

**Broadleaf weed control in 2 to 4 leaf spring wheat at Rosemount, MN - 2013.** Durgan, Beverly R. and Douglas W. Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with broadleaf herbicides applied at the 2 to 4 leaf wheat stage. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil with pH 6.5 and 4.6% organic matter. Soil test for P and K were 16 lbs/A and 200 lbs/A, respectively. Following soybeans, the experimental area was fall chisel plowed. On May 7, the area was fertilized with 83 lbs/A N, 16 lbs/A P, and 145 lbs/A K and field cultivated once. 'RB-07' hard red spring wheat was seeded at 115 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. Visual weed control, wheat injury and yield data are presented in the table. Environmental conditions and plant sizes are listed below.

<b>Treatment Date</b>	<b>June 3</b>
Air Temperature (°F)	70
Relative humidity (%)	33
Dewpoint (°F)	40
Soil Temperature (°F)	68
Soil Moisture	moist
Sky	60% clouds
Wind	SSW 0-3 mph
Rainfall before application	
Week 1 (inch)	1.14
Rainfall after application	
Week 1 (inch)	0.90
Week 2 (inch)	1.37
<b>Common Lambsquarters (Colq)</b>	
leaf stage	cot to 4 leaf
height (inch)	0.25-1.25
density (#/ft <sup>2</sup> )	26
<b>Common Ragweed (Corw)</b>	
leaf stage	cot to 6 leaf
height (inch)	0.25-1.5
density (#/ft <sup>2</sup> )	24
<b>Pennsylvania Smartweed (Pesw)</b>	
leaf stage	cot to 4 leaf
height (inch)	0.25-1.75
density (#/ft <sup>2</sup> )	12
<b>Redroot Pigweed (Rrpw)</b>	
leaf stage	2 to 6 leaf
height (inch)	0.25-1.25
density (#/ft <sup>2</sup> )	1
<b>Wild Buckwheat (Wibu)</b>	
leaf stage	cot to 4 leaf
height (inch)	0.25-1.25
density (#/ft <sup>2</sup> )	2
<b>Wild Mustard (Wimu)</b>	
leaf stage	2 to 3
height (inch)	0.25-2
density (#/ft <sup>2</sup> )	1
<b>Wheat</b>	
height (inch)	7-10
leaf stage	3.75 – 4.2 (Zadoks Z14, 21-23)
tiller #	1-3

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**Durgan and Miller.**

Treatment	Rate	Weed Control												Wheat Injury			Wheat			
		Common Ragweed			Pennsylvania Smartweed			Redroot Pigweed			Wild Mustard			6/30	7/20	8/13	Yield			
		6/30	7/20	8/13	6/30	7/20	8/13	6/30	7/20	8/13	6/30	7/20	8/13	(%)	(%)	(%)	(Bu/A)			
	(Product/A)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)			
Huskie Complete	13.7 oz	99	99	98	99	99	99	99	99	99	99	99	99	99	99	99	99	44		
Huskie Complete + N-Pak AMS	13.7 oz + 1.18 pt	99	99	99	99	99	98	99	99	99	99	99	99	98	99	99	98	39		
Huskie + N-Pak AMS	13.5 oz + 1.18 pt	99	99	99	99	99	98	99	99	99	99	99	99	99	99	99	99	44		
Huskie + N-Pak AMS + Preference	13 oz + 1.18 pt + 3.2 oz	99	99	99	99	99	98	99	99	99	99	99	99	99	99	99	99	43		
Varro + Bronate Advanced	6.84 oz + 0.8 pt	90	91	90	91	91	87	96	93	93	99	98	96	99	98	96	2	0	0	36
Bronate Advanced	0.8 pt	85	85	83	88	88	87	95	88	88	95	92	93	99	98	96	0	0	0	41
Widematch + MCPA Ester	1 pt + 0.5 pt	85	86	86	87	88	86	93	90	90	98	95	91	99	98	96	0	0	0	48
Widematch + Affinity Tankmix	1 pt + 0.6 oz	85	86	86	85	86	86	93	93	93	98	95	93	99	98	96	3	0	0	45
Affinity Tankmix + Starane Ultra + Preference	0.6 oz + 4.3 oz + 3.2 oz	90	93	93	88	93	93	95	91	91	97	96	93	99	98	96	3	0	0	43
Affinity Tankmix + MCPA-Ester + Preference	0.6 oz + 0.5 pt + 3.2 oz	87	85	86	85	90	90	93	90	90	94	93	93	99	98	96	7	0	0	40
Affinity Tankmix + Preference	0.6 oz + 3.2 oz	85	86	86	87	90	90	95	91	91	97	95	95	99	98	96	3	0	0	42
Wolverine	27.4 oz	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	2	0	0	46
GoldSky + Preference	1 pt + 3.2 oz	67	78	80	73	78	80	83	87	90	93	90	91	99	98	96	8	0	0	41
GoldSky + Affinity Tankmix + Preference	1 pt + 0.6 oz + 3.2 oz	78	82	80	80	83	80	90	88	87	95	92	93	99	98	96	10	0	0	42
GoldSky + Huskie + Preference	1 pt + 11 oz + 3.2 oz	93	93	93	93	94	93	96	96	96	96	99	99	99	98	96	8	0	0	43
GoldSky + MCPA ester	1 pt + 0.75 pt	80	77	77	80	82	80	90	87	87	91	93	88	99	98	96	10	0	0	38
Pulsar + Preference	8.3 oz + 3.2 oz	73	82	80	77	82	80	83	88	87	90	93	93	99	98	96	10	0	0	44
Pulsar + MCPA-Ester + Preference	8.3 oz + 0.5 pt + 3.2 oz	73	80	80	80	83	82	87	87	90	90	93	93	99	98	96	8	0	0	45
Pulsar + Affinity Tankmix + Preference	8.3 oz + 0.6 oz + 3.2 oz	75	78	78	77	86	78	92	85	83	93	96	96	99	98	96	10	0	0	44
Everest 2.0 + Destiny HC	0.75 oz + 0.8 pt	47	72	78	67	77	82	80	83	87	94	93	95	99	98	96	3	0	0	43
AGH 09035	1.5 pt	85	83	83	87	83	83	92	88	87	95	93	93	99	98	96	3	0	0	48
AGH 09035 + Interlock	1.5 pt + 4 oz	83	83	87	82	80	82	93	90	90	94	93	93	99	98	96	3	0	0	44
AGH 09035 + AGH 8050	1.5 pt + 6.4 oz	83	83	83	83	83	83	92	85	85	93	93	93	99	98	96	5	0	0	40
AGH 08032	1.5 pt	83	87	87	83	87	83	94	92	93	96	95	95	99	98	96	3	0	0	47
AGH 08032 + Interlock	1.5 pt + 4 oz	73	83	83	78	83	82	87	90	90	95	95	93	99	98	96	3	0	0	43
AGH 08032 + AGH 8050	1.5 pt + 6.4 oz	83	87	87	87	88	83	90	90	87	97	95	93	99	98	96	0	0	0	47
Weedy Check	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	43
LSD (0.05)		14	10	12	11	10	11	7	7	8	5	5	5	99	98	96	6	ns	ns	ns

Huskie Complete 1.76L = thiencazone-methyl (0.042 lb ai/gal) & pyrasulfotole (0.26 lb ai/gal) & bromoxynil phenol equivalent (1.46 lb ai/gal).  
 N-Pak AMS = 34% ammonium sulfate solution (3.4 lbs ammonium sulfate/gal).  
 Huskie 2.08 EC = pyrasulfotole (0.23 lb ai/gal) & bromoxynil 1.85 lb ai/gal) & safener.  
 Preference = nonionic surfactant.  
 Varro = thiencazone-methyl & safener.  
 Bronate Advanced 5E = bromoxynil (2.5 lb ai/gal) & MCPA (2.5 lb ae/gal).  
 Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).  
 MCPA Ester 4E.  
 Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).  
 Starane Ultra 2.8E = fluroxypyr.  
 Wolverine 1.38E = fenoxaprop-p-ethyl (0.38 lb ai/gal) & pyrasulfotole (0.17 lb ai/gal) & bromoxynil octanoate (0.41 lb ai/gal) & bromoxynil heptanoate (0.42 lb ai/gal).  
 GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).  
 Pulsar 1.67L = dicamba (0.7275 lb ae/gal) + fluroxypyr (0.9455 lbs ae/gal).  
 Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).  
 Destiny HC = methylated soybean oil, high fructose corn syrup, sorbitan fatty acid esters.  
 AGH 09035 = experimental from Agrilience.  
 Interlock = depositoin aid and drift control agent.  
 AGH 8050 = experimental from Agrilience.  
 AGH 08032 = experimental from Agrilience.

