

Broadleaf weed control in 2 to 4 leaf spring wheat at Crookston, MN - 2010. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with broadleaf herbicides applied at the 2 to 4 leaf wheat stage. 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. '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 24 ft. Application date and environmental conditions are listed below. Crop injury and weed control were visually rated and yields were measured. Data presented in the table below.

Treatment Date	May 19
Wheat stage	3 leaf / tillering
Air temperature (°F)	73
Soil temperature (°F)	65
Relative humidity (%)	33
Wind	S 4 mph
Rainfall before Application	
Week 1 (inch)	0.33
Rainfall after Application	
Week 1 (inch)	3.23
Week 2 (inch)	0.46

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Treatment	Rate	Weed Control															Wheat Yield (Bu/A)
		Common Lambsquarters			Common Mallow			Marshelder			Wild Buckwheat			Wild Mustard			
		6/4	6/25	7/2	6/4	6/25	7/2	6/4	6/25	7/2	6/4	6/25	7/2	6/4	6/25	7/2	
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Huskie + N-Pak AMS	11 oz + 1.18 pt	99	99	96	99	98	90	99	98	95	99	98	91	99	99	99	66
Huskie + N-Pak AMS	13 oz + 1.18 pt	99	98	98	99	97	91	99	98	98	99	98	95	99	99	99	66
Huskie + N-Pak AMS + Preference	11 oz + 1.18 pt + 3.2 oz	99	98	96	99	98	88	99	98	95	99	94	91	99	99	99	70
Huskie + N-Pak AMS + Preference	13 oz + 1.18 pt + 3.2 oz	99	99	96	99	98	93	99	98	96	99	98	96	99	99	99	64
Widematch + MCPA Ester	1 pt + 0.5 pt	95	91	98	85	80	90	92	90	96	90	88	93	99	99	99	61
Affinity Tankmix + Starane + Preference	0.6 oz + 0.5 pt + 3.2 oz	99	98	96	99	98	86	99	98	96	99	98	93	99	98	99	62
Affinity Tankmix + MCPA-Ester + Preference	0.6 oz + 0.5 pt + 3.2 oz	99	99	98	99	98	91	99	98	96	99	98	93	99	99	99	67
Wolverine	27.4 oz	99	96	96	95	91	90	98	95	95	96	94	91	99	98	99	66
Orion	17 oz	93	93	98	91	90	90	93	93	95	98	95	92	99	99	99	66
GoldSky + Preference	16 oz + 3.2 oz	96	94	96	90	88	90	93	93	95	94	94	90	99	99	99	70
Pulsar + Preference	8.3 oz + 3.2 oz	99	95	93	91	88	80	93	93	93	96	96	87	99	99	99	64
Pulsar + MCPA-Ester + Preference	8.3 oz + 0.5 pt + 3.2 oz	92	90	93	84	80	73	90	88	92	93	88	87	96	95	99	61
Pulsar + Affinity Tankmix + Preference	8.3 oz + 0.6 oz + 3.2 oz	93	91	96	83	82	93	88	87	96	92	91	93	96	96	99	62
Orion + Starane	17 oz + 0.33 pt	99	96	95	90	86	90	93	93	95	92	95	90	99	99	99	67
Orion + Buctril	17 oz + 1 pt	96	94	98	90	86	93	93	93	98	90	93	95	99	98	99	65
Pulsar + Widematch + Affinity Tankmix + Preference	8.3 oz + 1 pt + 0.2 oz + 3.2 oz	99	98	96	99	97	83	99	98	95	99	98	92	99	99	99	69
Supremacy + Preference	4 oz + 6.4 oz	96	94	98	90	86	87	93	93	95	93	93	92	99	99	99	65
Supremacy + Preference	5 oz + 6.4 oz	92	92	96	85	80	90	92	90	96	91	90	95	99	99	99	64
Supremacy + Preference	6 oz + 6.4 oz	95	91	90	92	90	85	92	91	92	93	91	90	99	99	99	67
Supremacy + MCPA-Ester	5 oz + 0.5 pt	93	93	96	88	87	83	92	92	93	93	92	93	99	99	99	62
Supremacy + 2,4-D Ester LV4	5 oz + 0.75 pt	99	99	95	93	91	83	96	95	95	93	95	90	99	99	99	63
Supremacy + Bronate Advanced	5 oz + 0.8 pt	93	92	93	80	78	78	85	80	92	91	90	88	99	99	99	61
ARY-0548-019 + Audit + Preference	7 oz + 0.4 oz + 6.4 oz	92	88	96	86	82	93	88	85	95	88	87	93	96	94	99	65
Audit + ARY-0548-003 + Preference	0.4 oz + 4.6 oz + 6.4 oz	91	90	98	85	85	90	87	86	95	89	87	90	99	99	99	67
Bronate Advanced	0.8 pt	95	92	95	85	83	77	91	87	93	90	90	88	99	98	99	65
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30
LSD (0.05)		3	4	ns	7	8	11	5	6	ns	4	6	ns	ns	ns	ns	12

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

N-PaK AMS = 34% ammonium sulfate solution (3.4 lbs ammonium sulfate/gal).

Preference = nonionic surfactant.

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

MCPA Ester 4E.

Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).

Starane 1.5 E = fluroxypyr.

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).

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

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

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

Buctril 2E = bromoxynil.

Supremacy = thifensulfuron & tribenuron & fluroxypyr.

2,4-D LV4 Ester 4E.

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

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

Audit 75WDG = thifensulfuron (56.25%) & tribenuron (18.75%).

ARY-0548-003 = experimental fluroxypyr formulation.