### Rice white tip nematode (Aphelenchoids besseyi)

#### Biology
- This foliar nematode is ectoparasitic that feeds on leaves and young rice tissues.
- It is seed-borne and can survive in a dormant state for several years on stored grain, but much less under field.
- The life cycle takes 8 days at 23°C.
- It is common in areas with temperature range of 23°C to 30°C.
- It is spread by movement of infested soils, seeds, weeds and rice debris.

#### Geographical Distribution
- In Kenya it can be found in (Ahero,Bunyala, Kirinyaga,Kisumu,Kilifi and Kwale), Tanzania (Morogoro,Kilimanjaro, Arusha, Mbeya,Moshi) and Uganda.(lake Kioga, Buguri, butalenja and lira districts).

#### Damage on rice crop
- The conspicuous symptoms occur at tillering stage.
- They feed at leaf tips of rice resulting in whitening of the top leaf, leading to necrosis known as "White Tip".
- Leaf tips turn white with a yellow area between healthy and diseased tissue with white areas on leaf edges.
- Diseased plants are stunted, lack vigor and produce small panicles.
- There is distortion of flag leaf that encloses the panicle.
- Affected panicles show high sterility, distorted glumes and small and distorted kernels.
- In infected seed-bed, emergency is delayed and germination is low.

### Management Strategies

#### 1. Cultural Control
- Plant clean certified seed/seedlings from reliable source (KALRO) in flooded soils.
- Practice crop rotation for 2 years.
- Avoid moving nematode infested soil to clean areas.
- Clean farm tools and machinery of soil using water.
- Treat seed with hot water at 52-53°C for 15 minutes.
- Pre-soak in water overnight and sun dry for at least 6 hrs/day for 2-3 days prior to sowing.
- Remove weeds as they serve as alternative hosts.
- Destroy plan debris or infected plants by burning after harvest.

#### 2. Chemical control
- Treat seeds with Seed Plus 30WS (Imidacloprid 10%; Metalaxyl 10%; Carbendazim 10%).
- Spray the crop with Azadirachtin (e.g., Achook EC, Neem cake, Nematon, Nimbexcidine) at the rate of 600 ml/20 L in the nursery and at tillering stage.

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