

**Broadleaf weed control in tillering spring wheat at Crookston, MN - 2009.** 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 to tillering wheat. 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 May 18 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 12</b>
Target wheat stage	tillering
Air temperature (°F)	76
Soil temperature (°F)	62
Relative humidity (%)	31
Wind	SW 5 mph
Rainfall before Application	
Week 1 (inch)	0.42
Rainfall after Application	
Week 1 (inch)	0.50
Week 2 (inch)	3.10

**Table 1. Broadleaf weed control in tillering spring wheat at Crookston, MN - 2009.  
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Treatment	Rate Product/A	Wheat Injury			Weed Control Common Lambsquarters		
		6/26	7/9	7/23	6/26	7/9	7/23
		(%)	(%)	(%)	(%)	(%)	(%)
AGH 02007	5 oz	0	0	0	93	90	88
AGH 02007 + AG 06011	5 oz + 6 oz	0	0	0	87	85	87
2,4-D LV6	0.33 pt	0	0	0	88	88	83
AGH 08009	0.5 pt	0	0	0	82	83	80
AGH 08009 + Preference	0.5 pt + 3.2 oz	0	0	0	90	92	85
AGH 08009 + AG 06011	0.5 pt + 6 oz	0	0	0	90	88	88
2,4-D Amine	8 oz	0	0	0	88	87	87
AGH 02007	10 oz	0	0	0	90	88	90
AGH 02007 + AG 06011	10 oz + 6 oz	0	0	0	90	90	90
2,4-D LV6	0.67 pt	0	0	0	90	88	87
AGH 08009	1 pt	0	0	0	88	90	88
AGH 08009 + Preference	1 pt + 3.2 oz	0	0	0	90	90	90
AGH 08009 + AG 06011	1 pt + 6 oz	0	0	0	83	90	90
2,4-D Amine	10 oz	0	0	0	88	90	87
Axial TBC + Adigor Adjuvant	8.85 oz + 9.6 oz	0	0	0	40	13	13
Axial TBC + Adigor Adjuvant + Starane	8.85 oz + 9.6 oz + 5.3 oz	0	0	0	40	13	17
Axial TBC + Adigor Adjuvant + Widematch	8.85 oz + 9.6 oz + 10 oz	0	0	0	80	83	87
Bronate Advanced	0.8 pt	0	0	0	95	88	88
Huskie + N-Pak AMS	11 oz + 1.18 pt	0	0	0	95	92	95
Widematch + MCPA Ester	1 pt + 0.5 pt	0	0	0	90	90	90
Weedy Check	--	0	0	0	--	--	--
LSD (0.05)		ns	ns	ns	5	6	7

AGH 02007 = experimental ester formulation of 2,4-D from Agrilience.

AG 06011 = experimental adjuvant from Agrilience.

2,4-D LV6 Ester 6E.

AGH 08009 = experimental ester formulation of 2,4-D from Agrilience.

Preference = nonionic surfactant.

2,4-D Amine

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

Adigor Adjuvant = emulsifiable oil adjuvant.

Starane 1.5 E = fluroxypyr.

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

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

Huskie 2.08 EC = pryrasulfotole & bromoxynil & safener.

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

MCPA Ester 4E.

**Table 2. Broadleaf weed control in tillering spring wheat at Crookston, MN - 2009.  
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Treatment	Rate Product/A	Weed Control						Wheat Yield (Bu/A)
		Wild Buckwheat			Wild Mustard			
		6/26 (%)	7/9 (%)	7/23 (%)	6/26 (%)	7/9 (%)	7/23 (%)	
AGH 02007	5 oz	73	68	72	90	90	88	72
AGH 02007 + AG 06011	5 oz + 6 oz	75	77	78	87	87	87	69
2,4-D LV6	0.33 pt	62	65	63	90	90	88	73
AGH 08009	0.5 pt	60	60	62	82	87	85	72
AGH 08009 + Preference	0.5 pt + 3.2 oz	73	77	75	87	87	87	78
AGH 08009 + AG 06011	0.5 pt + 6 oz	70	70	73	88	88	88	70
2,4-D Amine	8 oz	62	67	63	88	88	88	76
AGH 02007	10 oz	72	65	62	88	88	88	69
AGH 02007 + AG 06011	10 oz + 6 oz	80	70	77	94	92	92	68
2,4-D LV6	0.67 pt	62	70	68	88	90	88	71
AGH 08009	1 pt	60	65	62	87	87	87	74
AGH 08009 + Preference	1 pt + 3.2 oz	72	73	70	88	87	87	67
AGH 08009 + AG 06011	1 pt + 6 oz	68	73	68	87	87	88	70
2,4-D Amine	10 oz	57	63	63	85	88	85	72
Axial TBC + Adigor Adjuvant	8.85 oz + 9.6 oz	88	72	70	93	87	87	75
Axial TBC + Adigor Adjuvant + Starane	8.85 oz + 9.6 oz + 5.3 oz	96	73	70	98	90	90	72
Axial TBC + Adigor Adjuvant + Widematch	8.85 oz + 9.6 oz + 10 oz	96	93	90	96	95	93	74
Bronate Advanced	0.8 pt	87	88	87	99	92	92	77
Huskie + N-Pak AMS	11 oz + 1.18 pt	90	87	90	95	90	92	75
Widematch + MCPA Ester	1 pt + 0.5 pt	90	90	90	90	93	96	75
Weedy Check	--	--	--	--	--	--	--	36
LSD (0.05)		10	12	13	6	ns	ns	10

AGH 02007 = experimental ester formulation of 2,4-D from Agrilience.

AG 06011 = experimental adjuvant from Agrilience.

2,4-D LV6 Ester 6E.

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