

# Home and Horticultural PESTS

## Clover Mites

Clover mites are tiny, reddish brown, eight-legged arthropods. Often overlooked outdoors, indoors they appear as small moving dots on light-colored walls, windows and windowsills. Although they typically invade homes during the spring, they may appear during cooler periods of the year. Clover mites can be identified by their extremely long front legs and the red stains produced when crushed.

### Life History and Habits

Clover mites are temperature sensitive. Thermometer readings of 75 F force eggs into summer dormancy. Temperatures above 85 F kill active mites. When cooler weather returns in the fall, eggs that had been deposited on trees and shrubs and around buildings hatch, and clover mite populations increase. Feeding on trees, shrubs, flowers, grasses and agricultural crops, they produce a generation in a month's time. Mite activities slow between late fall and early spring with eggs going dormant at temperatures below 40 F. With the combination of surviving mites and overwintered eggs, clover mite populations escalate rapidly as spring approaches.

Clover mites are dispersed in nature. Because heavy populations may kill or reduce the food quality of their host, they roam in search of suitable food. Clover mites are often concentrated on turfgrass, especially next to south and southwest exposures of structural foundations. Wandering mites have immediate access to openings and entryways through which they enter homes and buildings. Clover mites are more likely to be observed on south walls and windows, but they live indoors for only a short time. They do not bite, sting or transmit diseases. They are not structural pests and do not damage or feed on clothing, draperies, upholstery or carpeting. They do not infest or thrive on stored products. Except for the annoying red stains they produce when crushed, clover mites are harmless.



Rayanne Lehman

Clover mite  
actual size  $\frac{1}{50}$  inch

### Control

**Non Chemical** – Because clover mites enter from outside, it is a good idea to create a barrier between breeding and feeding sources and buildings and houses. Mites have difficulty negotiating bare soil, so an 18- to 24-inch strip around a structure can reduce the number of mites by 90 percent. It is easier for mites to cross the barrier if soil is hard. Periodically working the soil so it has a fine consistency hinders movements. Remove trash, debris and vegetation that bridge the barrier.

While exclusionary tactics may prevent larger arthropods from entering structures, it would be impossible to seal a structure securely enough to exclude the extremely small clover mites. Once inside, the only practical method for gathering clover mites without crushing them is with a vacuum cleaner attachment. Repeated vacuuming is required for the duration of the clover mite invasions.

**Chemical Treatments Outdoors** – It is logical to reduce or eliminate clover mite populations at their point(s) of origin. Apply an insecticide to a 15 to 20 foot grass or turf strip around building and homes. Treatments should coincide with cooler periods and active clover mite populations. Because insecticides are only effective against active mite stages, a follow-up spray (or two) is advised to eliminate “new mites” originating from eggs that were unaffected by the original treatment. An additional deterrent against wandering mites is to apply a barrier treatment to the 18-24 inch strip, as well as to the foundation and sides of buildings and homes.

Insecticides are chemical products that, when applied to targeted pests, disrupt normal physiological processes and cause them to die. The active ingredient is the actual component or killing agent contained in an insecticidal product. Many companies may purchase the same active ingredient and use it to formulate a product or product line. To further complicate product selection, an individual manufacturer may use a single active ingredient in various formulations including dusts, granules, baits, emulsifiable concentrates, ready-to-use products, or hose-end applicators. Not all products are marketed at all retail outlets. Users may have to search for specific products registered for use against clover mites.

The number of insecticidal products makes it impractical to list all products that are registered for use in Kansas. For instance, a recent check revealed that one active ingredient was contained in 675 different products registered with the Kansas Department of Agriculture. It is the responsibility of the end user to read product labels to ensure safe and proper use against the intended pest.

While not all pests may be listed on a product label, under Kansas Administrative Regulation 4-13-28 of the Kansas Pesticide Law, any pesticide may be applied for the purpose of controlling a pest which is not specified on the pesticide's label or labeling provided that: (a)(1) the pesticide's label or labeling authorizes application of the pesticide to the same crop, animal, or site requiring application; (2) the pest to

be controlled belongs to the same general group of pests intended to be controlled by the pesticide to be applied; (3) the pesticide's label or labeling does not specifically prohibit its application to the target pest to be controlled, or to the crop, animal, or site to which the pesticide is to be applied; and (4) the application of the pesticide to the target pest, or to the crop, animal or site, has not been prohibited by rules and regulations promulgated by the secretary. (b) Each pesticide which is applied in accordance with the provisions of the abovementioned subsection (a) of this regulation shall be deemed not to cause any unreasonable adverse effects on the environment, nor to endanger the health, safety or welfare of the citizens of this state.

Photo courtesy of Rayanne Lehman, Pennsylvania Department of Agriculture.

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