

Large moth borer

Sugarcane and maize stemborer

Bathytricha truncata

Distribution

Large moth borer damages cane in all sugarcane regions. It usually infests cane in fairly dry, well-drained areas close to grass.

Damage

Caterpillars bore into the growing points of both small and large cane, causing 'dead hearts'. They also tunnel inside young stalks, often completely circling the rind at each notch. This favours stalk rots which reduce sugar content.

Bored stalks sucker and sideshoot, and this usually compensates for damage in young cane. Hard-hit areas sometimes fail to recover, resulting in gappy plant or ratoon crops. Weakened semi-mature cane often breaks in strong wind with symptoms resembling climbing rat damage.

Description

Fully grown caterpillars are 35-40 mm long with a purple or pink tint along the back and small black spots along the body. The head is red-tan. Caterpillars can be found in tunnels in dead shoots or tops (Photo 1). Long-dead shoots will likely have been vacated by larvae which are more frequently found in shoots where the inner leaves are just beginning to wilt and appear silver-grey.

Frass (faeces) falling from a small entrance hole made behind the leaf sheath is characteristic. Tunnels are filled with coarse, loose, wet frass which is often foul-smelling. This is different from the fine, fairly dry and tightly packed material left in tunnels by weevil borer grubs.

Pupae are about 19 mm long. They are found in tunnels in large cane, and in trash or behind leaf sheaths in young cane.

Moths are dull-coloured with small dots along outer edges of wings and in a group in the middle of the wing.

Biology

Egg laying commences in early spring. Eggs are laid in small

clusters under the edge of leaf sheaths of grasses and young sugarcane shoots. Crowsfoot grass, guinea grass, red natal grass and rhodes grass are preferred as egg laying sites over sugarcane shoots. Moths will not lay on large sugarcane shoots. Moths lay 500-800 eggs. Eggs hatch in 8 days.

Young caterpillars feed on the inside of the leaf sheath for several days before boring through the rind of the plant. Caterpillars then move from one shoot or stem to another as the tissues begin to rot. One caterpillar damages several shoots and stems in its life. Young caterpillars can bore directly into grass and young sugarcane shoots, but not into stems of large sugarcane. Caterpillars in large cane are usually older stages that have moved from nearby grass or younger cane. Caterpillars will cross bare headlands to reach cane. There are five or six larval stages which take about 6 weeks in total.

Fully grown caterpillars stop feeding several days before pupating. The pupal stage lasts for 12 days in summer. The time taken to go from egg to moth is about 9 weeks. Moths continue breeding until February.

Management

Large moth borer is a minor pest. It can be managed by control of grass weeds which are egg laying sites and food for young caterpillars. In northern regions, moth borer damage is worst in fields where couch grass is a weed and in blocks with overgrown grassy headlands.

Large moth borer caterpillars and pupae are attacked by at least four wasp and one fly parasitoids. In most cases the second generation is heavily parasitised, and little cane damage occurs after November. The coastal brown ant also eats caterpillars.



Photo 1: Large moth borer larva.