

Foxtail control with Axial XL, Everest, Puma and Rimfire Max in spring wheat at Rosemount, MN – 2009. Durgan, Beverly R. and Douglas W. Miller. The objective of this experiment was to evaluate foxtail control with Axial XL (pinoxaden & adjuvant), Everest (flucarbazone), Puma (fenoxaprop & safener), and Rimfire Max (SP102000020887 & pryasulfotole & bromoxynil). 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 75 lbs K.. The field was disked once and field cultivated twice. 'Freyr' hard red spring wheat was seeded on May 4 at 85 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 (bromoxynil) at 1.5 pt/A (0.375 lb ai/A) was applied on June 2 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.

Treatment Date	May 29	June 11
Foxtail		
stage	2-5 leaf (majority 2-4 leaf)	1-8 leaf (majority 4-6 leaf)
height (inch)	0.25-2 (majority 0.75 to 1.5)	0.25-6 (majority 2-5)
density (#/ft ²)	15	23
Wheat		
stage	4.25-4.5 leaf (Zadoks Z14, 20-22)	6.75-7 leaf and jointing (Zadoks Z17, 22-23, 31)
tillers	0-2	2-3
height (inch)	6-8	10-12
Air temperature (°F)	66	71
Relative humidity	32%	30 %
Sky	Clear	50% clouds
Wind	NNW 2-6	N 0-5
Soil conditions	dry	moist
Rainfall before Application		
Week 1 (inch)	0.39	2.11
Rainfall after Application		
Week 1 (inch)	0.12	0.63
Week 2 (inch)	2.11	0.59

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Treatment	Rate Product/A	Foxtail Control				Wheat Injury				Wheat
		6/24	7/5	7/26	8/18	6/15	6/24	7/5	7/26	Yield
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Application #1 (May 29)										
Everest + Quad 7	0.51 oz + 12.8 oz	77	83	84	82	5	3	0	0	63
Axial XL	16.4 oz	80	93	92	90	0	0	0	0	63
Puma	0.5 pt	91	96	96	92	0	0	0	0	62
Rimfire Max + Destiny	[3 oz and 11 oz] + 1.5 pt	72	83	87	85	7	0	0	0	59
Rimfire Max + Quad 7	[3 oz and 11 oz] + 0.8 pt	57	83	82	78	7	8	0	0	62
Rimfire Max + Destiny + MCPA-Ester	[3 oz and 11 oz] + 1.5 pt + 0.25 pt	47	80	78	78	3	7	0	0	57
Rimfire Max + Quad 7 + MCPA-Ester	[3 oz and 11 oz] + 0.8 pt + 0.25 pt	53	82	83	82	7	7	0	0	64
Application #2 (June 11)										
Everest + Quad 7	0.51 oz + 12.8 oz	85	80	82	81	15	10	0	0	62
Axial XL	16.4 oz	87	93	96	92	0	0	0	0	70
Puma	0.5 pt	96	99	98	92	0	0	0	0	68
Axial XL + Affinity Tankmix + Widematch	16.4 oz + 0.6 oz + 0.75 pt	77	96	95	89	0	3	0	0	58
Puma + Affinity Tankmix + Widematch	0.5 pt + 0.6 oz + 0.75 pt	93	95	95	92	0	0	0	0	64
Weedy Check	--	--	--	--		0	0	0	0	55
LSD (0.05)		19	4	6	8	7	5	ns	ns	ns

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 = [SP102000020887 (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).