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TEXAS A&M AGRILIFE EXTENSION

Southern Chinch Bug

Identification and Control

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Southern chinch bugs (Fig 1.) are common pests of St. Augustinegrass in the southern United States and often cause significant damage (Fig. 2) to turf during the summer months. While St. Augustinegrass is the only turfgrass to suffer severe damage from chinch bugs, they can also feed on centipedegrass, zoysiagrass, bahiagrass and bermudagrass. However, feeding on these grass species usually occurs only when they are grown in close proximity to St. Augustinegrass and the damage is typically minor.

Figure 1. Adult southern chinch bug.

Figure 2. Southern chinch bug damage to St. Augustinegrass.

Chinch bug life cycle

The southern chinch bug belongs to the insect order Hemiptera, suborder Heteroptera, and family Lygaeidae. These bugs go through gradual metamorphosis—which means they change from eggs, to nymphs, to adults. The adult southern chinch bug is ⅛ to 1/10 of an inch long with a black body and white wings (Fig. 3). Each of its

Figure 3. Adult southern chinch bug wings.

wings has a black triangle-shaped spot and the wings fold over the body. During the winter, adults are the most common life stage, but nymphs and eggs can also be present in small numbers.

Chinch bugs go through five life stages (instars). Though small (tiny to about 1/10 of an inch),

the nymphs and adults are visible to the naked eye (Fig. 4). After nymphs have matured, adult chinch bugs spread primarily by walking but can also spread through mating flights. After mating, females lay their eggs into the crevices of grass nodes and at the junctions of grass blades and stems. Eggs take approximately 2 weeks to hatch depending on the temperature, at which point the life cycle begins again. When present in the turf, chinch bugs of all life stages can be found in the thatch and at the base of turfgrass plants. They damage the grass by feeding on its phloem sap and injecting a toxin that kills the plant tissue. If left untreated, chinch bug damage can cause irregular yellow patches that may spread outward and ultimately kill the turf.

Figure 4. Life stages of southern chinch bugs.

Chinch bug control

One factor that makes southern chinch bugs particularly difficult to control is that they hatch quickly and mature in 4 to 6 weeks. In Texas there can be as many as 3 to 6 generations each year. Several active ingredients can effectively control chinch bugs, but timing the application correctly is a key to success. Many insecticide product labels state they should be applied before the eggs hatch, when 1st instar nymphs are observed, or when damage first appears. Therefore, it is important to scout for chinch bugs before significant damage occurs. You can do this by pulling back the turfgrass canopy and looking for nymphs and adults at the edges of damaged and undamaged areas (Fig. 5). If chinch bugs are present and are causing unacceptable damage, apply an appropriate insecticide as soon as possible.

Figure 5. Southern chinch bug damage to St. Augustinegrass.

Watering during treatment

Many products that are labeled for chinch bugs recommend watering the product into the turfgrass canopy. This watering maximizes control by placing the active ingredients into direct contact with the chinch bugs.

There are many active ingredients that control chinch bugs effectively, but formulations, sites for use, and applicator requirements, vary widely. Always consult the product label for specific instructions on application rates, methods, and timing. For a complete list of products labeled for chinch bug control, consult the Texas Turfgrass Pest Control Recommendations Guide.

Note: Mention of insecticides is for informational purposes only and does not imply recommendation or endorsement. It is always the applicator's responsibility, by law, to read and follow all current label directions for the specific insecticide being used. The label always takes precedence over the recommendations found in this publication.

Acknowledgment

All photos by Casey Reynolds,
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