



Figure 1: Adult borer feeding on exposed inner tissue of cane stalk.

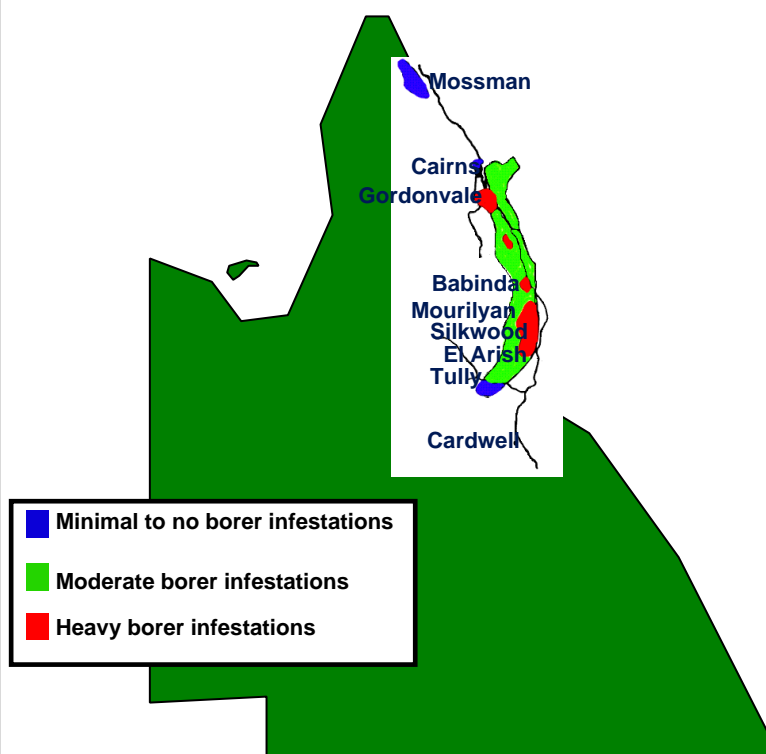
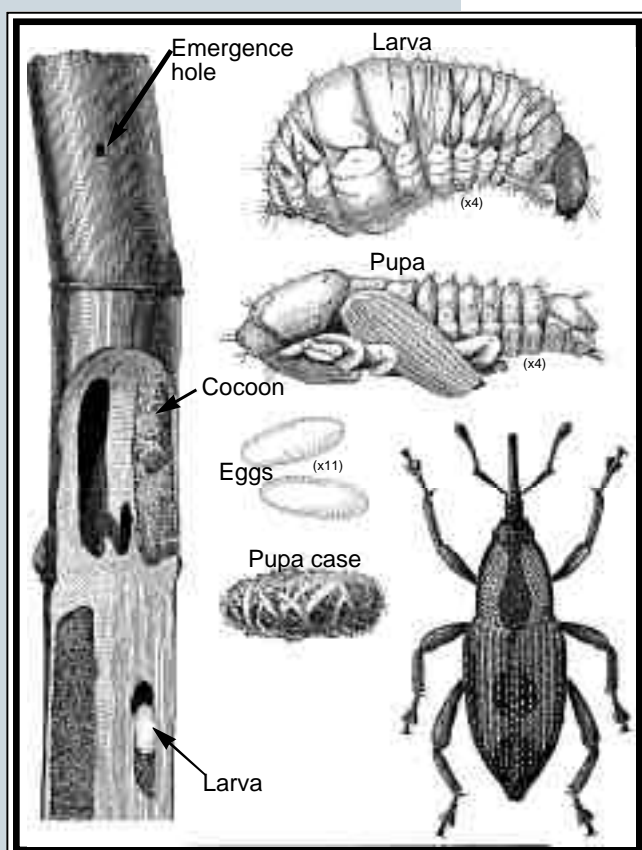
SUGAR CANE WEEVIL BORER

Rhabdoscelus obscurus

INTRODUCTION

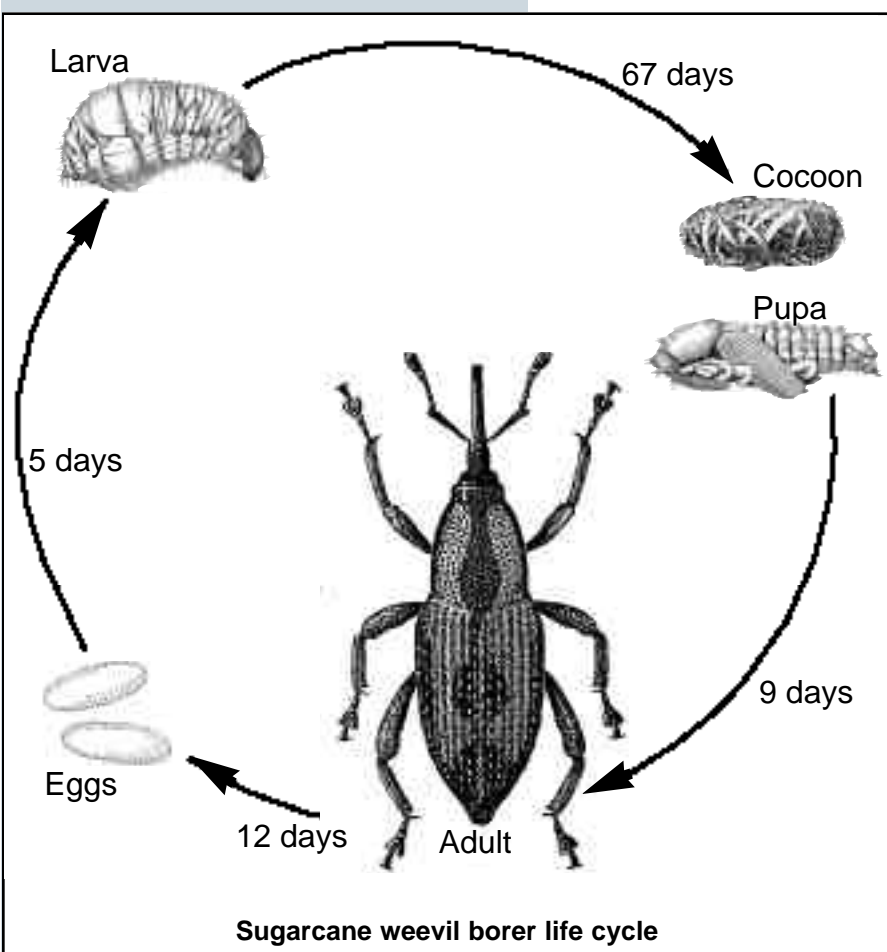
Sugarcane weevil borer was accidentally introduced to Australia in the late 1890s in a shipment of sugarcane from New Guinea causing extensive damage to local sugarcane crops. Pre-harvest burning from the 1940s greatly reduced damage by borers. However, the adoption of green cane trash blanketing in northern mill areas has resulted in serious borer damage to cane crops in some regions.

Borer infestations are generally worst on the drier soils in the super-wet belt from Cairns to Tully. This region has been sampled for damage and the Mourilyan mill area had more damage than other mill areas. The map below shows the areas infested by borers in far north Queensland. Sugarcane weevil borers have been found in other mill areas, but not to the extent seen in the far north.



LIFECYCLE

Adult borers are attracted to fields by fermenting cane.



They feed on the back of the leaf sheath, the cane stalk or exposed inner tissue of the stalk (Figure 1). Females can survive for up to six months laying (on average) one egg per day. Eggs are laid beneath the hard rind of the cane stalk. They hatch five days after the eggs are laid, producing a larva 3 mm long. The larva feeds on the soft tissue within a cane stalk tunnelling up and down within an internode. After sixty days, the larva is fully grown (15 mm long) and spends seven days weaving cane fibres into a cocoon. Inside this cocoon the larva changes into an adult. The adult emerges from the cocoon but remains inside the cane stalk for about twelve days.

VARIETIES

Sugarcane varieties vary in susceptibility to borers. The reasons for this variation include:

- rind hardness;
- natural chemicals in stalk wax;
- the tendency of varieties to form growth cracks;
- the tendency of varieties to develop internal 'pipes';
- whether the variety drops or retains its trash.

Your local BSES officer can advise you about the borer susceptibility of local varieties.

Resistant varieties are the best way to reduce borer damage. BSES plant breeders have commenced selecting and breeding for borer resistant varieties.

HARVEST RESIDUES AND GCTB

Borers need mature or semi-mature cane to complete their life cycle. Cane topped too low, billets or whole stalks remaining in a field after harvest permit a spring population of borers to breed and re-infest young cane in February and March. This spring generation is especially a problem where a green trash blanket prevents these harvest residues from drying out.

WIND AND RAT DAMAGE

Even borer resistant varieties can become heavily infested if the stalks are rat-bitten or split and cracked by strong winds. This allows rots to enter the stalk, attracting adult borers to the cane.