

**Rimfire Max and Raze with various adjuvants for foxtail control in spring wheat at**

**Rosemount, MN – 2013.** Durgan, Beverly R. and Douglas W. Miller. The objective of this experiment was to evaluate foxtail control and crop injury with Rimfire Max and Raze herbicides in combination with several adjuvants. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil with pH 6.3 and 4.3% organic matter. Soil test for P and K were 34 lbs/A and 280 lbs/A, respectively. Following soybeans, the experimental area was fall chisel plowed. On May 7, the area was fertilized with 83 lbs/A N, 16 lbs/A P, and 145 lbs/A K and field cultivated twice. 'RB-07' hard red spring wheat was seeded at 115 lbs/A. The experimental design was a randomized complete block with three replications. Plot size was 10 by 24 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat fan nozzles. Application data and environmental conditions are listed below. Visual weed control, wheat injury and yield data are presented in the table below.

| <b>Treatment Date</b>          | <b>June 14</b>                                     |
|--------------------------------|--|
| Foxtail (giant and yellow mix) |  |
| stage                          | 2-6 leaf (majority 4-6 leaf)                       |
| height (inch)                  | 1-6 (majority 3-4)                                 |
| density (#/ft <sup>2</sup> )   | 12   |
| Wheat                          |  |
| stage                          | 5.8-6.3 leaf, jointed<br>(Zadoks Z16, Z22-23, Z31) |
| tillers                        | 2  |
| height (inch)                  | 12-15  |
| Air temperature (°F)           | 69   |
| Relative humidity (%)          | 65   |
| Dewpoint (°F)                  | 57   |
| Sky                            | 20% clouds   |
| Wind                           | ESE 0-5  |
| Soil conditions                | moist  |
| Soil temperature (°F)          | 63   |
| Rainfall before Application    |  |
| Week 1 (inch)                  | 1.31   |
| Rainfall after Application     |  |
| Week 1 (inch)                  | 1.54   |
| Week 2 (inch)                  | 1.03   |

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**Durgan and Miller.**

| Treatment                                     | Rate<br>(Product/A)    | Foxtail Control |     |      |      | Wheat Injury |     |      |      | Wheat  |
|---|------------------------|-----------------|-----|------|------|--------------|-----|------|------|--------|
|   |                        | 6/30            | 7/5 | 7/20 | 8/13 | 6/30         | 7/5 | 7/20 | 8/13 | Yield  |
|   |                        | (%)             | (%) | (%)  | (%)  | (%)          | (%) | (%)  | (%)  | (Bu/A) |
| Rimfire Max + Class Act NG                    | 3 oz + 2 pt            | 78              | 78  | 77   | 80   | 0            | 0   | 0    | 0    | 38     |
| Rimfire Max + Class Act NG + Interlock        | 3 oz + 2 pt + 4 oz     | 85              | 87  | 85   | 87   | 0            | 0   | 0    | 0    | 31     |
| Rimfire Max + Affinity Tankmix + Class Act NG | 3 oz + 0.6 oz + 2 pt   | 87              | 87  | 85   | 85   | 0            | 0   | 0    | 0    | 32     |
| Rimfire Max + AGH 8034 + Interlock            | 3 oz + 0.8 pt + 4 oz   | 85              | 82  | 77   | 77   | 0            | 0   | 0    | 0    | 35     |
| Rimfire Max + AGH 8034 + AGH 8050             | 3 oz + 0.8 pt + 6.4 oz | 73              | 80  | 84   | 83   | 0            | 0   | 0    | 0    | 36     |
| Rimfire Max + AGH 07043                       | 3 oz + 0.8 pt          | 85              | 85  | 80   | 80   | 0            | 0   | 0    | 0    | 33     |
| Rimfire Max + AGH 11011                       | 3 oz + 0.8 pt          | 83              | 82  | 73   | 77   | 0            | 0   | 0    | 0    | 35     |
| Rimfire Max + AGH 13061                       | 3 oz + 0.4 pt          | 68              | 70  | 67   | 72   | 0            | 0   | 0    | 0    | 36     |
| Rimfire Max + AGH 13063                       | 3 oz + 0.4 pt          | 60              | 67  | 73   | 77   | 0            | 0   | 0    | 0    | 34     |
| Raze + Class Act NG                           | 7 oz + 2 pt            | 75              | 78  | 78   | 78   | 0            | 0   | 0    | 0    | 35     |
| Raze + Class Act NG + Interlock               | 7 oz + 2 pt + 4 oz     | 85              | 83  | 82   | 82   | 0            | 0   | 0    | 0    | 37     |
| Raze + Affinity Tankmix + Class Act NG        | 7 oz + 0.6 oz + 2 pt   | 87              | 87  | 80   | 83   | 0            | 0   | 0    | 0    | 32     |
| Raze + AGH 8034                               | 7 oz + 0.8 pt          | 67              | 72  | 70   | 73   | 0            | 0   | 0    | 0    | 37     |
| Raze + AGH 8034 + Interlock                   | 7 oz + 0.8 pt + 4 oz   | 85              | 85  | 85   | 83   | 0            | 0   | 0    | 0    | 37     |
| Raze + AGH 8034 + AGH 8050                    | 7 oz + 0.8 pt + 6.4 oz | 90              | 90  | 88   | 87   | 0            | 0   | 0    | 0    | 39     |
| Raze + AGH 07043                              | 7 oz + 0.8 pt          | 88              | 87  | 87   | 88   | 0            | 0   | 0    | 0    | 41     |
| Raze + AGH 11011                              | 7 oz + 0.8 pt          | 88              | 89  | 87   | 87   | 0            | 0   | 0    | 0    | 39     |
| Raze + AGH 13061                              | 7 oz + 0.4 pt          | 73              | 77  | 73   | 77   | 0            | 0   | 0    | 0    | 39     |
| Raze + AGH 13063                              | 7 oz + 0.4 pt          | 82              | 80  | 80   | 80   | 0            | 0   | 0    | 0    | 41     |
| Axial XL                                      | 16.4 oz                | 91              | 90  | 87   | 87   | 0            | 0   | 0    | 0    | 38     |
| GoldSky + Newtone                             | 1.0 pt + 12.8 oz       | 91              | 91  | 88   | 87   | 0            | 0   | 0    | 0    | 36     |
| Huskie Complete                               | 13.7 oz                | 88              | 90  | 90   | 90   | 0            | 0   | 0    | 0    | 36     |
| Weedy Check                                   | --                     | --              | --  | --   | --   | --           | --  | --   | --   | 40     |
| LSD (0.05)                                    |                        | 6               | 6   | 10   | 8    | ns           | ns  | ns   | ns   | ns     |

Rimfire Max 6.67WDG = propoxycarbazone-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Class Act NG = ammonium sulfate and nonionic surfactant blend.

Interlock = drift control agent.

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

AG 8034 = experimental adjuvant from Agrilience.

AG 8050 = experimental adjuvant from Agrilience.

AG 07043 = experimental adjuvant from Agrilience.

AG 11011 = experimental adjuvant from Agrilience.

AG 13061 = experimental adjuvant from Agrilience.

AG 13063 = experimental adjuvant from Agrilience.

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

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

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

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

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).