

Coping With Moldy Corn

COLUMBIA, MO.

Farmers can cope with mold-ridden corn in fields and bins in a few ways. “If you still have corn in the field, the most important thing is to harvest as quickly as possible,” said Laura Sweets, University of Missouri Extension Commercial Agriculture plant pathologist. “Farmers have been docked pretty badly when taking loads into the elevators because of high moisture content or a lot of mold, either of which may lower test weight.”

Two types of mold present a particular problem this year where wet fields measure moisture content of more than 20 percent: *Diplodia* – a dense white to grayish-white mold that mats between kernels and husks – and *fusarium/gibberella* – a whitish-pink to reddish-pink mold that typically starts at the tip of the ears and progresses down – are both prevalent in many corn fields. To prevent continued mold growth when grain is in storage, moisture needs to stay below 15 percent.

Sweets noted that adjusting combines correctly could help keep some moldy matter out of hoppers and grain bins.

“A lot of the time the kernels that have ear and kernel rot are lighter and may be shrunken, so if you adjust the fans a little bit you can blow a lot of that out to keep it out of the hopper, the

truck and the storage bin,” Sweets said.

Running combines at full capacity with concave settings open, cylinder speed set low and fan speeds elevated can help blow out cob pieces and fines, which generally contain more spores and mold.

Once in the bin, the focus switches to aeration and drying of corn. Aeration helps to maintain a cool, uniform temperature throughout bins to reduce mold growth.

Charles Ellis, MU Extension natural resource engineer in Lincoln County, explains that moisture migration can exacerbate mold problems in winter. As temperatures drop, warm air can rise in the center of the bin, cooling when it reaches the cold grain near the surface. This results in moisture condensation, leading to rapid spoilage when spring brings higher temperatures.

Concern about mold should not stop at the bin.

Sweets said proper crop rotation is important to prevent repeat problems.

“The fungus survives in the cob tissue, some of the stalk tissue and some of those lightweight kernels blown out in harvest,” Sweets said. “So if a person had a high level of *diplodia* this last year, crop rotation is a must as they plan their acres for 2010.”

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