Broadleaf weed control in 2 to 4 leaf spring wheat at Crookston, MN - 2011. 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 May 17 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	**June 9**
Air temperature (°F)	71
Soil temperature (°F)	60
Relative humidity (%)	34
Wind	E 10 mph
Sky	cloudy
Rainfall before Application	
Week 1 (inch)	0.25
Rainfall after Application	
Week 1 (inch)	0.22
Week 2 (inch)	1.28

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		Weed Control															
		Common Lambsquarters			Redroot Pigweed			Wild Buckwheat			Wild Mustard			Wheat Injury			Wheat
Treatment	Rate	6/24	7/8	7/29	6/24	7/8	7/29	6/24	7/8	7/29	6/24	7/8	7/29	6/17	7/8	7/29	Yield
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Huskie + N-Pak AMS	11 oz + 1.18 pt	99	99	100	99	99	100	83	99	100	99	99	100	0	0	0	58
Huskie + N-Pak AMS	13 oz + 1.18 pt	99	99	100	99	99	100	99	99	100	99	99	100	0	0	0	58
Huskie + N-Pak AMS	15 oz + 1.18 pt	99	99	100	99	99	100	96	99	100	99	99	100	0	0	0	57
Huskie + N-Pak AMS + Preference	13 oz + 1.18 pt + 3.2 oz	99	99	98	99	99	100	93	99	96	99	99	100	0	0	0	56
Huskie + N-Pak AMS + Axial Star	11 oz + 1.18 pt + 3.2 oz	99	99	100	99	99	100	96	98	100	99	99	100	10	2	0	53
Widematch + MCPA Ester	1 pt + 0.5 pt	83	99	99	83	99	100	80	98	96	80	99	100	0	0	0	57
Affinity Tankmix + Starane + Preference	0.6 oz + 0.33 pt + 3.2 oz	86	99	100	86	99	100	83	98	100	86	99	100	7	0	0	57
Affinity Tankmix + MCPA-Ester + Preference	0.6 oz + 0.5 pt + 3.2 oz	96	99	100	96	99	100	90	99	100	93	99	100	7	0	0	57
Wolverine	27.4 oz	99	99	100	99	99	100	93	95	95	99	98	100	0	0	0	56
636 4-Way	13.69 oz	95	99	100	98	99	100	90	98	95	95	99	100	10	5	0	58
Harmony SG + Express SG + Axial Star	0.48 oz + 0.12 oz + 1.03 pt	91	99	100	91	99	100	88	98	100	88	99	100	3	0	0	51
Harmony SG + Express SG + Axial Star	0.2 oz + 0.2 oz + 1.03 pt	93	99	100	93	99	100	90	98	100	90	99	100	5	0	0	57
Orion	17 oz	85	96	90	91	99	96	85	96	87	95	99	100	0	0	0	55
Orion + Starane	17 oz + 0.33 pt	93	96	99	93	96	99	78	93	90	95	98	98	2	2	0	58
Orion + Buctril	17 oz + 1 pt	96	99	99	96	99	99	98	99	95	99	99	100	2	0	0	55
Orion + Axial Star	17 oz + 1.03 pt	93	99	95	93	99	99	88	99	90	93	99	100	2	0	0	56
GoldSky + Preference	16 oz + 3.2 oz	87	93	93	90	93	99	77	88	87	92	93	98	13	8	0	51
Pulsar + Preference	8.3 oz + 3.2 oz	80	90	95	80	93	100	73	85	90	80	93	100	8	7	5	59
Pulsar + MCPA-Ester + Preference	8.3 oz + 0.5 pt + 3.2 oz	80	92	95	80	95	99	70	88	90	77	91	100	10	7	5	59
Pulsar + Affinity Tankmix + Preference	8.3 oz + 0.6 oz + 3.2 oz	94	96	98	94	96	99	87	93	90	90	96	100	8	3	5	55
Everest 2.0 + Newtone	0.75 oz + 0.8 pt	63	93	96	85	96	99	67	88	85	85	95	97	3	2	0	57
Bronate Advanced	0.6 pt	85	90	80	98	90	80	63	67	80	92	90	87	2	0	0	58
Bronate Advanced	0.8 pt	98	92	99	98	92	99	70	85	95	92	96	100	0	0	0	57
Bronate Advanced + Axial Star	0.6 pt + 1.03 pt	88	96	100	88	99	100	77	95	93	87	98	100	10	0	0	59
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	27
LSD (0.05)		15	4	4	10	4	2	17	8	4	10	3	3	3	3	ns	7

Huskie 2.08EC = pyrasulfotole & bromoxynil & safener.
N-PaK AMS = 34% ammonium sulfate solution (3.4 lbs ammonium sulfate/gal).
Preference = nonionic surfactant.
Axial Star 1.15EC = Pinoxaden (0.42 lb ai/gal) & fluroxypyr ester (0.73 lb ae/gal).
Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).
MCPA Ester 4E.
Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).
Starane 1.5E = 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).
636 4-Way = premix from Bayer CropScience.
Harmony 50SG = thifensulfuron.
Express 50SG = tribenuron.
Orion 2.37SE = florasulam (0.033 lb ai/gal) & MCPA (2.34 lb ae/gal).
Buctril 2E = bromoxynil.
GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).
Pulsar 1.67L = dicamba (0.7275 lb ae/gal) + fluroxypyr (0.9455 lbs ae/gal).
Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).
Newtone = ammonium salt, buffering agent, and surfactant blend.
Bronate Advanced 5E = bromoxynil (2.5 lb ai/gal) & MCPA (2.5 lb ae/gal).