

Study Name: Wild oat control with late-applied Axial (0720)

Objectives: Evaluate wild oat control with Axial tank mixes compared to Puma

Results:

'Glenn' spring wheat was seeded April 25 at 90 lb/A into 7.5-inch rows in a conventionally tilled field. Wet conditions delayed herbicide application past the optimal growth stage. Herbicide treatments were applied postemergence on June 11 at the 6-leaf wheat stage. Wild oat was 12-16 inches tall and densities averaged 10 plants per sq ft. Individual plots were 10 x 30 ft and replicated three times.

A broadleaf herbicide was tank mixed with all Axial treatments except "Treatment 1". In Treatment 1, Bronate was applied nine days later on June 20. This late application likely caused the crop injury observed on August 8.

Despite the late application timing to large wild oat, control was generally excellent with Axial; however, control was poor to fair with Everest and a reduced rate of Puma. At the first weed control evaluation on July 4, wild oat control with Axial alone was generally 8% higher compared to Axial tank mixed with any broadleaf partner. However, by mid-July all Axial treatments controlled wild oat similarly, except for where Tilt was added as a tank mix partner. Adding Tilt reduced wild oat control approximately 10%. Plot yields were quite variable (CV=22), making any interpretation difficult other than all herbicide treatments increased yield over the untreated check.

| Treatment ^a | Rate | Timing | Wheat | | | Wild oat | | | Yield TW | |
|------------------------------------|----------------------------------|------------------|--------------------|-----------|----------|---------------------|------------|----------|-----------|-----------|
| | | | -----% injury----- | | | -----% control----- | | | bu/A | lb/bu |
| | | | Jun 23 | July 4 | Aug 8 | July 4 | July 16 | Aug 8 | Aug 16 | Aug 16 |
| Axial / Bronate | 16.4fl oz / 0.8pt | 6-leaf / Boot | 0 | 0 | 20 | 91 | 99 | 99 | 19.5 | 62.5 |
| Axial + Orion | 16.4fl oz + 17oz | 6-leaf | 0 | 0 | 0 | 83 | 96 | 97 | 26.3 | 62.8 |
| Axial + Bronate | 16.4fl oz + 0.8pt | 6-leaf | 0 | 0 | 0 | 83 | 94 | 94 | 28.7 | 63.1 |
| Axial + Bronate + Tilt | 16.4fl oz + 0.8pt + 2fl oz | 6-leaf | 0 | 0 | 0 | 79 | 89 | 86 | 22.2 | 62.9 |
| Axial + WideMatch + MCPE | 16.4fl oz + 1pt + 8fl oz | 6-leaf | 0 | 0 | 0 | 85 | 97 | 95 | 24.6 | 63.0 |
| Axial + Affinity TM + MCPE | 16.4fl oz + 0.8oz + 8fl oz | 6-leaf | 0 | 0 | 0 | 84 | 98 | 97 | 28.4 | 62.8 |
| Axial + Affinity TM + WideMatch | 16.4fl oz + 0.8oz + 1pt | 6-leaf | 0 | 0 | 0 | 84 | 97 | 95 | 21.6 | 63.5 |
| Puma ^b + Bronate | 0.4pt + 0.8pt | 6-leaf | 0 | 0 | 0 | 58 | 58 | 56 | 22.5 | 62.9 |
| Everest + Bronate | 0.6oz + 0.8pt | 6-leaf | 13 | 0 | 0 | 57 | 73 | 70 | 22.5 | 62.8 |
| Untreated | | | 0 | 0 | 0 | 0 | 0 | 0 | 9.5 | 61.7 |
| LSD (0.05) | | | 1.6 | 0 | 0 | 3.2 | 3 | 4.8 | 8.4 | 0.95 |
| CV | | | 68 | 0 | 0 | 3 | 2 | 4 | 22 | 0.88 |

^a Bronate = Bronate Advanced; Axial = Axial BIA

^b Puma rate is a reduced rate.