HOME & GARDEN

Clover and other mites of turfgrass no. 5.505

by W.S. Cranshaw[1]

Quick Facts...

Several species of spider mites can damage turfgrass in Colorado, including clover mite, Banks grass mite, and brown wheat mite.

Most damage occurs during the cool season of early to mid-spring.

Clover mite also occurs as a serious nuisance pest when it enters buildings in spring. They are often described as “walking dust specks” that leave a rusty stain when crushed. Problems are greatest in south or west facing rooms.

Spider mite damage to turfgrass is primarily related to dry conditions. Most outbreaks occur in turfgrass that is stressed by drought. Because of this, damage is most concentrated in warmer, drier areas of the lawn.

Colorado State University Cooperative Extension

Numerous species of mites are common in Colorado turfgrass. Some, such as the oribatid or “hardshell” mites, are important in the breakdown of thatch and the recycling of nutrients. Other are important predators of pest insects and mites. However, the following three spider mites species are among those that damage Colorado turf.

Clover Mites

Clover mites (*Bryobia praetiosa*) are a common type of spider mite in Colorado that breed outdoors on turfgrass, clover and other plants during spring and fall. During October and November, clover mites seek protected areas to overwinter and may move into homes in large numbers. Movements of clover mites into homes also occur from late February through early May. They are a common indoor nuisance problem at either time.

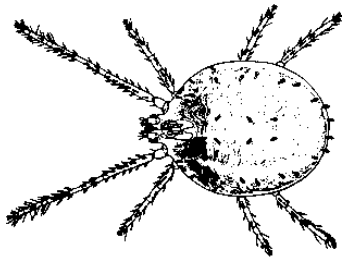

Figure 1: Clover mite.

Clover mites are smaller than the head of a pin and range in color from reddish or brown to dark green. Under close examination they have an unusually long pair of front legs, which separates them from the common spider mites found on garden plants.

Clover Mites in Homes and as Turf Pests

Clover mites are most frequently encountered as nuisance pests in homes. During warm days in fall and spring, large numbers of clover mites may become active and enter homes through cracks around windows and doors. Sides of the building with a southern exposure usually are more heavily infested. The crawling mites may then spread to walls, curtains, furniture and carpet. Typically, clover mites are described as “walking dust specks.” Although clover mites do not bite people, transmit diseases, and/or feed on household furnishings, they can be a serious nuisance. Clover mites leave rusty red stains when crushed that are noticeable on white surfaces.

Clover mites also may damage turfgrass around building foundations and in other warm, dry areas of a lawn during early to mid-spring. Feeding damage appears as small, meandering silver streaks in the leaves. When populations of the mites are high, leaves may be extensively injured and die. Areas of grass extending several feet from the building foundation may be totally killed, appearing as light brown, irregular dead patches. Clover-mite injury to turf is commonly mistaken for “winter kill” and usually is found in the same sunny, dry areas of the lawn where winter drying problems occur. Furthermore, almost all injury occurs within 10 feet of a building, tree or some other upright surface. This

is because clover mites periodically climb out of a lawn to shed their old skins and lay eggs.

Clover mites produce two or more outdoor generations during the cooler seasons, feeding on grasses and other plants. However, turfgrass injury occurs only early in the growing season, from February to May. As temperatures warm in late spring, clover mites produce dormant eggs that “oversummer” and do not hatch until the return of freezing temperatures in fall. Because of this habit, clover mites are considered cool-season mites, in contrast to many other spider mites that cause greatest damage during warm months.

Control

Effective control of nuisance clover mites indoors involves activities that prevent mites from moving into the home in the fall or spring. Clover mite problems often are permanently prevented if all grass next to foundations is removed, leaving a strip of bare soil at least 3 feet wide. Cover the strip with pea gravel or plant with annual or perennial flowers, such as zinnias, marigolds, chrysanthemums, roses or salvia, that are not attractive to clover mites.

Another method to reduce or prevent infestations inside the home is to spray a chemical barrier strip on the outside, 5 to 10 feet out from the base of the foundation and a few feet on the walls.

Barrier treatments involve the use of products that contain one of the following ingredients:

chlorpyrifos (Dursban)
Diazinon
dicofol (Kelthane)
malathion

Always read and follow label directions for mixing and use.

Often these treatments need only be made along the south and west sides of a building.

To control clover-mite infestations in a home, it is best to vacuum them when they become abundant. Dispose of vacuum cleaner bags to prevent reinfestations by escaping mites. Clover mites also can be spot treated and killed by most household “spray and wash” cleaners or by insecticide aerosols containing pyrethrin. However, beware that crushed clover mites and some sprays can stain certain household surfaces. Spot applications of residual insecticides such as diazinon, chlorpyrifos (Dursban) or malathion also can be made to cracks and crevices along baseboards, around windows and doors, and between windows and screens. Spring clover mite problems will end on their own by the end of May if left alone.

Clover mite populations in lawns can be greatly reduced by providing some supplemental watering to areas where clover mites develop. This watering usually needs to be applied to areas that are warm and dry, such as around sun-exposed foundations and near evergreens.

Spot spray treatments for clover mite control may be required on turfgrass in the spring to prevent clover-mite injury to turfgrass. Products containing chlorpyrifos (Dursban), diazinon (Spectracide) or dicofol (Kelthane) are registered for this purpose. Apply insecticides when clover mites are detected by carefully examining the grass. Limit treatments to the sunny areas next to homes or woody plants where injury is concentrated.

Banks Grass Mite

Banks grass mite (*Oligonychus pratensis*) is a common mite species in Colorado. It is a serious pest of corn and damages drought-stressed turf. The Banks grass mite causes grass to turn a bleached straw color, often killing it rapidly.

Banks grass mite differs considerably in appearance from the other turf damaging mites. It is smaller and lighter in color. During most of the season, it is green and the young stages are a paler color. During periods when the mites run out of food or environmental conditions are unfavorable, they may temporarily turn bright red. This mite lacks the elongated front pair of legs of the clover mite and is related to the spruce spider mite (*Oligonychus ununguis*), a common pest of evergreens but with different feeding habits.

Banks grass mite is more destructive to turf than other turfgrass mites. In early stages of feeding injury, there is small white flecking (stippling) similar to that of other mites. A slight purpling of the injured grass blade may be observed, which also is associated with brown wheat mite injury. Dead grass takes on a brownish yellow color and the blades are stiff. During favorable conditions for the mite, severe injury to the turf can progress rapidly. Almost all serious injury by Banks grass mite is related to drought stress.

The Banks grass mite adapts more to warm weather than the other common turf damaging mites and is found throughout most of the growing season. Banks grass mites overwinter as adult females. During the cold months they are dormant, bright salmon, and rest at the base of the plants. When weather warms to allow activity, in late winter or early spring, the mites resume feeding and lay eggs. With favorable conditions, the life cycle can be completed in eight to 25 days. Continuous, overlapping generations are produced throughout the growing season. Under laboratory conditions, populations are capable of doubling in as little as 36 hours.

Banks grass mites spend much of the time feeding and resting at the base of the grass plant. This makes them somewhat difficult to detect and inhibits effective control.

Control

Banks grass mite is the most difficult species of mite to control in turfgrass. Dursban can provide some control, although it has not been sufficiently effective during severe outbreaks. For commercial applicators, the bifenthrin (Talstar) is available and has provided superior control in Colorado State University trials. (Talstar has a 24c, Special Local Need, registration for use on turfgrass in Colorado.) Sulfur is also reported to provide control of Banks grass mite when it occurs in field crops.

Base all control programs on adequate water to the site. This includes fall and winter watering as needed, since populations of the mites can build up during this period. Under conditions of drought, control of the mite is often unsatisfactory.

Brown-Wheat Mite

he brown wheat mite (*Petrobia latens*) occasionally damages turfgrass during spring similar to the clover mite. Problems generally are associated with areas of drought stress and excessive winter drying. However, unlike the clover mite, populations are not so concentrated around buildings or trees. South facing hills and highway medians are typical areas where turf damage by brown wheat mite can be expected.

Control

Adequate winter and spring watering are important in limiting infestations of brown wheat mite. Under conditions that promote turfgrass growth, the plants usually outgrow injury. Brown-wheat mite appears to be fairly susceptible to insecticides. chlorpyrifos (Dursban, Pageant) or diazinon should be effective controls.

[1]*W.S. Cranshaw, Colorado State University Cooperative Extension entomologist and associate professor; bioagricultural sciences and pest management.*

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