

Wild oat control with Axial XL, Everest, Puma and Rimfire Max in spring wheat at Crookston, MN – 2009. 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), Everest (flucarbazone), Puma (fenoxaprop & safener), and Rimfire Max (SP102000020887 & pyrasulfotole & bromoxynil). 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 May 18 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	June 10	June 18
Target wild oat stage	2 to 4 leaf	4 to 6 leaf
Air temperature (°F)	67	77
Soil temperature (°F)	60	70
Relative humidity (%)	39	59
Wind	W 5 mph	W 2 mph
Rainfall before Application		
Week 1 (inch)	0.42	0.40
Rainfall after Application		
Week 1 (inch)	0.40	0.45
Week 2 (inch)	0.45	3.28

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Treatment	Rate Product/A	Wild Oat Control			Wheat Injury				Wheat
		6/26 (%)	7/9 (%)	7/23 (%)	6/19 (%)	6/26 (%)	7/9 (%)	7/23 (%)	Yield (Bu/A)
Application #1 (May 29)									
Everest + Quad 7	0.51 oz + 12.8 oz	91	94	94	12	0	0	0	67
Axial XL	16.4 oz	93	93	94	0	0	0	0	64
Puma	0.66 pt	96	89	92	0	0	0	0	63
Rimfire Max + Destiny	[3 oz and 11 oz] + 1.5 pt	93	93	93	18	0	0	0	66
Rimfire Max + Quad 7	[3 oz and 11 oz] + 0.8 pt	91	93	93	22	0	0	0	58
Rimfire Max + Destiny + MCPA-Ester	[3 oz and 11 oz] + 1.5 pt + 0.25 pt	90	91	91	20	0	0	0	59
Rimfire Max + Quad 7 + MCPA-Ester	[3 oz and 11 oz] + 0.8 pt + 0.25 pt	90	91	94	18	0	0	0	56
Axial XL + Affinity Tankmix + Widematch	16.4 oz + 0.6 oz + 0.75 pt	92	93	92	8	0	0	0	68
Puma + Affinity Tankmix + Widematch	0.66 pt + 0.6 oz + 0.75 pt	95	88	88	2	0	0	0	62
Application #2 (June 11)									
Everest + Quad 7	0.51 oz + 12.8 oz	--	92	95	2	0	0	0	63
Axial XL	16.4 oz	--	99	95	0	0	0	0	71
Puma	0.66 pt	--	96	93	0	0	0	0	55
Weedy Check	--	--	--	--	0	0	0	0	6
LSD (0.05)		4	ns	3	5	ns	ns	ns	12

Axial XL 0.053 EC = pinoxaden and adigor adjuvant.

Everest 70 WG = flucarbazone.

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

Puma 1EC = fenoxaprop and safener.

Rimfire Max = [SP10200020887 (experimental from Bayer Crop Science)] and [pyrasulfotole (0.23 lb ai/gal) & bromoxynil 1.85 lb ai/gal] & safener].

Destiny = methylated soybean oil and nonionic surfactant blend.

MCPA Ester 4E.

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

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