

Wild oat control in spring wheat with X2682aa tank mixes at Crookston, MN - 2018.

Durgan, Beverly R., Jochum Wiersma, Jim Cameron, Houston Lindell, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with X2682aa alone and with other herbicides. 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 2017. In the spring of 2018, a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on April 30 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	May 21
Wild Oat Stage	3-leaf
Air temperature (°F)	68
Soil temperature (°F)	65
Relative humidity (%)	18
Wind	S 4 mph
Sky	clear
Rainfall before Application	
Week 1 (inch)	0.40
Rainfall after Application	
Week 1 (inch)	0.23
Week 2 (inch)	1.72

Results

The Axial + Talinor treatment resulted in the greatest wild oat control and wheat yield. X2682aa + Axial XL was the best performing treatment compared to the other X2682aa tank mixes.

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Treatment	Rate (Product/A)	Wild Oat Control				Wheat Injury		Wheat
		6/8	6/22	7/6	7/22	6/8	6/22	Yield
		(%)	(%)	(%)	(%)	(%)	(%)	(Bu/A)
X2682aa + Preference + AMS	13.7 oz + 3.2 oz + 2 pt	72	80	70	72	0	0	21
X2682aa + Axial XL + Preference + AMS	13.7 oz + 12.3 oz + 3.2 oz + 2 pt	80	83	85	82	0	0	33
X2682aa + Varro + Preference + AMS	13.7 oz + 3 oz + 3.2 oz + 2 pt	75	88	80	77	0	0	28
X2682aa + PowerFlex HL + Preference + AMS	13.7 oz + 2 oz + 3.2 oz + 2 pt	75	88	78	77	0	0	31
X2682aa + Audit 1:1 + Preference + AMS	13.7 oz + 0.4 oz + 3.2 oz + 2 pt	75	85	75	72	0	0	27
X2682aa + Huskie + Preference + AMS	13.7 oz + 11 oz + 3.2 oz + 2 pt	75	87	73	70	0	0	30
X2682aa + Sword + Preference + AMS	13.7 oz + 6.14 oz + 3.2 oz + 2 pt	75	87	75	72	0	0	26
X2682aa + Salvo + Preference + AMS	13.7 oz + 6.4 oz + 3.2 oz + 2 pt	73	85	72	70	0	0	28
X2682aa + Stinger+ Preference + AMS	13.7 oz + 5 oz + 3.2 oz + 2 pt	70	88	70	70	0	0	25
X2682aa + Starane Ultra + Preference + AMS	13.7 oz + 6.4 oz + 3.2 oz + 2 pt	73	87	75	73	0	0	27
X2682aa + Moxy + Preference + AMS	13.7 oz + 16 oz + 3.2 oz + 2 pt	72	83	68	63	0	0	29
X2682aa + Talinor + CoAct+ + Preference	13.7 oz + 13.7 oz + 2.75 oz + 3.2 oz	73	85	68	63	0	0	24
Huskie Complete + Preference + AMS	13.7 oz + 3.2 oz + 2 pt	77	85	68	67	0	0	26
PerfectMatch + Preference+ AMS	1 pt + 3.2 oz + 2 pt	77	83	67	67	0	0	23
Axial XL + Talinor + CoAct+ + Preference	16.4 oz + 13.7 oz + 2.75 oz + 3.2 oz	82	87	93	90	0	0	41
Weedy Check	--	--	--	--	--	0	0	5
LSD (0.05)		4.6	ns	10.8	11.5	ns	ns	5.9

X2682aa 3.46 OD = experimental from Arysta.

Preference = nonionic surfactant.

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

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

Varro 0.083L = thiencazone-methyl.

PowerFlex HL 13.13 WG = pyroxsulam.

Audit 1:1x 50WG = thifensulfuron (25%) & tribenuron (25%).

Huskie 2.06EC = pyrasulfotole (0.31 lb ai/gal) & bromoxynil (1.75 lb ai/gal).

Sword 5.2E = MCPA ester.

Salvo 5E = 2,4-D ester.

Stinger 3SL = clopyralid.

Starane Ultra 2.8 E = fluroxypyr.

Moxy 2E = bromoxynil .

Talinor = bicyclopyrone & bromoxynil.

CoAct+ = adjuvant.

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).

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