

**Weed control with Puma, Axial, Discover and Everest alone and with broadleaf herbicides at Rosemount, MN - 2007.** Durgan, Beverly R., Krishona Martinson, and Douglas Miller. The objective of this experiment was to evaluate foxtail control with Puma (fenoxaprop & safener), Axial (pinoxaden), Discover NG (clodinafop & cloquintocet), and Everest (flucarbazone) alone and in combination with several 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. 'Alsen' hard red spring wheat was seeded on May 2 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 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.

<b>Treatment Date</b>	<b>May 31</b>
Wheat	
stage	5 leaf
tillers	1-2
height (inch)	6-8
Foxtail	
stage	1-6 lf (mostly 4-5 lf)
height (inch)	0.5 to 3 (mostly 1.5 to 2)
density (#/ft <sup>2</sup> )	105
Air temperature (°F)	70
Dewpoint (°F)	55
Sky	10% clouds
Wind	SSW 0-4
Soil conditions	moist
Soil temperature (°F)	75
Rainfall before Application	
Week 1 (inch)	1.04
Rainfall after Application	
Week 1 (inch)	0.80
Week 2 (inch)	0.06

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Treatment	Rate	Foxtail Control			Wheat Injury			Wheat Yield (Bu/A)
		6/15	6/21	7/15	6/15	6/21	7/15	
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	
Puma	0.4 pt	83	87	90	0	0	0	48
Puma + Affinity Tankmix	0.4 pt + 0.6 oz	77	87	90	0	0	0	45
Puma + Bronate Advanced	0.4 pt + 0.8 pt	83	90	93	0	0	0	45
Puma + Huskie + N-Pak AMS	0.4 pt + 11 oz + 1.2 pt	83	87	87	0	0	0	44
Puma + Widematch + MCPA-Ester	0.4 pt + 1 pt + 0.75 pt	83	90	91	0	0	0	45
Axial + Adigor Adjuvant	8.2 oz + 0.6 pt	83	87	88	0	0	0	45
Axial + Adigor Adjuvant + Affinity Tankmix	8.2 oz + 0.6 pt + 0.6 oz	70	80	82	0	0	0	44
Axial + Adigor Adjuvant + Bronate Advanced	8.2 oz + 0.6 pt + 0.8 pt	77	90	91	0	0	0	46
Axial + Adigor Adjuvant + Huskie + N-Pak AMS	8.2 oz + 0.6 pt + 11 oz + 1.2 pt	80	87	88	0	0	0	41
Axial + Adigor Adjuvant + Widematch + MCPA-Ester	8.2 oz + 0.6 pt + 1 pt + 0.75 pt	73	83	85	0	0	0	46
Discover NG	12.8 oz	70	83	85	0	0	0	49
Discover NG + Affinity Tankmix	12.8 oz + 0.6 oz	67	83	83	0	0	0	50
Discover NG + Bronate Advanced	12.8 oz + 0.8 pt	80	90	90	0	0	0	48
Discover NG + Huskie + N-Pak AMS	12.8 oz + 11 oz + 1.2 pt	73	87	89	0	0	0	46
Discover NG + Widematch + MCPA-Ester	12.8 oz + 1 pt + 0.75 pt	73	90	92	0	0	0	47
Everest + Destiny	0.4 oz + 0.8 pt	72	73	77	0	0	0	45
Everest + Destiny + Affinity Tankmix	0.4 oz + 0.8 pt + 0.6 oz	80	83	80	0	0	0	40
Everest + Destiny + Bronate Advanced	0.4 oz + 0.8 pt + 0.8 pt	78	80	81	0	0	0	45
Everest + Destiny + Huskie + N-Pak AMS	0.4 oz + 0.8 pt + 11 oz + 1.2 pt	80	80	84	0	0	0	45
Everest + Destiny + Widematch + MCPA-Ester	0.4 oz + 0.8 pt + 1 pt + 0.75 pt	70	83	85	0	0	0	44
BAYER Test Compound 11 + N-Pak AMS	27.4 oz + 1.2 pt	83	90	90	0	0	0	42
BAYER Test Compound 12 + N-Pak AMS	27.4 oz + 1.2 pt	83	87	88	0	0	0	46
Weedy Check	--	--	--	--	0	0	0	38
LSD (0.05)		ns	9	ns	ns	ns	ns	ns

Puma 1EC = fenoxaprop and safener

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

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.

Axial 0.83 EC = pinoxaden.

Adigor Adjuvant = emulsifiable oil adjuvant from Syngenta.

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

Everest 70 WG = flucarbazone.

Destiny = methylated soybean oil and nonionic surfactant blend.