

Pest & Crop Newsletter

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Tar Spot And Southern Corn Rust August Update In Indiana

(Darcy Telenko)

A number of foliar diseases have made an appearance in corn across Indiana. Southern corn rust has now been confirmed across the state it is highly possible that pockets of southern rust can be found in your corn fields (Figure 1A). If you haven't seen it yet I suggest getting out to look – we would love to get a few leaf samples from those counties not turned yellow on the map. In our research site up in Porter County (Wanatah, IN) we found four of the major foliar diseases northern corn leaf blight, tar spot, southern rust and gray leaf spot (top to bottom in Figure 1B).

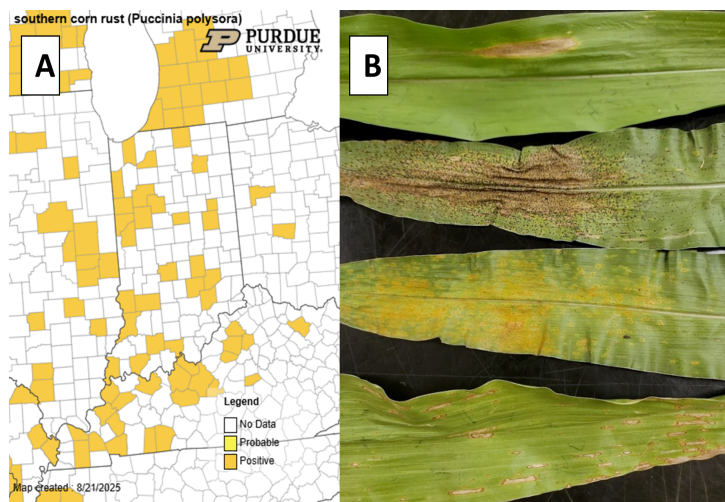


Figure 1A. August 21, 2025 map of southern rust (*Puccinia polysora*) and 1B. foliar disease examples of northern corn leaf blight (top leaf), tar spot, southern rust and gray leaf spot (bottom leaf) found in one of our fields.

Tar spot can be found in many fields, but due to environmental conditions has not moved rapidly into the upper canopy. I suspect that will change now in the next couple of weeks (Figure 2).

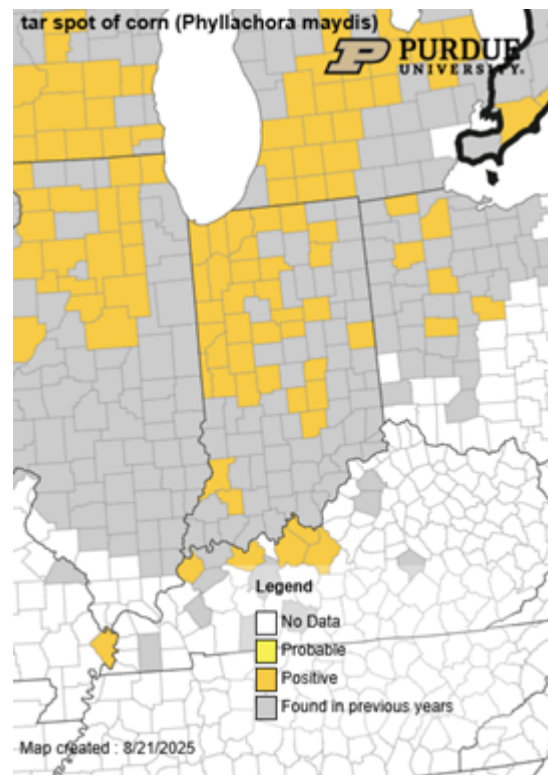


Figure 2. August 21, 2025 map of tar spot (*Phyllachora maydis*).

I know there are still some questions on if a fungicide application should be made. A fungicide application can be effective at reducing disease and protecting yield, but there are a number of factors that need to be considered. Here are my thoughts on what to consider.

1. Amount of disease present in the field – what diseases do you find? Where are they in the canopy and how widespread?
2. What is the growth stage? if the corn is at dent then no fungicide is necessary (see Figures 3 and 4)
3. If there's over 5% disease at the ear leaf let it go as you won't slow the disease down at this point.
4. Current weather conditions (use the forecasting tools <https://cropprotectionnetwork.org/crop-disease-forecasting>)
5. The value of the crop and cost of fungicide application.

Figures 3 and 4 are handy tables to assist in making a fungicide decision based on our university data.

Crop Stage When Tar Spot is First Detected	Possible Benefit From Spraying	Comment
Late Vegetative	Rarely, consult extension specialists before spraying	Scout fields and monitor disease progress; may need a second spray
VT/R1 (Tasseling/Silking)	Yes	May need a second spray
R2 (blister)	Yes	Less likely to need a second spray
R3 (milk)	Yes	No second spray needed
R4 (dough)	Maybe, with severe disease pressure	No second spray needed
R5 (dent)	No	No second spray needed
R6 (black layer)	No	

Figure 3. A decision table for tar spot outlining possible benefits from applying fungicides based on when disease is first detected in a field and crop growth stage.

Source: Crop Protection Network

<https://cropprotectionnetwork.org/maps/tar-spot-of-corn>

Crop Stage When Southern Rust is First Detected	Possible Benefit from Spraying	Comment
Vegetative	Not likely to find southern rust at this stage unless corn is planted very late for the region	Scout fields for disease
VT (tasseling)	Yes	May need a second spray
R1 (silking)	Yes	May need a second spray
R2 (blister)	Yes	Less likely to need a second spray
R3 (milk)	Yes	No second spray needed
R4 (dough)	Maybe, with severe disease pressure	No second spray needed
R5 (dent)	Unlikely	No second spray needed
R6 (black layer)	No	

Figure 4. A decision table for southern rust outlining possible benefits from applying fungicides based on when disease is first detected in a field and crop growth stage.

Source: Crop Protection Network

<https://cropprotectionnetwork.org/maps/southern-corn-rust>

We are still documenting tar spot and southern rust as it is important to understand the disease distribution and severity across Indiana. All sample costs will continue to be covered for both these diseases and any others you might find in your corn or soybean fields. It is extremely important to know if this disease is present in your fields to implement disease management tools if necessary.

If you observe tar spot or southern rust in a county that has not reported this season or would like to share what you have been seeing on your farm, then please send a sample to the Purdue Plant Pest Diagnostic Lab (PPDL)

<https://ag.purdue.edu/btny/ppdl/Pages/Submit-A-Sample.aspx> or contact me for further information (dtelenko@purdue.edu).

Help Us Track Diseases in Corn and Soybean - Free for Indiana Growers
Send samples to Purdue Plant Pest Diagnostic Lab

<https://ag.purdue.edu/departments/btny/ppdl/submit-samples/physical-submission.html>

We are looking to track all corn and soybean diseases in Indiana - tar spot, southern rust, frogeye, red crown rot, and others.

Checkoff funding from Indiana Corn Marketing Council and Indiana Soybean Alliance has been provided to cover sample processing costs - put Telenko on the form when you submit.



mid-late August, and it looks like it's just about here. Temperatures are on their way down, as the National Weather Service's Climate Prediction Center (CPC) predicts a nearly 100% chance of sustained below-normal temperatures 6-10 days out from writing, so August 26-30 (Figure 1). We're talking lows in the upper 40s in certain spots across northern Indiana—brr! Cities like Fort Wayne, Lafayette, South Bend, and Valparaiso could be seeing these temperatures. The last time minimum temperatures dropped below 50°F in Lafayette and South Bend was on June 2.

This is all welcome news for anyone who has worked outdoors and has not enjoyed what has been an incredibly humid summer. The Lafayette area has had the second-highest number of dew points greater than 70°F this summer. For reference, dew points of 65°F-70°F are generally considered humid, while dew points above 70°F are very humid. Dew points can also reach above 75°F, as they have on several occasions this summer, and that is considered oppressive humidity. We're going to see some very low dew points through the end of the month, but that doesn't mean the humidity has left for good. Some models indicate a major warm-up again around Labor Day Weekend—another example of the atmosphere acting as a fluid, with all of its highs and lows.

Even with all the dramatic swings in temperatures and humidity, we will at the very least have sunshine. In fact, maybe too much sunshine, as below-normal precipitation is also quite likely in the 6-10-day outlook (Figure 2). We tend to get a bit drier in Indiana in August and September, but this period is expected to be drier than normal, which means anyone with stakes in agriculture may want to monitor soil moisture closely.

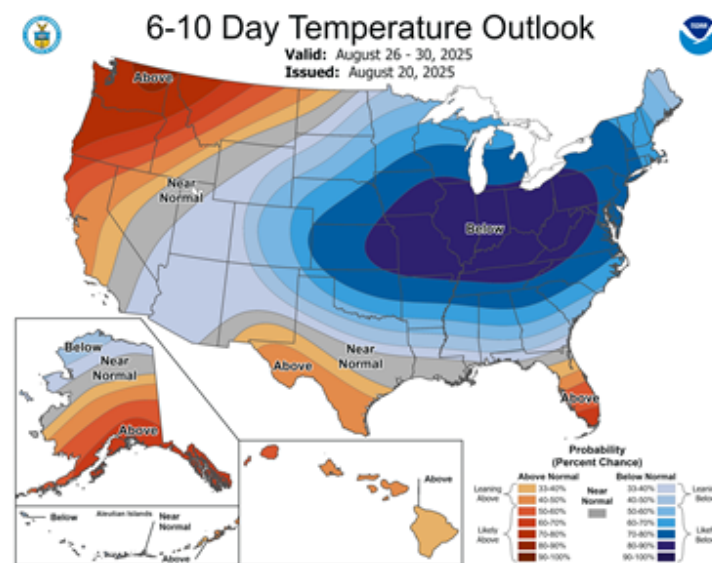


Figure 1: The CPC indicates a nearly 100% chance of below normal temperatures over much of the Midwest.

Super Cool & Super Dry For August's End: How The Weather Tables Have Turned

(Jacob Dolinger)

With brute and sudden force, the atmosphere is doing its job: acting like a fluid. Weather is not a precise science, which means the atmosphere is constantly shifting. There tends to be some sort of pattern shift come

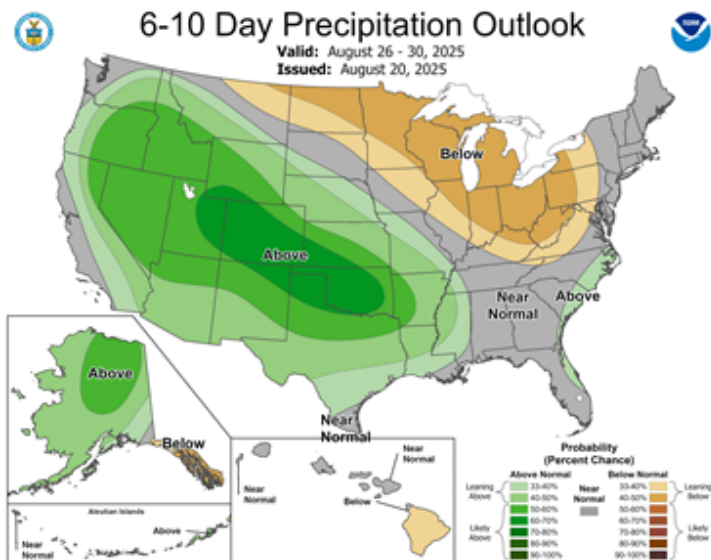


Figure 2: The CPC indicates a likely chance of below normal precipitation across the Midwest.

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