

Weed control with GoldSky in combination with various adjuvants and broadleaf herbicides at Crookston, MN - 2008. 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) alone, with various adjuvants, and in combination with broadleaf herbicides. 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 April 15 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	May 31
Target wild oat stage	2 leaf to 2 tillers
Air temperature (°F)	75
Relative humidity (%)	41
Wind	E 0-2 mph
Sky	clear
Rainfall before Application	
Week 1 (inch)	0.47
Rainfall after Application	
Week 1 (inch)	1.60
Week 2 (inch)	1.03

Wet conditions at planting caused poor stands in areas of the experiment, resulting in a large variation in yield between replicates of various treatments. Because this variation was not consistent among all treatments, yield differences observed in the data may not totally represent the effect of the herbicide treatment applied.

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Treatment	Rate Product/A	Wild Oat Control		Wheat Injury			Wheat Yield (Bu/A)
		7/1 (%)	7/17 (%)	6/20 (%)	7/1 (%)	7/17 (%)	
GoldSky	1 pt	89	75	0	0	0	47
GoldSky + N-Pak AMS	1 pt + 3.5 pt	88	81	0	0	0	72
GoldSky + Preference	1 pt + 6.4 oz	87	70	0	0	0	48
GoldSky + Class Act NG	1 pt + 2 pt	89	72	0	0	0	45
GoldSky + AG 07046	1 pt + 2 pt	87	67	0	0	0	50
GoldSky + Superb HC	1 pt + 6.4 oz	88	75				61
GoldSky + Superb HC + AG 07046	1 pt + 6.4 oz + 1 pt	89	70	0	0	0	48
GoldSky + Destiny	1 pt + 10.2 oz	87	78	0	0	0	57
GoldSky + AG 05006	1 pt + 6.4 oz	86	70	0	0	0	57
GoldSky + AG 05006 + AG 07046	1 pt + 3.2 oz + 1 pt	88	79	0	0	0	62
GoldSky + Class Act NG + AG 02013	1 pt + 2 pt + 4 oz	87	80	0	0	0	65
GoldSky + AG 05006 + AG 07046 + AG 02013	1 pt + 3.2 oz + 1 pt + 4 oz	87	72				52
GoldSky + AG 05055	1 pt + 1.2 pt	90	82	0	0	0	58
				0	0	0	
GoldSky + MCPA-Ester + Class Act NG	1 pt + 0.5 pt + 2 pt	89	86	0	0	0	61
GoldSky + MCPA-Ester + Superb HC	1 pt + 0.5 pt + 6.4 oz	88	79	0	0	0	60
GoldSky + MCPA-Ester + AG 05006	1 pt + 0.5 pt + 6.4 oz	85	81	0	0	0	64
GoldSky + 2,4-D LV6 +	1 pt + 0.33 pt + 2 pt	88	80	0	0	0	54
GoldSky + 2,4-D LV6 + Superb HC	1 pt + 0.33 pt + 6.4 oz	86	80	0	0	0	56
GoldSky + 2,4-D LV6 + AG 05006	1 pt + 0.33 pt + 6.4 oz	89	81	0	0	0	74
				0	0	0	
GoldSky + Bronate Advanced + Preference	1 pt + 0.8 pt + 6.4 oz	86	83	0	0	0	67
GoldSky + Huskie + Preference	1 pt + 13.5 oz + 6.4 oz	88	80				65
GoldSky + INC-115 + Preference + N-Pak AMS	1 pt + 0.8 oz + 6.4 oz + 3.5 pt	90	80	0	0	0	59
Weedy Check	--	--	--	0	0	0	8
LSD (0.05)		ns	ns	ns	ns	ns	19

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

N-Pak AMS = ammonium sulfate solution.

Preference = nonionic surfactant.

Class Act NG = ammonium sulfate and nonionic surfactant blend.

AG 07046 = experimental adjuvant from Agrilience.

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

Destiny = methylated soybean oil and nonionic surfactant blend.

AG 05006 = experimental adjuvant from Agrilience.

AG 02013 = experimental adjuvant from Agrilience.

AG 05055 = experimental adjuvant from Agrilience.

MCPA Ester 4E.

2,4-D LV6 Ester 6E.

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

Huskie 2.08 EC = pyrasulfotole & bromoxynil & safener.

INC-115 50DF = thifensulfuron (40%) & tribenuron (10%).