

CHINCH BUGS

Only a fraction of the insects species that make our lawns teem with life actually cause damage. Pesticides can kill both beneficial and harmful insects in your lawn. Natural lawn and garden care practices to increase the health and pest resistance of your lawn, should help eliminate pesticides as an option. Being aware of your lawns requirements through careful monitoring and responding correctly is essential in preventing potential pest problems. It is very important to diagnose the problem accurately since a lawn is dynamic and many different factors can create what might at first be thought of as insect damage.

Identification

Adult chinch bugs overwinter in lawns, usually within the thatch layer. They emerge around mid to late May when the temperatures reach about 7C or higher. Eggs are laid after emergence and hatch out within a few weeks. These nymphs pass rapidly through five growth stages on their way to becoming adults. Appearing in the heat of the summer, adults are red or dark brown. Chinch bugs are quite small (4 mm in length) as adults; the nymphs being much smaller.



Example of Chinch Bug Damage

Prevention with Healthy Lawn Care Practices

A healthy lawn will withstand some chinch bugs feeding. Healthy lawn care practices such as aerating, proper fertilizing, mowing high, de-thatching and overseeding with a mix of grasses will help you maintain a vigorous lawn. Fescues or perennial ryegrass (which contain endophytes), are more resistant to chinch bugs damage. The most resistant are the perennial rye grass varieties Repel and Citation II. The endophyte fungus is gradually lost, hence the seed should be sown within 9 months of the test date on the package. Throughout the dry spells, water deeply 1" (2 cm) once per week to avoid the dry conditions which chinch bugs prefer. Water when the risk of evaporation is lowest; early morning is best. Place a tuna can under your

sprinkler. Time how long it takes to fill it. Then you will know how long it takes your sprinkler to distribute 1 inch of water over your lawn. This will help conserve water and not drown your lawn.

Lawn Damage and Diagnosing the Problem

With their piercing mouth parts chinch bugs feed on the crown and stem of grass, sucking out the sap from the plant. The damage appears as brown or yellow patches of dead grass that grow larger as chinch bugs feed on new grass and spread outward. Chinch bugs favour hot, dry weather. Damage can be more extensive in hot, dry summers and is usually noticed in July/August. Chinch bugs thrive in lawns with excessive thatch and in sunny, dry areas that are poorly watered. Areas of lawns adjacent to sunny hardscapes are typically dryer, making it ideal chinch bugs habitat. Monitoring your lawn regularly will help prevent an infestation. Damaged portions tend to be in areas of stress such as hillsides, dry areas that receive a lot of sun, and those parts of the lawn along hardscapes (curbside, driveway, sidewalks, etc.)

The following tests will assist in checking for chinch bugs:

1. Cut off both ends of a large can 8" to 9" (20-25 cm) in diameter, such as a coffee can.
2. Wearing gloves to protect your hands push the can halfway down into the lawn.
3. Fill the can with water and wait 10 to 15 minutes to see if chinch bugs float to the top. Even with no signs of damage, this test should be conducted in mid to late July in several sunny spots around the lawn. If there are dead patches, test at the edge of the damaged area. Follow preventative horticultural practices as the best defense against infestation. Extensive thatch, brown patches and between 10-20 chinch bugs in a can of a few test areas is a sign of a problem (infestation).

Cultural Control

Chinch bugs overwinter in thatch (fibrous mat of old grass and undecomposed organic material) and thrive in warm dry weather, so monitoring these two things is very important. If there is more than ½" (1 cm) of thatch, use a rake or de-thatching machine to remove some of the thatch. Reseed infested areas with resistant grasses (perennial rye grass and fine fescue mixture). Dutch white clover is very good for your soil too. It will take nitrogen from the air and put it in the soil where your grass can use it. Re-think areas that are under continual chinch attacks and change them to be less hospitable. You may wish to consider planting trees and shrubs for shade, native species which are adapted to our local insects, or ground covers, especially on slopes. Remember to water wisely; early morning is best, and 1 inch once a week.

Biological Control

Chinch bugs can be controlled by predators such as: Big-eyed bug, tiny wasps, ladybugs, lacewings, and preying mantis. If you build an attractive and diverse garden, these insects will make it their home and effectively control chinch bugs. Predatory insects can also be purchased at local garden centers. If they don't have what you are looking for ask them to bring it in for you.

Chemical Control

If bugs are present, put 1 ounce of dish soap in a 2 gal. sprinkler can full of water, and drench a 2 sq. ft. infested area. Larger areas can be treated by putting dish soap in a hose bottle attachment. The bugs will crawl to the surface of the grass in two or three minutes. Next, lay a piece of white cloth, like flannel or old bed sheet, over the area. Wait 15 - 20 minutes and then look for the bugs that will attach themselves to the fabric. Put the cloth in a bucket of soapy water to remove them. If the lawn already has dead patches in it, most chinch bugs will be found at the boundary where the dead grass meets the live grass.

Remember that whenever you introduce a foreign element into a functioning ecosystem, you upset the balance of that system. Try to use natural means if at all possible, such as the reseeding, aerating, etc. mentioned above. As you develop a more diverse and healthy life balance in your lawn and garden, chinch bug will be controlled. Chemical treatments are required in only the most extreme cases. With chemical treatment, you will remove not only the chinch bugs, but also many other soil organisms needed to build a healthy lawn.

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