# Maize smut (Head Smut)

*Sphacelotheca reiliana*

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Monitoring</th>
<th>Direct Control</th>
<th>Direct Control</th>
<th>Restrictions</th>
</tr>
</thead>
</table>
| - Avoid planting in areas with a history of head smut because the spores survive in the soil for a long time  
- Plough deep to bury surviving spores  
- Plant clean and disease-free maize seeds because the disease can be seed borne  
- Plant resistant/tolerant varieties e.g. KH500-21A and WH699  
- Plant early at the onset of the rains to encourage crop establishment  
- Avoid feeding livestock with infected materials because it can be transmitted through manure  
- Use recommended rates of nitrogen fertilizer (100kg calcium ammonia nitrate) per acre. The disease is more severe in unfertile soils  
- Begin monitoring just before tasselling because plants are infected systemically and the disease only becomes visible at flowering or ear formation  
- Look for:  
  - Abnormal/ malformed tassels before the spores open  
  - Masses of black spores in the tassels and ears  
  - Take action as soon as one infected plant is observed | - Remove plants infected with smut  
- Destroy the infected plants by burning or burying away from the maize farm  
- In areas with high incidence buy treated certified seed or treat seed with one of the following:  
  - Tebuconazole (3g per kg seed) e.g Raxil FS 025  
  - Systemic  
  - FRAC Code 3  
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  - Take action as soon as one infected plant is observed | - Read label carefully and follow instructions  
- WHO Class II (Moderately hazardous)  
- Do not graze or feed livestock on treated crops for 6 weeks  
- Do not use treated seed for food or feed  
- Use gloves and masks when treating seed  
- Carboxin e.g Anchor 200 FS (1.5g per kg seed)  
- Systemic  
- FRAC Code 7  
- When using a pesticide, always wear protective clothing. Follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max number of sprays, restricted re-entry interval. Do not empty into water drains.  
- Always consult recent list of registered pesticides by PCPB |

**Kenya**

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