

Broadleaf weed control in tillering spring wheat at Rosemount, MN - 2010. Durgan, Beverly R. and Douglas W. 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 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 75 lbs K.. The field was disked once and field cultivated twice. 'RB-07' hard red spring wheat was seeded on April 27 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. A broadcast application of Puma (fenoxaprop & safener) at 0.66 pt/A (0.082 lb ai/A) was applied on May 28 to control grassy weeds. Visual weed control and wheat injury data are presented in the table below. Wheat yields were not measured. Environmental conditions and plant sizes are listed below.

Treatment Date	June 3
Air Temperature (°F)	70
Soil Temperature (°F)	67
Soil Moisture	moist
Relative humidity (%)	38
Dewpoint (°F)	48
Sky	10 % clouds
Wind	S 0-4
Rainfall before Application	
Week 1 (inch)	1.26
Rainfall after Application	
Week 2 (inch)	1.28
Common Lambsquarters	
height (inch)	2 - 5 (mostly 2 - 4)
density (#/ft ²)	4.7
Common Ragweed	
height (inch)	1 - 3
density (#/ft ²)	6.0
Pigweed	
height (inch)	1 - 5 (mostly 3 - 5)
density (#/ft ²)	6.2
Wild Buckwheat	
height (inch)	2 - 6 (mostly 2 - 3)
density (#/ft ²)	11.2
Wheat	
height (inch)	8 - 10
leaf stage	5.5 - 5.75 (Zadoks Z16, Z23-24)
Tiller #	3 - 4

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Durgan and Miller.

Treatment	Rate Product/A	Weed Control										Wheat Injury	
		Common Lambsquarters		Common Ragweed		Pennsylvania Smartweed		Pigweed species		Wild Buckwheat		6/18	7/18
		6/18	7/18	6/18	7/18	6/18	7/18	6/18	7/18	6/18	7/18	(%)	(%)
AGH 02007	0.33 pt	90	88	85	85	80	78	83	85	82	80	0	0
AGH 02007	0.67 pt	90	90	90	90	80	82	87	88	83	80	0	0
2,4-D LV6	0.33 pt	83	85	88	88	70	63	88	88	78	75	0	0
2,4-D LV6	0.67 pt	87	83	87	83	65	60	83	82	57	50	0	0
2,4-D Amine	0.5 pt	87	85	85	85	53	50	82	82	58	53	0	0
2,4-D Amine	1 pt	83	82	83	80	60	53	82	78	62	57	0	0
AGH 09008	0.5 pt	88	85	90	85	60	50	90	85	60	53	0	0
AGH 09008	1 pt	88	85	88	85	58	57	88	85	60	53	0	0
AGH 09035	16 oz	95	92	95	92	82	83	95	92	90	85	0	0
AGH 09035 +AG 02013	16 oz + 4 oz	96	92	96	92	90	90	96	92	90	88	0	0
AGH 09035	24	92	92	88	92	87	87	88	92	90	88	0	0
AGH 09035 + AG 02013	24 oz + 4 oz	90	90	90	90	93	90	90	90	90	90	0	0
NUP-10012	19.2 oz	87	82	82	73	80	82	68	77	85	83	0	0
NUP-10013	19.2 oz	88	87	88	87	87	82	63	78	90	87	0	0
NUP-10014	19.2 oz	90	87	87	87	83	78	70	82	82	80	0	0
NUP-10017	19.2 oz	48	37	52	38	43	37	48	37	48	40	0	0
Bronate Advanced	0.8 pt	96	92	95	92	93	90	95	92	91	88	0	0
Huskie + N-Pak AMS	11 oz + 1.18 pt	98	93	98	93	92	88	96	93	93	88	0	0
Widematch + MCPA-Ester	1 pt + 0.5pt	93	90	93	90	88	83	98	90	90	85	0	0
Pulsar + Preference	8.3 oz + 3.2 oz	90	88	92	93	87	82	95	93	87	82	0	0
LSD (0.05)		5	7	7	7	13	11	12	7	6	8	ns	ns

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

2,4-D LV6 Ester 6E.

2,4-D Amine 3.8L.

AGH 09008 = experimental.

AGH 09035 = experimental.

AG 02013 = experimental adjuvant.

NUP-10012 = experimental.

NUP-10013 = experimental.

NUP-10014 = experimental.

NUP-10017 = experimental.

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

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

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

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

MCPA Ester 4E.

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

Preference = nonionic surfactant.