

**Foxtail control in spring wheat with reduced rates of Rimfire Max, Axial XL, Wolverine, GoldSky and Everest 2.0 at Rosemount, MN - 2011.** Durgan, Beverly R. and Douglas W. Miller. This experiment was designed to evaluate foxtail control with Rimfire Max (propoxycarbazone & mesosulfuron), Axial XL (pinoxaden & adjuvant), Wolverine (fenoxaprop & pyrasulfotole & bromoxynil), GoldSky (pyroxsulam & fluroxypyr & florasulam) and Everest 2.0 (flucarbazone-sodium & safener) applied at the labeled rate and at two reduced rates and at two application times. 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 treatments in a split plot arrangement with three replications. Application date comprised whole plots and herbicide treatments, subplots. Subplot size was 10 by 24 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat fan nozzles. A broadcast application of Buctril (bromoxynil) at 1.0 pt/A (0.25 lb ai/A) was applied on June 6 to control broadleaf weeds. Application data and environmental conditions are listed below. Visual weed control, wheat injury and yield data are presented in the table below.

<b>Treatment Date</b>	<b>May 26</b>	<b>June 13</b>
Foxtail (giant and yellow)		
stage	1-4 leaf (majority 2-3 leaf)	2-7 leaf (majority 4-6 leaf)
height (inch)	0.25-1.5 (majority 0.75 to 1.25)	1-8 (majority 3-5)
density (#/ft <sup>2</sup> )	56	94
Wheat		
stage	3.5-3.75 leaf (Zadoks Z14, Z21-22)	7.3 (Zadoks Z17, Z21-23)
tillers	1-2	1-3
height (inch)	4-6	10-13
Air temperature (°F)	60	67
Relative humidity (%)	33	51
Dewpoint (°F)	45	not recorded
Sky	clear	50% clouds
Wind	NNE 2-10	SSE 5-10
Soil conditions	moist at 0.25"	moist
Soil temperature (°F)	69	59
Rainfall before Application		
Week 1 (inch)	2.18	1.46
Rainfall after Application		
Week 1 (inch)	0.97	2.74
Week 2 (inch)	0.19	0.57

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Treatment	Rate	Foxtail Control			Wheat Injury			Wheat Yield (Bu/A)
		6/4	6/25	7/2	6/4	6/25	7/2	
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	
<b>Application #1 (May 26)</b>								
Rimfire Max + Quad 7	3 oz + 12.8 oz	10	0	17	0	0	0	16
Rimfire Max + Quad 7	2.25 oz + 12.8 oz	7	0	17	0	0	0	17
Rimfire Max + Quad 7	1.5 oz + 12.8 oz	7	0	13	0	0	0	16
Axial XL	16.4 oz	92	99	99	0	0	0	15
Axial XL	12.2 oz	92	98	95	0	0	0	15
Axial XL	8.1 oz	93	96	93	0	0	0	16
Wolverine	27.4 oz	95	99	96	0	0	0	16
Wolverine	20.5 oz	93	96	93	0	0	0	17
Wolverine	13.7 oz	93	94	91	0	0	0	17
GoldSky + Preference	16 oz + 3.2	90	83	72	0	0	0	18
GoldSky + Preference	12 oz + 3.2	85	80	65	0	0	0	17
GoldSky + Preference	8 oz + 3.2	85	68	43	0	0	0	17
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	91	95	93	0	0	0	20
Everest 2.0 + Newtone	0.57 oz + 12.8 oz	90	92	85	0	0	0	18
Everest 2.0 + Newtone	0.375 oz + 12.8 oz	87	90	67	0	0	0	21
Weedy Check	--	--	--	--	0	0	0	15
<b>Application #2 (June 13)</b>								
Rimfire Max + Quad 7	3 oz + 12.8 oz	17	0	17	0	0	0	16
Rimfire Max + Quad 7	2.25 oz + 12.8 oz	10	0	10	0	0	0	15
Rimfire Max + Quad 7	1.5 oz + 12.8 oz	10	0	7	0	0	0	13
Axial XL	16.4 oz	92	99	99	0	0	0	18
Axial XL	12.2 oz	85	96	95	0	0	0	20
Axial XL	8.1 oz	82	95	90	0	0	0	17
Wolverine	27.4 oz	90	99	96	0	0	0	21
Wolverine	20.5 oz	85	99	85	0	0	0	18
Wolverine	13.7 oz	82	91	78	0	0	0	18
GoldSky + Preference	16 oz + 3.2	60	43	17	0	0	0	18
GoldSky + Preference	12 oz + 3.2	60	43	13	0	0	0	15
GoldSky + Preference	8 oz + 3.2	33	45	10	0	0	0	17
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	73	92	40	0	0	0	19
Everest 2.0 + Newtone	0.57 oz + 12.8 oz	72	90	43	0	0	0	19
Everest 2.0 + Newtone	0.375 oz + 12.8 oz	70	87	30	0	0	0	17
Weedy Check	--	--	--	--	0	0	0	13
LSD (0.05)		8	4	14	ns	ns	ns	3

Rimfire Max 6.67WDG = propoxycarbazone-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Quad 7 = ammonium salt, buffering agent, and surfactant blend.

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

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).

Preference = nonionic surfactant.

Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).

Newtone = surfactant blend and ammoniated salts.