

African rice gall midge (*Orseolia oryzivora* Harris and Gagne)

Biology

- The pest is small reddish-brown insect, 4-5 mm long.
- Females lay up to 300 eggs on rice leaf sheaths.
- Upon hatching, the small maggots wiggle down to the leaf blade and move between the leaf sheath and stem until the growing points where they feed for 2 to 3 weeks.
- Midges spend some generations on wild grasses and then move to attack young rice plants.
- Active flight by adult midges in paddy fields.

Geographical Distribution

- Rainfed lowland irrigated rice .. In Kenya Mwea, Ahero, Bunyala, and Kwale.
- In Tanzania rice is grown at Morogoro, Kilimanjaro, Arusha, Mbeya, Moshi.
- In Uganda rice is grown around Lake Kioga, Buguri, butalenja and Iira districts



Fig 1. Adult midge on a leaf (IRRI Knowledge Bank)

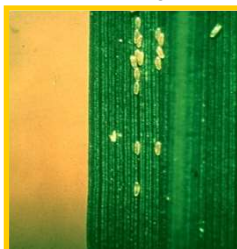


Fig 2. Rice gall midge larvae on leaves (IRRI Knowledge Bank)



Fig 3. Onion shaped Galls on rice shoot (IRRI Knowledge Bank)

Damage on rice crop

- The pest causes damage during rainy season.
- Elongate-tubular eggs (laid singly) and maggot-like larva feeding inside developing buds
- to attack young rice plants.
- Larval feeding induces development of light swellings or galls.
- Leaf sheath are elongated and called onion leaf or silver shoot
- The affected tillers inhibit leaf growth and the plant fails to produce panicles.
- 1% of damaged tillers results in 2% yield loss.

Management Strategies

1. Cultural control

- Destroy alternative host plants.
- Destroy stubble after harvest.
- Plant early maturing varieties.
- Practice early and synchronized planting.
- Handpick and destroy egg masses at seedbed and transplanting.

- Remove and destroy infested plants.

2. Biological control

- Release Parasitic wasps (*Aprostocetus procerae* and *Platygaster diplosisae*.)
- Plant alternative hosts for parasitic wasps such as Paspalum grass (*Paspalum scrobiculatum*) – encouraged by dry-season cultivation
- Planting of tolerant rice varieties such as Nerica 1 and Nerica 2.

3. Chemical control

- Spray with Alpha cypermethrin on a need basis at a rate of 30 ml in 15 liter knapsack sprayer.
- Spray using Cartap Hydrochloride 40g/Kg (e.g. East trap 4% G).
- Spray with Lambda-cyhalothrin 17.5g/L (e.g. Tata Umeme 2.5 EC, Duduthrin 1.75EC, Duduthrin super EC, Kingcode 5% EC, Pentagon 5% EC, Karate).