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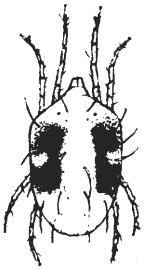
insect answers

MC DANIEL AND TWOSPOTTED MITE

The McDaniel mite, *Tetranychus mcdanieli,* and the twospotted mite, *Tetranychus telarius,* are serious pests in Washington. The McDaniel mite is mainly a pest of apples and pears and is seldom found on other tree fruits. The twospotted mite is not usually a pest of apples but is often found on pears and stone fruits as well as many field, vegetable, and ornamental crops.

MC DANIEL MITE



TWOSPOTTED MITE

These mites feed on leaves, causing stippling, spotting, crinkling, folding, and loss of green color. Dense webbing may give the leaves the appearance of being covered with cellophane. Heavy infestations may cause leaf mottle, followed by yellowing, bronzing, and leaf drop. Mite feeding indirectly affects color, size, and quality of fruit and may also lower fruit set the following season. Damage to trees by twospotted mites usually starts in the center of the tree and spreads to the outer limbs as populations grow larger.

Appearance

Adult females of the McDaniel mite are greenish or yellowish during the spring and summer. There is a large black spot on each side of the body and usually another pair of dark spots near the rear of the body. The eggs are round, colorless, and often laid in the webbing. Winter forms are bright orange with no black spots.

Adult females of the twospotted mite are light green to straw color. There are two large black spots, one on each side of the body. (The twospotted mite does not have spots near the end of the body like the McDaniel mite.) The round, translucent eggs are laid among strands of the webbing. Overwintering forms are orange and hard to distinguish from overwintering McDaniel mites.

Dispersion and Habits

In orchards, both species overwinter beneath the bark scales on the trunk and larger limbs of the tree and also in the litter beneath the tree. In other crops they overwinter in weeds, trash, and soil.

In the spring, the mites move into the trees or plants, first attacking the foliage nearest the ground and gradually extending their operations to cover the whole tree or plant. Both the McDaniel mite and twospotted mite build up slowly in the spring and early summer. A rapid increase follows hot weather, and the peak of their activity is in July and August.

In September or October, the winter forms of both mites develop and migrate to soil, trash,

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or bark where they spend the winter. Life cycles are from 1 to 3 weeks with usually 9 to 11 generations per season.

Control

Commercial Orchards. Several chemicals may give effective control of both mites. However, where predator mites are to be protected, some mite control chemicals should be avoided.

Apples–Use Omite, 30% wettable powder at 6 pounds per acre, or Plictran, 50% wettable powder at 1½ to 2 pounds per acre.

Pears–Use Plictran as shown for apples.

Peach, Prune, Plum, Apricots–Apply Omite 30% wettable powder at 4 to 5 pounds per acre.

Cherry–Apply Kelthane 35% wettable powder at 4 to 6 pounds per acre.

For exact control procedures, see WSU Extension Bulletin 419, *Spray Guide for Tree Fruits in Eastern Washington.*

Commercial Vegetables. Listed below are chemicals for the twospotted mite. For complete control programs, see E.M. 3316, *Control of Insect and Mite Pests of Commercial Vegetables.*

Beans, dry–Dimethoate, demeton, Kelthane, Trithion, phorate

Beans, snap–Kelthane, Trithion

Beets, table–Trithion, parathion

Peppers–Kelthane

Potatoes–See E.M. 3316

Tomatoes–Kelthane, Trithion

Home Orchards. For control of both mites, use diazinon emulsifiable concentrate at 3/4 tablespoon per gallon of water. Kelthane 35% emulsifiable concentrate may be used at 2 teaspoons per gallon of water on cherries, peaches, apricots, prunes, and plums. Commercially prepared mixes for home orchard control found in garden stores may also be effective.

Home and Garden. For control of twospotted mite, Kelthane or diazinon are recommended. For application procedures, see product container or E.M. 3318, *Control of Insect and Mite Pests of Home and Garden.*

To simplify the presentation of information, it is sometimes necessary to use trade names. No endorsement of products is intended nor is criticism of unnamed products implied.

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Use pesticides with care. Read the label on the container and follow the directions carefully.

Never smoke while applying insecticides 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 the skin or clothing, remove contaminated clothing and wash exposed skin areas thoroughly.

Always store pesticides in their original containers, never in fruit jars or soft drink bottles, and be sure that labels remain on the original containers. Keep containers away from food or animal feed and out of the reach of children or irresponsible persons.