

What else could it be?

Brown or dying grass is a symptom of multiple issues. It is important to properly identify the cause before any action is taken.

Before taking action make sure chinch bugs are present.

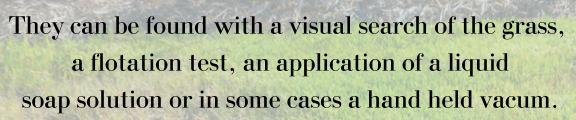


Other Possibilities Include:

- Frost damage
- Drought
- Brown Patch
- Grubs
- Army Worms
- Sod Webworms
- Poor irrigation
- Improper Fertilization
- Take All Disease
- Grey Leaf Spot

Steps to verify Chinch Bug Presence

Check to see!





A flotation test is when a cylinder approximately 6" in diameter of PVC, a coffee can or any other device open at each end can be pushed into the ground and filled with water. Any chinch bugs, from nymph to adult will float to the top in a few minutes. *make sure to put in ground adjacent to the damaged lawn, on the edge of brown and green grass*



Search the edge of damaged turf at ground level, the base of the grass in the thatch for any or all stages of the bugs. They are no more than 6mm/1/4".





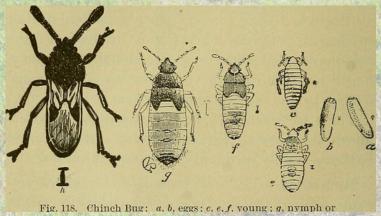
A solution of 1 oz dishwashing liquid in 1 gallon of water sprinkled over the area can force them out of the turf and into the open.

Chinch Bugs Prefer St Augustine Grass

Occasionally they will feed on bermuda, zoysia, centipede and bahia grasses.

There are multiple species of Chinch Bugs. The Southern, found most often in St Augustine Lawns & the Common found most often in grain fields and rarely in lawns, are the most common in Texas.

Early detection is key for successful control. At first sign of grass beginning to wilt and yellow in irregular patches get down on the ground to inspect at soil level the edge of patches/spots.





- Chinch bugs pierce the blades of grass to feed on the sap or liquid.
- A toxin from their saliva is injected into the blade of grass.
- This toxin inhibits the ability of the grass to be able to draw up water and nutrients.
- This causes the grass to wilt, yellow & die.
- Both nymphs and adults feed on the grass.

Prevention is Possible

The Best Defense is Healthy Grass



- Thatch (the layer of dead plant matter between the grass blades and the soil) is a <u>desired home for Chinch Bugs</u>.
- Thatch binds lawn treatments and prevents passthrough to the soil
- Thatch can be reduced through aeration, vertical mowing or power raking followed by 1/4" top dressing.

Proper lawn maintenance is key. A healthy lawn is best able to resist disease and pests.

- St Augustine kept between 3-4" helps ensure healthy roots
- remove no more than 1/3 of the grass blade at a time
- ensure mower blades are sharp and clean
- have soil tested prior to fertilizing
- Thatch build up is affected by fertilizer application
 - o large applications cause rapid growth, & enhance build up
 - time release or multiple applications less reduce build up
- too little water and chinch bug eggs and nymphs thrive
- soil saturation retards decomposition of thatch
- water when the grass fails to spring back after being walked on

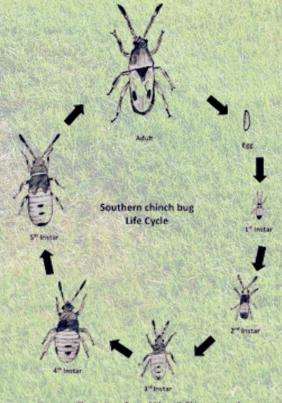


Figure 3. The life cycle of the southern chinch bug.
Illustration by Faward Khan and Shimat Joseph

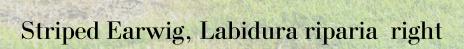
Natural Predators

Chinch bugs do have a few enemies!

Two of the most voricious are:



Big Eyed Bug, Geocoris uliginosus, left





Parasitic wasps and fire ants
are predators
as well



There is a false chinch bug which feeds mainly on grains and seed heads.



Multiple Stages

Chinch bugs go through multiple life stages from egg to adult.



The best way to control them is by keeping a healthy lawn and early detection.

Insecticides will kill the good insects with the bad insects.

Should insecticides be used always read and follow manufactures directions exactly.

Take care to avoid runoff into storm drains.

Do you have questions about your home landscape and plants?

Contact the Fort Bend Master Gardener Help Desk

Email:

FortBendmg@ag.tamu.edu
Phone:

281-341-7068

The Help Desk is manned Monday thru Friday, 9am-Noon https://content.ces.ncsu.edu/chinch-bug-in-turf Figure 2. Chinch bug nymphal instars and adult D. S. Reiland

<u>Chinch Bugs and St. Augustine Lawns | Extension Marketing and Communications (ncsu.edu)</u>

https://www.dirtdoctor.com/garden/Chinch-Bug_vq795.htm

<u>Early Alert for Chinch Bugs | NC State Extension (ncsu.edu)</u>

https://extension.uga.edu/publications/detail.html? number=C1147&title=southern-chinch-bug-biology-and-management-inturfgrass

EENY-226/IN383: Southern Chinch Bug, Blissus insularis Barber (Insecta: Hemiptera: Blissidae) (ufl.edu)

Chinch Bugs in St. Augustine Lawns (tamu.edu)

Southern Chinch Bug: Biology and Management in Turfgrass | UGA | Cooperative Extension

<u>Chinch Bug (tamu.edu)</u> <u>Field Guide to Common Texas Insects</u>

What's killing the great lawns of Texas? Drought, chinch bugs, disease all among the suspects - AgriLife Today (tamu.edu)

<u>Chinch Bugs and St. Augustine Lawns | Extension Marketing and Communications (nesu.edu)</u>

<u>Chinch Bugs « Landscape IPM (tamu.edu)Chinch bugs</u> (<u>missouribotanicalgarden.org)</u>

<u>Chinch Bugs - Gardening Solutions - University of Florida, Institute of Food</u> <u>and Agricultural Sciences (ufl.edu)</u>

Chinch Bugs in St. Augustine Lawns (tamu.edu)