

LOUISIANA HOME LAWN SERIES

A guide to maintaining a healthy Louisiana lawn



White grub

Description

White grubs are common turfgrass insect pests in Louisiana. They are the larvae of several beetle species in the family Scarabaeidae. White grubs feed on roots near the soil surface. Injured turfgrass appears gradually as irregular patches of wilted, thin, yellow turfgrass. Injury typically occurs in early fall but can sometimes also be observed in early spring. The presence of white grubs can attract a variety of animals, which then cause secondary injury by digging up the turfgrass to feed.

Identification

In Louisiana, some white grubs can complete one generation in a year while other species may take two to three years to complete a generation. In mid-summer, females lay eggs in the soil, typically in the root zone. Larvae emerge from eggs a few weeks later and are active until temperatures begin to decrease, forcing the larvae to move deeper into the soil for overwintering. In the spring, larvae move back toward the soil surface and resume activity and mature into adults in late spring. White grub larvae have brown heads with chewing mouthparts. Their bodies are gray to white in color. When found in the soil, they are typically in a C-shape. Adult beetles, including the May beetle and the June beetle, are light to dark brown in color and feed on leaves at night.



Figure 1. White grub larvae



Figure 2. White grub turfgrass injury



Figure 3. Animal turfgrass injury

Indicators of Insect Presence

Larvae reside in the soil and cannot be observed in the turfgrass.

- Pull back turfgrass and look for larvae, usually in a C-shape, at the soil surface.
- Examine several soil plugs in and along the border of the area suspected of injury.

Turfgrass feels spongy and is easy to pull up because it's no longer anchored to the soil with roots.

Injury occurs in irregular patches of wilted, thinning, yellow turfgrass.

- Patches may eventually merge together and become larger.

Presence of larvae can attract animals (birds, moles, raccoons, armadillos, skunks, etc.).

Most injury occurs in early fall and early spring.

January	February	March	April	May	June	July	August	September	October	November	December



Injury common



Injury occasional



Injury rare

Flush Test

Use the flush test to determine whether certain insects are present in the lawn. Mix 1 tablespoon of lemon-scented soap per 1 gallon of water. Slowly pour the soapy water onto healthy grass surrounding the injured areas. In wet conditions, drench a 1-square-foot area with soapy water. In dry conditions, drench a 4-square-foot area. Then, for five to 10 minutes, closely watch the area to see if insects come to the surface. Repeat as desired in other areas to better determine insect presence.

Cultural Control Practices

One way to reduce insect injury and accelerate turfgrass recovery is to maintain a healthy lawn through proper fertilization and irrigation and regular mowing. Never apply more than 1 pound of nitrogen per 1,000 square feet per application, and always follow soil test recommendations for proper fertility. Irrigate as needed while taking rainfall into account. Mow regularly, but never remove more than one-third of the leaf blade height at one mowing. Thatch can develop over time and may need to be reduced through vertical mowing. Compaction can form more quickly on finer texture soils and in areas where there is high traffic. Dethatching or aeration needs to be performed in late spring to summer when the turfgrass is actively growing. Properly maintaining a lawn through these cultural practices promotes dense and vigorous turfgrass and can increase tolerance to insect injury.

Chemical Control Practices

In addition to cultural practices, insecticide applications may be required to achieve effective insect control. Treat with insecticides if you find more than five white grubs per square foot after soil plug examination. When using any insecticide, you must follow the manufacturer's labeled directions concerning all application parameters.

For more information regarding insecticides for turfgrass insect pests please reference the Louisiana Insect Pest Management Guide at the LSU AgCenter website, www.lsuagcenter.com.

Insecticide Active Ingredients
carbaryl
imidacloprid
thiamethoxam

To submit insect samples for identification send to:

Dr. Dennis Ring
404 Life Sciences, Department of Entomology
Baton Rouge, LA 70803

Need more information? Visit www.lsuagcenter.com to contact your local LSU AgCenter Extension Parish Office.

Authors:

Dennis Ring, Professor, Extension Entomologist, Entomology Department
Jeffrey Beasley, Associate Professor, School of Plant, Environmental and Soil Sciences; Kayla Sanders, Extension Associate, School of Plant, Environmental and Soil Sciences

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William B. Richardson, LSU Vice President for Agriculture
Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station, Louisiana Cooperative Extension Service, LSU College of Agriculture
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