

Bermudagrass Mite

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Recently I have received reports of infestations of the bermudagrass mite from golf course superintendents. Conditions this summer have apparently right for this pest to reach damaging levels. This pest is best recognized by the damage.

The damage is caused by the feeding of the mites beneath the leaf sheaths. First signs are a slight yellowing of the leaf tips and a twisting of the leaves with the margins rolling upward and inward. As damage progresses, shortening of the stem internodes occurs producing tufts or rosettes. When populations of bermudagrass mites are very high and rosettes are numerous, clumps that resemble cabbage heads develop, and the grass appears to have no internodes. Even-

tually, the leaves, stems and stolons will die. This damage is believed to be caused by toxins injected into the plant tissue by the mite during feeding. Damage is most pronounced during dry weather when the grass is under stress. In Florida, golf course infestations are higher where close mowing was not practical. The edges of bunkers, the lips of sand traps and areas around trees were the worst. Large areas of turf may become thinned or killed.

The bermudagrass mite belongs to a group of mites known as eriophyids. This group of mites attack a wide variety of plants. In almost all cases, some type of distortion of the plant or gall formation occurs due to the feeding activity of the mites. The bermudagrass mite is very small, only about 0.1 - 0.2 mm in length. They are creamy-white and worm-shaped with only four legs at the front of the body. The adult mites are barely visible with a 10X to 20X lens. As many as 200 mites may be found in a single leaf sheath. This pest feeds only on bermudagrass.

Mites are active primarily during late spring and summer. Only 5 - 10 days are needed to complete development from egg to adult. Optimum temperatures for development are 80 - 100 degrees Fahrenheit. Bermudagrass mites are spread through normal cultural practices such as mowing that spreads clips, and by hitchhiking on insects present in the grass. Wind and rain are major means of dispersal.

There are definite differences in the susceptibility of various bermudagrass cultivars. Studies conducted in Florida and Arizona have shown that "Tifway" and FB-141 have moderate resistance, "Midiron," "Tifdwarf," "Tifgreen (328)," and "Tifway (419)" are highly resistant, while FB-119 showed no infestation during 6 years of study.

The final question is how to control this pest. Unfortunately, diazinon is no longer labeled for use on golf courses and sod farms. At this time, I would suggest using MARVIK or DURSBAN for control. Bermudagrass mites are on the MARVIK turf label and mites are listed on the DURSBAN turf label. Another material to think about is SEVIN. SEVIN lists eriophyid mites in the ornamental portion of the label. In any case, addition of a good spreader sticker would probably be advisable since the material must get into the leaf sheath to do any good. Use ample water to ensure thorough coverage. A second application should be made within 7 days. Cut the grass and remove the clippings prior to application if possible.

It is important to do everything possible to keep the grass in good vigor. Apply water and fertilizer to stimulate good growth. ■

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