

# BANANA MOTH

Scientific name: *Opogona sacchari* (Bojer)

Order: Lepidoptera Family: Tineidae

Common name: banana moth, sugar cane borer

## DAMAGE

Banana moth caterpillars feed voraciously on living and decaying plant tissues, which can cause extensive damage and even plant collapse in the advanced stages of infestation.

As they feed, caterpillars excrete "frass", fine powdery indigestible woody tissue held together with silk produced by the caterpillar



## HOST PLANTS

**Banana moth** is known to infest ornamentals and fruit trees, including:

|               |               |
|---------------|---------------|
| bamboo        | kentia palms  |
| banana        | maize         |
| cacti         | Maranta       |
| capsicum      | Philodendron  |
| Chamaedorea   | pineapple     |
| coconut palms | Pritchardia   |
| coffee        | rhapsis palms |
| Dracaena      | sugarcane     |
| ficus         | ti            |
| Heliconia     | yucca         |



Pupal casings have 2 bent hooks at the abdominal end and can be seen protruding from feeding tunnels (circled).



actual size

Larvae (caterpillars) are dirty-white and somewhat transparent, allowing some of its internal organs to be visible, with a reddish-brown head. seen. The larvae typically grow to 21-26 mm in length with a diameter of 3 mm.



Top: adult  
Bottom: pupa

actual size

Pupae are brown, <10 mm long and are found in plant tissue at the end or the feeding tunnels. Pupae casings can be found protruding from feeding tunnels (see photo, left).

Adult moths are 10–15 mm long and have grayish-brown wings, each with two small but prominent black spots.

## LIFE CYCLE/BEHAVIOR Eggs to Reproducing Adult: approximately 40-45 days.

- Upon hatching, the young **larvae(caterpillars)** bore into weakened or dead tissue of the plant, eventually producing characteristic piles of excrement or frass (fine, powdery indigestible plant material held together with silk).
- **Maturing pupae** work themselves partially out of the infested plant tissue to allow emergence of the adult.
- **Adult moths** are nocturnal, and are attracted to damaged, stressed plants where they lay their eggs that hatch in about a week. Males are also attracted to lures containing female sex pheromone ((E, Z)-2,13-octadecadienal).

# BEST MANAGEMENT PRACTICES FOR BANANA MOTH

|                                   | OPTIONS AVAILABLE   |
|-----------------------------------|---|
| <b>MONITORING TECHNIQUES</b>      | <ul style="list-style-type: none"> <li>▪ Visually inspect plants for <b>frass</b>.</li> <li>▪ Set out pheromone traps 2-4 ft. off the ground 100' apart to monitor banana moth populations in and around the nursery. Pheromone lures are available from <a href="http://www.pherobank.com">www.pherobank.com</a>.</li> </ul>   |
| <b>SELECT BEST CONTROL METHOD</b> | <ul style="list-style-type: none"> <li>▪ Minimize attracting egg-laying banana moths by avoiding conditions that stress plants (over-pruning, poor nutrition, overcrowding, over- or under-watering, stem and trunk wounds).</li> <li>▪ Clear exterior perimeter of shade house of banana moth host plants.</li> <li>▪ Remove and properly discard or destroy infested plants or plant parts.</li> <li>▪ Mass-trapping male moths with pheromone lures could possibly disrupt reproduction and reduce population.</li> <li>▪ Spray treatments of chlorpyrifos (a restricted use pesticide, RUP) or pyrethroids at 2-week intervals for 2-3 applications.</li> <li>▪ <i>Bacillus thuringiensis</i> (B.t.) is not effective since it is a stomach poison that must be ingested, and effective applications of B.t. to sites where banana moth larvae are boring/feeding is very difficult.</li> <li>▪ Applications of entomogenous nematode such as <i>Steinernema carpocapsae</i> may also reduce populations of banana moth.</li> </ul> |
| <b>TREATMENT BEFORE MARKET</b>    | <ul style="list-style-type: none"> <li>▪ Hot water treatments at 120° F for 10 minutes (all stages)</li> <li>▪ Hot air treatments at 111° F for 30 minutes (eggs, larvae)</li> </ul>  |
| <b>FINAL INSPECTION</b>           | <ul style="list-style-type: none"> <li>▪ Visually inspect for pupal casings, caterpillar feeding damage and frass.</li> <li>▪ Remove infested plant material.</li> </ul>  |

**PRECAUTIONARY STATEMENT / DISCLAIMER:** These recommendations are provided only as a guide. Please read and follow all label directions