

**Broadleaf weed control in spring wheat at Rosemount, MN - 2008.** Durgan, Beverly R., Krishona Martinson, 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 Rosemount, MN on a Waukegon silt loam soil. Following soybeans, the experimental area was fall chisel plowed. In the spring, the area was fertilized with 50 lbs/A N and 70 lbs K. The field was disked once and field cultivated twice. 'Freyr' hard red spring wheat was seeded on May 1 at 85 lbs/A. The experimental design was a randomized complete block with three replications and plot size was 10 by 24 ft. All herbicide treatments were applied to a 6 ft strip with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat-fan nozzles. Visual weed control and yield data are presented in the table below. Environmental conditions and plant sizes are listed below.

<b>Treatment Date</b>	<b>June 9</b>
Temperature (degrees F)	
air	68
soil	71
Soil Moisture	moist
Relative humidity	51
Sky	5% clouds
Wind	WSW 8-12
Rainfall before	
Application	
Week 1 (inch)	2.19
Rainfall after	
Application	1.53
Week 2 (inch)	0.06
<b>Common Lambsquarters</b>	
height (inch)	2-4
density (#/ft <sup>2</sup> )	3
<b>Common Ragweed</b>	
height (inch)	2-3
density (#/ft <sup>2</sup> )	1
<b>Pennsylvania Smartweed</b>	
height (inch)	2-4
density (#/ft <sup>2</sup> )	2
<b>Redroot Pigweed</b>	
height (inch)	0.5-2
density (#/ft <sup>2</sup> )	1.3
<b>Wild Mustard</b>	
height (inch)	2-6
density (#/ft <sup>2</sup> )	15
<b>Wheat</b>	
height (inch)	8-10
leaf stage	5
Tiller #	1-2

**Table 1. Broadleaf weed control in spring wheat at Rosemount, MN - 2008.  
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Treatment	Rate Product/A	Weed Control									
		Common <u>Lambsquarters</u>		Common <u>Ragweed</u>		Pennsylvania <u>Smartweed</u>		Redroot <u>Pigweed</u>		Wild <u>Buckwheat</u>	
		6/30	7/25	6/30	7/25	6/30	7/25	6/30	7/25	6/30	7/25
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
AGH 02007	5 oz	99	92	99	93	93	65	99	92	74	67
AGH 02007 + AG 06011	5 oz + 6 oz	99	93	96	83	93	65	99	93	83	70
AGH 07025	0.5 pt	99	95	99	95	99	67	96	93	86	83
AGH 07025 + AG 06011	0.5 pt + 6 oz	99	93	99	93	86	70	99	95	96	82
2,4-D LV6	0.33 pt	96	95	99	95	93	65	99	93	83	67
AGH 02007	10 oz	99	96	99	96	96	75	99	96	96	87
AGH 02007 + AG 06011	10 oz + 6 oz	99	95	99	93	75	77	99	95	99	78
AGH 07025	1 pt	99	93	98	87	88	77	99	93	99	70
AGH 07025 + AG 06011	1 pt + 6 oz	99	96	99	96	88	77	99	96	99	93
2,4-D LV6	0.67 pt	99	92	91	92	93	72	99	92	99	75
SP102000020025 + N-Pak AMS	24.4 oz + 1.18 pt	99	98	99	98	99	95	99	98	99	98
SP102000020025 + 28% UAN	24.4 oz + 1 qt	99	96	99	96	96	73	99	96	99	88
SP102000020025	24.4 oz	99	83	99	96	96	81	99	96	99	86
Puma + Huskie + N-Pak AMS	0.66 pt + 11 oz + 1.18 pt	99	99	99	99	99	94	99	99	99	99
A15351 + Adigor Adjuvant	8.85 oz + 0.6 pt	90	38	96	91	96	82	93	83	96	76
A15351 + Adigor Adjuvant + Bronate Advanced	8.85 oz + 0.6 pt + 0.8 pt	96	98	99	98	93	85	98	95	99	98
A15351 + Adigor Adjuvant + Starane	8.85 oz + 0.6 pt + 0.33 pt	88	40	99	98	90	82	99	90	99	98
A15351 + Adigor Adjuvant + Starane + MCPA-Ester	8.85 oz + 0.6 pt + 0.33 pt + 0.5 pt	96	96	95	96	96	76	99	96	99	85
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 10.8 oz	96	99	96	91	96	80	96	88	99	99
A15351 + Adigor Adjuvant + Widematch	8.85 oz + 0.6 pt + 10 oz	93	45	99	96	96	93	95	78	99	93
A15351 + Adigor Adjuvant + Huskie + N-Pak AMS	8.85 oz + 0.6 pt + 11 oz + 1.18 pt	99	98	99	98	99	96	99	98	99	98
A15351 + Adigor Adjuvant + Starane NXT	8.85 oz + 0.6 pt + 14 oz	99	73	99	98	99	96	96	94	99	98
Bronate Advanced	0.8 pt	96	96	96	96	96	80	99	96	99	80
Weedy Check	--	--	--	--	--	--	--	--	--	--	--
LSD (0.05)		6	29	ns	ns	12	15	ns	ns	ns	19

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 = pyrasulfotole & 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).

Starane NXT 2.91E = fluroxypyr (0.583 lb ae/gal) & bromoxynil (2.33 lb ai/gal).

**Table 2. Broadleaf weed control in spring wheat at Rosemount, MN - 2008.  
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Treatment	Rate Product/A	Weed Control				Wheat Injury				Wheat Yield (Bu/A)
		Wild Mustard								
		6/16	6/23	6/30	7/25	6/16	6/23	6/30	7/25	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
AGH 02007	5 oz	38	75	85	90	5	3	2	2	34
AGH 02007 + AG 06011	5 oz + 6 oz	50	50	83	92	2	0	2	3	36
AGH 07025	0.5 pt	38	50	86	93	3	0	2	0	36
AGH 07025 + AG 06011	0.5 pt + 6 oz	43	66	85	93	2	0	0	0	34
2,4-D LV6	0.33 pt	37	50	85	93	5	0	0	0	33
AGH 02007	10 oz	43	66	88	96	2	0	2	0	31
AGH 02007 + AG 06011	10 oz + 6 oz	42	50	88	95	7	0	2	7	31
AGH 07025	1 pt	43	66	93	93	7	2	3	7	31
AGH 07025 + AG 06011	1 pt + 6 oz	50	66	96	96	3	0	3	10	31
2,4-D LV6	0.67 pt	50	66	90	92	3	3	3	7	32
SP102000020025 + N-Pak AMS	24.4 oz + 1.18 pt	58	99	99	98	0	0	2	8	38
SP102000020025 + 28% UAN	24.4 oz + 1 qt	67	83	99	96	3	0	0	2	38
SP102000020025	24.4 oz	73	99	96	96	2	0	2	3	38
Puma + Huskie + N-Pak AMS	0.66 pt + 11 oz + 1.18 pt	65	99	99	99	3	0	2	2	37
A15351 + Adigor Adjuvant	8.85 oz + 0.6 pt	43	75	99	91	0	0	0	8	38
A15351 + Adigor Adjuvant + Bronate Advanced	8.85 oz + 0.6 pt + 0.8 pt	53	75	93	98	0	3	2	7	35
A15351 + Adigor Adjuvant + Starane	8.85 oz + 0.6 pt + 0.33 pt	42	75	96	98	0	0	0	2	39
A15351 + Adigor Adjuvant + Starane + MCPA-Ester	8.85 oz + 0.6 pt + 0.33 pt + 0.5 pt	42	75	90	96	0	0	0	5	35
A15351 + Adigor Adjuvant + MCPA-Ester	8.85 oz + 0.6 pt + 10.8 oz	43	66	93	99	0	0	2	10	39
A15351 + Adigor Adjuvant + Widematch	8.85 oz + 0.6 pt + 10 oz	38	91	96	93	0	0	2	2	40
A15351 + Adigor Adjuvant + Huskie + N-Pak AMS	8.85 oz + 0.6 pt + 11 oz + 1.18 pt	75	99	99	98	0	0	0	5	31
A15351 + Adigor Adjuvant + Starane NXT	8.85 oz + 0.6 pt + 14 oz	75	99	99	98	3	3	2	3	38
Bronate Advanced	0.8 pt	67	99	99	96	2	0	2	0	34
Weedy Check	--	--	--	--	--	0	0	0	0	32
LSD (0.05)		19	33	10	5	ns	ns	ns	7	6

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