

## Angoumois Grain Moth (*Sitotroga cerealella*)

### Biology

- They can be found flying around infested stores and infest crop before harvest.
- They are small, yellowish or straw-coloured.
- Eggs are flat, oval and white when freshly laid then turns reddish in colour.
- The larva is yellowish, penetrates & feed and completes its development inside the grain.
- The rate of development is dependent on temperature, humidity and host.
- At 25°C and a relative humidity of 70% larvae take about 30 days to develop in maize.
- The moths are small, yellowish or straw-coloured.
- The adult lives up to 15 days and female lays up to 200 eggs.

### 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).



Fig 1. Grain moth adult:  
Source:  
bru.gmprc.ksu.edu



Fig 2. Grain moth adult  
Source:  
agric.wa.gov.au



Fig 3. Grain moth infested rice

### Damage on rice crop

- The larva or caterpillar produces a visible 'window' just below the surface of the grain when it constructs the chamber in which it pupates.
- Produces flour dust from internal feeding which spills from the grain once moth emerges.

### Management Strategies

#### 1. Cultural methods

- Prevent pest entry by sealing the store with insect-proof gauze.
- Store in hermetic bags.
- Store separately old and new grain.
- Do not leave rice in field after drying.

- Separate stores from fields to avoid moths infesting rice fields.
- Plaster the walls with mud to reduce or minimize infestation.
- Inspect and remove infected grains.
- Use plant extracts such as neem, pyrethrum and castor seed.
- Use repellent plants (e.g. 5–10%) of neem leaf powder to repel moths.

#### 2. Chemical control

- Dust grains with malathion 2% + Pyrethrins 0.2% (like Nova Super Blue cross dust, Pydust, Super Malper Dust dust) at 1kg per tonne (3-6 months under ideal (cool, dry) conditions.
- Dust with Actelic gold dust (Pirimiphos Methyl: 7mg/Kg, Thiamethoxam: 2mg/Kg).
- Fumigate stores with phosphine to eliminate existing infestation.
- Dust rice grains using Actellic 1% at 50g/90kg bag, Skana super, Spintor dust in storage.