

Pink stem borer (*Sesamia calamistis*)

Biology

- Pink stem borer is a destructive rice pest affecting all stages of rice growth.
- The moth is light brown with brown strip, nocturnal and fly long distances.
- The adult moth lays up to 300 eggs on the lower side of leaf blades.
- On hatching, larvae move to the stem and bore while feeding.
- The larvae pupates at the base of stem for 10-14 days.
- The life cycle is continuous through out the year.



Fig 1. Pink larvae of stem borer (sciencephoto.com)

Geographical Distribution

- Found in rain fed lowland and irrigated rice. In Kenya (Ahero, Bunyala, Kirinyinga, Kisumu, Kilifi, and Kwale Counties), Tanzania (Morogoro, Kilimanjaro, Arusha, Mbeya, Moshi) and Uganda. (lake Kioga, Buguri, butalenja and lira districts).

Damage on rice crop

- Larvae bore into a stem resulting to “deadheart” and “whitehead” damage at the vegetative and opening of the panicle stages.
- Pest feeding causes an increase in number of tillers and reduced grain
- The yield loss due to stem borer ranges from 10 to 100%.



Fig 2. Pink larvae and Moth (lucidcentral.org)

Management Strategies

1. Cultural control

- Synchronizing and early planting especially in areas with a history of borer infestations.
- Practice direct seeding to minimize pest infestation.
- Plant tolerant cultivars such as BW 196. (6)5.
- Cut the leaf-top at transplanting to reduce carry-over of eggs from the nursery to the field.

- Strengthen stem tissues to minimize insect boring by applying calcium silicate (1000kg/ha).
- Destroy alternative host and volunteer plants on field perimeters and burn infected rice straw.
- Apply correct amounts of nitrogen in 3 splits – basal, at tillering and panicle initiation (Refer to the sheet on rice establishment).
- Harvest the rice crops at ground level to expose the larvae, plough and flood the field.

2. Biological control:

- Enhance the natural enemies such as spiders parasites
- Use botanical insecticides, *Beauveria spp*,
- Use of pheromone traps

3. Chemical control:

- Spray* with Lambda-cyhalothrin 17.5g/L (like Tata Umeme 2.5 EC, Duduthrin 1.75EC, Duduthrin super EC, Kingcode 5% EC, Pentagon 5% EC, Karate)
- Spray deltamethrin 25 g/l (like Decis 2.5 EC, Deraphon GR)

*The economic injury level is 4 and 6 egg batches for early and late infestation respectively. Apply insecticides to coincide with larval emergence to prevent their entry into the rice stems.