

**Weed control with Puma, Axial, Discover and Everest alone and with broadleaf herbicides at Crookston, MN - 2007.** Durgan, Beverly R., Jochum Wiersma, Jim Cameron, 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 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. 'Alsen' hard red spring wheat was seeded on April 25 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.

<b>Treatment Date</b>	<b>May 27</b>
Wheat stage	4.5 leaf
Wild oat stage	4.5 leaf
Air temperature (°F)	75
Relative humidity (%)	22
Soil temperature (°F)	65
Wind	W 1 mph
Sky	sunny
Rainfall before Application	
Week 1 (inch)	1.21
Rainfall after Application	
Week 1 (inch)	0.58
Week 2 (inch)	1.28

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Treatment	Rate	Wild Oat Control		Wheat Injury			Wheat Yield (Bu/A)
		6/28 (%)	7/5 (%)	6/8 (%)	6/28 (%)	7/5 (%)	
Puma	0.67 pt	99	98	0	0	0	51
Puma + Affinity Tankmix	0.67 pt + 0.6 oz	97	96	0	0	0	45
Puma + Bronate Advanced	0.67 pt + 0.8 pt	93	87	0	0	0	44
Puma + Huskie + N-Pak AMS	0.67 pt + 11 oz + 1.2 pt	93	86	0	0	0	41
Puma + Widematch + MCPA-Ester	0.67 pt + 1 pt + 0.75 pt	95	86	0	0	0	45
Axial + Adigor Adjuvant	8.2 oz + 0.6 pt	99	96	0	0	0	44
Axial + Adigor Adjuvant + Affinity Tankmix	8.2 oz + 0.6 pt + 0.6 oz	99	95	0	0	0	52
Axial + Adigor Adjuvant + Bronate Advanced	8.2 oz + 0.6 pt + 0.8 pt	95	93	0	0	0	44
Axial + Adigor Adjuvant + Huskie + N-Pak AMS	8.2 oz + 0.6 pt + 11 oz + 1.2 pt	98	98	0	0	0	54
Axial + Adigor Adjuvant + Widematch + MCPA-Ester	8.2 oz + 0.6 pt + 1 pt + 0.75 pt	96	98	0	0	0	46
Discover NG	12.8 oz	99	96	0	0	0	56
Discover NG + Affinity Tankmix	12.8 oz + 0.6 oz	99	99	0	0	0	56
Discover NG + Bronate Advanced	12.8 oz + 0.8 pt	98	98	0	0	0	59
Discover NG + Huskie + N-Pak AMS	12.8 oz + 11 oz + 1.2 pt	99	95	0	0	0	43
Discover NG + Widematch + MCPA-Ester	12.8 oz + 1 pt + 0.75 pt	99	96	0	0	0	52
Everest + Destiny	0.4 oz + 0.8 pt	93	84	0	0	0	46
Everest + Destiny + Affinity Tankmix	0.4 oz + 0.8 pt + 0.6 oz	82	74	0	0	0	40
Everest + Destiny + Bronate Advanced	0.4 oz + 0.8 pt + 0.8 pt	77	58	0	0	0	25
Everest + Destiny + Huskie + N-Pak AMS	0.4 oz + 0.8 pt + 11 oz + 1.2 pt	73	58	0	0	0	31
Everest + Destiny + Widematch + MCPA-Ester	0.4 oz + 0.8 pt + 1 pt + 0.75 pt	83	71	0	0	0	36
BAYER Test Compound 11 + N-Pak AMS	27.4 oz + 1.2 pt	95	92	0	0	0	41
BAYER Test Compound 12 + N-Pak AMS	27.4 oz + 1.2 pt	86	78	0	0	0	42
Weedy Check	--	0	0	0	0	0	3
LSD (0.05)		6	12	ns	ns	ns	15

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.