

Broadleaf weed control in spring wheat at Rosemount, MN - 2006. Durgan, Beverly R., Krishona Martinson, and Douglas Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with various 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, field cultivated once, and harrowed twice. 'Alsen' hard red spring wheat was seeded on May 10 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 ratings, wheat injury ratings, and yields are presented in the tables below. Environmental conditions and plant sizes are listed below.

Treatment Date	June 12
Target weed stage	2-4 inch weeds

Temperature (degrees F)	
air	69
Soil Moisture	dry to 0.75 inch
Relative Humidity (%)	33
Dewpoint (degrees F)	39
Sky	25% clouds

Rainfall before Application	
Week 1 (inch)	0.5
Rainfall after Application	
Week 2 (inch)	0.28
	0.71

Common Lambsquarters (Colq)

height (inch)	--
density (#/ft ²)	--
Redroot Pigweed (RRpw)	
height (inch)	1-46
density (#/ft ²)	1.4

Wild Buckwheat (Wibu)

height (inch)	1-4
density (#/ft ²)	4.2
Wild Mustard (Wimu)	
height (inch)	--
density (#/ft ²)	scattered

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Treatment	Rate	Broadleaf Weed Control												Wheat Injury				Yield (Bu/A)
		Colq	Rrpw			Wibu			Wimu			6/21	6/27	7/5	7/27			
		7/27	6/27	7/5	7/27	6/27	7/5	7/27	6/27	7/5	7/27	(%)	(%)	(%)	(%)			
Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)			
A14811 + Preference	0.67 oz + 2.6 oz	0	53	3	24	61	1	26	80	45	49	0	0	0	0	45		
A14811 + Preference	1.37 oz + 2.6 oz	37	55	75	57	68	73	73	87	99	66	0	0	0	0	46		
A14811 + Preference	2.7 oz + 2.6 oz	37	78	58	53	87	58	78	92	99	99	0	2	0	0	44		
A14811 + MCPA-Ester	0.67 oz + 0.62 pt	98	72	83	57	72	58	53	90	99	99	0	0	2	0	44		
A14811 + MCPA-Ester	1.37 oz + 0.62 pt	99	82	99	73	68	75	70	92	99	99	0	0	0	0	44		
A14811 + MCPA-Ester	2.7 oz + 1.25 pt	99	87	99	82	87	99	87	92	99	99	0	5	3	3	45		
A14811 + Weedone LV4	0.67 oz + 1 pt	99	82	91	93	82	91	73	92	99	99	0	0	0	0	43		
A14811 + Weedone LV4	1.37 oz + 1 pt	99	90	99	99	87	99	98	93	99	99	2	3	3	0	43		
A14811 + Weedone LV4	2.7 oz + 2 pt	99	77	83	99	87	83	98	92	83	99	2	2	3	0	40		
A14811 + Starane	0.67 oz + 0.5 pt	99	75	67	72	87	67	96	90	83	99	0	0	2	0	41		
A14811 + Starane	1.37 oz + 0.5 pt	47	82	91	67	87	91	96	87	99	99	0	0	2	0	40		
A14811 + Starane	2.7 oz + 1 pt	73	85	83	73	63	99	96	90	91	99	0	0	2	0	49		
MCPA-Ester	0.62 pt	99	77	66	79	77	50	27	83	99	99	0	2	3	0	45		
Weedone LV4	1 pt	99	68	83	99	68	66	43	83	99	99	2	2	2	0	46		
Starane	0.5 pt	94	73	17	72	73	17	73	87	33	89	0	2	0	0	45		
Bronate Advanced	1 pt	99	77	99	65	77	99	70	90	99	99	0	3	0	0	40		
Widematch + MCPA-Ester	1 pt + 0.7 pt	99	92	99	96	92	99	99	93	99	99	0	0	2	0	45		
AGH 02007	5 oz	99	55	66	99	55	66	52	68	99	99	0	5	0	0	40		
2,4-D LV6	0.33 pt	99	55	75	96	42	75	38	85	99	99	0	2	0	0	42		
AGH 06003	0.33 pt	99	80	83	88	67	83	37	87	91	99	0	0	0	0	45		
AGH 06012	0.33 pt	99	73	50	83	73	50	52	88	99	99	0	2	0	0	42		
AGH 06013	0.5 pt	99	60	66	99	60	58	38	88	99	99	0	0	0	0	43		
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	0	0	0	0	41		
LSD (0.05)		21	ns	33	24	ns	29	26	ns	31	ns	ns	3	ns	ns	ns		

A14811 0.42 SC = florasulam.

Preference = nonionic surfactant.

Weedone LV4 = 2,4-D ester.

Starane 1.5 E = fluroxypyr.

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

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

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

AGH 06003 = experimental ester formulation of 2,4-D from Agrilience.

AGH 06012 = experimental ester formulation of 2,4-D from Agrilience.

AGH 06013 = experimental ester formulation of 2,4-D from Agrilience.