Chinch bug

(Order Hemiptera: Family Blissidae)

Figure 1: Adult chinch bug (photo courtesy of the Government of Canada)

Hosts: Chinch bugs usually occur in and feed on turfgrasses. They usually prefer bent grasses but will feed on other types of lawn grass like bluegrass, ryegrass, fescues, and zoysia grass.

Description: Females are slightly larger than males but have a similar appearance. Adults are small (3mm - 4mm in length) with black bodies, antennae, triangular white markings, and wings. Immature chinch bugs (nymphs) have reddish-orange bodies, which turn brown-black as they mature markings, and have a white band across their back with no wings. Eggs are only 0.84mm in length, oval-shaped, and pale white or red.

Life History: Chinch bugs can have two generations per year if temperature remain consistently high. The species move onto lawns in May for feeding and mating. Eggs are laid when temperatures rise to over 15°C, then hatch in June. Chinch bugs mature into adults mid-to-late summer, after completing five nymphal stages.

Figure 2: Chinch bug life cycle. From egg (left), wingless nymphs, to winged adult and short-winged adult (right) (photo courtesy of D. Shetland)

Overwintering: As adults, they overwinter under trees and shrubs, or on the edges of lawns and flowerbeds.

Damage: Chinch bug feeding on grass can result in irregular yellow patches that may turn brown and die if left unchecked. Severe infestations destroy the entire lawn. Damage can appear quickly in hot weather and is often mistaken as drought damage.

Monitoring: Begin looking for chinch bug damage after bouts of hot and dry weather in mid-June to mid-July. Chinch bugs tend to aggregate, are highly active insects and their movement around lawns should be noticeable. They can also be detected using a homemade trap. Remove both ends of a large tin can, push one end into the ground at a boundary between yellow and green grass then fill with water. After 5-10 minutes, if present in the area, chinch bugs will float to the surface of the water.

Figure 3: Lawn damage by Chinch bugs (photo courtesy of Cougarstone Lawn Care)

Plant Mortality Risk: Low, grass will recover quickly if watered regularly. Heavy, sustained infestations will result in grass mortality that may require reseeding.

Management:

Since chinch bugs are attracted to thatch and dry lawns, general lawn health is important, and homeowners are advised to keep lawns watered and maintained. Insect damage can be reduced by fertilizing, mowing to a height of 3-4 inches and watering during drought periods.

Chemical Control

Conserving beneficial insects is an important part of managing this pest. Insecticide use can negatively impact chinch bug predators, leading to higher numbers of chinch bugs in subsequent years after treatment. Insecticides should only be used in cases where damage to turf is severe, and infestation levels are high. Many insecticides can negatively impact pollinators. Lawns should be mowed prior to any chemical applications to remove any flowering plants from the treatment area.

Biological Control

Chinch bugs have natural predators that help reduce their populations. Their main predator is the big-eyed bug which has a similar appearance but a wider body. Before applying pesticides to an area, confirm that the insects you are noticing are chinch bugs, rather than their helpful predators.

Figure 4: Chinch bug adult (left) and its natural predator the big-eyed bug (right) (photo courtesy of D.S. Reiland)

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