

**DOVE**  
**ASSOCIATES**

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## Information

### Biological Control - MEALY BUG

There are three common mealy bug species found in glasshouses. The most common is the citrus mealy bug *Planococcus citri*. The vine mealybug *Pseudococcus affinis* is similar and is found on cactus, passiflora and tomato. The long tailed mealy bug *Pseudococcus longispinus* is found on tropical plants.

Female mealy bugs are winged, all white scale like insects up to 4 mm long with a waxy covering. The males are winged, smaller and shorter lived than the females. Nymphs and adult females suck plant sap causing distortion, yellowing, defoliation and honeydew that supports sooty moulds.

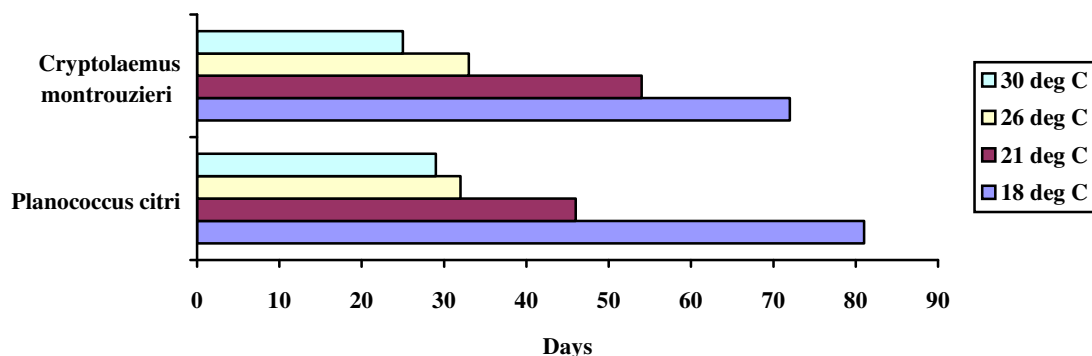
### LIFE CYCLE OF MEALY BUGS

Female mealy bugs, when mature, can lay up to 500 eggs in a white, woolly egg mass. The long tailed mealy bug produces live young. On hatching the young disperse and find suitable feeding sites. From egg to adult takes 4 weeks at 26°C and 8 weeks at 20°C.

### BIOLOGICAL CONTROL

The Australian predatory ladybird *Cryptolaemus montrouzieri* feeds almost exclusively on mealy bugs. The adult is about 4 mm long, mostly brown or black with a distinctive orange head. The white larval stage grows up to 1 cm in length and looks like an oversized mealy bug. Both adults and larvae feed on mealy bugs. After mating, females can lay up to 500 eggs in the mealy bug masses.

### PEST AND PREDATOR LIFE CYCLES



**Use plant protection products safely. Always read the label and product information before use**

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The life cycle from egg to adult takes 25 days at 30°C and 72 days at 18°C. *Cryptolaemus* are largely inactive at temperatures below 15°C and work best at temperatures between 21 and 30°C in bright sunny conditions.

Parasitic wasps are also available to help in the control of citrus mealy bug.

*Leptomastix dactylopii* is effective against citrus mealy bug, but will not attack the vine mealy bug *Pseudococcus affinis*, for this species *Leptomastix epona* should be used.

*Leptomastix dactylopii* is a yellowish brown parasitic wasp about 3 mm long. It is host specific to citrus mealy bug and lays its eggs into the third larval and adult stages. The parasite pupates within the mealy bug after the larva has consumed the body fluids. From egg to adult takes 16 days at 26°C and 13 days at 30°C.

Parasitic wasps are best used in conjunction with *Cryptolaemus*.

## PRODUCTS

***Cryptolaemus*:** Supplied in 30 ml tubes containing 25 adults.

**Introduction rates:** As a guide, introduce 2 - 3 *Cryptolaemus* adults per metre<sup>2</sup> in infested areas. Higher rates will be needed for larger specimen plants.

***Leptomastix*:** Supplied in 30 ml tubes each containing 50 adults.

**Introduction rates:** As a guide, introduce 5 per m<sup>2</sup>. Try to release the adults onto the mealy bug colony during the late evening or early morning and use within 18 hours of receipt.

*Cryptolaemus* are effective against large colonies of mealybugs, whereas *Leptomastix* are more effective against lower infestations that are more widespread.