

Bermudagrass Mite¹

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The bermudagrass mite (*Eriophyes cynodontiensis*) can be a serious pest wherever bermudagrass is grown in Florida. It does not attack other turfgrasses. It is an eriophyid or gall mite, which infests the southern United States. Bermudagrass cultivars that are tolerant or resistant to bermudagrass mites include 'Tifsport,' 'Midway,' and 'Midiron.' Some cultivars known to be susceptible to infestation include 'Floradwarf,' 'Ormond,' 'Tifdwarf,' 'TifEagle,' 'Tifgreen,' and 'Tiflawn.' 'Tifway' has demonstrated either susceptibility or resistance in different tests, so it may be considered intermediate in susceptibility.

Identification and Biology

The mites are extremely small, yellowish-white, somewhat worm-like in shape, and have two pairs of forward-facing legs. Females lay round, transparent eggs singly or in groups (Figure 1), between the grass stem and blade sheath. A 10-20X hand lens or microscope is needed to find the mites - they cannot be seen with the naked eye.

Little is known about this pest's life history. The mites are active usually during late spring and summer, but may be active most of the year in

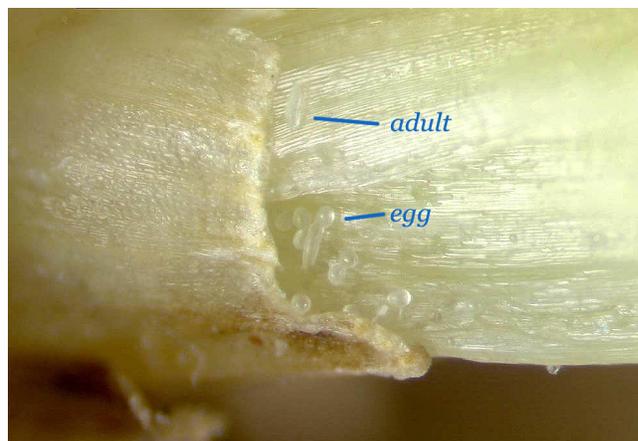


Figure 1. Bermudagrass mite. Credits: University of Florida

southern Florida. One generation (from egg to adult) may take 7-10 days, so many generations occur each year. Most of their life is spent hidden within the leaf sheath. Nearly 100-200 mites of all stages (eggs, immatures, and adults) can occur under just one leaf. They cannot survive on bermudagrass seeds.

Monitoring and Damage

Characteristic damage symptoms (Figure 2) are often enough to diagnose an infestation. The grass blades turn light green or yellow and curl abnormally. The internodes (the area between the joints of a stem)

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shorten, the tissues swell, and the grass becomes tufted so that small clumps are noticeable. This produces small "cabbage heads" or "witches brooms" in the grass. The grass loses its vigor, thins out, and may die by the end of the summer.



Figure 2. Bermudagrass mite damage.

Biological Control

No information exists on the presence or effectiveness of natural enemies of the bermudagrass mite in the U.S.

Cultural Control

Keeping the turfgrass healthy and growing vigorously may help the plants tolerate or outgrow an infestation. However, to manage small infestations, reduce the use of nitrogen fertilizers, scalp or closely mow the grass to a height of 3/4 inch, and dispose of all clippings. Water thoroughly for several days afterwards to minimize turf stress. This may slow down mite development and remove a large portion of the population.

Chemical Control

The mites are well-protected within leaf sheaths, so if a pesticide is used, a thorough application is essential, after the turfgrass is scalped and clippings are removed. Some products containing bifenthrin (Talstar®), deltamethrin (DeltaGard®), dicofol (Dicofol® 4E Miticide, Kelthane® 50 WSP), and lambda-cyhalothrin (Scimitar®, Spectracide Triazicide®) are registered for use against mites on turfgrass. Avoid watering or cutting the turf within one day after application. Reapplication within two weeks may be needed to kill any recently-hatched immatures.

For More Information

Johnson, F. A. 1975. Bermudagrass mite, *Eriophyes cynodontiensis* Sayed (Acarina: Eriophyidae) in Florida with reference to its injury symptomatology, ecology, and integrated control. Ph.D. Dissertation, University of Florida, Gainesville.

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