

# CHEMICAL LOG

## Chemical Log: Controlling Chinch Bugs

**C**hinch bugs (*Blissus* spp.) injure turf during hot, dry periods. The southern chinch bug (*B. insularis*) is a perennial pest of St. Augustinegrass, Bermudagrass, and zoysiagrass grown in the South, Southeast, and some areas of the West. The hairy chinch bug (*B. hirtus*) feeds on bentgrasses, bluegrass, and fescue in more northern climates.

Adult chinch bugs emerge from their overwintering sites during spring or early summer. Females deposit eggs on blades of grass or insert them into soft soil. Each female is capable of laying some 300 eggs. The length of incubation periods are related to temperature and vary greatly throughout the country.

Upon hatching, nymphs are bright red. As they grow through five instars, nymphs turn progressively darker. Adult chinch bugs are about one-quarter inch long. Their bodies are black and their wing covers are white. In the South, chinch

bugs have as many as seven generations. One or two generations is common in Northern states.

Chinch bugs pierce leaves with their syringe-like mouths and suck out the sap. While feeding, they also inject a toxic substance into the plant. The poison damages the plant's water-conducting vascular tissues. Together, toxin and feeding cause grass to turn yellow, then brown, and eventually die — symptoms that closely resemble those produced by drought stress. Chinch-bug-injured turf, however, does not respond to irrigation.

Affected areas are at first small and circular but grow progressively larger as feeding insects march out from the center. The pest prefers to dine on lush, overfertilized turf.

### Control Options

Chinch bug control can be as simple as watering adequately during hot, dry periods, dethatching regularly, and

maintaining proper fertilizer levels. Endophytic tall fescue or perennial ryegrass can be planted in the North to ward off infestations. The resistant St. Augustine variety "Floritam" can be planted in the South.

A number of beneficial organisms prey on chinch bugs, including the egg-parasitizing wasp *Eumicrosoma beneficum* and several species of *Beauveria*, a type of fungus. The big-eyed bug (*Geocoris* spp.) also preys on chinch bugs. This predator closely resembles its prey but is more stout, has more prominent eyes, and moves more quickly.

Carbaryl, applied at six to eight pounds of active ingredient per acre, effectively controls chinch bug infestations. Do not irrigate after applying the product.

*Editor's Note: Technical credit — Rhone-Poulenc. Look for White Grub control in next month's "Chemical Log."*

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