

**Broadleaf weed control in spring wheat at Crookston, MN - 2008.** Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with several experimental 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. 'Freyr' hard red spring wheat was seeded on April 15 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 tables below.

<b>Treatment Date</b>	<b>June 4</b>
Target weed stage	2 to 4 inches
Air temperature (°F)	60
Relative humidity (%)	55
Wind	S 2 mph
Rainfall before Application	
Week 1 (inch)	0.93
Rainfall after Application	
Week 1 (inch)	1.72
Week 2 (inch)	0.87

Wet conditions at planting caused poor stands in areas of the experiment, resulting in a large variation in yield between replicates of various treatments. Because this variation was not consistent among all treatments, yield differences observed in the data may not totally represent the effect of the herbicide treatment applied.

**Table 1. Broadleaf weed control in spring wheat at Crookston, MN - 2008.**  
**Durgan, Wiersma, Cameron, and Miller.**

Treatment	Rate Product/A	Weed Control					
		Wheat Injury			Redroot Pigweed		
		6/20 (%)	7/1 (%)	7/17 (%)	6/20 (%)	7/1 (%)	7/17 (%)
AGH 02007	5 oz	0	0	0	85	96	100
AGH 02007 + AG 06011	5 oz + 6 oz	0	0	0	83	99	100
AGH 07025	0.5 pt	0	0	0	85	99	100
AGH 07025 + AG 06011	0.5 pt + 6 oz	0	0	0	88	99	100
2,4-D LV6	0.33 pt	0	0	0	80	99	100
AGH 02007	10 oz	0	0	0	82	99	100
AGH 02007 + AG 06011	10 oz + 6 oz	0	0	0	85	98	100
AGH 07025	1 pt	0	0	0	90	99	100
AGH 07025 + AG 06011	1 pt + 6 oz	0	0	0	85	99	100
2,4-D LV6	0.67 pt	0	0	0	83	98	100
SP102000020025 + N-Pak AMS	24.4 oz + 1.18 pt	0	0	0	95	99	100
SP102000020025 + 28% UAN	24.4 oz + 1 qt	0	0	0	91	99	100
SP102000020025	24.4 oz	0	0	0	96	99	100
Puma + Huskie + N-Pak AMS	0.66 pt + 11 oz + 1.18 pt	0	0	0	98	100	100
A15351 + Adigor Adjuvant	8.85 oz + 0.6 pt	0	0	0	93	99	100
A15351 + Adigor Adjuvant + Bronate Advanced	8.85 oz + 0.6 pt + 0.8 pt	0	0	0	99	100	100
A15351 + Adigor Adjuvant + Starane	8.85 oz + 0.6 pt + 0.33 pt	0	0	0	96	100	100
A15351 + Adigor Adjuvant + Starane + MCPA-Ester	8.85 oz + 0.6 pt + 0.33 pt + 0.5 pt	0	0	0	99	100	100
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 10.8 oz	0	0	0	96	100	100
A15351 + Adigor Adjuvant + Widematch	8.85 oz + 0.6 pt + 10 oz	0	0	0	99	100	100
A15351 + Adigor Adjuvant + Huskie + N-Pak AMS	8.85 oz + 0.6 pt + 11 oz + 1.18 pt	0	0	0	99	100	100
Bronate Advanced	0.8 pt	0	0	0	98	100	100
Weedy Check	--	0	0	0	--	--	--
LSD (0.05)		ns	ns	ns	8	ns	ns

AGH 02007 = experimental ester formulation of 2,4-D from Agrilience.  
AG 06011 = experimental adjuvant from Agrilience.  
AGH 07025 = experimental ester formulation of 2,4-D from Agrilience.  
2,4-D LV6 Ester 6E.  
SP102000020025 = experimental from Bayer Crop Science.  
N-Pak AMS = ammonium sulfate solution.  
28% UAN = urea ammonium nitrate solution  
Puma 1EC = fenoxaprop and safener  
Huskie 2.08 EC = pryrasulfotole & bromoxynil & safener.  
N-Pak AMS = ammonium sulfate solution.  
A15351 EC= pinoxaden (7.38%) & florasulam (92.62%) & cloquintocet-methyl (safener).  
Adigor Adjuvant = emulsifiable oil adjuvant.  
Bronate Advanced 5E = bromoxynil (2.5 lb ai/gal) & MCPA (2.5 lb ae/gal).  
Starane 1.5 E = fluroxypyr.  
MCPA Ester 4E.  
Widematch 1.5 E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

**Table 2. Broadleaf weed control in spring wheat at Crookston, MN - 2008.  
Durgan, Wiersma, Cameron, and Miller.**

Treatment	Rate Product/A	Weed Control						Wheat Yield (Bu/A)
		Wild Buckwheat			Wild Mustard			
		6/20 (%)	7/1 (%)	7/17 (%)	6/20 (%)	7/1 (%)	7/17 (%)	
AGH 02007	5 oz	33	65	71	78	96	100	64
AGH 02007 + AG 06011	5 oz + 6 oz	47	63	62	75	96	100	71
AGH 07025	0.5 pt	50	63	62	83	98	100	68
AGH 07025 + AG 06011	0.5 pt + 6 oz	43	67	65	88	96	100	71
2,4-D LV6	0.33 pt	40	62	53	78	95	100	70
AGH 02007	10 oz	47	65	60	77	96	100	65
AGH 02007 + AG 06011	10 oz + 6 oz	48	63	67	85	96	100	68
AGH 07025	1 pt	55	73	80	88	99	100	76
AGH 07025 + AG 06011	1 pt + 6 oz	50	75	78	88	99	100	74
2,4-D LV6	0.67 pt	52	77	73	88	96	100	74
SP102000020025 + N-Pak AMS	24.4 oz + 1.18 pt	85	83	85	99	99	100	76
SP102000020025 + 28% UAN	24.4 oz + 1 qt	72	91	88	96	99	100	80
SP102000020025	24.4 oz	87	87	82	99	99	100	77
Puma + Huskie + N-Pak AMS	0.66 pt + 11 oz + 1.18 pt	85	87	90	99	99	100	72
A15351 + Adigor Adjuvant	8.85 oz + 0.6 pt	87	95	96	93	99	100	72
A15351 + Adigor Adjuvant + Bronate Advanced	8.85 oz + 0.6 pt + 0.8 pt	89	93	93	99	100	100	74
A15351 + Adigor Adjuvant + Starane	8.85 oz + 0.6 pt + 0.33 pt	87	94	97	96	100	100	69
A15351 + Adigor Adjuvant + Starane + MCPA-Ester	8.85 oz + 0.6 pt + 0.33 pt + 0.5 pt	87	96	99	99	100	100	75
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 10.8 oz	88	96	98	96	100	100	73
A15351 + Adigor Adjuvant + Widematch	8.85 oz + 0.6 pt + 10 oz	90	95	96	96	100	100	74
A15351 + Adigor Adjuvant + Huskie + N-Pak AMS	8.85 oz + 0.6 pt + 11 oz + 1.18 pt	88	95	97	99	100	100	77
Bronate Advanced	0.8 pt	85	93	91	98	99	100	76
Weedy Check	--	--	--	--	--	--	--	44
LSD (0.05)		20	10	18	9	ns	ns	10

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