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Division of Plant Industry

The Cyclamen mite, *Phytodromus pallidus* (Banks) (ACARI: TARSONEMIDAE)[1]

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SYNONYMY: ***Tarsonemus pallidus*** Banks, 1901:294.
Tarsonemus fragariae Zimmerman, 1905:91.
Steneotarsonemus pallidus (Banks), Beer, 1954:1267.
Phytodromus pallidus (Banks), Lindquist, 1987:291.

INTRODUCTION: The cyclamen mite, ***Phytodromus pallidus*** (Banks), was originally described from leaves of chrysanthemums in a greenhouse in Jamaica, New York. This mite requires high humidity and avoids light. It has been spread on plants in unopened leaflets and on the tubers of cyclamen to all parts of the world. It overwinters in the adult stage in the temperate zone.

ECONOMIC IMPORTANCE: Infested plants may have a streaked and/or blotched appearance, distorted leaves with small distorted flowers, fewer flowers than normal or complete abortion of flower buds. Infested strawberry plants produce a roughened, wrinkled upper leaf surface, irregular folding and fluting of the leaf margins, and veins that bulge upward like blisters. Plants with mild injuries assume a dense appearance becuase petioles fail to elongate. A heavy infestation will kill African violets and cyclamens by dwarfing the leaves at the crown, and some leaves fail to open.

DISTRIBUTION: Widely distributed throughout North America, Hawaii, Europe and Asia.

HOSTS: Pest of many ornamental flowers and shrubs such as cyclamen, African violet, begonia, gerbera, ivy, chrysanthemums, geranium, fuchsia, larkspur, petunia, snapdragon, and other greenhouse grown plants. If the humidity is high, field grown strawberries also may be infested.

DESCRIPTION: The adult female mite (Measurements are in microns) (Fig. 1) is yellowish brown, 250 to 260 long, with hind legs reduced to slender threadlike structures. The eggs are relatively large (125 X 75). They are elliptical, opaque, smooth and nearly twice as long as wide (Jepperson, Kefer and Baker, 1975). The larvae are opaque white with a peculiar triangular enlargement at the posterior end of the body. The pupae are non motile. The adult males (Fig.2) have the fourth pair of legs modified and are used to transport the pupae or adult females.

LIFE STAGES: One to 3 eggs are laid per day in clusters of 2 - 3, with a total of 12 to 16 per life span. The duration of the egg stage is 3 to 7 days, 1 to 4 days for the larvae, 2 to 7 days for resting pupae or 1 to 3 weeks per generation (Smith and Goldsmith, 1936).

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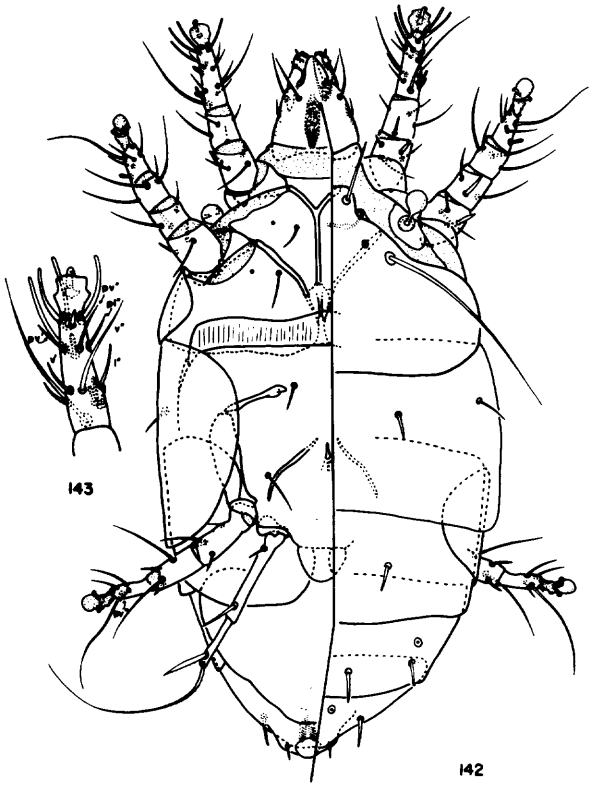

Figure 1.
Phytonemus pallidus Banks, adult female. Courtesy of Dr.E.E.Lindquist

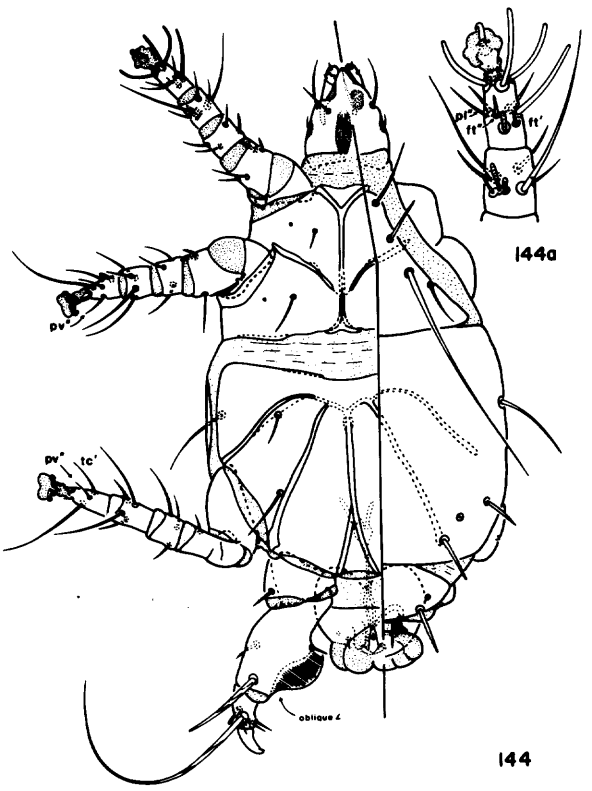

Figure 2.
Phytonemus pallidus (Banks), adult male. Courtesy of Dr.E.E.Lindquist.

CONTROLS: The egg, larvae, pupae and adult stages are often well protected from chemical control in the leaf and/or flower buds. Some plants can be fumigated with ethylene dibromide or methyl bromide. Mites on planting stock may be completely killed by immersion in water at 43.5 C (11Ø F) for 3Ø minutes. Repeated treatments (2 - 3) at intervals of five to seven days of Dicofol^{R} or Thiodan^{R} are recommended by the Department of Entomology and Nematology, IFAS, University of Florida.

SURVEY AND DETECTION: Look for distorted, dwarfed, irregular folding of leaves, thickening of leaves or shortening of petioles.

LITERATURE CITED:

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