



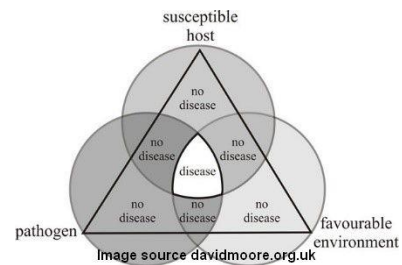
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## Southern Rust of Corn - 2018 Recap

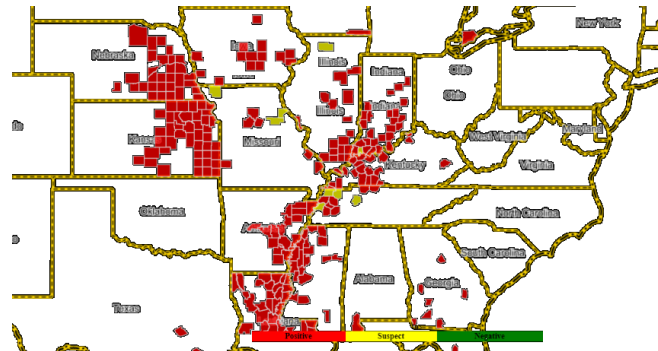
Phil Brunner, CCA, Technical Team Agronomist – LG Seeds

Southern Rust (SR) was a major headache in '16 and '17, but what happened in '18? Southern Rust is extremely dependent on the environmental piece of the disease triangle. For a pest to take hold, all 3 of these need to be present; susceptible host, pathogen and favorable environment.

We always have the host, corn. The pathogen for Southern Rust does NOT overwinter, so it needs to hitch a ride up with thunderstorms from warm southern areas each year. This isn't usually a problem, especially in the eastern half of the corn belt as storms swirl up from the Gulf of Mexico. The "favorable environment" is the wild card each year. Southern Rust prefers very warm and wet/humid conditions, just like rust on iron. In '16 and '17 the pathogen came up early in the season and took hold. The conditions were perfect all summer for continued spread of the disease. Unchecked/untreated fields suffered devastating yield loss. The scope of infection can double in a field every 7-10 days in ideal conditions.



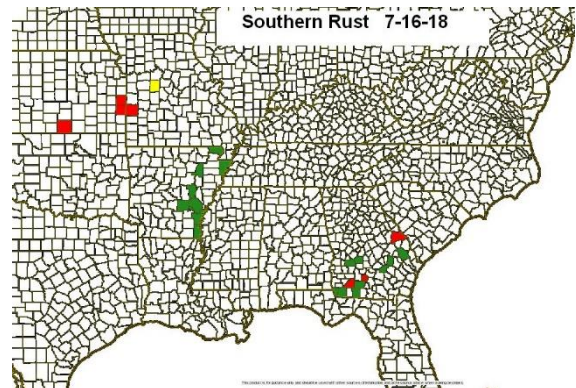
This map shows confirmed county infection by Southern Rust on 8-30-17 where samples were collected and confirmed by an accredited lab and reported to Integrated Pest Information Platform for Extension and Education (<http://ext.ipipe.org/ipipePublic/index.php>). The disease was much more widespread than indicated.



So, what happened in 2018?

A few Southern Rust lesions showed up here and there and then just fizzled out as indicated by the map for '18.

Why?



Southern Rust again came in early as reports surfaced in mid/ late June. Of course, we had a host, but what about that favorable environment? Not so much in the normal Southern Rust regions of the country. Notice the red circled area of the image. We had the heat, but not the moisture or humidity.



So, what’s going to happen in 2019? If we only had a Magic 8-Ball, right?

But we do! With the power of <https://advantageacre.com/> and <https://www.weatherrends360.com/> we can get a pretty good idea of how the growing season will shape up! With an Advantage Acre® Plus account you can look 11 months into the future weather trend on a field by field basis. This is incredibly helpful in selecting the right hybrids for each field.

We can usually count on the Southern Rust pathogen blowing up at some point each spring. Does the environment look favorable in your area? If so, what hybrids should you be planting in 2019?

I’m glad you asked. We gained a ton of Southern Rust data on our leading hybrids in ’16 & ’17. Since Southern Rust is typically most problematic in the fuller season areas, I’ll focus on that. Here are my top few picks that show a higher tolerance to Southern Rust, though in severe infestations no hybrid is immune. LG5565, LG5548, LG5590 LG64C18, LG5650



As always feel free to call one of your Sales Account Managers (SAM) or your Technical Team Agronomist (TTA) with any questions on Southern Rust, signing up for Advantage Acre, or just to say hi!

**Sources and additional information:**

<https://www.extension.purdue.edu/extmedia/BP/BP-82-W.pdf>

<https://www.agprofessional.com/article/differences-between-southern-rust-and-common-rust>

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