

Turf Tips

For the Homeowner

Hairy Chinch Bug

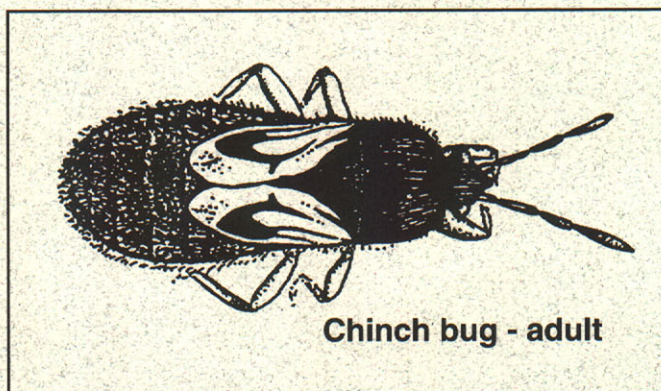
David Smitley
Associate Professor, Entomology, Michigan State University

Chinch bugs can injure lawns when conditions are warm and dry. Their damage is most frequently observed in July and August in central Michigan and is often attributed to some other agent. The presence of irregularly shaped yellow patches which turn brown and die is characteristic of chinch bug injury. Clumps of clover and other non-grass weeds may survive in these areas. Plant damage results not only from withdrawal of sap, but from chinch bug saliva which contains substances toxic to the plant.

Drought or heat stress may cause similar browning of turf, but proper watering will quickly rejuvenate the lawn. Turf injured by chinch bugs will not recover as quickly.

Adults are small black bugs, 3/16 inch long with white wings. Larvae are smaller than adults and wingless. The youngest larvae are brick red in color with a transverse white band on the back; larger larvae are mostly black. The most serious damage is caused by larvae feeding in late July. Adults overwinter in protected areas near lawns. They emerge in the late spring and early summer. When temperatures reach the 70s, they mate and lay eggs in the leaf sheaths of grass plants. Larvae require approximately four to six weeks to develop to the adult stage. First generation larvae occur in late June to July and second generation larvae are present in mid-August. Only one generation occurs in areas of Michigan north of Lansing.

Heavy rain in June and early July during egg hatch will reduce larval survival. Much of this mortality is due to a fungus (*Beauveria spp.*) that attacks the bugs during cool, wet conditions. The fungus is ineffective during hot dry periods when chinch bugs cause the most injury.



Chinch bug - adult

How to Diagnose Chinch Bug Damage

Closely examine the green borders of the dead or dying turf areas for the presence of nymphs and adults. These bugs generally move outward from the center of the initial infestation and feed on living grass. Chinch bugs can be found by carefully pulling away debris and thatch from around the base of clumps of grass. If more than 15 bugs are found in two minutes, chinch bug injury is likely to occur. Check several different places in the lawn because the bugs may be concentrated in one area.

Another way to look for chinch bugs is to use a coffee can with the bottom removed. It can be pushed into the turf and filled with water. Chinch bugs will float to the surface after several minutes. This technique should be repeated five to six times in a lawn to determine the distribution of bugs.

Recent research in Michigan revealed that chinch bugs are widespread but rarely abundant enough to cause damage. In a survey of the Lansing area, less than five percent of the lawns visited had enough chinch bugs to cause damage.



If more than 15 chinch bugs are found in two minutes of searching, or per coffee can sample, infested parts of a lawn can be sprayed with an insecticide. Granular insecticides are not as effective against chinch bugs as liquid sprays.

Since chinch bugs are usually not a problem in well irrigated turf, diligent watering of turf during hot dry weather will help prevent chinch bug problems.

Bigeyed bugs A beneficial insect called the bigeyed bug also frequents home lawns, and may be mistaken for a chinch bug. Bigeyed bugs are about the same size as chinch bugs, but can be distinguished by their large, bulging eyes, gray to silver color, and quick movements. Bigeyed bugs feed on chinch bugs and other small insects. Bigeyed bugs are sensitive to insecticides. Encourage bigeyed bugs or other predators by avoiding the use of insecticides, except for treating small areas that are heavily infested with chinch bugs.

Bigeyed bug



**MICHIGAN STATE
UNIVERSITY
EXTENSION**

MSU is an Affirmative-Action/Equal-Opportunity Institution. Extension programs and materials are available to all without regard to race, color, national origin, sex, disability, age or religion. ■ Issued in furtherance of Extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gail L. Imig, Extension director, Michigan State University, E. Lansing, MI 48824. ■ This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the MSU Extension or bias against those not mentioned. This bulletin becomes public property upon publication and may be printed verbatim with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.

10:94-5M-sdl-FP - Price, 25 cents . Single copy free to Michigan residents
Major revision, destroy old copies. Filing Key: 22.4 (Turf and Sod)
Produced by Outreach Communications. - Printed on recycled paper with vegetable-based inks.