GRASS AND BROADLEAF WEED MANAGEMENT IN WINTER WHEAT. Ronald F. Krausz and Bryan G. Young, Researcher and Professor, Department of Plant, Soil and Agricultural Systems, Southern Illinois University, Carbondale, IL 62901.

No-till winter wheat production has increased in southern Illinois. However, weed control in no-till wheat production is more challenging compared with reduced-till wheat production. Therefore, the objective of this research was to evaluate the effectiveness of various herbicides applied in the fall on weed control in no-till winter wheat production. Herbicides applied postemergence at 1 to 3 inch grass in the fall provided 0 to 90% control of annual bluegrass 42 days after application (DAA). Mesosulfuron&propoxycarbazone controlled annual bluegrass , 90% 42 DAA. Mesosulfuron alone was less consistent with control of annual bluegrass ranging from 67 to 90% 42 DAA. By May 1, diclofop, mesosulfuron, mesesulfuron&propoxycarbazone, and pinoxaden alone controlled 93 to 99% of the annual bluegrass and Carolina foxtail. Pinoxaden plus thifensulfuron&tribenuron controlled 68% of the annual bluegrass by May1. Prosulfuron controlled henbit 80% 42 DAA. Mesosulfuron&propoxycarbazone controlled henbit 75% 42DAA and thifensulfuron&tribenuron or mesosulfuron controlled henbit 67% 42 DAA. By May1, these herbicides controlled 99% of the henbit. Thifensulfuron&tribenuron provided 80 to 99% control of common chickweed by May 1. Mesosulfuron, mesosulfuron&propoxycarbazone, prosulfuron, and thifensulfuron&tribenuron controlled smallflower buttercup, 99%, by May 1. None of the herbicides caused wheat injury with grain yield ranging from 38 to 67 bu/A. None of the herbicides caused double-crop soybean injury with soybean grain yield ranging form 32 to 45 bu/A. There were also no significant differences in grain yield between glyphosate-resistant and glyphosate-resistant/sulfonylurea-tolerant soybean.

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