Disease name: Ear rot  
Crop affected: Maize

<table>
<thead>
<tr>
<th>Healthy maize cob</th>
<th>Maize cob showing infected ears</th>
<th>Powdery pink mold growing on infected cob</th>
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</thead>
</table>

**Disease Name**  
Ear rot

**Description**  
Fusarium ear rot is caused by a fungus called *Fusarium verticillioides*. Disease development and spread are favoured by dry warm weather whereas maize varieties that allow rainfall seepage during cob formation are most affected. The pathogen may also be transmitted by air or water splashed to other plants that are not infected and has also been reported to cause stalk rots and cob rots of maize. The fungus produces metabolites (mycotoxins) during growth and may predispose consumers (both animals and human beings) to cancers.

**Disease / Pest Category**  
- Continuous

**Diagnosis / Identification**  
**Symptoms**

- Pink to reddish brown discoloration first appears on the grains and the ears at the tip of the maize cob.
- A powdery or cottony-pink mold later grows on infected grains.
- Fungal growth mainly establishes around channels in the cob made by insect pests.
- Grains infected late in the season develop white streaks in the pericarp.

**Conditions prevailing that contribute to success**

- Harvesting during wet weather.
- Presence of insects that feed on roots, stalks and cobs leading to...
plants falling on the ground (soil).
- Insect pests may also create openings in the cobs/ears that serve as entry points for the fungus.
- Poor storage conditions that encourage high humidity, warm temperatures 25-30°C and poor aeration enhance fungal multiplication.
- Storage of maize grain at temperatures higher than 13.5%.

**Control Strategy**
- Planting varieties that are resistant or tolerant to ear rots
- Varieties with closed and drooping ears at maturity
- Control insects that feed on roots and stalks to prevent lodging of plants.
- Harvest mature maize early, especially before the onset of rains.
- Avoid grain damage during harvesting and shelling since fungi can easily gain entry into damaged grain.
- Ensure that harvested cobs are stored in dry environments after drying them. Shelled grain should be dried rapidly (within 24 to 48 hours) to below 13.5% moisture content.
- Storage structures/containers (bags, bins, cribs, etc.) should be clean and free from dust, crop debris, chaff and broken grains.
- Avoid moisture, insects and rodents in storage containers/structures.
- Destroy plant residues as they could house the fungus and serve as a source of inoculum for the next season’s crop.

<table>
<thead>
<tr>
<th>Mandate Centres</th>
<th>KARI Kabete; KARI Njoro; KARI Thika</th>
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<tbody>
<tr>
<td>Geographic Coverage</td>
<td>The disease is common in warm areas.</td>
</tr>
<tr>
<td>Expert Name – Dr. Mr., Mrs., Ms. (circle one)</td>
<td>Dr. Ruth Amata; Dr. Z. Kinyua; Miriam Otipa</td>
</tr>
<tr>
<td>Expert Contact Details</td>
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