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Cooperative Extension Service

Farm Update

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AGRICULTURE & NATURAL RESOURCES EDUCATION
Clint Hardy
Daviess County Extension Office

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Fall Herbicide Treatment of Annual Ryegrass

Italian ryegrass escapes prior to corn and soybean planting in the spring have been on the rise over the past several years. For those known problem fields, ryegrass control with a fall residual herbicide application is an option. Italian ryegrass is a winter annual that emerges in the fall and then matures and produces seed in the spring/ early summer of the following year. There are several herbicides containing group 15 that are labeled for fall applications to control winter annual weeds such as Italian ryegrass. When planning a fall application of a residual herbicide for control of emerging ryegrass, keep the following in mind: Applications should occur following crop harvest and should ideally be prior to ryegrass emergence. If ryegrass emergence has occurred at the time of application, an effective foliar herbicide will be needed to kill emerged ryegrass. Many labels suggest the use of paraquat for glyphosate resistant ryegrass populations, although most Kentucky populations remain glyphosate susceptible and a rate of 1.25 to 1.5 lb acid equivalent glyphosate per acre will control small glyphosate-susceptible ryegrass.

While a residual herbicide applied in the fall can help with ryegrass control, it should not be expected to completely control the ryegrass population in each field. Some ryegrass plants may emerge after the residual herbicide has degraded or may even emerge in the spring. Also,

similar to all residual herbicide applications, rainfall is needed to fully activate the herbicide and in the absence of rainfall, ryegrass control will be minimal. The use of a residual herbicide should be considered as a component of a larger ryegrass management program that reduces the number of plants needing to be controlled in the spring prior to corn and soybean planting. Probably most important is that the use of a fall residual lowers the potential of continuing to select for herbicide resistance with the addition of different sites of action in the fall application.

Foliar Fungicide Use in Soybeans

Foliar Fungicide use on soybeans at the R3 growth stage has become common practice in Kentucky. At the same time, additional products are becoming available at various levels of cost and efficacy. Last year, Dr. Carl Bradley, UK Extension Plant pathologist at the Research Station at Princeton conducted research to determine which fungicide product(s) has the best efficacy against foliar diseases of soybean and the best yield response relative to a non-treated check.

A field trial was conducted at the University of Kentucky Research & Education Center at Princeton in 2022. Asgrow 47XF0, rated as moderately resistant to frogeye leaf spot, was planted on May 24, 2022, at 135,000 seeds/A. Plots were no-till planted into soybean stubble from the previous crop. Plots were 4-30”rows wide and 20 ft long. Each treatment was replicated four times in a randomized complete block design. Foliar fungicide treatments were applied to plots at the R3 soybean development stage (beginning pod stage) using a backpack sprayer calibrated to deliver 20 gal/A. Severity of frogeye leaf spot was rated multiple times starting 2 weeks after treatment application, and then every two weeks after that. The disease severity was

rated by evaluating leaves in the upper canopy and estimating the percentage of leaf area affected by frogeye leaf spot.

Final disease severity in the nontreated check was relatively high at 60% infested in the upper canopy. All treatments significantly reduced disease severity compared to the nontreated check. Lucento treated plots had the lowest frogeye leaf spot severity but were not statistically different than all other fungicide treatments except Quadris. There were no significant differences among treatments for grain moisture. Yields that were significantly better than the nontreated check yield of 61 bushels per acre were achieved by Topguard EQ at 68 bushels per acre, Lucento 70 bushels per acre, Initiate 720 + Monsoon + Topsin 4.5 FL at 69 bushels per acre, Miravis Top 68 bushels per acre, and Approach Prima at 69 bushels per acre.