

Weed control with Axial XL, Puma, Rimfire, and Everest alone and with broadleaf herbicides at Crookston, MN - 2008. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, 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 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. 'Freyr' hard red spring wheat was seeded on April 15 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 31
Target wild oat stage	1 to 2 tillers
Air temperature (°F)	61
Relative humidity (%)	75 (heavy dew)
Wind	E 0-2 mph
Sky	clear
Rainfall before Application	
Week 1 (inch)	0.47
Rainfall after Application	
Week 1 (inch)	1.60
Week 2 (inch)	1.03

Wet conditions at planting caused poor stands in areas of the experiment, resulting in a large variation in yield between replicates of various treatments. Because this variation was not consistent among all treatments, yield differences observed in the data may not totally represent the effect of the herbicide treatment applied.

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Treatment	Rate	Wild Oat Control		Wheat Injury			Wheat Yield (Bu/A)
		7/1 (%)	7/16 (%)	6/20 (%)	7/1 (%)	7/16 (%)	
	Product/A						
Axial XL	16.4 oz	95	95	0	0	0	66
Axial XL + Orion	16.4 oz + 17 oz	92	93	0	0	0	63
Axial XL + Orion + Starane	16.4 oz + 17 oz + 0.33 pt	94	92	0	0	0	67
Axial XL + Bronate Advanced	16.4 oz + 0.8 pt	96	96	0	0	0	65
Axial XL + Huskie + N-Pak AMS	16.4 oz + 11 oz + 1.2 pt	96	96	0	0	0	67
Axial XL + Widematch + MCPA-Ester	16.4 oz + 1 pt + 0.75 pt	95	94	0	0	0	69
Axial XL + Affinity Tankmix + MCPA-Ester	16.4 oz + 0.6 oz + 0.75 pt	96	96	0	0	0	72
Axial XL + Affinity Tankmix + Widematch	16.4 oz + 0.6 oz + 1 pt	95	94	0	0	0	53
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 0.67 pt	95	95	0	0	0	62
A15351 + Adigor Adjuvant + MCPA-Ester + Starane	8.85 oz + 0.6 pt + 0.67 pt + 0.33 pt	95	96	0	0	0	67
Puma	0.67 pt	96	95	0	0	0	71
Puma + Widematch + MCPA-Ester	0.67 pt + 1 pt + 0.75 pt	94	93	0	0	0	71
Puma + Huskie + N-Pak AMS	0.67 pt + 11 oz + 1.2 pt	93	95	0	0	0	72
Puma + INC-115 + Preference	0.6 pt + 0.8 oz + 3.2 oz	93	88	0	0	0	78
SP102000017228	14 oz	94	93	0	0	0	74
SP102000017228 + Huskie + N-Pak AMS	14 oz + 11 oz + 1.2 pt	95	94	0	0	0	75
SP102000020025	17.1 oz	89	95	0	0	0	71
SP102000020025 + N-Pak AMS	17.1 oz + 1.2 pt	93	96	0	0	0	72
SP102000020025 + 28% UAN	17.1 oz + 2 pt	95	98	0	0	0	75
SP102000020025 + Preference	17.1 oz + 3.2 oz	92	93	0	0	0	77
Rimfire + Destiny	1.76 oz + 1.5 pt	85	82	0	0	0	57
Rimfire + Quad 7	1.76 oz + 0.8 pt	83	82	0	0	0	60
Rimfire + Destiny + Widematch + MCPA-Ester	1.76 oz + 1.5 pt + 1 pt + 0.75 pt	82	82	0	0	0	61
Rimfire + Destiny + Huskie	1.76 oz + 1.5 pt + 11 oz	78	78	0	0	0	58
Rimfire + Quad 7 + Huskie	1.76 oz + 0.8 pt + 11 oz	80	80	0	0	0	67
Everest + Widematch + MCPA-Ester	0.4 oz + 1 pt + 0.75 pt	78	80	0	0	0	55
Everest + Huskie + N-Pak AMS	0.4 oz + 11 oz + 1.2 pt	75	78	0	0	0	57
Weedy Check	--	--	--	0	0	0	13
LSD (0.05)		8	7	ns	ns	ns	17

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.

SP102000017228 = experimental from Bayer Crop Science.

SP102000020025 = 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 = fluca rbazone.