Least-toxic Control of Chinch Bugs

Chinch bugs are lawn pests that tend to emerge in spring, when they mate and lay eggs on the grass or soil surface. A second rather troublesome emergence can also occur in the fall. Chinch bugs spend winters hibernating in dead leaves, grass, and other lawn litter.

Lawn damage is caused mainly by young chinch bugs, called nymphs. These creatures are $1/5 - \frac{1}{4}$ inch long, reddish. Adults turn black with a white spot on the back between the wings.

Chinch bugs require hot, dry conditions for optimal survival. They are attracted to lawns with thatch.

Monitoring

- Small spots of yellowing grass are the first sign of chinch bugs. Eventually these will become larger dead patches.
- Chinch bugs have an offensive odor. With a heavy infestation, the odor can be detectable just by walking across the lawn.
- Test for chinch bugs by cutting the bottom out of a coffee or other metal can. Place into a yellowed patch of grass in the sun, about two inches deep into the soil. Fill with water. If infested, dead chinch bugs will float to the top within five minutes.
- If there are less than 20, this shouldn't be a problem for your lawn, but keep monitoring. 20 or more and they can cause damage.

Prevention

- Chinch bugs prefer sunny lawns. Discourage infestation by shading your lawn with trees and shrubs.
- If you are starting from scratch, seed your lawn in soil made up of 1/3 sharp builder's sand, 1/3 crushed rock and 1/3 compost.
- Don't plant grass species that chinch bugs are attracted to. One good option is the 'Floratam' variety of St. Augustinegrass.
- Routinely aerate your lawn.
- Proper watering and fertilization will also deter these critters.

Control

Natural predators of chinch bugs include bigeyed bugs, *Geocoris* spp., however these usually do not build up large populations until considerable turf damage has already occurred. Beauveria bassiana is a naturally occurring fungus that is currently being researched for chinch bug control.

- Use home ingredients by spraying a mixture of soap and water over damaged or suspect regions and then placing a white flannel cloth over the area. Drenching the area will force the chinch bugs up and out of the grass where they will proceed to cling to the cloth for easy collection and disposal.
- The desiccating dust diatomaceous earth (DE) kills chinch bugs by causing them to lose moisture and die. Be sure to purchase garden/food grade DE. When using the dust, always wear a dust mask and goggles. Do not use if you have lung problems.
- Insecticidal soap is another least-toxic option. Use with caution, as it is possible for these soaps to also kill beneficial insects, an important component of an overall healthy and pest-resistant lawn.

References

University of Manitoba, Department of Plant Science. "Chinch Bug Fact Sheet." http://www.umanitoba.ca/afs/hort_inquiries/lawns/chinch_bug.html

Schultz, Warren. The Chemical-Free Lawn. Rodale Press, Emmaus, PA., 1989.

Yepsen, Roger B. *The Encylopedia of Natural Insect & Disease Control.* Rodale Press, Emmaus PA., 1984.