<u>Wild oat control with GoldSky and Rimfire with various adjuvants at Crookston, MN -</u> <u>2009.</u> Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control with GoldSky (pyroxsulam & fluroxypyr & florasulam) and Rimfire (propoxycarbazone & mesosulfuron) alone and with various adjuvants. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental area received 100 lb/A of N and was fall plowed. In the spring of the following year, the experimental area was disked and harrowed. 'Freyr' hard red spring wheat was seeded on May 18 at 1.5 Bu/A. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. The experimental design was a randomized complete block with three replications and plot size was 10 by 16 ft. Application data and environmental conditions are listed below. Crop injury and wild oat control were visually rated. Yields were measured. All data are presented in the table below.

Treatment Date	June 12		
Target wild oat stage	3 to 5 leaf		
Air temperature (°F) Soil temperature (°F) Relative humidity (%) Wind	65 59 61 W 2 mph		
Rainfall before Application Week 1 (inch) Rainfall after Application	0.42		
Week 1 (inch) Week 2 (inch)	0.50 3.10		

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Treatment	Rate	Wild Oat Control			Wheat Injury				Wheat
		6/26	7/9	7/23	6/19	6/26	7/9	7/23	Yield
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
GoldSky	1 pt	88	90	83	0	0	0	0	64
GoldSky + N-Pak AMS	1 pt + 3.5 pt	88	86	91	0	0	0	0	63
GoldSky + Preference	1 pt + 6.4 oz	91	90	92	0	0	0	0	59
GoldSky + Class Act NG	1 pt + 2 pt	87	91	94	0	0	0	0	65
GoldSky + Class Act NG + AG 02013	1 pt + 2 pt + 4 oz	90	91	90	0	0	0	0	61
GoldSky + Class Act NG + AG 05017	1 pt + 2 pt + 4 oz	92	91	92	0	0	0	0	67
GoldSky + AG 06011	1 pt + 6.4 oz	92	89	94	0	0	0	0	66
GoldSky + Prime Oil	1 pt + 10.2 oz	92	90	90	0	0	0	0	55
GoldSky + Superb HC	1 pt + 6.4 oz	91	88	92	0	0	0	0	56
GoldSky + Superb HC + AG 07046 + AG 02013	1 pt + 6.4 oz + 1 pt + 4 oz	91	91	93	0	0	0	0	70
GoldSky + Superb HC + AG 07046 + AG 05017	1 pt + 6.4 oz + 1 pt + 4 oz	92	92	93	0	0	0	0	62
GoldSky + Destiny	1 pt + 10.2 oz	90	89	93	0	0	0	0	62
GoldSky + AG 05006	1 pt + 6.4 oz	91	92	95	0	0	0	0	62
GoldSky + AG 05006 + AG 07046 + AG 02013	1 pt + 6.4 oz + 1 pt + 4 oz	91	91	91	0	0	0	0	61
GoldSky + AG 05006 + AG 07046 + AG 05017	1 pt + 6.4 oz + 1 pt + 4 oz	93	92	95	0	0	0	0	61
GoldSky + AG 07090	1 pt + 1 pt	93	94	97	0	0	0	0	64
GoldSky + AG 07043	1 pt + 0.8 pt	90	91	95	0	0	0	0	66
Rimfire	1.76 oz	91	62	60	0	0	0	0	41
Rimfire + Class Act NG	1.76 oz + 2 pt	89	91	94	0	0	0	0	58
Rimfire + Class Act NG + AG 02013	1.76 oz + 2 pt + 4 oz	90	93	92	0	0	0	0	61
Rimfire + Class Act NG + AG 05017	1.76 oz + 2 pt + 4 oz	92	92	95	0	0	0	0	62
Rimfire + Destiny	1.76 oz + 1.5 pt	92	93	93	0	0	0	0	63
Rimfire + AG 05006	1.76 oz + 0.75 pt	91	92	92	0	0	0	0	59
Rimfire + AG 05006	1.76 oz + 1 pt	90	92	95	0	0	0	0	64
Rimfire + AG 05006 + AG 02013	1.76 oz + 0.75 pt + 4 oz	92	91	96	0	0	0	0	51
Rimfire + AG 05006 + AG 05017	1.76 oz + 0.75 pt + 4 oz	90	96	96	0	0	0	0	68
Rimfire + AG 07090	1.76 oz + 1 pt	90	95	93	0	0	0	0	61
Rimfire + AG 07043	1.76 oz + 0.8 pt	94	96	95	0	0	0	0	67
Axial XL	16.4 oz	99	99	96	0	0	0	0	63
Weedy Check					0	0	0	0	33
LSD (0.05)		4	7	6	ns	ns	ns	ns	15

GoldSky 1.53L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

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

Preference = nonionic surfactant.

Class Act NG = ammonium sulfate and nonionic surfactant blend.

AG 02013 = experimental adjuvant from Agriliance.

AG 05017 = experimental adjuvant from Agriliance.

AG 06011 = experimental adjuvant from Agriliance.

Prime Oil = crop oil concentrate.

Superb HC = patented crop oil concentrate (high fructose corn syrup, petroleum oil, and nonionic surfactant emulsifier).

AG 07046 = experimental adjuvant from Agriliance.

Destiny = methylated soybean oil and nonionic surfactant blend.

AG 05006 = experimental adjuvant from Agriliance.

AG 07090 = experimental adjuvant from Agriliance.

AG 07043 = experimental adjuvant from Agriliance.

Rimfire 10.2 WDG = propoxycarbazone (8.14%) & mesosulfuron (2.03%).

Axial XL 0.053 EC = pinoxaden and adigor adjuvant.