Dow AgroSciences
Mycogen® SEEDS

WHEN GRAIN CORN EAR MOLDS APPEAR, PREPARE FOR YIELD LOSS

SITUATION

Grain corn ear molds can lead to yield loss at harvest. If mycotoxins are present, grain may be toxic to animals and ultimately unusable. It's important to understand environmental conditions that lead to diseases and how those diseases affect grain.

FACTORS TO CONSIDER

- Crop rotation situation
- Moisture level
- Insect damage to ears
- Mycotoxin development potential
- Temperature
- Husk type
- Grain use intentions

ACTION PLAN

Step 1: Identify the disease. Correctly identify ear molds to avoid dockage or rejection of grain (see Table 1). To identify a disease, consider the conditions in which the crop was planted, field history and environmental conditions at tasseling, silking and pollination. Also, consider husk type. Some molds are more prevalent on hybrids with tight or loose husks.

Step 2: Minimize toxin development. If mycotoxin-forming diseases are present, management strategies, such as harvesting early and drying grain, can reduce toxin development.

Step 3: Manage moldy grain. Moldy grain should not be stored. Sell or move through appropriate channels immediately. Grain destined for livestock should be tested for mycotoxins.

Step 4: Avoid disease next season. Consider these strategies to avoid ear mold development:

- Plant a hybrid with ear rot resistance
- Reduce stress on hybrids
- Avoid planting corn on corn

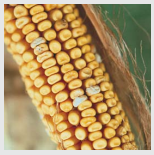
Hybrids with in-plant insect protection, including Herculex® I *Insect Protection*, Herculex XTRA *Insect Protection* and SmartStax®, reduce insect damage and can prevent diseases like fusarium, aspergillus and cladosporium from entering the ear.

SUMMARY

Properly identifying and managing ear rots can help growers avoid mycotoxin development and preserve grain yield.

For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.

Table 1.
Common ear molds in corn

Disease	Ideal environment	Husk type most susceptible	Mycotoxin potential
Diplodia 	Warm, moist conditions during silking	Loose	No
Gibberella 	Cool, moist conditions during silking	Tight	Yes
Cladosporium 	Cool, moist conditions and damaged ear	Loose	No
Fusarium 	Hot, dry conditions and damaged ear	Loose	Yes
Aspergillus 	Hot, dry conditions and damaged ear, especially during pollination	N/A	Yes

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