

insect answers



CYCLAMEN MITES

The cyclamen mite, *Steneotarsonemus pallidus*, is a severe pest of a wide variety of house plants, greenhouse-grown ornamentals, and strawberries. It is particularly common on African violets. Because it is so tiny and impossible to see with the naked eye, damage from cyclamen mite is often not apparent as such and is blamed onto mistakes in cultural management, spray injury, or on virus diseases in strawberries. All parts can be injured by the mite, but young new growth is particularly susceptible and will develop abnormally. Flower buds may never open, or blossoms may be distorted and drop early. Leaves often appear puckered and contorted, curling inwards. Some plants exhibit symptoms, such as leaf dieback and bronzing, as if from a trace element deficiency. Cyclamen foliage becomes unusually dark green. Severe symptoms are often apparent, even when mite populations are low.

Description and Biology

Cyclamen mites are oval, amber or tan colored, semi-transparent, and glistening. The young are milky white. Adults have four pairs of legs, larvae have three pairs of legs. The egg stage lasts about a week. Young mites reach maturity about 10 days after hatching. The female cyclamen mite lives for 4 or 5 weeks during which time she can produce a hundred or more eggs. Conditions most favorable to growth and development are high relative humidity and temperatures of about 60°F/15°C. These mites move from plant to plant by crawling on touching leaves, on garden or greenhouse tools, and

on hands or clothing. They can be spread by wind, irrigation, hitching a ride on flying insects, or on berry crates.

Control—Ornamentals

Because of the tendency of the mites to hide between layers of touching leaves, control of this pest is very difficult. Pinching and pruning



Cyclamen mite injury to strawberry foliage.

back improves the success of chemical sprays. Thiodan® (endosulfan) and Kelthane® (dicofol) are the preferred chemicals. Metasystox-R® (oxydemeton-methyl) and diazinon are also registered but are less effective. Be sure to check the label of the pesticide formulations that you intend to use and make sure that it lists the plant or plant type that you plan to spray. Many labels simply say "ornamentals." This is no guarantee that the material will not damage some varieties of ornamentals.

It should be understood that none of the chemicals listed and presently marketed have been evaluated for plant injury on *all* available ornamentals. Moreover, variations in growing conditions may produce different damage from use of the same chemical. When using a pesticide new to you or a well-known pesticide selected for application to new plant materials, it is strongly recommended that you evaluate it on a trial basis on a small number of plants representing the material to be protected. The toxic effects of applying spray materials to foliage and to flower parts should become evident within 5 to 10 days and may be apparent in 48 hours. The pesticide label also should be consulted for such information.

The possibility of spray damage to plants may be reduced by applying the pesticide (at the rate indicated on the label) during the cooler hours of the day and to dry plants in a well-ventilated place. Powders and dusts are generally less injurious to plants than spray or liquid concentrates, although the former may leave an unsightly residue.

It is also possible to control cyclamen mites on individual plants with a hot water treatment

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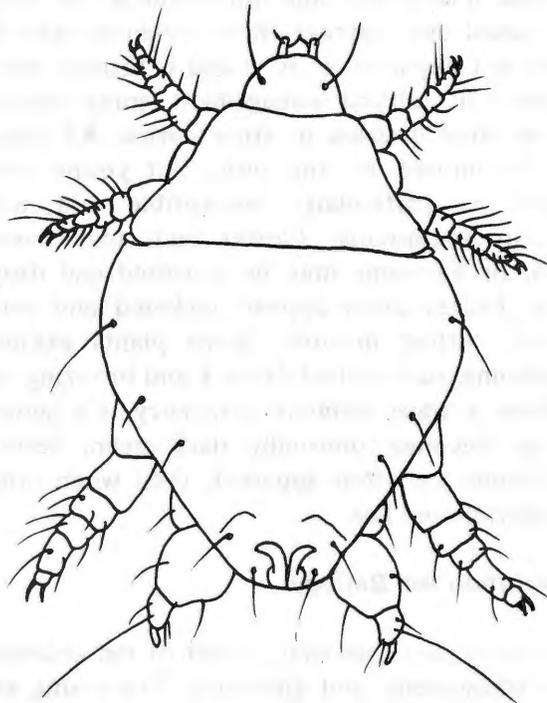
Use Pesticides Carefully
FOLLOW THE LABEL

Use pesticides with care. Read the label and follow its directions. Never smoke while using pesticides and avoid breathing the spray or dust. Wear natural rubber gloves when handling pesticides. Wash hands and face carefully with soap and water after applying. If insecticides are spilled on skin or clothing, remove contaminated clothing and wash skin thoroughly. Store pesticides in their original containers and be sure labels remain on the containers. Keep containers away from food or feed and out of reach of children or irresponsible persons.

(submerged) at 110°F/43.5°C for 1 hour. This method is not always practical, however, and may injure the plant.

Control—Strawberries

On strawberry plants, only Kelthane and Thiodan are registered for control of this mite. Apply Thiodan at night if strawberries are in bloom in order to protect bees. It is important to use sufficient water and pressure to thoroughly cover all of the plant. It is especially important to wet the crowns, immature leaves, and the undersides of the mature leaves.



Cyclamen mite adult (redrawn from USDA Bulletin 237).