

**Broadleaf weed control in spring wheat at Crookston, MN - 2006.** Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. This experiment was designed to evaluate broadleaf herbicides for weed control and wheat injury . 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. 'Alsen' hard red spring wheat was seeded on May 12 at 1.75 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 1
Wheat stage	3.5 leaf
<u>Weed Size</u>	
Common Lambsquarters	1.5 – 2 inches
Pennsylvania Smartweed	--
Wild Buckwheat	1.5 – 2 inches
Wild Mustard	up to 5 inches
Air temperature (°F)	78
Relative humidity (%)	36
Soil temperature (°F)	69
Wind	E 4 mph
Rainfall before Application	
Week 1 (inch)	0.11
Rainfall after Application	
Week 1 (inch)	0.64
Week 2 (inch)	0.13

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**Durgan, Wiersma, Cameron, and Miller.**

Treatment	Rate Product/A	Weed Control												Wheat Yield (Bu/A)
		Common Lambsquarters		Pennsylvania Smartweed		Wild Buckwheat		Wild Mustard		Wheat Injury				
		6/23 (%)	7/3 (%)	6/23 (%)	7/3 (%)	6/23 (%)	7/3 (%)	6/23 (%)	7/3 (%)	6/8 (%)	6/16 (%)	6/23 (%)	7/3 (%)	
A14811 + Preference	0.67 oz + 2.6 oz	23	23	86	83	86	82	99	99	0	2	0	0	68
A14811 + Preference	1.37 oz + 2.6 oz	27	27	96	93	93	87	99	96	0	0	0	0	70
A14811 + Preference	2.7 oz + 2.6 oz	33	37	99	99	96	96	99	99	0	0	0	0	74
A14811 + MCPA-Ester	0.67 oz + 0.62 pt	99	99	99	98	99	96	100	100	0	0	0	0	74
A14811 + MCPA-Ester	1.37 oz + 0.62 pt	99	98	99	99	96	95	99	99	0	2	3	3	73
A14811 + MCPA-Ester	2.7 oz + 1.25 pt	96	96	99	99	99	98	99	99	0	0	3	3	75
A14811 + Weedone LV4	0.67 oz + 1 pt	99	96	99	98	99	95	100	97	0	0	3	3	72
A14811 + Weedone LV4	1.37 oz + 1 pt	99	96	99	90	99	98	100	100	0	0	3	3	70
A14811 + Weedone LV4	2.7 oz + 2 pt	96	98	96	91	96	94	99	99	0	3	8	7	68
A14811 + Starane	0.67 oz + 0.5 pt	70	68	93	91	94	93	99	98	0	2	3	3	69
A14811 + Starane	1.37 oz + 0.5 pt	58	57	90	87	89	88	100	100	0	2	3	3	67
A14811 + Starane	2.7 oz + 1 pt	50	47	96	92	93	94	99	97	0	2	3	3	65
MCPA-Ester	0.62 pt	85	93	45	40	42	33	99	99	0	0	0	0	68
Weedone LV4	1 pt	83	96	72	76	73	65	99	98	0	0	0	0	72
Starane	0.5 pt	56	56	91	93	85	82	99	98	0	2	0	0	70
Widematch + MCPA-Ester	1 pt + 0.7 pt	99	98	99	98	99	96	99	99	0	0	0	0	70
AGH 02007	5 oz	96	93	79	79	73	72	96	98	0	2	0	0	61
2,4-D LV6	0.33 pt	89	93	70	63	70	65	99	99	0	3	3	3	69
AGH 06003	0.33 pt	86	95	72	68	62	57	99	97	0	2	0	0	67
AGH 06012	0.33 pt	80	93	70	70	66	58	99	98	0	2	0	0	70
AGH 06013	0.5 pt	86	93	60	50	67	53	99	98	0	2	0	0	63
Weedy Check	--	--	--	--	--	--	--	--	--	0	0	0	0	14
LSD (0.05)		35	28	18	22	19	19	ns	ns	ns	ns	ns	ns	11

A14811 0.42 SC = florasulam.

Preference = nonionic surfactant.

Weedone LV4 = 2,4-D ester.

Starane 1.5 E = fluroxypyr.

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.