

News Article

By: John E. Woodmansee, Extension Educator, Agriculture/Natural Resources

E-mail: jwoodman@purdue.edu Phone: 260-244-7615 Web: www.extension.purdue.edu/whitley

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App Available for Corn Ear Rot and Mycotoxin Management

An app for Android OS and Apple OS, developed by Purdue University and the University of Arkansas, is available to farmers to aid in identification and management of corn ear rots and mycotoxins. Charles Woloshuk, Purdue professor of plant pathology, announced the release less than a year ago. The app is simply entitled, "Mycotoxins."

"Corn ear rots can cause losses due to yield and grain quality, and it can be difficult to properly store moldy grain," said Woloshuk. "Additionally, some of the fungi that cause ear rots are able to produce mycotoxins as a byproduct of the infection process."

"This app helps users identify common ear rots and understand safe levels for use of grain affected by mycotoxins," said Woloshuk. "The app also has information on ear rot management and properly storing moldy grain." Woloshuk said that information ranges from handy tips for management to in-depth information on mycotoxins and conditions that favor ear rot development. High quality images are available to help with ear rot identification, and links are provided to additional corn ear rot and mycotoxin management resources, found at www.cornmycotoxins.com.

"This app is part of a larger project to understand ear rot pathogens and management of mycotoxins, 'Integrated management strategies for Aspergillus and Fusarium ear rots of corn' and is funded by the United States Department of Agriculture-National Institute of Food and Agriculture," said Woloshuk.

Ear rots are caused by several different fungi. This means that there can be several different types that you might find in the field. Things to look for include: ear mold color, where the mold is located on the ear (at the tip, at the base, or throughout the ear) and if it's more of a powder or a matted appearance in between kernels. Just as with any other problem in the field, being out and walking through the field is key because these diseases may not be obvious unless you pull back the husk.

Examples of common ear rots include Diplodia, Gibberella, Fusarium, and Aspergillus. Woloshuk said in Indiana, we are most concerned about four mycotoxins (aflatoxin, deoxynivalenol, zearalenone, and fumonisin) associated with ear rot diseases of corn.

Once you have determined you have ear rot present in your field you need to identify which type you have so you can consider that when looking at hybrids for next year, especially if it's a corn on corn rotation. Producers should harvest the infected field as early as you can and dry the corn to 15% moisture to stop growth of the fungus. This is especially important if you have Gibberella present.

Purdue Extension has several publications on corn ear rots and other diseases at the Education Store: <https://mdc.itap.purdue.edu/>. Search for “diseases of corn.”

A partnership of land-grant universities also has information for several corn ear rot diseases available online. You can find new resources on ear rot identification, mycotoxins, and proper storage of moldy grain on the Crop Protection Network webpage: <https://cropprotectionnetwork.org/>.