



DOVE
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Information

Biological Control - LEAF HOPPER

The two most common species of leafhopper to appear in glasshouse crops are the glasshouse leafhopper (*Hauptidia macroccana*) and the Chrysanthemum leafhopper (*Eupteryx melissae*). These pests have become much more of a problem since biological control has led to a reduction in pesticide use. It has a wide host range including tomatoes, cucumbers and many ornamental species.

All stages of the pest feed on the underside of the leaf. The characteristic symptom of feeding is irregular clusters of white spots that go right through the leaf from the upper to the lower surface. If damage becomes severe the spots may join together to form large bleached areas sometimes covering the whole leaf. In common with whitefly and aphids, leafhopper produces honeydew on which sooty moulds can grow, but this is only a rare problem.

Cast skins of the insect can often be found on the under surface of affected leaves and may also lead to confusion with whitefly or aphid.

LIFE CYCLE OF LEAFHOPPERS

The life cycle can last from 25 days in the summer to 85 days in the winter. Eggs are laid in slits in the veins of leaves and hatch after about 17 days at 8°C. There are 5 nymphal stages, which take 42 days to adult emergence at this temperature. Adults are slender, white and about 4 - 5mm long. They readily jump and fly when they are disturbed. While young stages are similar in appearance to adults they do not have wings and therefore are less mobile.

BIOLOGICAL CONTROL

Anagrus atomus is a very small mymarid wasp which parasitises the egg stage of the leafhopper. Parasitised eggs turn red as the wasp reaches the end of its incubation.

Anagrus can result in a significant reduction of leafhopper populations when it establishes naturally in a crop from outside. However, in practice it usually comes into greenhouses too late to give satisfactory control.

Introducing it early when the pest is first seen will help prevent build up of leafhopper and eliminate economic damage.

Anagrus: Supplied in units of 100 as parasitised leafhopper eggs. Rates of introduction of *Anagrus* will depend on the levels of leafhopper but as a guide introduce 100 - 200 per acre per week for 6 weeks or until parasite is established.

RECOMMENDATIONS

Leafhoppers are frequently present in crops but often do not cause enough damage to warrant any action to control them. However, as leafhopper is becoming more serious we recommend that more positive action is taken to reduce their numbers. Keep weeds down both outside and inside the glasshouse. Pick off leaves with early symptoms of damage and continue whilst it is practical to do so.

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

Dove Associates shall in no event be liable for any loss or damage caused by the use of products mentioned in this document.

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