

INSECT PEST OF MAIZE & SORGHUM



MAIZE BORER



Taxonomy

- *T.N:* *Chilo partellus*
- *Family:* Pyralidae
- *Order:* Lepidoptera

Identification

- Adults are **yellowish-grey** in color



- Larvae are **dirty grayish white** with **black head** and **four brownish longitudinal stripes** on the back



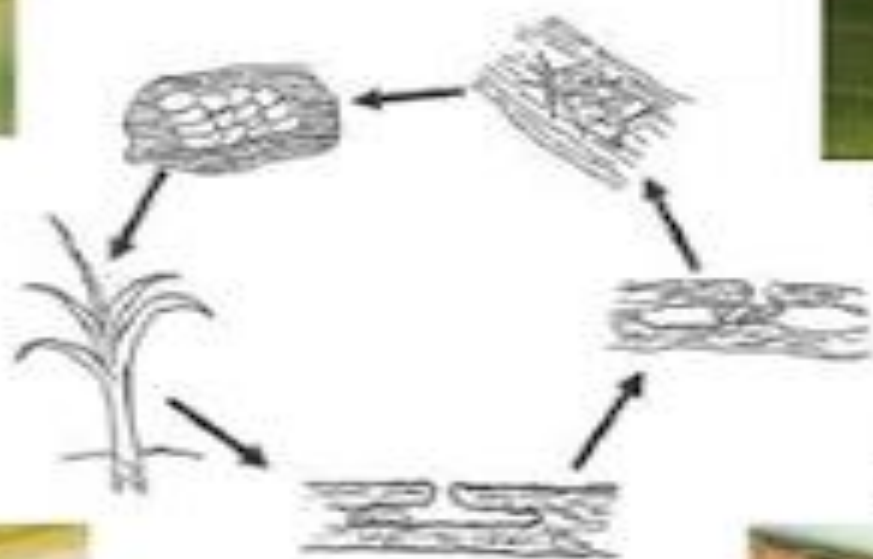
Life cycle of *Chilo partellus*



Egg batch



Adult Moth



Larvae



Pupae



Life Cycle

- The female lays **oval and yellowish clusters of eggs** on the underside of the leaves
- When the larvae is full grown within **4 weeks** it pupates inside the stem after making a hole
- The life cycle is completed in about **3-6 weeks**
- There are **5 generations** in a year

Damage

- The young larvae firstly feed on the leaves, making a few holes
- Then bore their way downwards through the central whorl and the plant also shows “**Dead hearts**”
- Young seedlings are more often destroyed by the attack of this pest

Elongated windows



Bore hole



Dead heart



Control

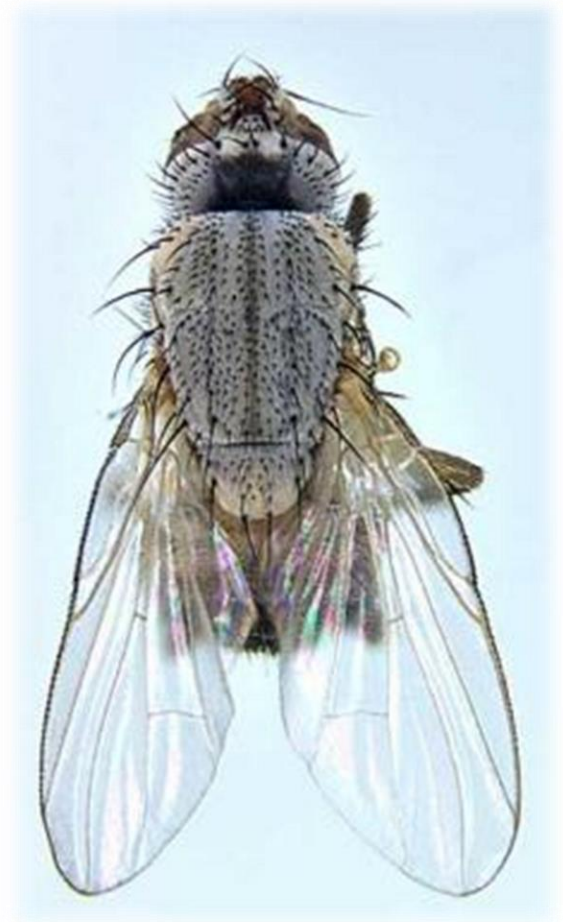
- Destroy the weeds, stubbles and other alternate hosts of this pest by ploughing the field after harvest
- Removal and destruction of infested plants, dead hearts and the crop residues
- Trapping the moths by light traps
- *Trichogramma spp.* is the egg parasitoid while *Apanteles spp.* is the larval parasitoid of maize borer
- Use of Carbofuran G 8-10 kg/acre

SORGHUM SHOOT FLY



Taxonomy

- *T.N:* *Atherigona soccata*
- *Family:* Muscidae
- *Order:* Diptera



Identification

- The sorghum shoot fly is also known as the **sorghum stem fly**
- Eggs are **white** in colour
- Larvae are **yellowish brown**
- Adults are **pale grey** with **yellowish abdomen**



Life Cycle



← Shoot fly

Growth stages
of shoot fly



Life Cycle

- The female lays **flattened**, **elongate** and somewhat **boat shaped** eggs **singly** on the underside of the leaves
- After hatching the tiny **maggots bore into the stem** and feed inside the main shoot
- They may **either pupate** in the **stem** or in the **soil**

Damage

- It attacks on the **young seedlings**, producing **deformed, twisted** and **dead hearted plants**
- The maggots bore into the stem and **cut the main shoot** and by the time they pupate, the **plant is almost dead**
- Hence **crop yield is reduced**



Control

- Grow resistant varieties
- Destruction of attacked plants or plant parts
- Sowing of crop from **early June** to the **2nd week of July** normally escapes the shoot fly attack
- Coating of seed with **Imidacloprid** WS 5-7 g/kg seed protects the shoot fly attack **up to 2 weeks**
- Spray **Carbosulfan** EC 250ml/acre or **Carbofuron** G 10 kg/acre