

Longicorn Borer in Fruit Trees

(Acalolepta mixtus)

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BACKGROUND

The longicorn beetle (*Acalolepta mixtus*) attacks a wide range of host plants such as fruit trees, native trees and ornamental trees. Damaged, recently-pruned or stressed trees are more prone to attack. The beetle generally causes damage to the trunk or branches of mango trees and have also been known to attack seedlings that are less than two years old.

APPEARANCE

Acalolepta mixtus (Family Cerambycidae), is 20 to 30 mm long, dark grey-brown in colour and has long antennae (at least two thirds as long as the body). Adult beetles generally move onto host trees during February to March to lay eggs.

The larvae (grubs) have a white or light cream-coloured body with a brown head and are up to 40 mm long when fully grown. The body is wider at the head and narrower towards the rear end. Constrictions are seen along the body between each segment. When fully grown, the larvae pupate in tunnels of heartwood. The pupal period generally lasts for a few months. To emerge from the wood, adults cut round exit holes (about 7 mm wide) which are seen on the outside of branches and trunks.



Figure 1. An *Acalolepta mixtus* adult



Figure 2. Larva on a damaged mango trunk

LIFE CYCLE

It is thought that the life cycle of this species is spread over 12 months, but larval damage is most likely noticed in the late wet to early dry season during March-May.

SYMPTOMS AND DAMAGE

As mentioned earlier, damaged, stressed or pruned trees, or trees that suffered from water-logging the previous wet season, or were struck by lightning, are all prone to attack. It has also been noticed that if sprinklers are placed too close to the base of the trunk, the impact of the water can actually cause the bark to split and allow entry to the beetle. Single eggs are inserted into cracks or crevices of bark on trunks and branches. The young larvae tunnel beneath the bark where they feed in the cambial region.

Fruit trees that have been recorded as hosts to longicorn beetles in the Northern Territory include mango, jackfruit, pawpaw, kakadu plum, cashew, citrus and coconut. Many other native and ornamental trees are also affected, such as *Ficus virens*, *Moringa oleifera*, *Adansonia digitaria* and *Theobroma cacao*.

Early symptoms are difficult to detect but sometimes sap exudate can be seen on attacked areas and the bark may appear loose or lifted. In advanced infestations, the bark in the affected areas is often loose and packed with moist chewed fibers and can be peeled off easily revealing circular or irregular feeding channels underneath.



Figure 3. Damage to the trunk with exit hole



Figure 4. Damage to the trunk

PEST MANAGEMENT

Symptoms are usually observed when the damage is advanced, by which time the application of pesticides has very limited effect on the infestation. If the damage is detected early, an application of dimethoate (at the rate recommended for mango pests) sprayed into the tunnels or damaged area may assist to control the beetle. If the infestation is detected early in the terminal branches, those parts may be pruned to remove the immature stages of the beetle.

For further information on this Agnote, contact DPIFM Entomology at insectinfo.dpifm@nt.gov.au. Agnotes or fact sheets on other pests are available from www.entomology.nt.gov.au or www.primaryindustry.nt.gov.au

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