

MESSENGER-INQUIRER



May 27, 2023

Evaluation of Foliar Fungicides on Soybean

The underlying mission of the Cooperative Extension Service is to link local communities with the resources and information created by research conducted at the University of Kentucky College of Agriculture. Research related to all farming enterprises in Kentucky is conducted annually by extension specialists and department researchers at the University research farms and across the state on local farms such as Jason and Dustin Hagan. They are working with Dr. Kiersten Wise this summer on a field scale fungicide application technique comparison on both short-stature and traditional height corn hybrids. The farm of Jason and Richard Strode has hosted one of the state corn variety trial locations on land in Daviess or Henderson Counties for the past several years. In beef cattle research, three Daviess County farms of John Harralson, Gilles/Taylor partnership, and Chris Pantle are participating this summer in a statewide research project of 100 farms to evaluate collective parasite resistance to the common dewormers used on Kentucky cattle. In addition to the state-level research happening this summer, Troy Muse of KCTCS and I have coordinated with 11 different Daviess County farm families to plant 18 corn and soybean yield demonstration plots scattered across the county.

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Research results of the annual activities pertaining to grain can be found at <https://www.kygrains.info/>. The following describes evaluation of foliar fungicides on soybean conducted last year by Dr. Carl A. Bradley and his team at the Department of Plant Pathology at the University of Kentucky Research and Education Center in Princeton.

The objective of this research was 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 in Princeton, KY in 2022. Asgrow 47XF0 soybean 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” by 20 ft long. Each treatment was replicated four times in the field in a randomized complete block design. Foliar fungicide treatments were applied to plots at R3 growth stage using a backpack sprayer calibrated to deliver 20 gal/acre. Severity of frogeye leaf spot was rated multiple times starting 2 weeks after treatment application, and then every two weeks after that. Disease severity was rated by evaluating leaves in the upper canopy and estimating the percentage of leaf area affected by frogeye leaf spot. Plots were harvested with a small plot combine equipped with an onboard grain moisture and weigh system, and yields were calculated and standardized to bushels per acre at 13% moisture.

Final disease severity in the nontreated check was relatively high at 60%. All fungicide 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

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were achieved by Topguard EQ, Lucento, Initiate 720 + Monsoon + Topsin 4.5 FL, Miravis Top, and Approach Prima. The trial was funded by the United Soybean Board.

Be Aware of Stored Hay Temperature

Thousands of acres of hay were baled this past week in perfect curing conditions. Still, hay should be monitored for elevated temperature to avoid reduced quality or fire. The risk of hay fire is significantly reduced by curing hay to less than 20 percent moisture concentration prior to baling. Hay temperature should be carefully monitored during the six weeks after baling. If the interior temperature of the hay stack is greater than 175°F, fire is imminent or present and the fire department should be called immediately. Hay temperature should stabilize six weeks after baling and monitoring can be discontinued.

Office Closed for Memorial Day

The Daviess County Cooperative Extension Office will be closed Monday, May 29 in observance of Memorial Day.

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