

Broadleaf weed control in tillering spring wheat at Crookston, MN - 2011. 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. 'RB07' hard red spring wheat was seeded on May 17 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 table below.

Treatment Date	June 9
Air temperature (°F)	70
Soil temperature (°F)	64
Relative humidity (%)	30
Wind	E 10 mph
Sky	cloudy
Rainfall before Application	
Week 1 (inch)	0.25
Rainfall after Application	
Week 1 (inch)	0.22
Week 2 (inch)	1.28

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Treatment	Rate	Weed Control															Wheat Yield (Bu/A)	
		Common Lambsquarters			Redroot Pigweed			Wild Buckwheat			Wild Mustard			Wheat Injury				
		6/24	7/8	7/29	6/24	7/8	7/29	6/24	7/8	7/29	6/24	7/8	7/29	6/17	7/8	7/29		
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)	
E-99	0.67 pt	80	93	96	80	93	96	80	80	33	80	98	100	2	5	0	54	
2,4-D LV6	0.67 pt	80	90	93	80	90	93	75	68	37	80	98	100	3	0	0	58	
2,4-D Amine	1 pt	80	90	96	80	90	96	73	60	37	80	96	99	0	2	0	58	
AGH 09008	1 pt	73	90	98	73	90	99	63	68	60	73	95	100	0	2	0	58	
AGH 09008 + Preference + Interlock	1 pt + 3.2 oz + 4 oz	80	90	100	80	90	100	67	75	82	80	98	100	3	8	0	51	
AGH 09035	16 oz	82	98	100	82	98	100	75	88	82	82	98	100	0	2	0	56	
AGH 09035 + Interlock	16 oz + 4 oz	83	98	100	83	98	100	77	87	87	83	99	100	0	2	0	57	
AGH 09035	21.3 oz	80	96	99	80	96	99	73	85	90	80	98	100	5	2	0	54	
AGH 09035 + Interlock	21.3 oz + 4 oz	85	96	100	85	96	100	75	93	87	83	98	100	0	0	0	59	
Bronate Advanced	0.8 pt	88	96	99	91	96	100	82	87	87	85	93	100	0	2	0	57	
Huskie + N-Pak AMS	11 oz + 1.18 pt	98	99	100	98	99	100	98	99	98	98	99	100	0	0	0	56	
Widematch + MCPA-Ester	1 pt + 0.5 pt	88	99	100	88	99	100	83	98	96	87	99	100	0	0	0	61	
Pulsar + Preference	8.3 oz + 3.2 oz	83	98	100	83	98	100	75	96	88	77	99	100	18	0	5	56	
Supremacy + Preference	4 oz + 3.2 oz	87	96	100	90	96	100	72	93	88	88	99	100	3	0	0	63	
Supremacy + Preference	5 oz + 3.2 oz	83	95	97	87	95	100	80	90	87	87	96	100	3	0	0	57	
Supremacy + Preference	6 oz + 3.2 oz	90	99	97	90	99	100	90	93	90	90	96	100	3	2	0	55	
Supremacy + MCPA-Ester	5 oz + 0.75 pt	93	98	100	93	98	100	90	93	90	93	95	100	1	0	0	61	
Supremacy + 2,4-D Ester	5 oz + 0.75 pt	87	95	100	87	95	100	85	93	90	87	98	100	2	0	0	61	
Supremacy + Stinger + Preference	5 oz + 3 oz + 3.2 oz	87	99	100	87	99	100	83	96	95	87	99	100	0	0	0	60	
ARY-0454-107 + Preference	5 oz + 3.2 oz	92	98	100	92	99	100	90	93	92	92	99	100	0	0	0	62	
Starane Flex + Preference	13.5 oz + 3.2 oz	77	96	93	87	99	100	87	93	88	87	96	100	2	0	0	63	
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	25	
LSD (0.05)		8	5	ns	8	5	3	14	16	23	8	ns	ns	4	4	ns	12	

E-99 6E = 2,4-D butoxyethyl ester.

2,4-D LV6 Ester 5.6E.

2,4-D Amine 3.8L.

AGH 09008 = experimental.

Preference = nonionic surfactant.

Interlock = deposition aid and drift control agent.

AGH 09035 = experimental.

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

Huskie 2.08EC = pyrasulfotole & bromoxynil & safener.

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

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

MCPA Ester 4E.

Pulsar 1.67L = dicamba (0.7275 lb ae/gal) + fluroxypyr (0.9455 lbs ae/gal).

Supremacy 31WG = thifensulfuron (4.5%) & tribenuron (1.5%) & fluroxypyr (25% ae).

2,4-D ester 4SC

Stinger 3SL = cropyralid.

ARY-0454-107 = experimental.

Starane Flex 0.875EC = florasulam (0.042 lb ai/gal) + fluroxypyr (0.833 lbs ae/gal).