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Warm, Dry Weather Means Chinch Bugs

The southern chinch bug, *Blissus insularis*, is one of the most damaging insects to St. Augustine grass in Texas. Even though St. Augustine grass is the primary host of the southern chinch bug, they can also attack bermudagrass, bahiagrass and zoysiagrass. Both nymphs and adults remove sap from the base of plants and inject a toxic substance that prevents transportation of water within the plant. Damage appears as irregular patches of dead or stunted grass surrounded by a halo of yellowing, dying grass. Damage increases during hot, dry weather.

Chinch bugs develop through incomplete metamorphosis with an egg, nymph and adult stage. The nymphal stage appears orange-red in color with a pale white band across the third part of their bodies, the abdomen. As they molt, the nymphs will change in color from orange-red to black and develop wings. The adult chinch bugs have black bodies with fully developed white wings that contain black triangular markings on the outer margins. The entire life cycle from egg to adult can occur in about 7 to 8 weeks, so more than one generation can occur in a year.

One way to detect chinch bug infestations is to use an open-ended can immersed in the soil filled with water. The water causes the chinch bugs to float to the top of the can. The can should be placed in different locations within the damaged grass, totaling a square foot sample area. If 20 to 25 chinch bugs are found within a square foot of sampling, then control is needed.

Some Control Suggestions:

Non-Chemical Control Options:

1) Keeping thatch to a minimum, by aerating the lawn or top-dressing, will reduce chinch bug populations.
2) Too little or too much water also can cause chinch bug problems. Over-watering results in saturated, oxygen-deprived soils which contain few microbes needed to decompose thatch. Dry lawns should be watered immediately when edges of grass blades begin to curl or if the grass does not spring back quickly when stepped on.
3) Keep beneficial insects in the lawn such as big-eyed bugs (*Geocoris* spp.) and minute pirate bugs (*Xylocoris* spp.), since these are predators of chinch bugs.

Chemical Control Options:

A variety of liquid and granular insecticides are available to control chinch bugs. Granular insecticides can be applied with a standard fertilizer spreader and should be watered in with 1/4 inch of water to activate the insecticide. Liquid insecticides are usually applied using a hose-end sprayer.

If chinch bugs are in an isolated area of the lawn, spot treatments can be used. The off-colored turf and all surrounding infested areas should be treated. Spot treatments can minimize the impact of insecticides on beneficials and help avoid environmental contamination.

Products containing such chemicals as acephate, imidacloprid, lambda-cyhalothrin, bifenthrin and permethrin can be used to control chinch bugs.

Photo: Chinch bugs, *Blissus* spp. (Hemiptera: Lygaeidae), nymphs and adults. Photo by Bart Drees, Professor and Extension Entomologist, Texas A&M University.