<u>Wild oat and broadleaf herbicide combinations at Crookston, MN - 2010.</u> Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control with several herbicides alone and in combination with 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. '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 17**
Target wild oat stage	2 to 4 leaf
Air temperature (°F)	71
Relative humidity (%)	35
Wind	S 5 mph
Rainfall before Application	
Week 1 (inch)	0.36
Rainfall after Application	
Week 1 (inch)	3.23
Week 2 (inch)	0.38

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Treatment	Rate	Wild Oat Control			Wheat Injury			Wheat
		6/4	6/25	7/2	6/4	6/25	7/2	Yield
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Wolverine	27.4 oz	91	94	92	0	0	0	64
Puma + Huskie	0.67 pt + 11 oz	91	85	87	0	0	0	69
Puma + Orion	0.67 pt + 17 oz	87	73	63	0	0	0	56
Puma + Bronate Advanced	0.67 pt + 0.8 pt	75	78	67	0	0	0	63
Puma + Widematch	0.67 pt + 1 pt	92	92	90	0	0	0	69
Puma + Bronate Advanced	0.5 pt + 0.8 pt	72	72	63	0	0	0	52
Puma + Huskie	0.5 pt + 11 oz	82	87	68	0	0	0	63
Puma + Orion	0.5 pt + 17 oz	80	63	60	0	0	0	44
Puma	0.5 pt	89	91	83	0	0	0	66
Puma	0.67 pt	90	93	92	0	0	0	71
Axial XL	16.4 oz	94	99	98	0	0	0	69
Axial XL + Orion	16.4 oz + 17 oz	95	98	94	0	0	0	70
Axial XL + Huskie	16.4 oz + 11 oz	93	99	97	0	0	0	70
Axial XL + Bronate Advanced	16.4 oz + 0.8 pt	93	99	95	0	0	0	73
Axial XL + Pulsar + MCPA ester	16.4 oz + 8.3 oz + 0.5 pt	93	98	93	0	0	0	68
Axial XL + Widematch + MCPA ester	16.4 oz + 1 pt + 0.5 pt	95	99	98	0	0	0	71
Axial TBC + Adigor Adjuvant	8.85 oz + 9.6 oz	94	99	96	0	0	0	74
Axial TBC + Adigor Adjuvant + Starane	8.85 oz + 9.6 oz + 0.8 pt	95	99	98	0	0	0	72
Axial TBC + Adigor Adjuvant + Widematch	8.85 oz + 9.6 oz + 1 pt	95	99	97	0	0	0	78
Axial TBC + Adigor Adjuvant + Bronate Advanced	8.85 oz + 9.6 oz + 0.8 pt	93	99	98	0	0	0	74
Axial TBC + Adigor Adjuvant + Pulsar	8.85 oz + 9.6 oz + 8.3 oz	93	99	96	0	0	0	73
Rimfire Max + Destiny HC	3 oz + 1.5 pt	90	95	96	0	0	0	71
Rimfire Max + Huskie + Quad 7	3 oz + 11 oz + 12.8 oz	77	90	95	0	0	0	71
GoldSky + Newtone	16 oz + 12.8 oz	87	98	96	0	0	0	71
Weedy Check	--	--	--	--	0	0	0	1
LSD (0.05)		10	8	7	ns	ns	ns	9

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).

Puma 1EC = fenoxaprop and safener

Huskie 2.08 EC = pryrasulfotole & bromoxynil & safener.

Orion 2.37 SE = florasulam (0.033 lb ai/gal) & MCPA (2.34 lb ae/gal).

Bronate Advanced 5E = bromoxynil (2.5 lb ai/gal) & MCPA (2.5 lb ae/gal).

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

Axial XL 0.053 EC = pinoxaden and adigor adjuvant.

Pulsar 1.67 L = dicamba (0.7275 lb ae/gal) + fluroxypyr (0.9455 lbs ae/gal).

MCPA Ester 4E.

Axial TBC 0.838 EC = pinoxaden (0.774 lb ai/gal) & florasulam (0.0645 lb ai/gal) & safener.

Adigor Adjuvant = emulsifable oil adjuvant.

Starane 1.5 E = fluroxypyr.

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.

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

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

Newtone = surfactant blend and ammoniated salts.