

Occurrence of invasive fall armyworm, *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae), on maize and other fodder crops

The fall armyworm (FAW) *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae) is a highly polyphagous, migratory pest native to the tropical and subtropical region of America. The FAW has a very wide host range and recorded on more than 80 plant species but clearly prefers grasses over other plants. The most frequently damaged plants include field maize, sorghum, rice, millet, soybean, sugarcane, cabbage, peanut, cotton, alfalfa, potato, onion, wheat, tomato, turf, sudan grass and fodder crops (Prasanna et al 2018).

Damage symptoms

- Young larvae damaged fodder maize plants showed characteristic pin holes or shot holes symptoms on the leaves.
- Late instar larvae were mostly confined to the deep whorls and caused a distinctive symptom of ragged appearance.
- A moist sawdust-like faecal matter in the form of lumps was accumulated within the whorl.



Shot holes symptoms



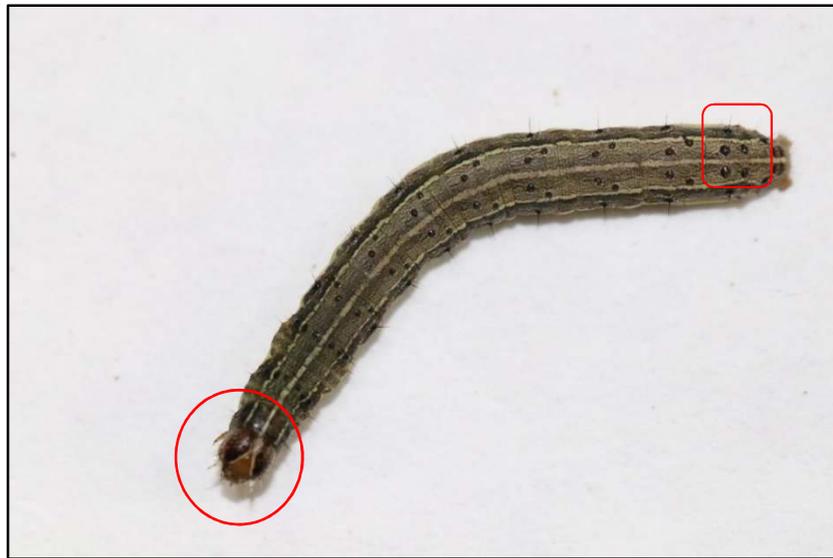
Matured larvae feeding on central Whorl of Fodder maize

Biology and identification

- The mature larva had a white inverted “Y” line on the head with distinct black spots on the body.
- The four black spots on the 8th abdominal segment were arranged in a square pattern and on 9th segment arranged in a trapezoidal pattern.



Fig 4. Life cycle of FAW. A) Egg mass B) 1st instar larva C) 4th instar larva D) Pupae E) Adult- Male F) Adult- Female



Mature larva

Management

- It is important to monitor the crop frequently after germination for presence of the pest and or signs/damage symptoms. Early detection of the pest allows quick and timely response which will help minimise damages to your maize crop and reduce harvest losses.
- Collection and destruction of visible larval stages from infested plants wherever possible
- Early application of plant products like azadirachtin or neem oil to prevent oviposition and larval feeding
- Use eco-friendly botanicals like neem formulations 4ml/litre to reduce infestation and encourage natural enemies
- Use emamectin benzoate @ 0.04gm/lit spray targeted to whorls under situations of severe infestations

Further details contact

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