## Wheat stem rust

*Puccinia graminis f.sp. tritici*

### Prevention
- Plant resistant varieties e.g. Eagle 10 from KALRO-Njoro.
- Plant early maturing varieties e.g. NGAMIA, DUMA, KENYA PAKA
- Use certified seed from reliable sources.
- Observe field hygiene by removing residual from previous crop.
- Practice crop rotation with crops that are not in the grass family such as beans, cucurbits, pigeon peas
- Avoid walking through the field during the wet season to prevent disease spread from one plant to the other.
- Avoid planting new wheat crop next to an infected or old wheat field.

### Monitoring
- Look for elongated reddish brown spores mainly on stem and leaf
- Inspect the wheat field weekly and consider direct control as soon as 5-10% lower leaf area is affected.

### Direct Control
- Use barberry which reduces the genetic variation in the fungal population by eliminating the sexual cycle.
- Remove and burying infected plant materials and below 50 cm in the ground.
- Start working from the healthy part of the field before moving to the infected part.

- **Azoxystrobin 200g/L + cyproconazole 80g/L e.g. amistar xtra 280 SC at the rate of 160ml/20liters of water.**
  - PHI 21 days
  - Azoxystrobin WHO class U (Unlikely to present acute hazard in normal use) and cyproconazole WHO class II (moderately hazardous).
  - Propiconazole e.g Propimax 25 EC (rate of 58 ml per acre for low infection and 114 ml per acre in high infection) or Stratego 250 EC at 200ml per acre
  - PHI 28 days, REI 21-28 days.
  - Propiconazole WHO Class II (Moderately hazardous)
  - Do not allow livestock to graze within the treated area for 7 days after spraying.

### Restrictions
- When using a pesticide always wear personal protective equipment.
- Follow the instructions on the product label, such as dosage, timing of application, max number of sprays, restricted re-entry interval. Do not empty into drains.
- Always consult recent list of registered pesticides (PCPB).

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**Kenya**

**CREATED/UPDATED:** October 2013  
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