Solution

Bermudagrass Mites

// The Problem

The bermudagrass mite, or bermudagrass stunt mite (*Eriophyes cynodoniensis*) was discovered for the first time infesting bermudagrass lawns in Arizona in 1959. It has since been reported in California, Nevada, New Mexico, Oklahoma, Texas, Alabama, Georgia, South Carolina, North Carolina, Florida and Hawaii. Though mites are under-recognized and often misdiagnosed, they have become a prominent pest of bermudagrass turf.

What To Look For

Bermudagrass mites are among the smallest arthropods (1/125-inch or 0.2 mm) that feed on turf (Fig. 1) and they spend their entire life cycle between the leaf sheath and stem. This makes them difficult to identify, even with the use of a magnifying lens. Feeding consists of piercing epidermal cells and sucking plant fluids, causing stunted, chlorotic leaf tips (Fig. 2). Continued feeding creates a distinct growth form known as a "witches broom" from stems with few or no internodes (Fig. 3).

Bermudagrass mites are active in warm weather and damage is most often seen in springtime. In warmer climates of southern Florida and Texas, bermudagrass mites may be active throughout the year, with turf damage more evident in spring and fall (Fig. 4). Bermudagrass mites weaken turf, making it more susceptible to other stressors such as traffic and drought. In areas with high pressure from other pests, bermudagrass mites can further weaken and thin turf enhancing susceptibility to weed invasion.

// The Solution

Aggressive low mowing, or fraise mowing can be implemented, along with collecting and destroying clippings to help reduce bermudagrass mite damage. However, these are usually impractical because they are costly and cause unsightly playing conditions. Reducing traffic and applying adequate irrigation and fertility can reduce additional stress and help improve recovery from damage.

Chemical suppression of bermudagrass mites has been difficult for many years and reliance on pyrethroids may have worsened the problem by reducing natural predators. Kontos[®] (spirotetramat) is a miticide that was recently registered¹ in three states for a special local need for controlling bermudagrass mites, following years of research that have shown excellent efficacy compared to current industry standards.

Kontos is a true systemic that translocates in both xylem and phloem, as well as translaminar from upper to undersides of leaves. This is particularly important for bermudagrass mites, since they are tiny and protected from other contact insecticides within the leaf sheath.

IIIII Bermudagrass Mite Solution

Solution ¹	Rate	Annual Max Rate	Application notes
Kontos ^{®1}	5 fl. oz/A	25 fl. oz/A	Start treatments prior to establishment of high pest population and reapply on an as-needed basis. Apply when pests first appear or when damage is first noticed. For best results, apply mite insecticides with a surfactant and in a water volume of 2 gal/1,000 ft ² . A reapplication in 14 days may be needed if pressure is high.

¹Kontos currently has a 24(c) special local need label for bermudagrass mites in Florida, Texas, and South Carolina. Please see respective 24(c) for full details.



Figure 1. Bermudagrass mites are tiny and complete their entire lifecycle between leaf sheaths and stems (photo courtesy Matt Brown, Clemson Univ).



Figure 2. Bermudagrass mite feeding causes yellow, stunted stems and thin turf (Bayer).



Figure 3. Witches broom of stunted stems (on left) caused by extended bermudagrass mite feeding. Stem on right shows normal leaf growth (Bayer).



Figure 4. Thin, discolored turf caused by bermudagrass mite feeding in spring (Bayer).

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