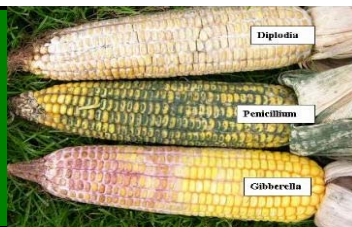



Managing Corn Ear Molds



What To Do About Moldy Corn

Practices to reduce ear molds include: hybrid selection, crop residue control, scouting, timely harvest, combine settings, drying and storage.

	Type of ear mold	Mycotoxin possible?	Favorable conditions	Usual infestation source	Favorable husk cover	Favorable grain moisture
	Diplodia	no	warm, moist	spores via silks	loose	occurs after flowering
	Gibberella	yes	cool, moist	spores via silks	tight	>20%
	Fusarium	yes	drought, heat	insect damage	loose	occurs during flowering
	Aspergillus	yes	drought, heat	insect damage, moist storage	loose	18 to 18.5%
	Penicillium	no	cool, moist	insect damage, physical damage	loose	>18%

Hybrid Selection

- Breeding for ear mold tolerance is a Pioneer focus. Pioneer® brand hybrids are rated for ability to withstand ear molds.
- These efforts are a key part of the reason Pioneer products have exceptional grain quality.
- Pioneer also has a pipeline of native resistance genes that are already contributing to superior ear mold ratings.
- Work with your local Pioneer team to select hybrids with higher genetic tolerance to ear molds or husk cover characteristics less prone to mold. (tight husks favor Gibberella, open husks favor other ear molds)
- HX1 or HXX^ hybrids can help reduce incidence of Fusarium, Aspergillus and Penicillium by reducing insect damage.

Crop Residue Management

- Managing crop residues can reduce the amount of ear mold inoculum in the field.
- Risk of ear molds is often higher in corn following corn or wheat than when rotating corn after soybeans. That said, even if inoculum sources within the field are minimized through tillage or rotation, airborne spores from distant fields are often sufficient to cause economic disease levels.

Reduce Plant Stress

- Minimizing plant stress by optimizing water, nutrients and soil tilth when possible can lessen the degree of ear molds.

Scouting and Harvest Timing

- Scout fields to determine harvest timing, post-harvest grain handling, storage and utilization.
- Harvest early to stop progression of mold and reduce mycotoxin concentrations.
- If 10% of ears have more than 20% mold, harvest as soon as moisture content allows. Drying costs will probably be less expensive than loss of crop quality and resulting feeding problems.
- Make decisions on handling moldy grain before it is harvested. Once harvested, the grain condition can worsen quickly if the moisture content is not low enough.

Combining and Handling

- Damage to grain during harvest can increase ear mold and mycotoxin development.
- Reduce damage by adjusting the combine's cylinder speed and clearance.
- Improve grain quality by increasing combine fan speed to remove moldy kernels while trying to minimize grain loss.

Grain Drying

- Reduce grain moisture to <15% by rapid artificial drying to arrest ear mold and mycotoxin.
- While rapid drying will more quickly arrest ear mold development, these higher temperatures can also reduce quality.



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