

## **Main problem Species:**

Green Looper (*Chrysodeixis eriosoma*), Tropical Armyworm (*Spodoptera litura*), Stem borer (*Symmetrischema tangolias*), Fall Armyworm (*Spodoptera frugiperda*). There are more than 150,000 categorised species which should generally be treated the same way.

## Lifecycle:

Moth/Butterfly, egg, caterpillar, pupa

# Egg to egg:

Eggs take about a week to hatch, some species lay thousands of eggs so you need to act quickly. The caterpillars rapidly grow and after about 2-3 weeks they pupate for 1-2 weeks before emerging and laying more eggs. This is all affected by species, temperature and host plant so these are general guidelines.

# **Scouting tips:**

You will see the damage first. Typically Armyworm damage is highly localised, other species damage can be widely dispersed.

#### **POTENTIAL CONTROL MEASURES:**

#### Moth/Butterfly:

Light traps (all species)

Pheromone traps, species specific:

- 1. As a scouting tool, use 1 trap/ha of the species you commonly encounter in your area (consult your IPM supplier for guidance)
- 2. Once you identify the problem species, increase the density of peromone traps for those species to 4+ traps/ha.

#### Caterpillar

Best controlled using sprays based on *Bacillus thuringiensis* (Bt), a live bacteria that destroys the gut and stops feeding when ingested. Efficacy decreases with increase in caterpillar size.

Currently no approved treatments for eggs or pupae.

# What do I do?

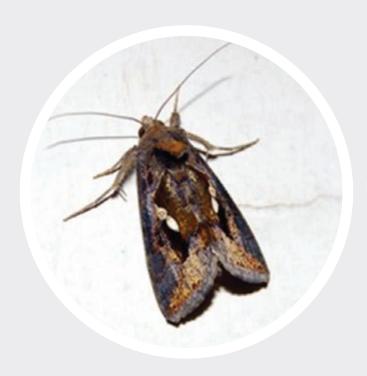
**Just a few:** Squash them.

**Doing damage:** A block of 4 sprays with Bt at 7 day intervals usually solves it.

**Ongoing Issue:** Light traps, identify adult species, implement pheromone trapping programme. Regular Bt applications rotating around the products (different strains of Bt). Try to remove any source of infestation and be aware of any lights which could attract moths in the greenhouse. Investigate agchem approach that is IPM friendly only as a last resort. Consult your supplier for application advice.



# Examples of what you'll observe:





**Green Looper Moth** 

**Tropical Armyworm** 





