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Physoderma Brown Spot

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Physoderma brown spot and stalk rot is caused by *Physoderma maydis* which over winters in crop residue and can be translocated by wind. Wet weather, irrigation and higher temperatures can influence the infection. As I have scouted cornfields around central Illinois, I have noticed a lot of fields infected with Physoderma brown spot.

Most of the corn in our region got planted in a timely matter. Then we experienced a dry June which worked out fine because the corn rooted down good. Then most of our region experienced timely rains, and in some areas too much. We also experienced hot temperatures in late May and June. The frequent rains and humidity really caused some leaf diseases to shift into high gear. I have been scouting fields in Illinois for over 20 years and haven't seen this wide-spread of infection of Physoderma brown spot as I have this year.



Note the deep purple to black spots on the stalk and leaf collar around the node. Although there is supposedly no yield loss from Physoderma brown spot the infected nodes become very brittle and stalks snap off easily.



This picture shows the lesions on leaf and spots on the mid-rib. Physoderma brown spot is commonly misdiagnosed as southern rust. Unlike southern rust Physoderma brown spots are not raised pustules and they also form in the mid-rib of the leaf.

If Physoderma brown spot is an issue in your field crop rotation plus planting a more tolerant hybrid are the best options. Some fungicides are labeled for Physoderma brown spot. Universities are working on when the best application time to apply for ROI. I have a couple of farmers that have sprayed a fungicide on half their fields at brown silk. It will be interesting what the combine says at harvest.

Sources and additional information

- Physoderma Brown Spot by Tamra Jackson, Extension Plant Pathologist (Nebraska Cropwatch) <https://cropwatch.unl.edu/plantdisease/corn/physoderma>
- Physoderma Brown Spot and Stalk Rot by Alison Robertson, Professor of Pathology and Microbiology, <https://crops.extension.iastate.edu/cropnews/2015/07/physoderma-brown-spot-and-stalk-rot>

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