

Wild oat control with Everest 2.0, Axial XL and Raze with various tank mixes and adjuvants at Crookston, MN - 2012. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control with Everest 2.0 (flucarbazone-sodium & safener), Axial XL (pinoxaden) and Raze (flucarbazone-sodium & fluroxypyr) alone or in tank mixes and with various adjuvants. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental area received 100 lb/A of N and was fall plowed. In the spring of the following year, the experimental area was disked and harrowed. 'RB07' hard red spring wheat was seeded on April 9 at 1.5 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 | 5-5.5 leaf |
| Wheat stage | 5-5.5 leaf |
| Air temperature (°F) | 79 |
| Soil temperature (°F) | 60 |
| Relative humidity (%) | 20 |
| Wind | S 8 mph |
| Rainfall before Application | |
| Week 1 (inch) | 0.02 |
| Rainfall after Application | |
| Week 1 (inch) | 0.81 |
| Week 2 (inch) | 0.06 |

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| Treatment | Rate (Product/A) | Wild Oat Control | | | Wheat Injury | | | | | Wheat |
|---|------------------------------------|------------------|------|------|--------------|-----|------|------|------|--------|
| | | 6/14 | 6/21 | 7/18 | 5/31 | 6/8 | 6/14 | 6/21 | 7/18 | Yield |
| | | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (%) | (Bu/A) |
| Everest 2.0 + Newton | 0.75 oz + 12.8 oz | 97 | 99 | 99 | 3 | 3 | 0 | 0 | 0 | 79 |
| Everest 2.0 + Widematch + MCPA ester + Newton | 0.75 oz + 1 pt + 0.67 pt + 12.8 oz | 98 | 99 | 99 | 8 | 5 | 2 | 0 | 0 | 80 |
| Everest 2.0 + AGH 09035 | 0.75 oz + 1.33 pt | 98 | 99 | 98 | 3 | 2 | 0 | 2 | 2 | 77 |
| Everest 2.0 + AGH 09035 + Interlock | 0.75 oz + 1.33 pt + 4 oz | 98 | 98 | 99 | 8 | 3 | 2 | 0 | 0 | 75 |
| Everest 2.0 + AGH 08032 | 0.75 oz + 1.33 pt | 97 | 99 | 99 | 10 | 5 | 1 | 2 | 0 | 76 |
| Everest 2.0 + AGH 08032 + Interlock | 0.75 oz + 1.33 pt + 4 oz | 97 | 99 | 99 | 8 | 3 | 2 | 0 | 0 | 76 |
| Axial XL | 16.4 oz | 97 | 98 | 98 | 13 | 2 | 0 | 2 | 7 | 75 |
| Axial XL + AGH 09035 | 16.4 oz + 1.33 pt | 97 | 98 | 98 | 12 | 0 | 0 | 0 | 5 | 77 |
| Axial XL + AGH 09035 + Interlock | 16.4 oz + 1.33 pt + 4 oz | 97 | 98 | 98 | 13 | 0 | 0 | 2 | 3 | 69 |
| Axial XL + AGH 08032 | 16.4 oz + 1.33 pt | 97 | 99 | 98 | 13 | 3 | 0 | 3 | 8 | 77 |
| Axial XL + AGH 08032 + Interlock | 16.4 oz + 1.33 pt + 4 oz | 97 | 98 | 99 | 13 | 5 | 0 | 3 | 2 | 71 |
| AGH 120020 + Class Act NG | 7 oz + 2 pt | 97 | 98 | 98 | 5 | 2 | 0 | 1 | 0 | 76 |
| AGH 120020 + Class Act NG + Interlock | 7 oz + 2 pt + 4 oz | 98 | 98 | 99 | 8 | 3 | 0 | 1 | 2 | 77 |
| AGH 120020 + Affinity Tankmix + Class Act NG | 7 oz + 0.6 oz + 2 pt | 96 | 98 | 98 | 8 | 2 | 2 | 0 | 0 | 80 |
| Raze + Quad 7 | 7 oz + 12.8 oz | 97 | 99 | 99 | 10 | 3 | 0 | 0 | 3 | 79 |
| Raze + ARY-0546-001 + ARY-0547-001 + Quad 7 | 8 oz + 0.3 oz + 0.1 oz + 12.8 oz | 97 | 99 | 99 | 10 | 2 | 1 | 0 | 2 | 77 |
| Raze + ARY-0546-001 + ARY-0547-001 + Quad 7 | 9 oz + 0.3 oz + 0.1 oz + 12.8 oz | 97 | 98 | 99 | 10 | 0 | 2 | 0 | 0 | 74 |
| Raze + MCPA ester + Quad 7 | 7 oz + 0.67 pt + 12.8 oz | 97 | 98 | 98 | 10 | 2 | 0 | 0 | 0 | 78 |
| Raze + MCPA ester + Quad 7 | 9 oz + 0.84 pt + 12.8 oz | 98 | 98 | 99 | 8 | 3 | 3 | 0 | 2 | 77 |
| Raze + MCPA ester + Quad 7 | 10.6 oz + 1 pt + 12.8 oz | 97 | 98 | 99 | 8 | 5 | 2 | 1 | 0 | 84 |
| Raze + 2,4-D ester + Quad 7 | 9 oz + 0.75 pt + 12.8 oz | 98 | 98 | 99 | 12 | 3 | 7 | 3 | 2 | 75 |
| Axial Star + MCPA ester | 16.4 oz + 0.67 pt | 97 | 98 | 98 | 12 | 2 | 0 | 1 | 3 | 81 |
| GoldSky + Newton | 1 pt + 12.8 oz | 98 | 98 | 99 | 18 | 5 | 10 | 4 | 5 | 76 |
| Huskie Complete | 13.7 oz | 97 | 98 | 99 | 15 | 3 | 8 | 4 | 2 | 76 |
| Weedy Check | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 73 |
| LSD (0.05) | | ns | ns | ns | 4 | ns | 3 | 3 | 4 | ns |

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

Newton = ammonium salt, buffering agent, and surfactant blend.

Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

MCPA Ester 4E.

AGH 09035 = experimental from Agrilience.

Interlock = drift control agent.

AGH 08032 = experimental from Agrilience.

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

AGH 120020 = experimental from Agrilience.

Class Act NG = ammonium sulfate and nonionic surfactant blend.

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

Raze 2L = flucarbazone-sodium (0.322 lb ai/gal) & fluroxypyr (1.68 lb ae/gal).

Quad 7 = ammonium salt, buffering agent, and surfactant blend.

ARY-0546-001 75WG = thifensulfuron.

ARY-0547-001 75WG = tribenuron.

2,4-D LV4 Ester 4E.

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

GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

Huskie Complete 1.76L = thiencazabone-methyl (0.042 lb ai/gal) & pyrasulfotole (0.26 lb ai/gal) & bromoxynil phenol equivalent (1.46 lb ai/gal).