

Broadleaf weed control in tillering spring wheat at Rosemount, MN - 2011. 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. The area was fertilized with 50 lbs/A N and field cultivated on April 15. On April 25, the area was field cultivated and 'RB-07' hard red spring wheat was seeded at 90 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 0.5 pt/A (0.063 lb ai/A) was applied on June 9 to control grassy weeds. Visual weed control, wheat injury and yield data are presented in the table. Environmental conditions and plant sizes are listed below.

Treatment Date	June 6
Air Temperature (°F)	83
Soil Temperature (°F)	74
Soil Moisture	moist at 1.25"
Relative humidity (%)	54
Dewpoint (°F)	68
Sky	clear
Wind	W-NE 0-5
Rainfall before Application	
Week 1 (inch)	1.16
Rainfall after Application	1.46
Week 2 (inch)	2.74
Common Lambsquarters	
height (inch)	1.25-5
leaf number	4-8
density (#/ft ²)	2.3
Common Ragweed	
height (inch)	2-5
leaf number	2-8
density (#/ft ²)	13
Pennsylvania Smartweed	
height (inch)	2-3
leaf number	4-5
density (#/ft ²)	1
Pigweed	
height (inch)	1
leaf number	3
density (#/ft ²)	1
Wild Buckwheat	
height (inch)	3
leaf number	3
density (#/ft ²)	0.3
Wild Mustard	
height (inch)	6-20
stage	flowering
density (#/ft ²)	28
Wheat	
height (inch)	7-11
leaf stage	5.3-5.8 (Zadoks Z15-16, 22)
Tiller #	2

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Durgan and Miller.

Treatment	Rate	Weed Control																		Wheat Yield (Bu/A)	
		Common Lambsquarters			Common Ragweed			Pennsylvania Smartweed			Pigweed	Wild Buckwheat			Wild Mustard			Wheat Injury			
		6/25	7/12	7/30	6/25	7/12	7/30	6/25	7/12	7/30	6/25	6/25	7/12	7/30	6/25	7/12	7/30	6/25	7/12		7/30
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		(%)
E-99	0.67 pt	80	83	99	53	57	67	33	30	33	78	33	30	33	83	83	99	0	0	0	21
2,4-D LV6	0.67 pt	80	83	93	67	80	83	30	30	33	80	30	30	33	83	85	99	0	0	0	20
2,4-D Amine	1 pt	83	87	95	72	73	82	27	30	27	83	27	30	27	83	83	99	0	0	0	19
AGH 09008	1 pt	82	83	95	70	77	78	30	27	47	80	47	27	47	85	83	99	0	0	0	21
AGH 09008 + Preference + Interlock	1 pt + 3.2 oz + 4 oz	82	87	98	53	67	72	43	43	47	80	43	43	47	83	87	99	0	0	0	19
AGH 09035	16 oz	82	87	98	83	83	93	67	67	70	83	70	71	73	83	83	99	0	0	0	19
AGH 09035 + Interlock	16 oz + 4 oz	80	83	98	80	83	93	73	77	83	82	80	77	87	84	84	99	0	0	0	20
AGH 09035	21.3 oz	80	82	99	77	82	92	63	73	78	80	70	70	83	85	85	99	0	0	0	21
AGH 09035 + Interlock	21.3 oz + 4 oz	83	87	95	83	87	92	80	83	85	83	80	83	87	85	87	99	0	0	0	21
Bronate Advanced	0.8 pt	80	83	98	80	83	88	67	70	73	82	73	70	77	85	88	99	0	0	0	22
Huskie + N-Pak AMS	11 oz + 1.18 pt	83	87	99	82	83	99	85	83	96	83	82	83	99	85	86	99	0	0	0	21
Widematch + MCPA-Ester	1 pt + 0.5 pt	82	83	99	82	83	95	73	83	93	82	82	83	93	83	84	99	0	0	0	21
Pulsar + Preference	8.3 oz + 3.2 oz	80	83	96	75	80	92	60	50	77	80	63	50	77	85	84	99	8	5	5	16
Supremacy + Preference	4 oz + 3.2 oz	82	87	93	70	73	77	60	70	73	83	63	70	73	83	87	99	0	0	0	19
Supremacy + Preference	5 oz + 3.2 oz	83	73	96	85	77	75	70	73	83	83	67	73	83	83	86	99	0	0	0	19
Supremacy + Preference	6 oz + 3.2 oz	82	80	93	80	77	80	80	77	83	82	80	77	83	83	85	99	0	0	0	18
Supremacy + MCPA-Ester	5 oz + 0.75 pt	83	83	99	82	83	88	80	80	90	82	80	80	90	85	84	99	0	0	0	22
Supremacy + 2,4-D Ester	5 oz + 0.75 pt	80	87	99	82	83	90	73	80	90	84	77	80	90	82	83	99	0	0	0	21
Supremacy + Stinger + Preference	5 oz + 3 oz + 3.2 oz	83	87	98	82	87	95	77	83	92	85	80	83	92	85	85	99	0	0	0	19
ARY-0454-107 + Preference	5 oz + 3.2 oz	80	80	93	73	82	87	70	80	88	78	70	82	90	83	85	99	0	0	0	21
Starane Flex + Preference	13.5 oz + 3.2 oz	85	77	80	78	60	90	67	70	77	83	67	58	80	86	85	99	0	0	0	18
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	15
LSD (0.05)		ns	ns	9	18	ns	ns	18	21	21	ns	20	24	22	ns	ns	ns	1	2	ns	ns

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 = depositoin 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 = 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).

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

2,4-D ester 4SC

Stinger 3SL = clopyralid.

ARY-0454-107 = experimental.

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