

Diplodia Leaf Streak Of Corn Growing In Importance In Kentucky



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Diplodia leaf streak of corn is appearing to be growing in importance in Kentucky and the Midwest. This disease is caused by the fungus *Stenocarpella macrospora*.

Symptoms of Diplodia leaf streak often appear as oval or cigar-shaped tan lesions on leaves (Figure 1). These lesions appear very similar to those caused by northern leaf blight (Figure 5). However, it is easy to distinguish these two diseases in the field using a hand lens. *Stenocarpella macrospora* produces very tiny, black fruiting bodies in diseased tissues (Figures 2-4). In order to use a hand lens properly, place the lens very close to one's eye, so as to get the best possible view. If you do this, you can see the black fruiting bodies of *Stenocarpella macrospora*. In contrast, spores of the northern leaf blight fungus are produced directly on the dead leaf tissue, rather than in fruiting bodies. This sporulation gives the northern leaf blight lesions a grayish-green, fuzzy appearance to the naked eye (Figure 5). Furthermore, upon inspection with a hand lens, northern leaf blight sporulation has the look of 3-5 day-old whiskers on the face of an unshaven man (Figure 6). Northern leaf blight sporulation is therefore very distinct from the look of the tiny, black fruiting bodies of *Stenocarpella macrospora* (Figure 2). Of course, you can always have suspect cases evaluated through the UK plant diagnostic laboratories by contacting your county Extension agent.

Stenocarpella macrospora can attack not only the leaves, but it can also cause stalk rot and ear rot. *Stenocarpella macrospora* is related to, but distinct from, *Stenocarpella maydis*. *Stenocarpella maydis* is by far the most common cause of Diplodia ear rot and Diplodia stalk rot in Kentucky. However, for several years now we have been on the watch for *Stenocarpella macrospora* causing stalk rot and ear rot in Kentucky.

Stenocarpella macrospora survives in infested corn residue, just like *Stenocarpella maydis*. Therefore, where this disease is present, crop rotation will help to reduce disease risk. To my knowledge, no fungicides are labeled for control of this disease.

Diplodia leaf streak is certainly a disease to be on the watch for, especially since it can



Figure 1. Symptoms of Diplodia leaf streak on corn leaf.



Figure 2. Close-up of Diplodia leaf streak of corn, showing black fungal fruiting bodies called "pycnidia". These are visible with a hand lens. Courtesy Pioneer Hi-Bred

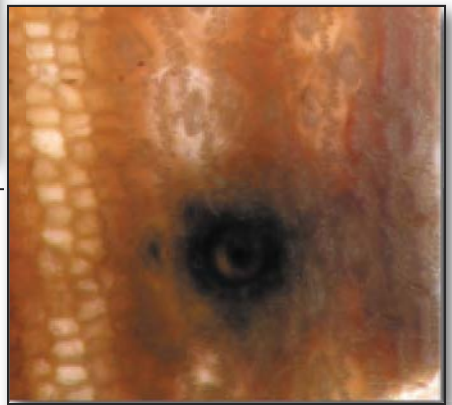


Figure 3. (Top Right) Close-up of fruiting body (called a "pycnidium") of *Stenocarpella macrospora*.

Figure 4. (Middle Right) Spores of *Stenocarpella macrospora* spilled out of a pycnidium.

Figure 6. (Bottom Right) Close-up of fuzzy sporulation of the northern leaf blight fungus (*Setosphaeria turcica*), produced directly on leaf lesions. Can be seen with a hand lens.

Courtesy Pioneer Hi-Bred

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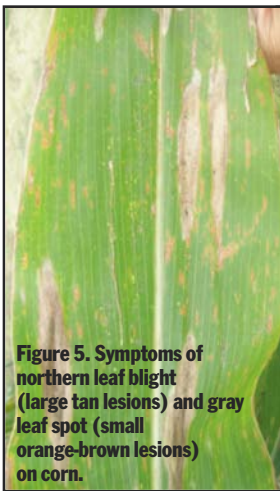


Figure 5. Symptoms of northern leaf blight (large tan lesions) and gray leaf spot (small orange-brown lesions) on corn.



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