

Foxtail control in hard red spring wheat with reduced rates at Rosemount, MN - 2007. Durgan, Beverly R., Krishona Martinson, and Douglas Miller. This experiment was designed to evaluate foxtail control with Puma (fenoxaprop & safener), Axial (pinoxaden) Discover (clodinafop and cloquintocet), and Rimfire (propoxycarbazone & mesosulfuron) applied at the labeled rate and at two reduced rates and at two application times. 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. 'Alsen' hard red spring wheat was seeded on May 2 at 85 lbs/A. The experimental design was a randomized complete block with treatments in a split plot arrangement with three replications. Application date comprised whole plots and herbicide treatments, subplots. Subplot 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 5 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 25	June 5
Foxtail		
stage	emerging - 2 lf (15%), 3-4 lf (75%), 4-5 lf (10%)	2-6 lf (mostly 4-5 lf)
height (inch)	0.25 to 2.5 (mostly 0.75 to 1.5)	1 to 7 (mostly 3 to 5)
density (#/ft ²)	35	79
Wheat		
stage	3 leaf	6 leaf
tillers	0-1	2
height (inch)	4-6	10-12
Air temperature (°F)	67	67
Soil temperature (°F)	70	65
Sky	50-70% clouds	20% clouds
Wind	S 0-7	calm
Soil conditions	moist	moist
Rainfall before Application		
Week 1 (inch)	1.47	1.0
Rainfall after Application		
Week 1 (inch)	1.04	0.36
Week 2 (inch)	0.8	0.32

**Foxtail control with reduced rates of Puma, Axial, Discover, and Rimfire at Rosemount, MN - 2007.
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Treatment	Rate	Foxtail Control				Wheat Injury				Wheat
		6/15	6/21	6/28	7/15	6/15	6/21	6/28	7/15	Yield
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Application #1 (May 25)										
Puma	0.5 pt	80	83	--	90	0	0	--	0	42
Puma	0.37 pt	67	83	--	84	0	0	--	0	39
Puma	0.25 pt	80	83	--	72	0	0	--	0	36
Axial + Adigor Adjuvant	8.2 oz + 9.6 oz	80	80	--	87	0	0	--	0	40
Axial + Adigor Adjuvant	6.2 oz + 9.6 oz	73	87	--	87	0	0	--	0	38
Axial + Adigor Adjuvant	4.1 oz + 9.6 oz	70	80	--	82	0	0	--	0	39
Discover NG	12.8 oz	80	83	--	87	0	0	--	0	42
Discover NG	9.6 oz	73	83	--	77	0	0	--	0	40
Discover NG	6.4 oz	80	87	--	75	0	0	--	0	41
Rimfire + Destiny	1.75 oz + 1.5 pt	77	67	--	47	0	0	--	0	36
Rimfire + Destiny	1.31 oz + 1.5 pt	77	70	--	43	0	0	--	0	32
Rimfire + Destiny	0.88 oz + 1.5 pt	73	63	--	47	0	0	--	0	38
Weedy Check	--	--	--	--	--	0	0	--	0	31
Application #2 (June 5)										
Puma	0.5 pt	40	70	65	83	0	0	0	0	40
Puma	0.37 pt	53	63	68	83	0	0	0	0	42
Puma	0.25 pt	47	63	65	70	0	0	0	0	36
Axial + Adigor Adjuvant	8.2 oz + 9.6 oz	53	73	60	78	0	0	0	0	38
Axial + Adigor Adjuvant	6.2 oz + 9.6 oz	73	67	63	80	0	0	0	0	39
Axial + Adigor Adjuvant	4.1 oz + 9.6 oz	47	63	55	82	0	0	0	0	40
Discover NG	12.8 oz	67	67	70	83	0	0	0	0	40
Discover NG	9.6 oz	47	60	68	73	0	0	0	0	45
Discover NG	6.4 oz	40	60	57	73	0	0	0	0	42
Rimfire + Destiny	1.75 oz + 1.5 pt	40	57	53	48	0	0	0	0	38
Rimfire + Destiny	1.31 oz + 1.5 pt	47	53	50	42	0	0	0	0	41
Rimfire + Destiny	0.88 oz + 1.5 pt	40	53	53	45	0	0	0	0	36
Weedy Check	--	--	--	--	--	0	0	0	0	37
LSD (0.05)		20	17	12	15	ns	ns	ns	ns	ns

Puma 1EC = fenoxaprop and safener

Axial 0.83 EC = pinoxaden.

Adigor Adjuvant = emulsifiable oil adjuvant from Syngenta.

Discover NG 0.5 EC = clodinafop and cloquintocet (safener).

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

Destiny = methylated soybean oil and nonionic surfactant blend.