

Wild oat control with Puma, Discover, Everest, and Silverado alone and with broadleaf herbicides at Crookston, MN - 2005. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller . The objective of the this experiment was to evaluate wild oat control with Puma (fenoxaprop & safener), Discover NG (clodinafop & cloquintocet), Everest (flucarbazone), and Silverado (mesosulfuron-methyl) 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 May 3 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. Wild oat population was 185/ft². 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 4
Wheat stage	3.5-4 leaf
Air temperature (°F)	72
Relative humidity (%)	31
Soil conditions	moist
Rainfall before Application	
Week 1 (inch)	0.47
Rainfall after Application	
Week 1 (inch)	1.40
Week 2 (inch)	2.39

Table. Wild oat control with Puma, Discover, Everest, and Silverado alone and with broadleaf herbicides at Crookston, MN - 2005 (Durgan, Wiersma, Cameron, and Miller).

Treatment	Rate (lb ai/A)	Wheat Injury			AVEFA Control		Wheat Yield (bu/A)
		6/9	7/5	7/11	7/5	7/11	
		----- % -----			-----		
Fenoxaprop & safener	0.082	10	0	0	99	99	60
Fenoxaprop & safener + bromoxynil & MCPA ester ¹	0.082 + 0.25 & 0.25	10	0	0	99	96	56
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.082 + 0.25 & 0.25 + 0.062	10	0	0	96	96	52
Fenoxaprop & safener + thifensulfuron	0.082 + 0.0187	12	0	0	99	99	62
Fenoxaprop & safener + thifensulfuron + fluroxypyr	0.082 + 0.0187 + 0.062	12	0	0	99	99	59
Fenoxaprop & safener + thifensulfuron + tribenuron	0.082 + 0.015 + 0.00375	10	0	0	98	99	57
Fenoxaprop & safener + thifensulfuron + tribenuron + MCPA ester	0.082 + 0.015 + 0.00375 + 0.025	12	0	0	99	99	61
Flucarbazone + NIS ²	0.0175 + 0.25%	10	0	0	85	77	53
Flucarbazone + thifensulfuron + tribenuron + NIS	0.0175 + 0.015 + 0.00375 + 0.25%	10	0	0	75	68	42
Clodinafop & cloquintocet	0.05	10	0	0	99	99	61
Clodinafop & cloquintocet + bromoxynil & MCPA ester	0.05 + 0.25 & 0.25	10	0	0	99	99	58
Clodinafop & cloquintocet + thifensulfuron + tribenuron + fluroxypyr	0.05 + 0.015 + 0.00375 + 0.062	8	0	0	99	99	64
Clodinafop & cloquintocet + MCPA ester + dicamba ³	0.05 + 0.25 + 0.062	10	0	0	99	98	59
Clodinafop & cloquintocet + thifensulfuron + MCPA ester	0.05 + 0.0187 + 0.025	12	0	0	99	99	62
Clodinafop & cloquintocet + clopyralid & fluroxypyr ⁴ + MCPA ester	0.05 + 0.125 & 0.125 + 0.025	10	0	0	99	89	53
Mesosulfuron-methyl ⁵ + Destiny ⁶	0.0022 + 1.9%	8	0	0	95	96	52
Mesosulfuron-methyl ⁷ + Destiny	0.0022 + 1.9%	8	0	0	93	93	56
Mesosulfuron-methyl ⁷ + Newton ⁸	0.0022 + 1.0%	10	0	0	93	93	52
Mesosulfuron-methyl ⁷ + bromoxynil & MCPA ester + Destiny	0.0022 + 0.25 & 0.25 + 1.9%	13	80	0	88	93	50
Mesosulfuron-methyl ⁷ + bromoxynil & MCPA ester + Newton	0.0022 + 0.25 & 0.25 + 1.9%	20	0	0	90	80	47
Mesosulfuron-methyl ⁷ + MCPA ester + fluroxypyr + Destiny	0.0022 + 0.4 + 0.062 + 1.9%	10	0	0	91	91	47
Mesosulfuron-methyl ⁷ + MCPA ester + fluroxypyr + Newton	0.0022 + 0.4 + 0.062 + 1.9%	10	0	0	94	98	54
Mesosulfuron-methyl ⁷ + AG 05006 ⁹	0.0022 + 0.9%	10	0	0	93	91	47
Mesosulfuron-methyl ⁷ + AG 05006	0.0022 + 1.9%	12	3	2	89	96	53
Mesosulfuron-methyl ⁷ + Destiny + AG 02013 ¹⁰	0.0022 + 1.9% + 0.15%	8	3	2	91	86	54
Weedy check		0	0	0	—	—	12
LSD (P=.05)		3	ns	ns	11	16	10

¹ Premix = Bronate Advanced 5E.

² NIS = Class Preference nonionic surfactant.

³ dicamba = Clarity 4L.

⁴ Premix = Widematch 1.5E.

⁵ Silverado liquid formulation.

⁶ Destiny = methylated seed oil adjuvant.

⁷ Silverado 2 WDG formulation.

⁸ Newton = surfactant and nitrogen basic blend.

⁹ AG 05006 = modifird concentrated methylated seed oil adjuvant from Agrilience,

¹⁰ AG 02013 = drift control - deposition agent from Agrilience.