

Larger Grain Borer (LGB) – (*Prostephanus truncatus*- Scania)

Biology

- The eggs are white to yellow with a broad ovoid shape.
- Larva is white, fleshy with sparse hairs
- Adult beetle is 3 - 4.5 mm long with dark brown body.
- It can fly.
- The antennae have 10 segments, made up of a 7-segment 'stem' and a 3-segment 'club'.
- Females live longer (61 days) than males (45 days).
- Trade flow have effect on it speed movement.
- The life cycle under the optimum conditions of 32°C and 80% humidity takes about 27 days.

Geographical Distribution

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

Damage on rice crop

- Adults bore into rice husks, producing large quantities of grain dust as they tunnel.
- Damage on unshelled rice is greater than on loose, shelled rice.
- Makes holes on grains and tunnels through stored rice grain resulting into large quantities of dust.
- LGB will attack, both before and after harvest.
- 10-100% yield loss if not control early.



Fig 1. Larger Grain Borer (infonet- biovision)



Fig 2. Damage by LGB on rice (University of Kentucky)



Management Strategies

- Practice good store hygiene: cleaning the store before harvesting, removing and burning infested residues.
 - Use plant extracts such as neem, pyrethrum and castor seed.
 - Sort rice grain and remove those with visible pest damage.
 - Using repellent plant materials (e.g. 5 – 10% of neem leaf powder).
 - Dry grains well before storage.
 - Use metal silos and/or hermetic bag for storage.
 - Use pheromone traps to attract both species or natural enemies like *TN's* at rate of 10m².
 - Use of a predatory beetle (*Teretrius nigrescens*).
- 2. Chemical control**
- Spray store surfaces well before use by applying Pirimifosmethyl (Actellic 25 EC – 200ml/10Lt water).
 - Dust rice grains by use of Actellic 1 % at the rate of 50gm/90kg bag, Skana super, Spintor dust by storage or Malathion + permethrin Fenitrothion + fenvalerate (Sumicombi 1.8% - 30g/90Kg Maize) Spinsad (spintor dust – 50g/ 90Kg).