Wild oat control in spring wheat with Luxxur B plus Luxxur A at Crookston, MN - 2020. Durgan, Beverly R., Jochum Wiersma, Houston Lindell, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and wheat injury with Luxxur B plus Luxxur A 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 2019. In the spring of 2020, 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 May 18 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 11**
Target Wild Oat Stage	3-4 leaf
Wild Oat Density	295 / ft^2
Air temperature (°F)	68
Relative humidity (%)	55
Wind	E 5 mph
Sky	0% clouds
Rainfall before Application	
Week 1 (inch)	2.13
Rainfall after Application	
Week 1 (inch)	0.40
Week 2 (inch)	1.79

Results

Wild oat populations were low at 15/ft^2. Rainfall amounts were high during the early to mid-growing season with standing water noted in early July.

Most herbicide treatments provided excellent wild oat control. Wolverine Advanced provided significantly less control than the other treatments.

Slight injury symptoms were observed with most treatments eight days following application. Injury was greatest when 2,4-D ester was included in the tank mix. No Injury was observed at the later rating dates.

There were no significant differences in wheat yields between treatments including the weedy check.

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		Wild Oat Control			Wheat Injury	Wheat
Treatment	Rate	7/10	7/17	8/7	6/19	Yield
	(Product/A)	(%)	(%)	(%)	(%)	(Bu/A)
Luxxur B + Luxxur A	6.85 oz + 0.214 oz	99	99	98	7	56
Luxxur B + Luxxur A + Starane Flex	6.85 oz + 0.214 oz + 13.5 oz	99	99	100	8	51
Luxxur B + Luxxur A + 2,4-D LV4	6.85 oz + 0.214 oz + 0.5 pt	99	99	100	8	52
Luxxur B + Luxxur A + Starane Flex + 2,4-D LV4	6.85 oz + 0.214 oz + 13.5 oz + 0.5 pt	99	99	99	12	48
Luxxur B + Luxxur A + Sentrallas	6.85 oz + 0.214 oz + 10 oz	99	99	100	8	51
Luxxur B + Luxxur A + Sentrallas + 2,4-D LV4	6.85 oz + 0.214 oz + 10 oz + 0.5 pt	99	99	100	13	47
Luxxur B + Luxxur A + Bison	6.85 oz + 0.214 oz + 1 pt	99	99	100	8	49
Luxxur B + Luxxur A + MCPA Ester	6.85 oz + 0.214 oz + 0.5 pt	99	99	99	3	46
Huskie Complete	13.7 oz	99	99	100	3	51
Wolverine Advanced	24.7 oz	91	90	91	0	50
Axial Bold+ Widematch + MCPA ester	15 oz+ 1 pt + 0.5 pt	99	99	100	5	39
Weedy Check	--	--	--	--	0	50
LSD (0.05)		3.6	2.6	3.9	5.6	ns

Luxxur B 0.083L = thiencarbazone-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 LV4 3.8E.
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).
MCPA Ester 4E.
Huskie Complete 1.76L = thiencarbazone-methyl (0.042 lb ai/gal) & pyrasulfotole (0.26 lb ai/gal) & bromoxynil phenol equivalent (1.46 lb ai/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).
Axial Bold 0.685EC = pinoxaden (0.457 lb/gal) and fenoxaprop-p-ethyl (0.228 lb/gal).
Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).