

Chinch Bugs

Only a fraction of the insect species teeming from your lawn actually causes damage. Even Low Risk or Allowed Pesticides can kill both beneficial and harmful insects. Natural lawn and garden care practices increase the health and pest resistance of your lawn, and should help eliminate the need for pesticides. Being aware of your lawn's needs through careful monitoring and responding correctly to these needs are essential actions in pest prevention. Diagnosis of pest problems should be a careful process, because what may initially appear to be insect damage may be caused by a variety of other factors present in the dynamic environment of your lawn.

Insect Identification

Adult chinch bugs over winter in lawns, usually within the thatch layer and in flowerbeds under leaves and mulch. They emerge around mid to late May, when the temperatures reach 20 °C 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.

Prevention

A healthy lawn will withstand a few chinch bugs. 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 bug damage. 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 that chinch bugs prefer. Water when the risk of evaporation is lowest; early morning is best. To determine how long it takes your sprinkler to distribute 1 inch of water over your lawn, place a tuna can under your sprinkler and time how long it takes to fill. This will help conserve water.

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, spreading outward. Chinch bugs favour hot, dry weather. Therefore, 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 areas that are poorly watered.

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 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 per can, in a few test areas is a sign of a problem (infestation).

Cultural Control

Chinch bugs overwinter in thatch (fibrous mat of old grass and under-decomposed organic material), and debris in garden beds and thrive in warm, dry weather. 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 a mix of perennial rye grass and fine fescue. 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 to make them less hospitable. You may wish to consider planting native trees and shrubs for shade, or ground covers, especially on slopes. Remember to water wisely; early morning is best, and ideally 1 inch once a week.

Biological Control

Chinch bugs can be controlled by predator insects such as: Big-eyed bug, predatory wasps, ladybugs, lacewings, and preying mantis. If you build an attractive and diverse garden, these insects will make their home in your yard 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.

Organic 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, the bugs 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.

Practical Solutions for Problem Areas

For those areas that continue to suffer from chinch bug infestation, consider ground covers instead of grass. Creeping juniper, wild strawberry, Ajuga, clover, pachysandra, sedums, daylilies, thyme, etc. require less maintenance, may be drought tolerant, are attractive and some stay green through all seasons.

Before signing contracts with a lawn maintenance company, make sure they are aware of the City of Hamilton Pesticide Bylaw and the Province of Ontario Pesticide Ban. Become an informed consumer by asking which cultural techniques or low risk pesticides they plan to use on your property. Should you use a low risk or allowed pesticide product yourself, read the label before use and follow the manufacturer's directions closely.

Call the **Yard Improvement Helpline** at **905-540-8787 ext. 18** for tips on natural lawn and garden care.
Visit www.naturallyhamilton.ca for links to the Ministry of the Environment's Cosmetic Pesticide Ban.

