

Broadleaf weed control in tillering spring wheat at Crookston, MN - 2013. 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 7 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 6
<u>Weed Density (#/ft²)</u>	
- Nightflowering Catchfly	36
- Redroot Pigweed	34
- Wild buckwheat	5
- Wild Mustard	5
Wheat Stage	tillering
Air temperature (°F)	63
Soil temperature (°F)	69
Relative humidity (%)	38
Wind	SE 4 mph
Sky	overcast
Rainfall before Application	
Week 1 (inch)	0.65
Rainfall after Application	
Week 1 (inch)	0.22
Week 2 (inch)	0.23

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Treatment	Rate (Product/A)	Weed Control																Wheat Yield (Bu/A)				
		Nightflowering Catchfly				Redroot Pigweed				Wild Buckwheat				Wild Mustard					Wheat Injury			
		6/21	6/24	7/8	7/17	6/21	6/24	7/8	7/17	6/21	6/24	7/8	7/17	6/21	6/24	7/8	7/17		6/21	6/24	7/8	7/17
AGH 02007	0.67 pt	57	37	57	87	78	73	87	99	63	63	62	88	78	72	90	99	0	0	0	0	70
2,4-D LV6	0.67 pt	60	65	57	87	72	87	90	99	57	73	68	85	72	85	93	99	0	0	0	0	60
2,4-D Amine 4	1 pt	43	53	55	87	60	87	88	99	50	72	58	85	67	85	90	99	0	0	0	0	61
AGH 09008	1 pt	63	57	47	75	83	87	87	99	60	72	55	78	83	88	92	99	0	0	0	0	69
AGH 09008 + Preference + Interlock	1 pt + 3.2 oz + 4 oz	50	53	63	75	77	83	92	96	67	60	67	73	80	85	93	96	0	0	0	0	64
AGH 09008 + AGH 8050	1 pt + 6.4 oz	47	53	47	83	70	73	92	96	53	62	63	75	73	75	96	99	0	0	0	0	69
Brash	0.75 pt	57	57	83	90	72	85	96	99	57	68	91	90	72	85	99	99	0	0	2	0	60
AGH 11021	0.75 pt	47	60	78	93	72	83	96	99	60	73	92	93	70	85	98	99	0	0	2	0	60
AGH 11021 + Preference + Interlock	0.75 pt + 3.2 oz + 4 oz	50	67	80	93	72	87	98	99	60	83	88	95	75	85	98	99	0	0	2	0	75
AGH 11021 + AGH 8050	1 pt + 6.4 oz	53	63	80	92	72	85	96	99	60	75	88	93	82	83	96	99	0	0	0	0	74
Bronate Advanced	0.8 pt	80	60	67	91	90	93	90	96	93	91	88	91	98	95	96	99	0	0	0	0	76
Huskie + N-Pak AMS	11 oz + 1.18 pt	100	99	93	93	100	99	99	99	100	99	99	93	100	99	99	99	0	0	0	0	67
Widematch + MCPA-Ester	1 pt + 0.5 pt	63	73	90	96	80	90	99	99	75	80	96	96	85	88	99	99	0	0	0	0	62
Pulsar + Preference	8.3 oz + 3.2 oz	47	63	85	93	70	70	95	98	68	68	90	92	72	72	93	99	0	0	3	0	53
Affinity Tankmix + Preference	0.6 oz + 3.2 oz	47	78	88	90	77	90	99	98	65	78	91	83	77	91	99	99	0	0	2	0	47
Affinity Tankmix + MCPA ester + Preference	0.6 oz + 0.5 pt + 3.2 oz	70	90	90	93	91	95	99	98	83	90	97	88	91	98	99	99	0	0	2	0	56
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25
LSD (0.05)		21	26	22	12	ns	15	6	ns	20	21	12	11	ns	15	6	ns	ns	ns	ns	ns	21

AGH 02007 = experimental from Agrilience.

2,4-D LV6 Ester 5.6E.

2,4-D Amine 3.8L.

AGH 09008 = experimental from Agrilience.

Preference = nonionic surfactant.

Interlock = depositions aid and drift control agent.

AGH 8050 = experimental from Agrilience.

Brash 3.87L = dimethylamine salts of dicamba (1 lb ae/gal) & 2,4-D (2.87 lb ae/gal).

AGH 11021 = experimental from Agrilience.

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 = clopyralid (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).

Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).