## CLEAN UP GREENHOUSES
*OR*
## CYCLAMEN MITE ALERT

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The past growing season has produced as many cyclamen mites as plants. Many plants were injured, e.g. foliage, vegetable and bedding plants. The injury appears as a distortion of the terminal growth. The leaves are curled, crinkled and distorted.

The cyclamen mite is about 1/100 inch in length and usually inflicts heavy damage before it is detected. The grower usually sees the injury (Figure 1), which is sudden and severe, rather than the mite itself, which is nearly microscopic in size and cannot be seen with the naked eye.

Figure 1: Cyclamen mite injury on petunia.

Its development is favored by high relative humidity (80 to 90%) and by temperatures of around 60°F. The mite prefers to feed and multiply in buds and surrounding young leaves. The damage may appear as blasting of buds, curling of leaflets from the outside inward, and/or wrinkling of leaves so that pockets and pitlike depressions are formed. Flower buds may fail to develop or, if they open, are likely to be distorted. Under the microscope or (with considerable difficulty) with a 10X hand lens, the mite appears minute and semitransparent with a greenish tinge.

The female may live up to a month, laying 100 or more eggs usually tucked into crevices of buds and young leaves. The eggs are very small, oval, glossy white and unmarked. They hatch in three to seven days. The young larvae are glistening white and move slowly. The entire life cycle is completed in four to six weeks.

The mites have a wide host range, but in one instance were found to prefer petunias over other types of annuals. In another greenhouse they were found on cherry hot and frying peppers but not on the bell type. They were also found on a wide variety of foliage plants.

Why have they made an appearance all of a sudden? The foliage plant boom probably has contributed the most to their appearance. The continuous movement of plant material from Central and South America and from the southern parts of the U.S. to Connecticut and other northeastern states has increased the incidence of this insect. Also with the foliage plant boom, growers have their greenhouses full or in operation year-round. Years ago many greenhouses were empty during the summer and fall and could be cleaned up.

CONTROL: Strict sanitation practices should be followed. All plants coming in should be inspected for mite injury. All greenhouses should be cleaned out at least once during the year and treated, preferably with formaldehyde.

Formaldehyde (formalin 40%) should be diluted with water 1:50 and sprayed throughout the greenhouse. Spray the benches (if any) and soil thoroughly. The soil should be watered after applying to hold the formaldehyde in. Close the greenhouse tightly and leave for a few days.

Formaldehyde is not easy to handle. Be sure to wear a mask, rubber suit, rubber gloves and boots. (Editor's note: Maybe the best time to apply it would be early in the morning while it's still cool.)

Another method might be to spray the empty greenhouse with a combination of kelthane plus pentac. Plants infested with cyclamen mites can be sprayed with the above combination.

Reference

Gentile, A.G. and O.T. Scanlon. 1976. Floricultural insects and related plants--biology and control. Florogram: Specialty Manual Issue for Commercial Greenhouse Growers, p. 16.