

**Hard red spring wheat and barley tolerance to postemergence herbicides at Rosemount, MN - 2008.** Durgan, Beverly R., Krishona Martinson, and Douglas Miller. This experiment was designed to evaluate the tolerance of selected Hard Red Spring Wheat (HRSW) and barley varieties to various postemergence herbicides. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil. Following soybeans, the experimental area was chisel plowed in the fall of 2007. In the spring of 2008, the area received 75 lbs/A N then was field cultivated twice. The HRSW varieties 'Ada', 'Faller', 'Glenn', 'Hat Trick', 'Howard', 'Kelby', 'Knudson', 'Kuntz', 'Oklee', 'RB-07', 'Tom', and 'Traverse' and the spring barley varieties 'Rasmusson' and 'Stellar' were seeded on May 1 at 85 lb/A and 90 lbs/A for HRSW and spring barley, respectively. Herbicide treatments were applied to a 7.5 ft strip with a tractor mounted sprayer delivering 10 gpa at 35 psi using 11001 flat-fan nozzles. The experimental design was a strip plot with three replications. Varieties were seeded in strips randomized within each replication. Herbicide treatments were applied across all varieties. Each herbicide x variety plot was 12 feet wide by 12 feet long. Herbicide treatments were applied June 4. Environmental conditions at application are listed below. Crop injury was visually rated. Crop height and yields were measured. Data is summarized by variety and is presented in Tables 1 to 7.

<b>Treatment Date</b>	<b>June 4</b>
Temperature (°F)	
Air	65-67
Soil	70
Soil Moisture	moist
Wind (mph)	0-2 ESE
Sky	cloudy
Rainfall before application	
Week 1 (inch)	1.09
Rainfall after application	
Week 1 (inch)	2.15
Week 2 (inch)	1.53

	<b><u>Height (inch)</u></b>	<b><u>Leaf Stage</u></b>	<b><u>Tiller #</u></b>
<b><u>Barley</u></b>			
Rasmusson	8-10	5.5 to 5.75	1-2
Stellar	9-11	5.25 to 5.75	0-1
<b><u>Wheat</u></b>			
Ada	7-9	5.5 to 5.75	2-3
Faller	5-7	4.75 to 5.25	1-2
Glenn	4-6	4.5 to 4.75	0-1
Hat Trick	5-7	5 to 5.25	1-2
Howard	7-9	5.25 to 5.75	2-3
Kelby	5-7	4.75 to 5.25	0-1
Knudson	4-6	4.5 to 4.75	0-2
Kuntz	6-8	5.25 to 5.5	2
Oklee	6-8	5.25 to 5.5	2
RB-07	6-8	4.75 to 5.25	2
Tom	5-7	5 to 5.25	2-3
Traverse	6-8	4.75 to 5.25	1-2

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**Table 1.**

Treatment	Rate Product/A	Ada						Faller					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	8	3	2	7	26	33	15	12	3	10	27	38
Everest + Preference	1.23 oz + 3.2 oz	12	10	5	8	27	28	18	10	5	12	27	35
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	0	0	0	0	26	30	7	0	0	0	29	41
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	3	2	2	0	27	33	7	0	0	0	28	34
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	0	0	0	0	25	36	0	0	0	0	28	40
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	0	0	0	26	33	0	0	0	0	29	44
Orion	17 oz	0	0	0	0	26	35	0	0	0	0	30	50
Orion	34 oz	0	0	0	0	28	41	0	0	0	0	31	47
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	28	37	0	0	0	0	29	44
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	28	40	0	0	0	0	30	40
Bronate Advanced	0.8 pt	0	0	0	0	27	36	0	0	0	0	30	46
Bronate Advanced	1.6 pt	0	0	0	0	28	40	0	0	0	0	30	44
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	10	2	0	0	27	37	10	2	0	0	29	44
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	8	3	5	0	27	36	13	0	0	0	28	40
Untreated Check	--	0	0	0	0	28	43	0	0	0	0	28	46
LSD (0.05)		3	3	ns	4	ns	ns	4	2	1	2	2	ns

**Table 2.**

Treatment	Rate Product/A	Glenn						Hat Trick					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	8	7	3	3	29	34	8	2	3	7	28	36
Everest + Preference	1.23 oz + 3.2 oz	7	12	7	10	26	25	7	2	8	7	27	38
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	2	0	0	0	30	30	0	0	2	0	29	36
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	2	0	2	0	30	31	0	0	2	0	28	41
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	2	0	2	0	29	30	2	2	0	0	28	40
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	2	0	0	0	29	36	0	0	0	0	29	40
Orion	17 oz	0	0	0	0	30	35	0	0	0	0	29	41
Orion	34 oz	0	0	0	0	31	37	0	0	0	0	28	40
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	31	38	0	0	0	0	30	35
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	30	37	0	0	0	0	30	40
Bronate Advanced	0.8 pt	0	0	0	0	31	34	0	0	2	0	29	42
Bronate Advanced	1.6 pt	0	0	0	0	31	40	0	0	0	0	29	43
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	8	2	2	2	30	31	7	2	2	2	29	44
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	10	2	0	2	29	28	8	5	2	3	29	41
Untreated Check	--	0	0	0	0	30	34	0	0	0	0	30	49
LSD (0.05)		4	2	3	4	2	8	5	2	3	4	ns	ns

Everest 70 WG = fluca rbazone.

Preference = nonionic surfactant.

SP102000020025 = experimental from Bayer Crop Science.

N-Pak AMS = ammomium sulfate solution.

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

Orion 2.37 SE = florasulam (0.033 lb ai/gal) & MCPA (2.34 lb ae/gal).

A15351 EC = pinoxaden (7.38%) & florasulam (92.62%) & cloquintocet-methyl (safener).

Adigor Adjuvant = emulsifiable oil adjuvant.

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

GoldSky 1.53L = pyroxsulam (0.11 lb ae/gal), fluroxypyr (0.71 lb ae/gal), florasulam (0.71 lb ae/gal).

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**Table 3.**

Treatment	Rate Product/A	Howard						Kelby					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	5	5	3	0	29	44	8	5	3	0	25	49
Everest + Preference	1.23 oz + 3.2 oz	10	7	3	2	28	34	10	12	8	7	25	35
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	0	0	0	0	29	48	3	0	2	0	26	48
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	0	2	0	3	30	48	3	0	2	0	26	48
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	0	0	0	0	30	46	2	0	0	0	25	45
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	3	2	0	29	50	0	0	0	0	26	47
Orion	17 oz	0	0	0	0	30	48	0	0	0	0	26	49
Orion	34 oz	0	0	0	0	30	50	0	0	0	0	25	51
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	30	49	0	0	0	0	26	52
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	29	46	0	0	0	0	25	53
Bronate Advanced	0.8 pt	0	0	0	0	29	49	0	0	0	0	27	51
Bronate Advanced	1.6 pt	0	0	0	0	27	44	0	0	0	0	25	44
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	5	2	0	3	29	48	8	2	2	3	24	50
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	10	5	3	5	28	48	12	2	5	5	24	48
Untreated Check	--	0	0	0	0	29	52	0	0	0	0	26	51
LSD (0.05)		2	3	2	ns	2	7	3	2	3	ns	ns	ns

**Table 4.**

Treatment	Rate Product/A	Knudson						Kuntz					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	8	7	2	5	26	46	5	0	0	2	26	44
Everest + Preference	1.23 oz + 3.2 oz	10	7	2	8	26	43	8	5	2	3	27	44
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	0	0	0	0	26	52	0	0	0	0	26	40
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	2	0	0	0	27	56	2	0	0	0	26	40
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	2	0	0	0	26	48	0	0	0	0	27	43
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	2	0	0	27	48	2	0	0	0	27	45
Orion	17 oz	0	0	0	0	27	52	0	0	0	0	28	41
Orion	34 oz	0	0	0	0	27	55	0	0	0	0	27	50
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	27	56	0	0	0	0	26	48
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	27	54	0	0	0	0	27	45
Bronate Advanced	0.8 pt	0	0	0	0	26	53	0	0	0	0	27	46
Bronate Advanced	1.6 pt	0	0	0	0	28	51	0	0	0	0	27	46
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	7	2	0	2	25	49	7	0	0	2	27	44
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	15	3	2	10	25	45	15	3	0	15	26	39
Untreated Check	--	0	0	0	0	26	50	0	0	0	0	26	47
LSD (0.05)		4	3	ns	6	1	ns	4	2	ns	ns	ns	8

Everest 70 WG = flucaRBazone.

Preference = nonionic surfactant.

SP102000020025 = experimental from Bayer Crop Science.

N-Pak AMS = ammomium sulfate solution.

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

Orion 2.37 SE = florasulam (0.033 lb ai/gal) & MCPA (2.34 lb ae/gal).

A15351 EC = pinoxaden (7.38%) & florasulam (92.62%) & cloquintocet-methyl (safener).

Adigor Adjuvant = emulsifiable oil adjuvant.

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

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**Table 5.**

Treatment	Rate Product/A	Oklee						RB07					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	7	0	3	0	27	48	12	5	5	7	26	38
Everest + Preference	1.23 oz + 3.2 oz	7	7	5	7	26	44	12	8	8	10	25	33
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	0	0	0	0	28	53	2	0	0	0	26	43
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	0	3	0	0	27	52	2	0	2	0	26	41
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	0	0	0	0	27	52	2	0	2	0	26	39
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	0	0	0	29	51	0	0	0	0	26	43
Orion	17 oz	0	0	0	0	28	51	0	0	0	0	26	42
Orion	34 oz	0	0	0	0	29	54	0	0	0	0	27	49
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	28	54	0	0	0	0	27	45
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	27	55	0	0	0	0	27	44
Bronate Advanced	0.8 pt	0	0	0	0	29	55	0	0	0	0	26	43
Bronate Advanced	1.6 pt	0	0	0	0	27	51	0	0	0	0	26	41
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	5	0	0	2	27	53	7	3	2	2	25	41
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	13	2	3	2	28	46	8	3	3	2	26	45
Untreated Check	--	0	0	0	0	29	53	0	0	0	0	27	47
LSD (0.05)		2	4	3	ns	ns	ns	3	2	4	5	ns	ns

**Table 6.**

Treatment	Rate Product/A	Tom						Traverse					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	10	15	10	10	26	26	12	5	3	3	30	47
Everest + Preference	1.23 oz + 3.2 oz	12	17	13	18	26	23	13	7	5	2	29	42
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	0	0	0	0	28	35	3	0	0	0	29	42
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	0	2	0	0	27	37	5	2	5	0	29	43
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	0	0	0	0	28	36	2	0	0	0	29	46
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	3	0	0	27	39	0	2	0	0	28	44
Orion	17 oz	0	0	0	0	29	38	0	0	0	0	29	46
Orion	34 oz	0	0	0	0	29	42	2	2	2	0	30	47
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	0	0	29	39	0	0	0	0	30	46
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	0	0	0	28	39	0	0	0	0	32	42
Bronate Advanced	0.8 pt	0	0	0	0	28	42	0	2	0	5	30	45
Bronate Advanced	1.6 pt	0	3	0	0	29	36	0	0	0	0	29	45
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	12	5	3	3	27	36	7	0	0	0	30	43
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	15	5	5	5	27	35	7	5	2	0	28	46
Untreated Check	--	0	0	0	0	28	38	0	0	0	0	31	53
LSD (0.05)		3	5	5	6	2	8	3	4	2	ns	ns	ns

Everest 70 WG = flucaRBazone.

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

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**Table 7.**

Treatment	Rate Product/A	Rasmusson						Stellar					
		Injury				Height (inch)	Yield (Bu/A)	Injury				Height (inch)	Yield (Bu/A)
		6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)			6/9 (%)	6/16 (%)	6/23 (%)	7/25 (%)		
Everest + Preference	0.62 oz + 3.2 oz	20	33	22	30	21	60	18	35	32	33	21	44
Everest + Preference	1.23 oz + 3.2 oz	20	33	28	38	19	60	18	35	35	57	18	30
SP102000020025 + N-Pak AMS	27.4 oz + 1.18 pt	7	0	0	0	25	83	2	5	5	0	28	69
SP102000020025 + N-Pak AMS	54.8 oz + 1.18 pt	5	3	2	0	26	87	7	3	8	0	26	73
Huskie + N-Pak AMS + Preference	13.5 oz + 1.18 pt + 3.2 oz	2	0	0	0	25	88	0	0	3	0	27	79
Huskie + N-Pak AMS + Preference	27 + 1.18 pt + 3.2 oz	0	2	3	0	24	81	0	3	2	0	25	78
Orion	17 oz	0	0	0	0	24	82	0	0	0	0	26	73
Orion	34 oz	2	0	3	0	24	92	2	0	3	0	27	79
A15351 + Adigor Adjuvant	8.35 oz + 0.6 pt	0	0	3	0	25	78	0	0	0	0	27	79
A15351 + Adigor Adjuvant	17.7 oz + 0.6 pt	0	2	2	0	25	92	0	0	2	0	28	83
Bronate Advanced	0.8 pt	0	2	2	0	25	91	0	2	2	0	26	82
Bronate Advanced	1.6 pt	3	3	5	0	23	89	5	7	3	0	28	80
GoldSky + N-Pak AMS + Preference	1 pt + 3.53 pt + 3.2 oz	18	20	12	3	26	86	18	27	22	8	23	60
GoldSky + N-Pak AMS + Preference	2 pt + 3.53 pt + 3.2 oz	15	27	12	5	24	78	17	32	32	2	20	42
Untreated Check	--	0	0	0	0	25	94	0	0	0	0	27	73
LSD (0.05)		4	6	9	7	3	14	5	6	7	13	3	9

Everest 70 WG = fluca rbazone.

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