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
• Temperature
• Moisture level
• Husk type
• Insect damage to ears
• Mycotoxin development potential
• Grain use intentions

ACTION PLAN
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.

MINIMIZE TOXIN DEVELOPMENT. If mycotoxin-forming diseases are present, management strategies, such as delaying harvest, can reduce toxin development.

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.

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.

Table 1. Common Ear Molds in Corn

<table>
<thead>
<tr>
<th>Disease</th>
<th>Ideal Environment</th>
<th>Husk Type Most Susceptible</th>
<th>Mycotoxin Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diplodia</td>
<td>Warm, moist conditions during silking</td>
<td>Loose</td>
<td>No</td>
</tr>
<tr>
<td>Gibberella</td>
<td>Cool, moist conditions during silking</td>
<td>Tight</td>
<td>Yes</td>
</tr>
<tr>
<td>Cladosporium</td>
<td>Cool, moist conditions and damaged ear</td>
<td>Loose</td>
<td>No</td>
</tr>
<tr>
<td>Fusarium</td>
<td>Hot, dry conditions and damaged ear</td>
<td>Loose</td>
<td>Yes</td>
</tr>
<tr>
<td>Aspergillus</td>
<td>Hot, dry conditions and damaged ear, especially during pollination</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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 commercial agronomist or trusted agronomic adviser.