

Wild oat control in spring wheat with Luxxur B plus Luxxur A at Crookston, MN - 2021. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Houston Lindell. The objective of this experiment was to evaluate wild oat control and wheat injury with Luxxur B plus Luxxur A alone and in tank mixes with other herbicides. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the area was chisel plowed in the fall of 2020. In the spring of 2021, 149 lbs/A N and 52 lbs/A P was applied, and a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on April 19 at 1.75 bu/a. The experimental design was a randomized complete block with three replications. Plot size was 10 by 16 ft. Target application stage was 3-4 leaf wild oat. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. Application data and environmental conditions are listed below. Crop injury and wild oat control were rated visually. Yields were measured. All data are presented in the table below.

Treatment Date	May 21
Target Wild Oat Stage	3-4 leaf
Wild Oat Density	270 / ft ²
Air temperature (°F)	74
Relative humidity (%)	84
Wind	S 6 mph
Soil temperature (under sod) (°F)	58
Rainfall before Application	
Week 1 (inch)	0.18
Rainfall after Application	
Week 1 (inch)	0.51
Week 2 (inch)	0.09

Results

Except for Wolverine Advanced at the July 2 rating date, there were no significant differences in wild oat control between herbicide treatments. Wheat injury was generally low with the Sentrallas treatments showing slightly greater injury at the early rating dates compared to the other treatments. All herbicide treatments yielded greater than the untreated check, however the differences were not significantly significant. Crop yields were highly variable, most likely the result of low precipitation over the growing season.

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Treatment	Rate (Product/A)	Wild Oat Control			Wheat Injury				Wheat
		6/24 (%)	7/2 (%)	7/22 (%)	5/28 (%)	6/4 (%)	6/12 (%)	6/18 (%)	Yield (Bu/A)
Luxxur B + Luxxur A	6.85 oz + 0.214 oz	88	92	99	3	0	0	0	47
Luxxur B + Luxxur A + Starane Flex	6.85 oz + 0.214 oz + 13.5 oz	93	95	99	5	0	0	0	44
Luxxur B + Luxxur A + 2,4-D LV6	6.85 oz + 0.214 oz + 5.4 oz	90	93	99	5	5	2	0	43
Luxxur B + Luxxur A + Starane Flex + 2,4-D LV6	6.85 oz + 0.214 oz + 13.5 oz + 5.4 oz	90	95	99	3	3	0	2	41
Luxxur B + Luxxur A + Sentrallas	6.85 oz + 0.214 oz + 10 oz	87	95	99	8	10	0	2	43
Luxxur B + Luxxur A + Sentrallas + 2,4-D LV6	6.85 oz + 0.214 oz + 10 oz + 5.4 oz	90	95	99	7	10	2	2	40
Luxxur B + Luxxur A + Bison	6.85 oz + 0.214 oz + 1 pt	82	90	99	5	5	0	0	39
Wolverine Advanced	24.7 oz	85	88	89	0	0	3	0	40
Batalium II + NIS + AMS	13.7 oz + 3.2 oz + 2.35 pt	85	90	98	3	0	3	0	40
OpenSky + 2,4-D Ester LV6 + NIS	1 pt + 5.4 oz + 3.2 oz	90	93	99	3	2	2	3	43
PerfectMatch + 2,4-D Ester LV6 + NIS	1 pt + 5.4 oz + 3.2 oz	87	95	96	3	3	2	5	35
Axial Bold+ Talinor + CoAct+	15 oz+ 13.7 oz + 2.75 oz	93	95	99	3	0	0	0	37
Batalium II + Puma + NIS + AMS	13.7 oz + 6.4 oz + 3.2 oz + 2.35 pt	90	92	99	2	0	3	0	36
Untreated Check	--	--	--	--	0	0	0	0	21
LSD (0.05)		ns	4.6	ns	ns	3.8	ns	2.4	ns

Luxxur B 0.083L = thiencazone-methyl.

Luxxur A 50SG = tribenuron-methyl.

Starane Flex 0.875 E = florasulam (0.042 lb ai/gal) & fluroxypyr (0.833 lb ae/gal).

2,4-D ester LV6 5.8E.

Sentrallas 1.55E = thifensulfuron (0.25 lb ai/gal) & fluroxypyr (1.3 lb ae/gal).

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

Wolverine Advanced 1.58E = fenoxaprop-p-ethyl (0.40 lb ai/gal) & pyrasulfotole (0.13 lb ai/gal) & bromoxynil (1.05 lb ai/gal).

Batalium II = flucarbazone (0.25 lb ai/gal & bromoxynil (2.34 lb ai/gal) & fluroxypyr (0.88 lb ae/gal).

NIS = Preference nonionic surfactant.

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

OpenSky 1.057L = pyroxsulam (0.107 lb ai/gal) & fluroxypyr (0.95 lb ae/gal).

PerfectMatch 1.61SE = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal) & pyroxsulam (0.11 lb ai/gal).

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

Talinor = bicyclopyrone & bromoxynil.

CoAct+ = adjuvant.

Puma 1EC = fenoxaprop.