



**Symptoms of Aspergillus ear rot.**

Photos courtesy of Robert Bellm, University of Illinois Extension, and Don White, University of Illinois.

## Check Cornfields For Aspergillus Ear Rot



**DR. CARL A. BRADLEY**

**URBANA, ILL.**

**W**ith high temperatures and dry conditions being prevalent during this season's corn grain-fill period, the risk of *Aspergillus* ear rot is high. Caused by the fungus *Aspergillus flavus*, *Aspergillus* ear rot is observed

as a yellowish-green mold growing on corn kernels. Areas in fields that have insect- and bird-damaged ears may be affected more severely by the disease. *Aspergillus flavus* produces a mycotoxin known as aflatoxin, which is carcinogenic to animals that consume aflatoxin-contaminated grain. The U.S. Food and Drug Administration (FDA) has established specific action levels for aflatoxin-contaminated corn grain, which are shown in Table 1.

Before harvesting a field, check for *Aspergillus* ear rot. If it is observed in a field, and if the field is covered by crop insurance, you must contact your crop insurance agent before harvesting, as the insurance will not cover losses due to aflatoxin after grain is placed in storage. (See this article by Dr. Gary Schnitkey, University of Illinois professor of agricultural and consumer economics)

Corn grain and silage samples to be tested for aflatoxin can currently be sent to the Illinois Department of Agriculture's Centralia Animal Disease Laboratory. However, the lab is scheduled to close later this year, with services moving to the Galesburg Animal Disease Laboratory.

Corn affected by *Aspergillus* ear rot should be dried to below 15 percent moisture immediately after harvest to prevent continued development of mold and aflatoxin accumulation, and for

long-term storage moisture should be slightly below 13 percent. Cleaning grain after harvest may reduce the level of aflatoxin in that lot, since broken and cracked kernels tend to have higher levels of aflatoxin. If grain cleaning is done, it is important that the screenings not be fed to livestock, since aflatoxins are likely to be more highly concentrated in them.

For more information about *Aspergillus* ear rot, aflatoxin, and other corn ear molds and mycotoxins, see the presentation by Dr. Charles

**Table 1. FDA action levels for aflatoxin**

<i>Animal Use</i>	Action level (ppm per bushel)
Corn products intended for finishing beef cattle	300
Corn products intended for finishing swine of 100 lb or greater	200
Corn products intended for finishing beef cattle, breeding swine, or mature poultry	100
Corn products intended for dairy animals	20
See <a href="http://www.fda.gov/Food/GuidanceCompliance/RegulatoryInformation/GuidanceDocuments/Chemical/ContaminantsandPesticides/ucm077929.htm">www.fda.gov/Food/GuidanceCompliance/RegulatoryInformation/GuidanceDocuments/Chemical/ContaminantsandPesticides/ucm077929.htm</a> for more information.	

Woloshuk of Purdue University at the "Focus on Corn" section of the Plant Management Network. Δ

*DR. CARL A. BRADLEY: Extension Plant Pathologist/ Assistant Professor, Department of Crop Sciences, University of Illinois*