

**Wild oat control in spring wheat with Axial XL plus Pixxaro EC tank mixes 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 Axial XL tank mixed with Pixxaro EC and other broadleaf 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.

<b>Treatment Date</b>	<b>June 11</b>
Target Wild Oat Stage	3-4 leaf
Wild Oat Density	295 / ft <sup>2</sup>
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<sup>2</sup>. Rainfall amounts were high during the early to mid-growing season with standing water noted in early July.

All herbicide treatments provided excellent wild oat control with little or no wheat injury.

Wheat yields did not differ significantly between treatments including the weedy check.

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Treatment	Rate (Product/A)	Wild Oat Control			Wheat Injury	Wheat
		7/10 (%)	7/17 (%)	8/7 (%)	6/19 (%)	Yield (Bu/A)
Axial XL + Pixarro EC	16.4 oz + 6 oz	99	99	100	0	54
Axial XL + Pixarro EC + Orion	16.4 oz + 6 oz + 17 oz	99	99	100	0	48
Axial XL + Pixarro EC + Affinity Tankmix	16.4 oz + 6 oz + 0.6 oz	99	99	100	0	49
Axial XL + Pixarro EC + Affinity Tankmix + MCPA Ester	16.4 oz + 6 oz + 0.6 oz + 12 oz	99	99	100	0	45
OpenSky + Activator 90 + AMS	1 pt + 3.2 oz + 20 oz	99	99	100	5	44
Axial Star	16.4 oz	99	99	100	0	48
Huskie Complete	13.7 oz	99	99	100	0	52
Weedy Check	--	--	--	--	0	43
LSD (0.05)		ns	ns	ns	ns	ns

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

Pixxaro 2.43EC = halauxifen-methyl (0.10 lbs ae/gal) plus fluroxypyr (2.33 lbs ae/gal).

Orion 2.373SE = florasulam (0.033 lb ai/gal) & MCPA ester (2.34 lb ae/gal).

Affinity Tankmix 50SG = thifensulfuron (40%) & tribenuron (10%).

MCPA Ester 4E.

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

Activator 90 = nonionic surfactant.

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

Axial Star 1.15EC = pinoxaden (0.42 lb/gal) & fluroxypyr (0.73 lb ae/gal).

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).