.0 + Newtone	0.57 oz + 12.8 oz	96	99	97	0	5	2	0	0	0	72
Huskie Complete	13.7 oz	95	98	98	3	8	8	8	4	5	66
Huskie Complete	10.3 oz	99	98	99	3	8	7	5	4	7	67
Weedy Check	--	--	--	--	0	0	0	0	0	0	65
LSD (0.05)		3	ns	ns	3	3	5	5	3	ns	ns

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).

Newtone = surfactant blend and ammoniated salts.

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