Mealybug

Rhodesgrass Mealybug (Antonina graminis) Buffalograss Mealybug (Tridiscus sporoboli)



The most common mealybugs that affect turfgrass are the Rhodesgrass mealybug and buffalograss mealybug. Both species can be found all across the southern region of the United States. Rhodesgrass mealybug feeds on bermudagrass, St. Augustinegrass, tall fescue and centipedegrass. The buffalograss mealybug feeds primarily on buffalograss. Mealybugs feed under leaf sheaths, on nodes, or in the crown of the plant. Some species feed on the roots. Mealybugs withdraw sap from the plant, which causes discoloration and wilting to the turf plants. This damage thins the turf and causes stunted growth. Heavy infestations can cause white, waxy secretions on the plants, which promotes the growth of mold. Damage is usually the worst in hot, dry, sunny weather.

Picture: http://edis.ifas.ufl.edu/IN410 Text: <u>Handbook of Turfgrass Insect Pests</u> by Rick Brandenburg and Michael Villani

For more information on mealybugs:

North Carolina State University – Rhodesgrass Mealybugs in Home Lawns http://www.turffiles.ncsu.edu/Insects/Rhodesgrass_Mealybugs.aspx

Mites

Eriophyid Mites

Bermudagrass Mite (Eriophyes cynodoniensis) Zoysiagrass Mite (Eriophyes zoysiae) Buffalograss Mite (Eriophyes slykhuisi) Grain Rust Mite (Abacarus hystrix and Aculodes mckenziei)

Bermudagrass mites can be found in southern states where bermudagrass is grown. It attacks common bermudagrass. Hybrid bermudagrass is resistant. The mites suck juices from the stems and inside the leaf sheaths. Infested stands of turf take on a "witch's broom" effect. Yellowing of leaf tips is followed by shortening of the internodes and leaves, producing a tufted appearance. Entire stands of turf can be lost, and symptoms are worse in hot, dry conditions.



FIGURE 1

Other eriophyid mites include zoysiagrass mite, buffalograss mite, and grain rust mite. The zoysiagrass mite is host specific to zoysiagrass, the buffalograss mite is host specific to buffalograss, and the grain rust mite feeds on Kentucky bluegrass. All of these species cause similar damage to turfgrasses as the bermudagrass mite.

Picture: http://cipm.ncsu.edu/ent/Southern_Region/RIPM/CHAP5/agp7.htm Text: <u>Handbook of Turfgrass Insect Pests</u> by Rick Brandenburg and Michael Villani

For more information on bermudagrass mite:

University of California IPM – Bermudagrass Mite http://www.ipm.ucdavis.edu/PMG/r785400111.html

University of Florida – Bermudagrass Mite <u>http://edis.ifas.ufl.edu/LH035</u>

Noneriophyid Mites

Clover Mite (Bryobia praetiosa) Brown Wheat Mite (Petrobia latens) Banks Grass Mite / Timothy Mite / Date Mite (Oligonychus pratensis) Winter Grain Mite / Blue Oat Mite / Pea Mite (Pentheleus major)

The clover mite is found mostly in the northern United States. Clover mites are minor turfgrass pests, but can still cause damage by feeding on turfgrass leaf blades. Most of the damage is concentrated in sunny areas around buildings and trees.

The brown wheat mite is also considered a minor turfgrass pest. It affects drought stressed cool season turfgrasses in dry climates. Damage can often be confused with drought symptoms.



The banks grass mite can be found throughout the western and southern United States. It is the most serious arthropod pest of turfgrass in Colorado. It affects many grass species, especially St. Augustinegrass, bermudagrass, bluegrass, and zoysiagrass. Damage can appear as small white flecking on the leaf blade or resemble severe drought stress. Outbreaks are almost always associated with drought and can kill large areas of turfgrass in a short period.

The winter grain mite can be found all across the United States. This mite has been found to damage Kentucky bluegrass, fine fescue, perennial ryegrass and bentgrass. Damage occurs early in the year. Their feeding causes leaf tips to become blanched and die back, which causes the turf to resemble winter desiccation.

Picture: <u>http://creatures.ifas.ufl.edu/orn/mites/clover_mite03.htm</u> Text: <u>Handbook of Turfgrass Insect Pests</u> by Rick Brandenburg and Michael Villani

For more information on noneriophyid mites:

Colorado State University – Clover and Other Mites of Turfgrass http://www.ext.colostate.edu/PUBS/INSECT/05505.html

Texas A&M – Common Turfgrass Insects: Clover Mites http://landscapeipm.tamu.edu/turfgrass/common_clover_mites.html

Kansas State University – Winter Grain Mite http://www.oznet.ksu.edu/library/ENTML2/mf2073.pdf

Mole Crickets

Southern Mole Cricket (*Scapteriscus borellii*) Tawny Mole Cricket (*Scapteriscus vicinus*) Short-winged Mole Cricket (*Scapteriscus abbreviatus*)

There are three species of mole crickets in the southeastern United States that cause serious damage to turfgrasses. They include the southern mole cricket, the tawny mole cricket, and the short-winged mole cricket. They feed on both underground and aboveground plant parts. Heavily infested areas of turf have almost no root systems, and aboveground plant parts are susceptible to traffic damage. Their tunneling can also be detrimental to newly sprigged or seeded areas.





Southern Mole Cricket

^{te} Tawny Mole Cricket



Short-winged Mole Cricket

Pictures: <u>http://creatures.ifas.ufl.edu/orn/turf/southern_mc.htm;</u> <u>http://creatures.ifas.ufl.edu/orn/turf/tawny_mc.htm;</u> <u>http://creatures.ifas.ufl.edu/orn/turf/shortwinged_mc.htm</u> Text: <u>Handbook of Turfgrass Insect Pests</u> by Rick Brandenburg and Michael Villani

For more information on mole crickets:

University of Georgia – Mole Crickets in Turf http://pubs.caes.uga.edu/caespubs/pubcd/L414.htm

University of Florida – Pest Mole Cricket Management http://edis.ifas.ufl.edu/LH039

University of Maryland – Mole Crickets http://iaa.umd.edu/umturf/Insects/Mole_Crickets.html