Efficacy of Glyphosate on Potential Target Species in Glyphosate-resistant Wheat. (A00-fast094109-Poster)

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Abstract:

Although glyphosate has been marketed as a nonselective herbicide for about 30 years, little data has been published regarding its efficacy on winter annual weeds, and much of the data is conflicting. Glyphosate-resistant wheat is being developed, although it has not been released for sale to the public. My research project focused on defining the effects of application rate and timing on control of five frequent target species in hard red winter wheat. Experiments were conducted at three locations in Oklahoma on five major target weed species in wheat including Italian ryegrass (Lolium multiflorum), cheat (Bromus secalinus), downy brome (Bromus tectorum), jointed goatgrass (Aegilops cylindrica), and henbit (Lamium amplexicaule). Glyphosate was applied at 0.25, 0.375, 0.5, 0.75, and 1.0 pounds active ingredient per acre. Each application also contained 2% W/W ammonium sulfate. Cheat and jointed goatgrass are very susceptible to glyphosate treatments at all rates used in these trials. The more difficult to control of the species evaluated include Italian ryegrass, henbit, and downy brome.

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