



TWOSPOTTED SPIDER MITE

Tetranychus urticae Koch

The twospotted spider mite is a general feeder that attacks a wide variety of plants including shade trees, shrubs, and flowers. Because of their small size and habit of feeding on the underside of foliage, this species may go undetected until a population has caused serious damage to a plant. This species is known by several other common names such as “red spider mite” or “glasshouse spider mite”.

DESCRIPTION

The adult female is eight-legged, 0.4-0.6 mm long, and pale yellowish or greenish (Fig. 1). This species has two dark spots, composed of food content, showing through the transparent body wall. The abdomen is oval and sparsely covered with spines. The tiny, spherical, white eggs hatch into young mites called larvae that resemble their parents except they are smaller and have only three pairs of legs. Adults and nymphs have four pairs of legs.

LIFE HISTORY

This pest overwinters as mature yellowish-orange females under bark or ground cover around the base of the host plant (most other species of spider mites overwinter as eggs on the host plant). After mating, females lay eggs on the underside of leaves at the rate of 2-6 a day. Each female may lay as many as 100 during her lifetime. Eggs hatch in 2-6 days into young mites. The young mites shed exoskeletons three times before becoming mature. Depending on weather conditions, a complete generation of this pest may be completed in 7-20 days. The various generations overlap and all stages can be found on most host plants during the summer months. There may be 10-15 generations completed a year in Pennsylvania. Hot dry weather favors the development of severe infestations of this pest.

DAMAGE

This species damages plants by sucking plant fluid from the foliage. Light infestations usually go unnoticed; heavy infestations cause the leaves to look chlorotic, stippled, or mottled in appearance. In some

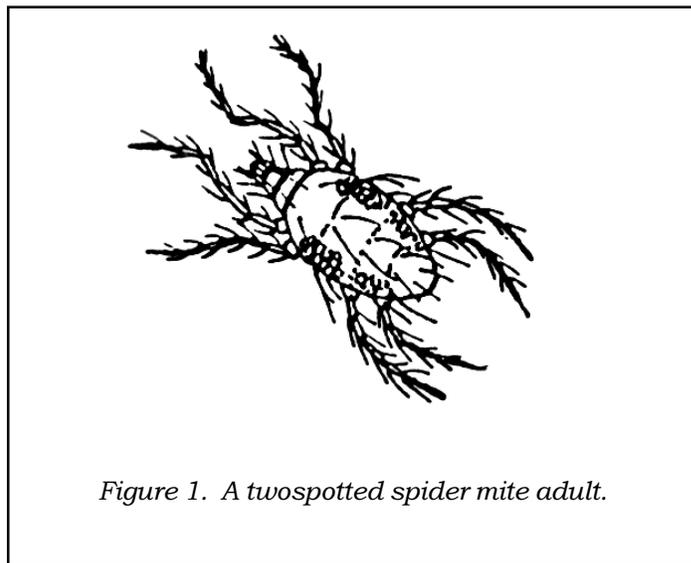


Figure 1. A twospotted spider mite adult.

cases foliage drops prematurely after the characteristic discoloration is detected. Close examination of plants infested with mites may reveal fine, silken threads over the foliage, twigs, and branches. These silken threads are produced by the mites as they move across the leaf surface. Severely infested host plants usually have a fine cobweb appearance on the leaves, particularly on the underside where this species is most abundant.

MANAGEMENT

Mite life stages are often difficult to see with the naked eye, but their presence on infested host plants can be detected by holding a white sheet of paper under a branch and sharply tapping the branch against the paper. If mites are present, they will show up on the paper as tiny, moving specks.

This pest can be managed by applying registered miticides according to label directions to infested ornamentals. These products should be applied before serious plant damage occurs and repeated as needed at 7-10 day intervals. Mite populations may develop resistance to any chemical used against them, so it is necessary to switch to another chemical class of miticide after every third application. Also, populations of this pest may increase following the use of certain insecticides because natural predators may be killed.

Therefore, it is a good idea to add a miticide when spraying mite-susceptible plants with certain insecticides. Horticultural spray oil may also be applied when mites first appear in late June or early July. Application of a dormant horticultural oil is not suggested as a management strategy for this species because it overwinters as adults off of the host plant.

WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

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