Broadleaf weed control in spring wheat with Huskie FX at Crookston, MN - 2020.

Durgan, Beverly R., Jochum Wiersma, Houston Lindell, and Douglas Miller. This experiment was designed to evaluate broadleaf weed control and wheat injury with Huskie FX alone and tank mixed with other products. 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 24 ft. Application date and environmental conditions are listed below. Crop injury and weed control were visually rated and yields were measured. Data presented in the table below.

Treatment Date	June 11
Broadleaf weeds	3-6"
Air temperature (°F) Relative humidity (%) Wind Sky	68 55 E 5 mph 0% clouds
Rainfall before Application Week 1 (inch) Rainfall after Application	2.13
Week 1 (inch) Week 2 (inch)	0.40 1.79
Weed Densities	(#/ft ²⁾
Common Lambquarters	14
Common Mallow	12
Redroot Pigweed	9

<u>Results</u>

Wild Buckwheat

Wild Mustard

Weed control was generally excellent for all broadleaf species with Talinor providing slightly less control of common mallow and redroot pigweed at the 8/7 rating date compared to the other treatments.

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The Huskie FX plus Luxxur tank mixes caused slightly greater injury symptoms than the other treatments at the early (6-19) rating date.

Wheat yields did not differ significantly between herbicide treatments but all herbicide treatments yielded significantly higher than the untreated check.

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Treatment Rate		Weed Control																											
	Rate						Wild					Whe																	
		Lambsquarters					Mallow					Pigweed					Buckwheat					Mustard				Injury		Wheat	
		6/19	6/26	6/26 7/10 7/17		8/7	6/19	6/26	7/10	7/17	8/7	6/19	9 6/26	7/10	7/17	8/7	6/19	6/26	7/10	7/17	8/7	6/19	6/26	7/10	7/17	8/7	6/19	6/26	Yield
	(Product/A)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
Huskie FX	15.5 oz	99	99	99	99	99	96	96	99	99	99	99	99	99	99	99	93	96	99	99	99	99	99	99	99	99	2	0	53
Huskie FX	18 oz	99	99	99	99	99	93	98	99	99	99	99	99	99	99	99	92	98	99	99	99	99	99	99	99	99	0	0	58
Huskie FX +Luxxur B + Luxxur A	15.5 oz + 6.85 oz + 0.21 oz	99	99	99	99	99	93	96	99	99	99	99	99	96	96	99	93	98	99	98	99	99	99	99	99	99	8	3	56
Huskie FX +Luxxur B + Luxxur A	18 oz + 6.85 oz + 0.21 oz	99	99	99	99	99	99	98	99	99	99	99	99	99	99	99	99	98	99	99	99	99	99	99	99	99	12	2	54
Huskie FX +Axial Bold	15.5 oz+ 15 oz	99	99	99	99	99	96	98	99	99	99	99	99	99	99	99	98	96	99	99	99	99	99	99	99	99	3	0	53
Widematch + MCPA ester	1 pt + 0.5 pt	99	99	99	99	99	90	99	99	99	99	99	94	99	99	99	92	98	99	99	99	99	99	99	99	99	0	0	57
Talinor + CoAct+	13.7 oz + 2.75 oz	99	99	99	99	99	93	95	98	98	92	99	99	98	95	92	90	93	96	96	96	99	99	99	99	99	2	0	58
Bison	1 pt	98	99	99	99	99	90	95	99	99	99	98	99	99	99	99	90	95	98	96	99	98	99	99	99	99	0	0	57
Weedy Check																													40
LSD (0.05)		ns	ns	ns	ns	ns	ns	ns	ns	ns	1.8	ns	ns	ns	ns	1.8	5.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	3.3	ns	6.6

Huskie FX 2.31 EC = pryrasulfotole (0.26 lb ai/gal) & fluroxypyr (0.60 lb ai/gal) & bromoxynil (1.45 lb ai/gal) & safener.

Luxxur B 0.083L = thiencarbazone-methyl.

Luxxur A 50SG = tribenuron-methyl.

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).

MCPA Ester 4E.

Talinor = bicyclopyrone & bromoxynil.

CoAct+ = adjuvant.

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