

Wild oat control with Puma, Discover, and Everest alone and with broadleaf herbicides at Crookston, MN - 2003. Durgan, Beverly R., Jim Cameron, and Douglas W. Miller . The objective of the this experiment was to evaluate wild oat control with Puma (fenoxaprop & safener), Discover 0.5E (clodinafop & safener), 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 the experimental area was disked and harrowed. '2375' hard red spring wheat and 'Lacey' Barley were seeded on April 29 at 1.5 and 1.75 Bu/A respectively. 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 Tables 1 and 2 for barley and wheat, respectively.

Treatment Date	May 29
Weed stage	3-4 leaf Wild Oats
Air Temperature (° F.)	79
Rainfall before Application Week 1 (inch)	0.22
Rainfall after Application Week 1 (inch)	0.41
Week 2 (inch)	1.42

Table 1. Wild oat control with Puma, Discover, and Everest alone and with broadleaf herbicides in barley at Crookston, MN - 2003 (Durgan, Cameron, and Miller).

Treatment	Rate (lb ai/A)	Barley Injury			AVEFA Control	Barley Yield (bu/A)
		6/5	6/12	7/1	7/1	
		----- (%) -----			-----	
Fenoxaprop & safener	0.082	2	0	0	99	113
Fenoxaprop & safener + bromoxynil & MCPA ester ¹	0.082 + 0.25 & 0.25	2	0	3	99	121
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.082 + 0.187 & 0.187 + 0.062	0	0	0	99	127
Fenoxaprop & safener + bromoxynil & MCPA ester + thifensulfuron	0.082 + 0.187 & 0.187 + 0.014	0	0	0	99	126
Fenoxaprop & safener + thifensulfuron + fluroxypyr	0.082 + 0.014 + 0.062	0	0	0	99	126
Clodinafop & safener	0.05	37	30	7	99	106
Clodinafop & safener + bromoxynil & MCPA ester	0.05 + 0.25 & 0.25	38	27	10	99	113
Clodinafop & safener + bromoxynil & MCPA ester + fluroxypyr	0.05 + 0.187 & 0.187 + 0.062	38	23	0	99	118
Clodinafop & safener + thifensulfuron + fluroxypyr	0.05 + 0.014 + 0.062	40	17	12	99	110
Clodinafop & safener + MCPA ester + dicamba ²	0.05 + 0.25 + 0.062	37	22	12	99	110
Clodinafop & safener + thifensulfuron & tribenuron ³ + fluroxypyr	0.05 + 0.096 & 0.044 + 0.062	37	20	3	99	105
Clodinafop & safener + clopyralid & MCPA ester ⁴ + fluroxypyr	0.05 + 0.026 & 0.147 + 0.062	37	33	10	99	106
Flucarbazone + NIS ⁵	0.026 + 0.25%	33	45	13	99	103
Flucarbazone + bromoxynil & MCPA ester + NIS	0.026 + 0.25 & 0.25 + 0.25%	33	47	8	99	112
Weedy check		0	0	0	--	116
LSD (P=.05)		7	11	9	ns	ns

¹ Premix = Bronate Advanced 5E.

² dicamba = Clarity 4L.

³ Premix = Harmony Extra 75DF.

⁴ Premix = Curtail M 2.77E.

⁵ NIS = Class Preference nonionic surfactant.

Table 2. Wild oat control with Puma, Discover, and Everest alone and with broadleaf herbicides in wheat at Crookston, MN - 2003 (Durgan, Cameron, and Miller).

Treatment	Rate (lb ai/A)	Wheat Injury			AVEFA Control	Wheat Yield (bu/A)
		6/5	6/12	7/1	7/1	
		----- (%) -----			-----	
Fenoxaprop & safener	0.082	2	0	0	99	73
Fenoxaprop & safener + bromoxynil & MCPA ester ¹	0.082 + 0.25 & 0.25	2	0	2	99	74
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.082 + 0.187 & 0.187 + 0.062	0	0	0	99	74
Fenoxaprop & safener + bromoxynil & MCPA ester + thifensulfuron	0.082 + 0.187 & 0.187 + 0.014	0	0	0	99	73
Fenoxaprop & safener + thifensulfuron + fluroxypyr	0.082 + 0.014 + 0.062	0	0	0	99	75
Clodinafop & safener	0.05	0	0	0	99	70
Clodinafop & safener + bromoxynil & MCPA ester	0.05 + 0.25 & 0.25	0	0	0	99	73
Clodinafop & safener + bromoxynil & MCPA ester + fluroxypyr	0.05 + 0.187 & 0.187 + 0.062	0	0	0	99	71
Clodinafop & safener + thifensulfuron + fluroxypyr	0.05 + 0.014 + 0.062	0	0	0	99	75
Clodinafop & safener + MCPA ester + dicamba ²	0.05 + 0.25 + 0.062	0	0	3	99	70
Clodinafop & safener + thifensulfuron & tribenuron ³ + fluroxypyr	0.05 + 0.096 & 0.044 + 0.062	0	0	2	99	67
Clodinafop & safener + clopyralid & MCPA ester ⁴ + fluroxypyr	0.05 + 0.026 & 0.147 + 0.062	0	0	0	99	64
Flucarbazone + NIS ⁵	0.026 + 0.25%	0	0	0	99	78
Flucarbazone + bromoxynil & MCPA ester + NIS	0.026 + 0.25 & 0.25 + 0.25%	0	0	2	99	74
Weedy check		0	0	0	--	54
LSD (P=.05)		ns	ns	ns	ns	9

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