

**CHINCH BUGS (Blissus spp.)**

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The hairy chinch bug (B. leucopterus hirtus) and the common chinch bug (B. leucopterus leucopterus) are the most frequently observed species in our area. Chinch bugs can be serious problems in lawns when conditions are warm and dry. Their damage is most frequently observed in late summer or early fall and is often attributed to some other agent. The information below should help in diagnosing chinch bug problems.

Blissus spp.

Hosts Bentgrass (most problems occur on this grass)

Bluegrass

Fescue

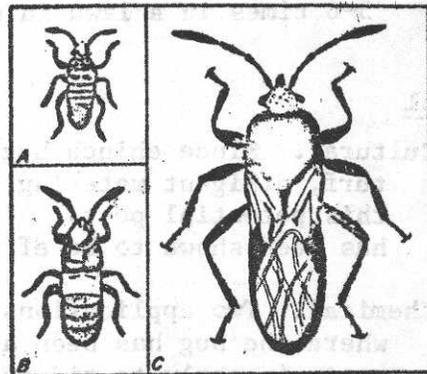
Damage Symptoms

presence of irregularly shaped yellow patches which turn brown and die. Clover and other non-grass weeds may survive in these areas.

How to Recognize

Adults - small black bugs, 1/5" long with white wings and reddish legs.

Nymphs - smaller than adults, wingless, brick red in color with a transverse white band on the back.



A. First stage or red nymph  
B. Second-stage nymph  
C. Winged adult

Damaging Stages

both nymphs and adults damage grass but the most serious damage is done by the nymphs.

## Life Cycle

Adults overwinter in protected areas near lawns. They emerge in the late spring and early summer, when temperatures reach the 70's, mate and lay eggs in leaf sheaths. Each female lays an average of 200 eggs near the crown during the 3 to 4 weeks it is alive. Plant damage results not only from withdrawal of sap but chinch bug saliva contains substances toxic to the plant and the puncture wounds often block plant conducting vessels. Nymphs require approximately 4 to 6 weeks to develop to the adult stage. First generation nymphs occur in late June to July and second generation nymphs are present in mid-August.

## Weather and Chinch Bug Injury

A warm dry spring followed by below average rainfall in the early summer favors the buildup of chinch bug populations. Conversely a cold wet spring will drastically slow population growth and heavy rainfall in June and early July during egg hatch will reduce nymph survival. Much of this mortality is due to a fungus that attacks the bugs during cool, wet conditions. The fungus is ineffective during hot dry periods when chinch bug buildup occurs.

## How to Diagnose Chinch Bug Damage

- 1) Closely examine the green borders of the dead or dying turf areas for the presence of nymphs and adults. Remember, these bugs generally move outwards from the center of the initial infestation and feed on living grass.
- 2) A small area of lawn can be flooded to the puddling point to float bugs to the surface or a coffee can without a bottom can be pushed into the turf and filled with water. Chinch bugs present will float to the surface in 5-10 minutes. This technique should be repeated 5-6 times in a lawn in case of uneven bug distributions.

## Control

**Cultural.** Since chinch bugs are usually not a problem in well irrigated turf, diligent watering of turf during hot dry weather will help reduce this potential pest. Also reducing the amount of nitrogen fertilization has been shown to be effective in limiting chinch bug injury.

**Chemical.** Two applications may be needed to prevent damage in lawns where the bug has been a problem. Treat in early to mid June and again in early to mid August. Otherwise treat when bugs are observed. Diazinon, Dursban, Sevin, and Ethoprop are just a few of the materials that can be used. See MSU Extension Bulletin E-944 for more details on chemicals to use and rates.