

Corn ear rots widespread in Indiana—Kiersten Wise and Charles Woloshuk

Diplodia and Gibberella ear rot of corn have been observed in many fields in Indiana this year. In fact, the incidence of Gibberella ear rot (Figure 1) has reached levels not seen in Indiana for decades, and there have been several reports of high levels of the mycotoxin DON associated with these infections. Early reports indicate that DON (also known as vomitoxin) levels in corn grain range from 0.2 to 8 ppm, which poses a concern if grain is to be used for livestock feed. Zearalenone is also produced by the Gib ear rot fungus. Zearalenone has estrogenic properties, which lead to infertility, abortion, or other breeding problems. As little as 1 to 5 ppm zearalenone in a feed ration may produce an estrogenic effect in swine.

The cool, wet weather over the past two weeks have prolonged conditions favorable for ear mold growth. At this point in the season, producers should scout remaining fields of corn and take note of areas and hybrids with ear rot problems. If Gibberella is present and the crop is insured, contact your insurance provider BEFORE harvesting the field to determine if adjustments are needed. Infected fields should be harvested as soon as possible, and grain should be dried to below 15% moisture to prevent further fungal growth. The freezing temperatures that occurred in northern Indiana this weekend will slow fungal growth, **however this will not reduce mycotoxin levels in ears infected with Gibberella ear rot**. Temperatures near freezing can enhance zearalenone production. Thus, the freezing and thawing weather pattern that we are experiencing throughout Indiana may impact the level of zearalenone in the diseased grain in the field. Infected fields should still be harvested in a timely manner and stored accordingly.

Selecting partially resistant hybrids and rotating fields out of corn will reduce the risk of a re-occurrence of Gibberella and Diplodia ear rots next year.

Please refer to the previous article on Gibberella ear rot for information on where to have grain analyzed for mycotoxin levels, and FDA animal feeding advisory levels for the mycotoxins DON and zearalenone:

<http://www.agry.purdue.edu/ext/corn/news/others/2009/Gibberella-1002.pdf>.



Figure 1. Gibberella ear rot on corn