

Wild oat control with flucarbazone formulations compared with other wild oat herbicides in spring wheat at Crookston, MN – 2010. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control with Everest (flucarbazone) and other flucarbazone formulations compared with several other wild oat 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. 'RB07' hard red spring wheat was seeded on April 19 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.

Treatment Date	May 18	May 26
Target wild oat stage	2 to 4 leaf	4 to 6 leaf
Air temperature (°F)	74	63
Soil temperature (°F)	65	60
Relative humidity (%)	37	46
Wind	S 4 mph	S 7.1 mph
Sky	clear	clear
Rainfall before Application		
Week 1 (inch)	0.33	3.23
Rainfall after Application		
Week 1 (inch)	3.23	0.46
Week 2 (inch)	0.46	0.66

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Treatment	Rate Product/A	Wild Oat Control			Wheat Injury			Wheat Yield (Bu/A)
		6/4 (%)	6/25 (%)	7/2 (%)	6/4 (%)	6/25 (%)	7/2 (%)	
Application #1 (May 18)								
ARY-0454-113 + Newtone	0.68 oz + 12.8 oz	67	72	70	0	0	0	38
ARY-0454-113 + Widematch + Newtone	0.68 oz + 1 pt + 12.8 oz	65	72	73	0	0	0	48
Everest 2.0 + Newtone	0.69 oz + 12.8 oz	72	80	91	0	0	0	41
Everest 2.0 + Widematch + Newtone	0.69 oz + 1 pt + 12.8 oz	73	82	85	0	0	0	56
ARY-0454-113 + Supremacy + Newtone	0.68 oz + 5 oz + 12.8 oz	72	75	85	0	0	0	50
GoldSky + Newtone	1 pt + 12.8 oz	77	92	90	0	0	0	60
Axial XL	16.4 oz	92	98	94	0	0	0	60
Wolverine	27.4 oz	84	99	93	0	0	0	56
Rimfire Max + Destiny HC	3 oz + 1.5 pt	78	95	90	0	0	0	57
Everest + Preference	0.6 oz + 3.2 oz	68	72	73	0	0	0	43
Everest + Puma + Preference	0.6 oz + 1 oz + 3.2 oz	73	67	68	0	0	0	32
Application #2 (May 26)								
ARY-0454-113 + Widematch + Newtone	0.68 oz + 1 pt + 12.8 oz	50	50	53	0	0	0	12
Everest 2.0 + Widematch + Newtone	0.69 oz + 1 pt + 12.8 oz	50	73	67	0	0	0	21
ARY-0454-113 + Supremacy + Newtone	0.68 oz + 5 oz + 12.8 oz	50	42	60	0	0	0	17
ARY-0548-019 + 2,4-D Ester	7 oz + 0.75 pt	50	67	63	0	0	0	32
Everest 2.0 + Widematch + Newtone	1.04 oz + 1 pt + 12.8 oz	45	50	65	0	0	0	19
Axial XL + Widematch + MCPA ester	16.4 oz + 1 pt + 0.5 pt	50	99	96	0	0	0	39
Wolverine	27.4 oz	50	80	90	0	0	0	25
GoldSky + Newtone	1 pt + 12.8 oz	50	85	75	0	0	0	21
Rimfire Max + Destiny HC	3 oz + 1.5 pt	57	85	85	0	0	0	28
Rimfire Max + Huskie + Destiny HC	3 oz + 11 oz + 1.5 pt	50	85	87	0	0	0	26
Rimfire Max + Huskie + Quad 7	3 oz + 11 oz + 0.8 pt	50	83	83	0	0	0	25
Everest + Preference	0.6 oz + 3.2 oz	50	75	73	0	0	0	26
Everest + Puma + Preference	0.6 oz + 1 oz + 3.2 oz	50	82	80	0	0	0	18
Weedy Check	--	--	--	--	0	0	0	2
LSD (0.05)		10	23	10	ns	ns	ns	17

ARY-0454-0113 = experimental safened flucarbazone (Everest) formulation.

Newtone = ammonium salt, buffering agent, and surfactant blend.

Widematch 1.5 E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

Everest 2.0 3.27 SC = flucarbazone-sodium & cloquintacet-mexl (safener).

Supremacy = thifensulfuron & tribenuron & fluroxypyr.

GoldSky 1.53L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

Axial XL 0.053 EC = pinoxaden and adigor adjuvant.

Wolverine 1.38E = fenoxaprop-p-ethyl (0.38 lb ai/gal) & pyrasulfotole (0.17 lb ai/gal) & bromoxynil octanoate (0.41 lb ai/gal) & bromoxynil heptanoate (0.42 lb ai/gal).

Rimfire Max 6.67 WDG = propoxycarbazone-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Destiny HC = methylated soybean oil, high fructose corn syrup, sorbitan fatty acid esters.

Everest 70 WG = flucarbazone-sodium.

Preference = nonionic surfactant.

Puma 1EC = fenoxaprop and safener.

ARY-0548-019 = flucarbazone-sodium & cloquintacet-mexl (safener) & fluroxypyr.

2,4-D Ester LV4.

MCPA Ester 4E.

Huskie 2.08 EC = pyrasulfotole (0.23 lb ai/gal) & bromoxynil 1.85 lb ai/gal) & safener.

Quad 7 = ammonium salt, buffering agent, and surfactant blend.