

Wild oat control in spring wheat with Varro and Everest with various adjuvants at Crookston, MN - 2017. Durgan, Beverly R., Jochum J. Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with Varro and Everest at reduced rates with various adjuvants. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the standing residue was burned and, after receiving 149 lbs/A N and 52 lbs/A P, was chisel plowed in the fall of 2016. In the spring of 2017, a seedbed was prepared using a field cultivator with rolling baskets. 'Linkert' hard red spring wheat was seeded on May 3 at 1.8 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 26
Air temperature (°F)	68
Soil temperature (°F)	70
Relative humidity (%)	40
Wind	SW 8 mph
Sky	partly cloudy
Rainfall before Application	
Week 1 (inch)	0.50
Rainfall after Application	
Week 1 (inch)	0.75
Week 2 (inch)	0.40

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Treatment	Rate (Product/A)	Wild Oat Control			Wheat Injury		Wheat Yield (Bu/A)
		6/16 (%)	6/30 (%)	7/12 (%)	5/31 (%)	6/16 (%)	
Varro	6.85 oz	83	92	92	3	0	65
Varro	5.14 oz	83	90	87	0	0	62
Varro + Preference	5.14 oz + 3.2 oz	87	92	90	2	0	68
Varro + Preference + AG02013	5.14 oz + 3.2 oz + 4 oz	82	93	90	3	0	71
Varro + AG13064	5.14 oz + 3 oz	80	93	92	2	0	65
Varro + AG8050	5.14 oz + 6.4 oz	82	93	92	0	0	67
Varro + AG14039	5.14 oz + 8 oz	83	92	93	3	0	67
Varro + AG14039	5.14 oz + 12 oz	85	95	95	2	0	70
LSD (0.05)		ns	ns	4	ns	ns	ns
Everest 2.0	0.75 oz	85	90	92	0	0	59
Everest 2.0	0.56 oz	80	83	87	0	0	54
Everest 2.0 + Preference	0.56 oz + 3.2 oz	83	93	95	0	0	58
Everest 2.0 + Preference + AG02013	0.56 oz + 3.2 oz + 4 oz	85	92	93	5	0	58
Everest 2.0 + AG13064	0.56 oz + 3 oz	83	90	93	0	0	63
Everest 2.0 + AG8050	0.56 oz + 6.4 oz	83	87	88	0	0	54
Everest 2.0 + AG14039	0.56 oz + 8 oz	87	92	92	0	0	63
Everest 2.0+ AG14039	0.56 oz + 12 oz	83	93	93	0	0	59
LSD (0.05)		ns	5	ns	ns	ns	ns

Varro 0.083L = thiencarbazone-methyl.

Preference = nonionic surfactant.

AG02013 = experimental from Winfield Solutions.

AG13064 = experimental from Winfield Solutions.

AG8050 = experimental from Winfield Solutions.

AG14039 = experimental from Winfield Solutions.

Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).