Rice blast (*Magnaporthe oryzae*)

Factsheets for Rice Production, East Africa

Management Strategies

1. Cultural Control methods

- Plant certified seeds.
- Avoid excessive use of nitrogenous fertilisers. Use fertiliser at recommended rates:
  - Basal (NPK 17:17:17, 125 kg/ha)
  - Tillering (AS, 100 kg/ha)
  - Panicle initiation (AS, 100 kg/ha)
- Improve content of silicon in the soil by application of silicon at a rate of 1000 Si Kg/ha. Silicon strengthens the plant cell wall which is a natural barrier that protects plants from attack by disease causing agents.
- Ensure there is optimal application of water. Water stressed rice plants are more susceptible to rice blast infection.
- Intercrop rice blast susceptible varieties with tolerant varieties to reduce disease pressure.
- Practice crop rotation with non-host crops to break the disease cycle.
- Plant early to avoid late season high disease pressure.
- Plant each variety at recommended spacing to avoid dense crop canopy.(*Refer to agronomic practices factsheet*).

2. Resistant cultivars

- Use tolerant varieties such as NERICAs (1, 4, 10 & 11), BW 196, IR 2793-80-1.

3. Biological control

- If available, use antagonistic biocontrol agents such as *Trichoderma* spp (such as Trianum P®, Rootgard®) *Pseudomonas flourescens* (such as Brochure B 1.75 WP®) for seed dressing.

4. Chemical control

- Spray at maximum tillering and at panicle initiation using Carbendazim (such as Chariot 500 SC® at a rate of 100mls/20l) Carbendazim and Prodione (such as Megaprode Lock 52.5® at a rate of 15mls/20l), Trifloxystrobin and Tebuconazole (such as. Nativo®) at a rate of 5-10ml/20l.
- When using chemicals wear protective clothing and avoid contaminating the environment. Follow the manufacturers instructions on the label and ensure pre-harvest interval is observed.

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