

Cryptolaemus-System

A wolf in sheep's clothing for mealy bug control. Mealy bug is one of the hardest pests to control. Its body is covered with white waxy threads, which often make a chemical pest control little successful. The predatory beetle *Cryptolaemus* is a specialist in eradicating mealy bug populations.

MEALY BUG

Several species of mealy bugs are known to appear in greenhouses. The most important ones are the citrus mealy bug (*Planococcus citri*) and some *Pseudococcus*-species. The citrus mealy bug can be found sporadically in cucumber, melon and aubergine. In tomato *Pseudococcus affinis* has become more and more widespread.

Mealy bugs cause nearly the same damage as aphids.

Like aphids, they suck plant sap and secrete honeydew, on which fungi can easily grow. This dirtiness gives ornamental plants a loss of quality. Viruses, however, are less transmitted by mealy bugs than by aphids.

CRYPTOLAEMUS

Cryptolaemus montrouzieri is an Australian ladybird. Adult beetles can reach a length of 4 mm and have black-brown wing-cases. Its head, thorax and abdomen are orange-brown. The *Cryptolaemus* larva can reach a length of 13 mm and can be recognized by its white downy wax secretion. Due to this secretion, the larva and its prey are as like as two peas in a pod. However, the larva of *Cryptolaemus* is longer, is more mobile and its wax threads are longer than those of mealy bugs.

The development time (from egg to larva) depends strongly on temperature. It takes about 32 days at a temperature of 24°C. A female beetle lives approximately 2 months and lays 10 eggs a day in a mealy bug colony or in a group of mealy bug eggs. *Cryptolaemus* is most active when the weather is sunny. A temperature of 22 to 25°C and a relative humidity of 70 to 80 % are optimal for egg laying. The beetle is not active when temperature drops to 16°C (diapause). Temperatures above 33°C confuse the beetles when looking for prey.

GLUTTON

Cryptolaemus is a very efficient predator for eradicating mealy bug populations. Adults and young larvae eat every stage. *Cryptolaemus* can also have aphids or scales for a meal as an alternative to mealy bugs, if only little of them are present. When applying *Cryptolaemus* in greenhouses, introduce 2 to 3 adults/m². It is best applied on a cool moment of the day. The presence of ants in the crop adversely affects the work of *Cryptolaemus*. Ants are very keen on the mealy bug's honeydew and therefore protect them against this predator.