

The 2011 Indiana Corn Crop – No Signs Of Major Ear Rot Problems But Maturity May Be An Issue – (Charles Woloshuk, Professor of Plant Pathology and Richard Strohshine, Professor of Agricultural Engineering, Purdue University, West Lafayette, Indiana)

At the present time we do not anticipate any major problems with ear rot in Indiana. Below are a series of observations by Dr. Woloshuk regarding the quality of the standing corn in fields in various regions of the State based on his travels during the month of August. Drought during the growing season stresses the corn plants and it is considered to be a factor that can induce *Aspergillus* ear rot in corn, the source of aflatoxin (a mycotoxin) in harvested corn. As Dr. Woloshuk observes below, although there were no major problems detected, the weather during the late summer and early fall can have a significant impact on development of ear rot fungi.

Corn Maturity and Harvest Damage: Maturity may be an issue in some parts of the state – particularly the northeast. Some of the corn that was planted in June may not reach maturity before the first frost. Combine harvesting damage is greater for immature corn, corn that is high in moisture at the time of harvest (above 25%), or corn that is poorly developed because of heat stress during the growing season. For more information on harvesting immature (or high moisture) corn go to the “Extension Publications” tab on the vertical menu along the left side of the home page for this website. Select “[Grain Drying, Aeration and Conditioning Publications](#)” and I look at [GQFS-27, Harvesting, Drying and Storing Frost-Damaged Corn and Soybeans](#). Information on controlling harvesting damage can be found under the heading “Informative Articles and PDF publications from Previous Years” on the “News and Information” page. Look at the link to “[Corn Harvest - Minimizing Foreign Material in the Combine's Grain Tank](#) - Matthew Digman, Assistant Professor and Machinery Systems Extension Specialist, University of Wisconsin-Madison”.

Observations by Dr. Woloshuk regarding ear rots in Indiana corn fields:

Second Week of August: At that point in the season, Dr. Woloshuk stated that it was impossible for anyone to predict whether there will be widespread problems with aflatoxin. He has learned over the years that the fall season has a great impact on how things will go. If we get a fast dry down of the corn this fall, this will slow the mold growth and any potential aflatoxin problem. If we get big rains from tropical storms, things might be worse. He stated that he is not an agronomist, but it seems that we started the growing season with an abundance of subsoil moisture. So we are not like Texas [which often has problems with *Aspergillus* ear rot and where problems may be more severe this year] where ground moisture was very low in the spring. Thus the drought stress on most of the fields in Indiana has come late. Of course we have some areas in the state where the soils are sandy or very light. These fields will likely to be affected by drought and heat stress, and they may have issues with aflatoxin. People need to scout fields. The place to start is in fields where plants look stunted and stressed, in light soils and hillsides.

Third Week of August: Dr. Woloshuk and another staff member visited SW Indiana where they surveyed many fields looking for ear rot diseases. In general, they found nothing. The corn was still green, the ears were large and there was very little insect damage. Even in fields that were obviously under water stress (small plants and ears), they saw nothing. They could find an ear or two with *Diplodia* ear rot but the frequency was extremely low, which is normal.

Fourth Week of August: Dr. Woloshuk drove east from Lafayette to Van Buren, IN. Many of the fields had a long way to maturity. He saw fields where the corn was in the blister stage and the milk stage. He saw no [ear rot] problems with the ears. So at that point he did not believe Indiana would have any wide spread problems.