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## Southern Rust

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Southern rust is caused by the fungus *Puccinia polysora*. This fungus does not overwinter in the northern Corn Belt and needs to be windblown from spores on living tissue in the south. Time of infection typically happens after silking, late July into August time frame. Recent weather patterns have had warm temps (80-95 degrees) with high humidity and reoccurring rain events which are ideal conditions for the disease to reproduce, sporulate and move quickly.

Southern rust, common rust, and Physoderma brown spot are all diseases that look similar to each other and often are mistaken for one another. Southern rust lesions are small, circular orange to brown pustules occurring prominently on the upper surface of the leaves in a dense clustered manner (See picture). Common rust on the other hand will be more elongated pustules that infect both the upper and lower leaf surfaces. Physoderma brown spot looks very similar to southern rust but can usually be distinguished by the black spots that develop on the mid-rib of the leaf. While common rust and Physoderma brown spot typically do not cause a huge detriment to yield, southern rust can move in very quickly and aggressively given the right environmental conditions. A leaf blight can occur from heavy southern rust pressure resulting in premature death which can reduce yield substantially.



There are many fungicides that are labeled for southern rust and these can be used to prevent the disease from spreading throughout a field. The key for prevention is diligent monitoring and timely application of fungicides if the disease is present. If spraying a fungicide before southern rust is present, make sure that the fungicide being used has a long enough residual to protect the plant through the grain fill period.

If you have any questions regarding this disease or product ratings, please contact your local LG Seeds Sales Team member or a LG Seeds Technical Team Agronomist.

### Sources and additional information

- Southern Rust by Dr. Jim Stack, Former UNL Plant Pathologist, content edited and approved by Tamra Jackson UNL Plant Pathologist (Nebraska Cropwatch) <https://cropwatch.unl.edu/plantdisease/corn/southern-rust>
- Corn and Soybean Field Guide (pg84), Purdue Crop Diagnostic Training and Research Center; and Purdue Pest Management Program. <http://www.extension.purdue.edu/store>
- Diseases of Corn: Common and Southern Rust. <https://www.extension.purdue.edu/extmedia/BP/BP-82-W.pdf>

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