

**Weed control with Axial XL, Puma, Rimfire, and Everest alone and with broadleaf herbicides at Rosemount, MN – 2008.** Durgan, Beverly R., Krishona Martinson, and Douglas Miller. The objective of this experiment was to evaluate wild oat control with Axial XL (pinoxaden & adjuvant), Puma (fenoxaprop & safener), Rimfire (propoxycarbazone & mesosulfuron), Everest (flucarbazone) and several other herbicides alone and in combination with broadleaf herbicides. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil. Following soybeans, the experimental area was fall chisel plowed. In the spring, the area was fertilized with 50 lbs/A N and 70 lbs K. The field was disked once and field cultivated twice. 'Freyr' hard red spring wheat was seeded on May 1 at 90 lbs/A. The experimental design was a randomized complete block with three replications. Plot size was 10 by 24 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat fan nozzles. A broadcast application of Buctril (1.25 pt/A) was applied on June 4 to control broadleaf weeds. Application data and environmental conditions are listed below. Crop injury and foxtail control were rated visually. Yields were measured. All data are presented in the table below.

<b>Treatment Date</b>	<b>June 10</b>
Wheat	
stage	5-6 leaf (some early jointing)
tillers	1-2
height (inch)	8-10
Foxtail	
stage	emerging to 4-5 lf (some 6 lf and tillering)
height (inch)	0.5 to 2-4 (some 5-6)
density (#/ft <sup>2</sup> )	78
Air temperature (°F)	63
Relative humidity	61 %
Sky	10% clouds
Wind	WSW 7-10
Soil conditions	moist
Soil temperature (°F)	65
Rainfall before Application	
Week 1 (inch)	2.15
Rainfall after Application	
Week 1 (inch)	1.53
Week 2 (inch)	0.06

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Treatment	Rate	Foxtail Control			Wheat Injury				Wheat
		6/23	6/30	7/25	6/16	6/23	6/30	7/25	Yield
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Axial XL	16.4 oz	93	99	98	2	0	0	0	45
Axial XL + Orion	16.4 oz + 17 oz	92	96	93	0	0	0	0	45
Axial XL + Orion + Starane	16.4 oz + 17 oz + 0.33 pt	93	99	98	2	0	0	0	41
Axial XL + Bronate Advanced	16.4 oz + 0.8 pt	95	99	96	2	0	0	0	38
Axial XL + Huskie + N-Pak AMS	16.4 oz + 11 oz + 1.2 pt	93	99	96	2	0	0	0	38
Axial XL + Widematch + MCPA-Ester	16.4 oz + 1 pt + 0.75 pt	93	99	96	2	0	0	0	40
Axial XL + Affinity Tankmix + MCPA-Ester	16.4 oz + 0.6 oz + 0.75 pt	92	96	95	0	0	0	0	42
Axial XL + Affinity Tankmix + Widematch	16.4 oz + 0.6 oz + 1 pt	90	96	95	2	0	0	0	43
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 0.67 pt	90	91	96	0	0	0	0	46
A15351 + Adigor Adjuvant + MCPA-Ester + Starane	8.85 oz + 0.6 pt + 0.67 pt + 0.33 pt	92	99	95	0	0	0	0	41
Puma	0.4 pt	93	98	98	2	0	0	0	44
Puma + Widematch + MCPA-Ester	0.67 pt + 1 pt + 0.75 pt	95	99	96	0	0	0	0	45
Puma + Huskie + N-Pak AMS	0.67 pt + 11 oz + 1.2 pt	93	99	96	2	0	0	0	39
Puma + INC-115 + Preference	0.4 pt + 0.8 oz + 3.2 oz	92	99	96	0	0	0	0	40
SP10200001 7228	8 oz	93	99	98	0	0	0	0	46
SP10200001 7228 + Huskie + N-Pak AMS	8 oz + 11 oz + 1.2 pt	93	98	95	0	0	0	0	43
SP10200002 0025	17.1 oz	93	98	91	0	0	0	0	44
SP10200002 0025 + N-Pak AMS	17.1 oz + 1.2 pt	93	99	96	2	0	0	0	41
SP10200002 0025 + 28% UAN	17.1 oz + 2 pt	95	99	96	0	0	0	0	43
SP10200002 0025 + Preference	17.1 oz + 3.2 oz	95	91	95	0	0	0	0	42
Rimfire + Destiny	1.76 oz + 1.5 pt	88	96	72	0	0	0	0	40
Rimfire + Quad 7	1.76 oz + 0.8 pt	90	85	68	2	0	0	0	37
Rimfire + Destiny + Widematch + MCPA-Ester	1.76 oz + 1.5 pt + 1 pt + 0.75 pt	92	94	87	3	0	0	3	38
Rimfire + Destiny + Huskie	1.76 oz + 1.5 pt + 11 oz	90	90	70	2	0	0	0	38
Rimfire + Quad 7 + Huskie	1.76 oz + 0.8 pt + 11 oz	87	85	67	2	0	0	0	38
Everest + Widematch + MCPA-Ester	0.4 oz + 1 pt + 0.75 pt	90	99	88	0	0	0	0	43
Everest + Huskie + N-Pak AMS	0.4 oz + 11 oz + 1.2 pt	93	91	77	2	0	0	0	39
Weedy Check	--	--	--	--	0	0	0	0	34
LSD (0.05)		4	7	9	ns	ns	ns	ns	5

Axial XL 0.053 EC = pinoxaden and adigor adjuvant.

Orion 2.37 SE = florasulam (0.033 lb ai/gal) & MCPA (2.34 lb ae/gal).

Starane 1.5 E = fluroxypyr.

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

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

N-Pak AMS = ammonium sulfate solution.

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

MCPA Ester 4E.

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

A15351 EC = pinoxaden (7.38%) & florasulam (92.62%) & cloquintocet-methyl (safener).

Adigor Adjuvant = emulsifiable oil adjuvant.

Puma 1EC = fenoxaprop and safener.

INC-115 50DF = thifensulfuron (40%) & tribenuron (10%).

Preference = nonionic surfactant.

SP10200001 7228 = experimental from Bayer Crop Science.

SP10200002 0025 = experimental from Bayer Crop Science.

Rimfire 10.2 WDG = propoxycarbazone (8.14%) & mesosulfuron (2.03%).

Destiny = methylated soybean oil and nonionic surfactant blend.

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

Everest 70 WG = flucazabone.