

Corn Ear Rots Present In Some Illinois Areas



DR. CARL A. BRADLEY

URBANA, ILL.

A couple of different corn ear rots have been reported in Illinois. Diplodia ear rot, caused by the fungus *Stenocarpella maydis* (formerly *Diplodia maydis*), has been reported at moderate to high levels in areas of the state that received excessive rain throughout the growing season. Aspergillus ear rot, caused by the fungus *Aspergillus flavus*, has been reported in areas that have been extremely hot and dry.

Symptoms of Diplodia ear rot. Ears affected by Diplodia may have a white mold growing on and/or between the rows of corn. Ears affected within two weeks after silking may be completely "mummified," while in later infections, a light, cottony growth may be observed growing on the ear. Speck-sized fruiting bodies (pycnidia) will be formed by the Diplodia ear rot fungus, and often can be observed on the sides of the kernels.

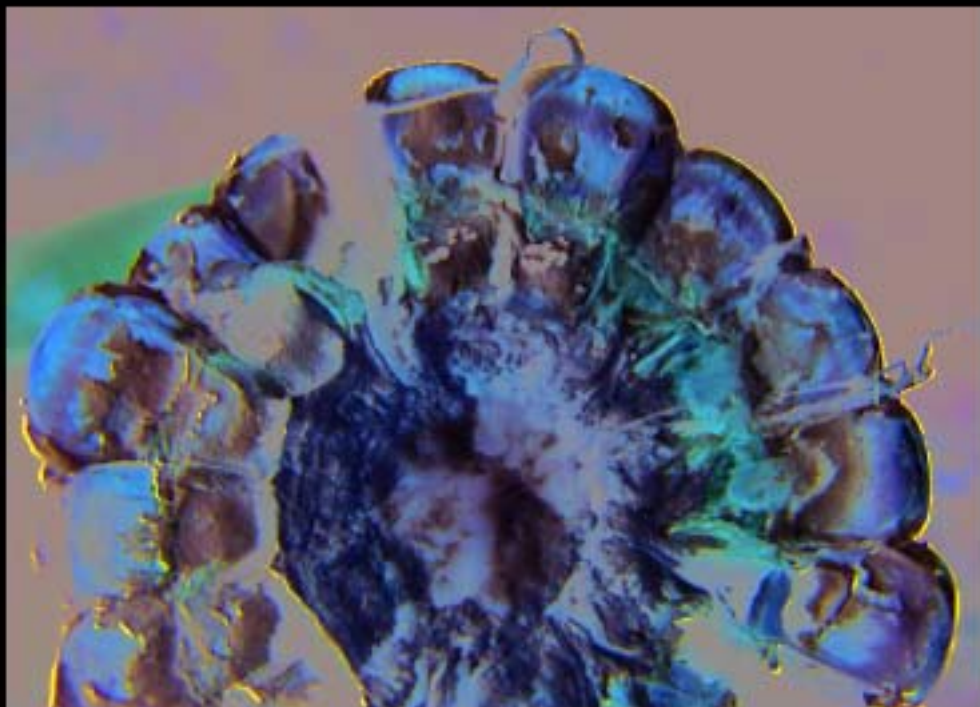
Symptoms of Aspergillus ear rot. Ears affected by Aspergillus may have a grayish-green powdery mold growing on and between the kernels. Affected kernels will fluoresce (glow) under a black light.

Mycotoxins. In the United States, the Diplodia ear rot fungus has not been reported to produce any mycotoxins. The Aspergillus ear rot fungus can produce aflatoxin. Moldy grain should always be tested before being fed to livestock. In Illinois, grain can be tested for the presence of mycotoxins at the Illinois Department of Agriculture's Central Animal Disease Laboratory.

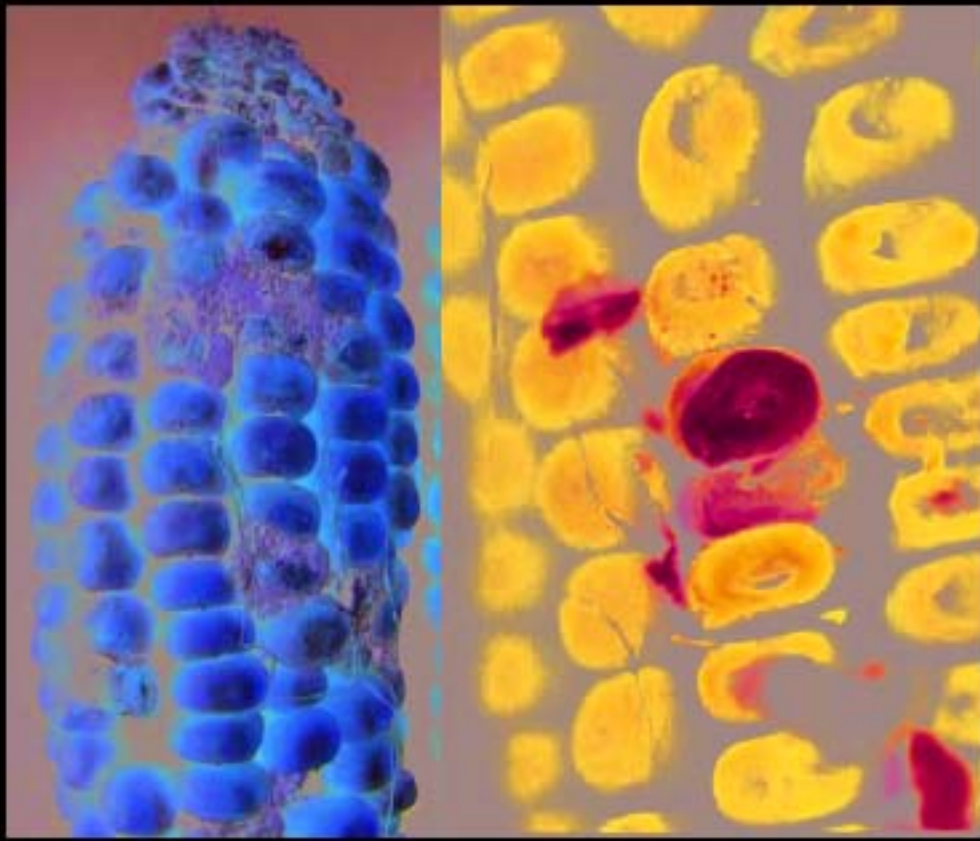
Management of corn ear rots. To prevent additional fungal disease and disease spread within an ear, store grain below 15 percent moisture. Because the ear rot fungi overwinter in crop residue, it is important to avoid planting corn back into fields that had severe ear rot problems the season before. Work with your seed supplier to identify hybrids with improved resistance to ear rot diseases. Foliar fungicides likely will have very little effect, if any, on ear rot diseases when applied only once during the season. A biocontrol product named Aflaguard (Syngenta) is registered for aflatoxin management. Aflaguard contains a strain of *Aspergillus flavus* that does not produce aflatoxin. Research results from field trials conducted at Texas A&M University indicate that it can reduce aflatoxin levels in harvested grain. Δ

DR. CARL A. BRADLEY: Assistant Professor/Crop Sciences, University of Illinois

Symptoms of Diplodia ear rot.



Symptoms of Aspergillus ear rot (left) and fluorescence of infected kernels observed under a black light. Photos courtesy of Dr. Don White, University of Illinois



Black specks on kernels are fruiting bodies (pycnidia) produced by the Diplodia ear rot fungus.