

# Cyclamen mite-bad news for ornamentals

NEWARK, Del. — The cyclamen mite is a notorious pest of a wide variety of greenhouse-grown ornamentals. Among other things, this nearly invisible creature is responsible for growth abnormalities in kalanchoe, ivy, cissus, abutilon and jacaranda crops, says University of Delaware Extension entomologist Frank Boys.

This tiny creature, which also goes by the scientific name *Steneotarsonemus pallidus*, is so small that it's impossible to see with the naked eye, or even a 10X-power magnifying glass. It is only about half the size of the two-spotted spider mite, and its translucent yellow coloring gives it excellent camouflage against the leaves or stem of a plant. To avoid bright light and dryness, it hides in the nooks and crannies of leaf and flower buds. All of which means one is likely to recognize its effects on greenhouse crops long before he ever gets a glimpse of the mite itself.

Severe plant damage symptoms will appear when

even a low population of mites is present.

The controls which a person might be using against other mite pests are very likely ineffective against the cyclamen mite, says Boys. So it's important to recognize the growth distortion caused by its feeding in order to launch an effective control program promptly and prevent further damage.

All parts of plants may be injured by cyclamen mites, but young tissue is particularly vulnerable to attack and resultant abnormal development. Flower buds may never open or blossoms may be misshapen and fall early. Leaves typically are puckered and contorted, curling inwards. Terminal leaves on vines fail to expand and often darken and drop.

Infested azalea plants exhibit general decline symptoms: young leaves bronze and die back from the tips, as if from a trace element deficiency. Cyclamen foliage becomes usually dark green and blossoms and leaves may show distortion. Gerbera

develops brown patches along leaf midribs and the leaves curl slightly. The flowers of Gloxinia are very deformed. The cyclamen mite also stunts and distorts any number of bedding plants, including petunias, marigolds, and zinnias.

Growth distortion is the general clue to the presence of this mite, and microscopic examination can determine whether the pest is actually present. A person should beware of automatically attributing all odd growth to spray injury or mistakes in culture management, cautions the entomologist. The cyclamen mite may be guilty.

The female cyclamen mite is pale yellow-brown, with two pairs of stout front legs and two pairs of skinny hind legs. In her lifetime of approximately one month she may lay more than 100 eggs, at a rate of five or six a day. These hatch within a week to produce larvae which reach adulthood in about 10 days. The total life cycle of this small pest lasts from four to six weeks.

Conditions most favorable

to growth of the cyclamen mite are high relative humidity (80 to 90 per cent) and temperatures of about 60 degrees F. The mites can be spread by wind, irrigation, and flying insects. They may also move from plant to plant by crawling across touching leaves, or by hitching a ride on the hands, clothing or tools of greenhouse workers. Multiplication of the mites is limited in propagation areas because of misting, so you may not notice problems on newly introduced cuttings until plants are moved away from the misting area.

Control of the cyclamen mite is very difficult because of its tendency to take shelter between layers of young leaves. For this reason, sprays are much more effective after pinching and pruning back of plants. Kelthane, which also works against the two-spotted spider mite and the false spider mite, may be used for cyclamen mite control. One should use a spray of one pint of the 18.5 per cent EC per 100 gallons of water (or 1 1/2 teaspoons

per gallon) three times at 10- to 14-day intervals. (Note: Kelthane is incompatible with sulfur.)

Endosulfan may also be used at a rate of one pound of the 25 per cent WP per 100 gallons (or one tablespoon per gallon) of water. Both of these compounds may result in spray injury to some plants. To minimize this risk, one can test the dosage on a few sample plants and avoid spraying under conditions of high humidity or high temperature. A hot water treatment at 100 degrees F. for 30 minutes is also effective, though rarely practical.

During a slack period when there are no plants in the greenhouse, Boys recommends treating soil

and benches with a dilute formaldehyde (1:50) spray if one has had a mite problem. This will destroy residual mite populations. A person should water the soil and then close up the house tightly for a few days. One should wear a mask and rubber clothing during this application and be sure that no plants are exposed to the toxic formaldehyde fumes. An empty house may also be sprayed with Kelthane plus Pentac.

One should be certain to check over incoming plants carefully for symptoms of cyclamen mite infestation to avoid introducing the pest into the greenhouse. Farmers shouldn't let this eight-legged mini-pest pucker their petunias!

## Maple syrup labeling fraud uncovered

HARRISBURG — Noting a growing number of complaints from both consumers and maple syrup producers, State Agriculture Secretary Penrose Hollowell is warning the public to "be smart, and get what you're paying for."

Hollowell said that imitation and "cut" maple syrup products are being offered for sale as pure maple syrup, especially in the southwestern and north-central regions of the commonwealth. He warned consumers to be sure that the product they are buying is properly labeled and priced.

Federal standards must be met in order for a product to be sold as maple syrup.

"It is important to the maple industry that we are all aware of these standards," he said, "both to guarantee a good product for the consumer and to protect the reputation of our maple syrup producers."

Pennsylvania is a leading maple syrup producing state, ranking in the top seven states in the nation in recent years. But the business is very risky, depending greatly on weather conditions, temperatures when the sap is running, and consumer recognition.

According to federal standards, maple syrup must be at least 66 percent maple sap and maple sap solids, and must contain no other ingredients except

water, salt, defoaming agents and preservatives. Only when these conditions are met may a product be labeled as "maple syrup." Information on the contents must be on the label.

Hollowell said that the Department's Bureau of Markets had informed him that one "brand" which has come under investigation is that of "A.B. King, RD 2, Berlin, Pa." He noted that the name was fictitious and that there is no such addressee at the Berlin Post Office.

He said that products which are incorrectly labeled as maple syrup have been sold in Mason jars, often on a one-sale basis in industrial plants and offices. "Like all other Pennsylvania farmers, our maple

syrup producers put in a tremendous amount of time and work to deliver an excellent product to the consumer. We cannot afford a situation where their product suffers due to misinformed consumers or to faulty labeling," he said.

Anyone who purchases or suspects the sale of incorrectly labeled maple syrup has been requested to contact the Pennsylvania Department of Agriculture, 2301 North Cameron Street, Harrisburg, Pa. 17120, or call the Department at 717-787-4737.

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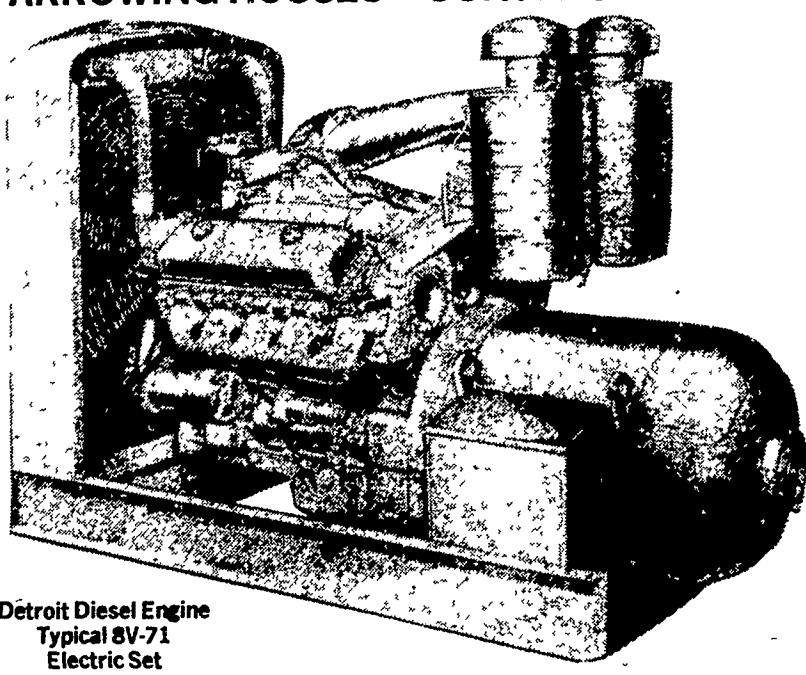
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