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 Cooperative
Extension Service



Farm Update

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AGRICULTURE & NATURAL RESOURCES
EDUCATION

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Tar Spot in Corn

The UK Plant Disease Diagnostic Lab confirmed tar spot on a corn sample from central Henderson County last Monday. It has not been reported in Daviess County yet but is a disease of corn that we should be looking for. Tar spot is a foliar disease of corn commonly occurring throughout the Caribbean, Central America, Mexico, and South America. Tar spot was identified in the United States for the first time in 2015, in northern Illinois and Indiana.

A couple of key points to make about the Henderson confirmation. The tar spot corn field is likely a result of an infection that occurred several weeks ago. The fungus that causes tar spot develops slowly on the plant and can take several weeks to have symptoms appear. Optimum conditions for tar spot development are cool temperatures and low humidity. That is why this disease has been a greater problem in the upper Midwest than the Ohio Valley. Hot, humid weather will limit this disease's development and spread.

A positive find of tar spot in a county does not mean that corn in surrounding counties, or even nearby fields, will need a fungicide application. We use positive finds to indicate that scouting is needed, but fungicide applications are not mandatory. If tar spot is confirmed in a field, a single fungicide application at VT-R2 is recommended. If a field has already been sprayed, it should continue to be scouted but is unlikely to need a respray unless our weather

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conditions change. Once corn is into dough stage, R4, it is unlikely to need a fungicide application. Late-planted corn should be scouted and a decision to spray pre-tassel should be made on a case-by-case basis. Extension plant pathologists in the upper mid-west states rarely recommend pre-tassel applications for tar spot.

UK recommends not to spray late corn until VT (tassel stage), unless disease is found in that specific field prior to tassel. The best fungicides available for corn provide about four weeks of solid protection. Four weeks is also the time it takes to go from VT to R4 (dough) stage and why we recommend VT stage treatments. Late vegetative stage fungicide application will typically provide solid protection through R3 (milk) stage. If corn is planted timely, that same field will be in R4 or R5 (dent) stage before diseases such as southern corn leaf rust or tar spot are typically found in our area. Late-planted corn this year may encounter southern corn leaf rust or tar spot before R4 stage. The application of fungicide to this late planted corn before VT could set a field up for the need for a second treatment. In this case, the second treatment would have been unnecessary if the second treatment was applied at VT/R1(silking stage). The Crop Protection Network Fungicide Efficacy for Control of Corn Foliar Disease is located on my website at <https://daviess.ca.uky.edu/anr>.

You can diagnose corn tar spot in the field by scouting corn leaves for the presence of circular to diamond-shaped, black, tar-like spots, which may have a slightly raised appearance and feel bumpy to the touch. Tar spot cannot be wiped off the leaf. These spots form on both the upper and lower surfaces of corn leaves and can also be observed on leaf sheaths, husks, and tassels. Tar spot can form in the lower or upper canopy depending on when the plant was

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infected. Occasionally, dead brown tissue may surround the black stromata, which produces a fisheye appearance.

Tar spot levels in the field vary based on hybrid susceptibility, years the disease has been established in an area, and how conducive the weather or environment is for disease development. Cultural practices have limited impact on tar spot, and hybrid susceptibility may not be known for all hybrids. Therefore, it is important to be prepared to use a fungicide if needed for tar spot management. If you suspect tar spot, bring some leaves to the extension office so we can get them to the lab for identification.

Upcoming Meeting

The 102nd Annual Picnic and Meeting of the Daviess County Farm Bureau will be held Thursday, August 1 at 5:00 p.m. with activities for the kids followed by a meal and meeting at 5:30.

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