

BORERS

1. Early shoot borer, *Chilo infuscatellus*, Crambidae, Lepidoptera

Symptom of damage: Deadheart in 1-3 month old crop, which can be easily pulled out, rotten portion of the straw coloured dead-heart emits an offensive odour. A number of bore holes at the base of the shoot just above the ground level.

Nature of damage: Caterpillar bores into the central shoot and feeds on the internal tissue. This cause interference in the translocation of plant sap and damage the sugar storing tissues.

Egg: Flat-scale like eggs are laid in 3-5 rows on the lower surface of leaves in masses of 4-100. The masses are slightly overlapping like tiles.

Larva: Larva is dirty white with five dark violet longitudinal stripes and dark brown head.

Pupa: Pupation takes place within the tunnel. Caterpillar before pupating makes a large exit hole in the stem and blocks the opening with silken discs.

Adult: Pale greyish brown moth with black dots near the costal margin of the forewings and with white hindwings.

2. Internode borer, *Chilo sacchariphagus indicus*, Crambidae, Lepidoptera

Symptom of damage: Internodes constricted and shortened, with a number of boreholes and fresh excreta in the nodal region. Affected tissues reddened.

Nature of damage: Caterpillars attack sugarcane plants after 3 months of planting. They bore into the canes near the nodes; entry holes are plugged with excreta. Entry is generally confined to the first five internodes.

Egg: Scale-like white eggs are laid by female moths in batches of 9-11, near the midribs, on leaf sheaths or on stem.

Larva: White larva with four violet longitudinal stripes and light brown head.

Pupa: Pupation takes place in semi-dried leaf sheath.

Adult: Pale brown with white hind wings.

3. Top borer, *Scirpophaga excerptalis*, Pyralidae, Lepidoptera

Symptom of damage: Deadheart in grownup canes, which cannot be easily pulled; deadheart reddish brown in colour; parallel row of shot holes in the emerging leaves and red tunnels in the midribs of leaves; bunchy tip due to the growth of side shoots.

Nature of damage: Caterpillars are mainly found in the apical portion of the canes, boring through the growing point and down the upper joints until it reaches the sappy portion of the stem, there it feeds on the tissues and destroys the cane. They also bore into the unfolded leaves preferably into the midrib, mining its way to the base.

Egg: Eggs are laid on the lower surface of top leaves in clusters particularly near midribs. The clusters are covered with buff coloured hairs.

Larva: Smooth, white or cream coloured with a red coloured mid-dorsal line and yellow head.