

Cultural control of mango pulp weevil

Recognize the problem

Mango pulp weevil is a small beetle that feeds inside mangoes. It is closely related to the mango seed weevil, but is slightly different. The difference is that the mango pulp weevil and its larvae destroy the pulp, whereas mango seed weevils destroy the seed. The weevil larvae are white, legless grubs with a brown to black head that feed inside the pulp. The larvae are tiny when young (1½ mm) but grow up to 1½ cm when older. Adult weevils are ½ up to 1 cm in size and are dark brown with light brown backside patches and fine hairs. They have a long nose like all weevils. There are no easy-to-see outward signs of infestation. Only when adults emerge is a circular emergence hole visible on the skin of the fruit. Fruit drop may also indicate infestation. Some dropped fruits must be sliced open to check for infestation inside the pulp and seeds. If you see many larvae in the fruit flesh, then these are fruit fly larvae and not weevil larvae.

About 1 cm small weevil with a longish nose. (Photo by Ken Walker Museum Victoria)



Background

The mango pulp weevil mainly spreads by transported infested fruits. This is because the weevil eggs, larvae, pupae and adults develop within the mango pulp so infested mangos are transported unnoticed from one place to another by farmers and sellers. Chemical control is not very effective against this pest because it feeds inside the fruit, and so is protected against sprays. Therefore, a variety of cultural control methods are used to control the pest. The simplest among these methods are orchard sanitation and early harvesting of fruits. This destroys the eggs, pupae and larvae as well as the adult weevils. Early harvesting reduces further damage on the fruits because the soft skins of ripe fruits make them more prone to weevil damage than the still hard skins.

Weevil feeding on mango pulps. (Photo by Dr Mohd. Shamsudin Osman, MARDI, Malaysia)



Management

- Harvest mature fruits much earlier than usual. This means, before they are fully ripe.
- Orchard sanitation which involves removing debris like fallen fruits and burying them
- Damaged fruits should be buried at least 50 cm below the ground to prevent adult weevils from hatching and attacking new fruits. Compositing also helps when composted deeply, meaning under a 1 m layer of other plant materials, or manure, or soil.

Scientific name(s) > *Sternochetus frigidus*

The recommendations in this factsheet are relevant to: Zambia



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