

Cases Of Physoderma Brown Spot In Corn Reported

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We've diagnosed and received reports of scattered cases of field corn with Physoderma brown spot in western Kentucky (10-15 percent of plants affected). Typical symptoms of the disease are shown in the figures below. This disease, caused

by the fungus *Physoderma maydis*, does not occur widely in Kentucky, though it is not unusual to see it "pop up" here and there. With all the rain, there may be more than normal.

Infection by this fungus produces chocolate-brown spots on leaf midribs and leaf sheaths. Infections of the leaf blade tend to be small and yellowish to yellowish-brown in color. Often, brown spot symptoms appear as diffuse bands of disease. This is because infections often occur in the whorl, where moisture accumulates. Since environmental conditions in the whorl fluctuate, so does the occurrence of infections as the corn tissue grows through the whorl.

The disease is generally a minor player in terms of yield, and field research seems to support this conclusion. However, selected cases of highly susceptible lines may show unusually



Figure 1. Symptoms of Physoderma brown spot of corn on the leaf blade. Note band of diseased tissue, indicative of an infection period when that leaf tissue was in the whorl.

high levels of damage.

The brown spots on the sheath can raise concern about stalk heath. Keep in mind, however, that these are infections of the leaf sheath, not the stalk. The underlying stalk is healthy. Prove this to yourself by removing a brown-spotted sheath, and you'll see healthy stalk beneath.

Past field observations suggest that foliar fungicides are not highly effective, nor do I believe there is a need for specific control measures against the disease. Δ

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Figure 2. Symptoms of Physoderma brown spot of corn on the leaf sheath. Note diagonal "banding" pattern, indicative of sequential flushes of infection.



Figure 3. Close-up of brown spot of brown spot of corn. Courtesy Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org.