

Wild oat control with grass and broadleaf herbicide combinations in spring wheat at Crookston, MN - 2012. 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 grass herbicides alone and in combination with 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 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. 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 16	May 21
Wild oat stage	3.5 leaf	5-5.5 leaf
Wheat Stage	4.5 leaf	5-5.5 leaf
Air temperature (°F)	52	75
Relative humidity (%)	34	28
Soil temperature (°F)	56	65
Wind	SE 3.8 mph	S 5 mph
Rainfall before Application		
Week 1 (inch)	0.02	0.02
Rainfall after Application		
Week 1 (inch)	0.09	0.81
Week 2 (inch)	0.80	0.06

Axial XL and Foxfire caused yellowing at the 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 (%)	5/31 (%)	6/8 (%)	6/14 (%)	6/21 (%)	7/18 (%)	
Application #1 (May 16)											
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	97	98	99	8	13	7	4	0	2	72
Everest 2.0 + Newtone	1.0 oz + 12.8 oz	98	99	98	5	2	8	0	0	2	74
Everest 2.0 + ARY-0546-001 + ARY-0547-001 + Newtone	0.75 oz + 0.3 oz + 0.1 oz + 12.8 oz	98	98	99	10	10	8	5	1	2	73
GoldSky + Newtone	1.0 pt + 12.8 oz	96	98	99	12	15	10	10	4	3	72
Application #2 (May 21)											
Rimfire Max + Destiny HC	3 oz + 0.75 pt	99	99	99	--	8	3	1	0	0	77
Rimfire Max + Huskie + Destiny HC	3 oz + 11 oz + 0.75 pt	99	98	99	--	12	5	5	1	2	77
Rimfire Max + Huskie + Quad 7	3 oz + 11 oz + 0.8 pt	98	98	99	--	22	10	8	3	3	76
Rimfire Max + Huskie + MSO	3 oz + 11 oz + 1.5 pt	97	99	98	--	22	8	13	7	3	74
Rimfire Max + Affinity Tankmix + Quad 7	3 oz + 0.6 oz + 0.8 pt	97	98	99	--	15	8	3	1	3	78
Rimfire Max + Starane + Quad 7	3 oz + 0.33 pt + 0.8 pt	97	99	99	--	13	8	5	0	2	78
Rimfire Max + Widematch	3 oz + 1.0 pt	95	98	99	--	5	3	1	1	2	82
Puma	0.66 pt	98	99	99	--	2	0	0	0	0	79
Puma + Bronate Advanced	0.66 pt + 0.8 pt	95	98	69	--	7	0	0	0	2	79
Puma + Affinity Tankmix	0.66 pt + 0.6 oz	97	99	98	--	2	3	0	0	2	82
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	98	99	98	--	3	2	3	0	2	81
Everest 2.0 + Newtone	1.0 oz + 12.8 oz	98	99	98	--	8	7	0	1	2	80
Everest 2.0 + Supremacy + Newtone	0.75 oz + 5 oz + 12.8 oz	99	99	98	--	5	3	0	1	2	78
Everest 2.0 + Widematch + MCPA ester + Newtone	0.75 oz + 1 pt + 0.5 pt + 12.8 oz	99	98	98	--	5	5	0	0	3	77
Everest 2.0 + Supremacy + Newtone	1.0 oz + 5 oz + 12.8 oz	98	99	99	--	8	10	1	1	0	75
Everest 2.0 + ARY-0546-001 + ARY-0547-001 + Newtone	0.75 oz + 0.3 oz + 0.1 oz + 12.8 oz	98	98	99	--	8	3	3	0	3	72
Axial XL	16.4 oz	98	99	99	--	12	3	0	2	3	75
Axial XL + Pulsar + MCPA ester	16.4 oz + 8.3 oz + 8.6 oz	98	99	98	--	15	3	2	4	5	76
Axial XL + Widematch + Affinity Tankmix	16.4 oz + 1.0 pt + 0.6 oz	98	99	99	--	3	3	0	0	0	74
Axial XL + Affinity Tankmix	16.4 oz + 0.6 oz	99	98	98	--	7	3	2	2	3	72
Axial XL + Huskie	16.4 oz + 11 oz	98	98	98	--	13	7	2	3	8	72
Axial Star + Bronate Advanced	16.4 oz + 12.8 oz	98	98	98	--	17	3	0	3	5	74
GoldSky + Newtone	1.0 pt + 12.8 oz	98	98	99	--	18	10	7	5	7	74
GoldSky + Affinity Tankmix + Newtone	1.0 pt + 0.6 oz + 12.8 oz	97	99	98	--	23	8	8	3	3	70
GoldSky + Huskie + Newtone	1.0 pt + 11 oz + 12.8 oz	97	98	98	--	17	7	7	3	5	73
GoldSky + N-Pak AMS + Preference	1.0 pt + 3.5 pt + 6.4 oz	97	98	99	--	20	12	7	3	3	73
GoldSky + MCPA ester	1.0 pt + 0.75 pt	97	98	98	--	13	7	7	1	5	76
Huskie Complete	13.7 oz	98	99	99	--	15	5	7	0	2	76
Huskie Complete + N-Pak AMS	13.7 oz + 1.18 pt	97	98	98	--	20	7	7	3	5	72
Wolverine	27.4 oz	98	98	99	--	2	2	0	0	0	82
Foxfire	8.2 oz	99	98	99	--	12	3	0	0	2	80
Weedy Check	--	--	--	--	--	0	0	0	0	0	77
LSD (0.05)		ns	0.7	ns	3	6	5	4	3	ns	7

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

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

ARY-0546-001 75WG = thifensulfuron.

ARY-0547-001 75WG = tribenuron.

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%).

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

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

Quad 7 = ammonium salt, buffering agent, and surfactant blend.

MSO = methylated soybean oil.

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

Starane 1.5 E = fluroxypyr.

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

Puma 1EC = fenoxaprop and safener.

Bronate Advanced 5E = bromoxynil (2.5 lb ai/gal) & MCPA (2.5 lb ae/gal).

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

MCPA Ester 4E.

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

Pulsar 1.67 L = dicamba (0.7275 lb ae/gal) + fluroxypyr (0.9455 lbs ae/gal).

Axial Star 1.15EC = pinoxaden (0.42 lb ai/gal) & fluroxypyr (0.73 lb ae/gal).

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

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

Preference = nonionic surfactant.

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

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).

Foxfire 0.84EC = pinoxaden (0.42 lb ai/gal) & fenoxaprop (0.42 lb ai/gal).