

Wild oat control in spring wheat with Luxxur B plus Luxxur A at Crookston, MN - 2019. Durgan, Beverly R., Jochum Wiersma, Houston Lindell, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with Luxxur B and Luxxur A tank mixes. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, 149 lbs/A N and 52 lbs/A P was applied and the area was chisel plowed in the fall of 2018. In the spring of 2019, a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on May 13 at 1.75 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 5
Target Wild Oat Stage	3-4 leaf
Wild Oat Density	295 / ft ²
Air temperature (°F)	70
Relative humidity (%)	60
Wind	NW 5 mph
Sky	clear
Rainfall before Application	
Week 1 (inch)	0.00
Rainfall after Application	
Week 1 (inch)	0.66
Week 2 (inch)	0.27

Results

Axial Bold provided the best wild oat control at the early (June 21) rating date compared to the other treatments. Luxxur B + Luxxur A tank mixed with Bison or Supremacy had lower wild oat control at the July 17 rating date compared to the other treatments, however the differences were not significant due to high variance in control ratings at this date.

Slight wheat injury (stunting and yellowing) was noted on June 14 but little or no injury was visible at the later rating dates.

Wheat yields were not significantly different between herbicide treatments but were all significantly greater than the untreated weedy check (12 Bu/A).

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Treatment	Rate (Product/A)	Wild Oat Control				Wheat Injury		Wheat Yield (Bu/A)
		6/21	7/1	7/17	7/26	6/14	6/21	
		(%)	(%)	(%)	(%)	(%)	(%)	
Luxxur B + Luxxur A	6.85 oz + 0.2141 oz	82	88	93	96	2	0	50
Luxxur B + Luxxur A + Starane Ultra	6.85 oz + 0.2141 oz + 4.8 oz	85	90	96	96	5	0	50
Luxxur B + Luxxur A + MCPA-Ester	6.85 oz + 0.2141 oz + 0.5 pt	82	92	96	96	8	0	49
Luxxur B + Luxxur A + WideMatch	6.85 oz + 0.2141 oz + 1 pt	85	92	96	97	8	0	47
Luxxur B + Luxxur A + Bison	6.85 oz + 0.2141 oz + 1 pt	83	85	70	92	10	2	43
Luxxur B + Luxxur A Supremacy	6.85 oz + 0.2141 oz + 4.5 oz	83	85	78	95	7	0	43
Huskie Complete	13.7 oz	83	87	92	96	2	0	45
Axial Bold+ Widematch + MCPA ester	15 oz + 1 pt + 0.5 pt	95	95	92	98	3	0	46
Varro + Widematch + MCPA ester	6.85 oz + 1 pt + 0.5 pt	87	92	88	98	5	0	49
Weedy Check	--	--	--	--	--	0	0	**
LSD (0.05)		4.2	6.3	ns	ns	6.2	ns	ns

Luxxur B 0.083L = thiencazone-methyl.

Luxxur A 50SG = tribenuron-methyl.

Starane 2.8 E = fluroxypyr.

MCPA Ester 4E.

Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

Bison 4E = bromoxynil (2 lb ai/gal) & MCPA (2 lb ae/gal).

Supremacy 42DF = fluroxypyr (36%) + thifensulfuron (4.5%) & tribenuron (1.5%).

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).

Axial Bold 0.685EC = pinoxaden (0.457 lb/gal) and fenoxaprop-p-ethyl (0.228 lb/gal).

Varro 0.083L = thiencazone-methyl.

** Weedy check yield = 12 Bu/A not included in Wheat Yield anova.