



# SGM Newsletter

## Summer 2014

### Smith Grounds Management – Enhancing your image

## Brown Patch ALERT!



Source:  
[http://www.turffiles.ncsu.edu/diseases/Brown\\_Patch.aspx](http://www.turffiles.ncsu.edu/diseases/Brown_Patch.aspx)

Brown Patch  
[*Rhizoctonia solani*]

### SYMPTOMS

The symptoms of brown patch vary according to mowing height. In landscape situations, where mowing height is greater than 1", brown patch appears as roughly circular patches that are brown, tan, or yellow in color and range from 6" to several feet in diameter. The affected leaves typically remain upright, and lesions are evident on the leaves that are tan in color and irregular in shape with a dark brown border. When the leaves are wet or humidity is high, small amounts of gray cottony growth, called mycelium, may be seen growing amongst affected leaves. In close-cut turfgrasses (1" or less), brown patch develops in roughly circular patches, ranging from a few inches to several feet in diameter, that are brown or orange in color. Distinct foliar lesions are not visible and mycelium is typically not present, but a black or dark gray ring, called a smoke ring, may surround the brown patches. The smoke ring is evidence of active disease development and is only present when the turfgrass leaves are wet or humidity is near 100%.

### FACTORS AFFECTING DISEASE DEVELOPMENT

Brown patch is most severe during extended periods of hot, humid weather. The disease can begin to develop when night temperatures exceed 60°F, but is most severe when low and high temperatures are above 70°F and 90°F, respectively. The turfgrass leaves must be continuously wet for at least 10 to 12 hours for the brown patch fungus to infect. Poor soil drainage, lack of air movement, shade, cloudy weather, dew, over-watering, and watering in late afternoon favor prolonged leaf wetness and increased disease severity. Brown patch is particularly severe in turf that has been fertilized with excessive nitrogen. Inadequate levels of phosphorus and potassium also contribute to injury from this disease.

### CULTURAL CONTROL

Avoiding prolonged periods of leaf wetness will drastically reduce the severity of brown patch. Leaf wetness can originate from irrigation, dew, or guttation (which is the water that is sometimes exuded from turfgrass leaves during the night). To minimize leaf wetness, do not irrigate daily. Instead, irrigation should be applied based on weather conditions and the water requirements of the turf, it is best to irrigate early in the morning, just before sunrise. Avoid watering after sunrise or in the late afternoon or evening, as this will increase the duration of leaf wetness. Proper landscape design and site preparation can help to minimize brown patch problems.

### CHEMICAL CONTROL

Contact your Smith Grounds Management Account Manager for information on chemical controls best suited for your turf.

## Controlling Grubs in Turfgrass

White grubs are common pests in lawns and turf grasses  
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## White Grubs in Turf

Rick L. Brandenburg & Peter T. Hertl, Extension Entomologists  
White Grubs (COLEOPTERA: Scarabaeidae)



### General Information

White grubs are turf pests found throughout North Carolina. It is not uncommon to find 10 or more grubs per square foot feeding on grass roots. Heavily infested turf wilts or dies, often leaving the lawn feeling soft and spongy. Grubs may feed for several months before any turf damage becomes visible. Severely damaged turf may be rolled back like a carpet because its root system has been destroyed. Bluegrass and bentgrass are the varieties most seriously attacked, but all grasses are susceptible.

Because of their underground feeding habits, white grubs are more difficult to detect and control than many of the pests that feed above ground. If they are promptly detected and identified, they can be controlled through treatments applied at the appropriate time. Outlined in this guide are proper scouting procedures for detecting grub infestations and guidelines for timing insecticide applications.

### Description

White grubs are the larvae of scarab beetles. The grubs of economic importance in North Carolina are those of the Japanese beetle, the green June beetle, the southern masked chafer, the northern masked chafer, and the Asiatic garden beetle. Several other species, such as May beetles and June beetles, are also present but usually in low numbers. The Japanese beetle is consistently the most damaging grub in this state. Two relatively new pests, the turfgrass ateniens (on bluegrass) and the oriental beetle, are present in western North Carolina. These insects appear to be expanding their range and may become serious problems in the near future.

All these grubs have cream colored bodies with yellow to brownish heads, brownish hind parts, and six legs. Mature grubs vary in length from 1/4 to 1-1/2 inches, depending on the species. White grubs usually lie in a curled or C-shaped position. Billbug larvae may also be present but can be distinguished by the absence of legs.

### Life History

All of the important species of white grubs in North Carolina have a one-year life cycle and spend about 10 months of that cycle in the ground. The life cycle of the Japanese beetle is typical for white grubs of importance in North Carolina. Eggs are laid in late June and early July, and larvae hatch out in July. These larvae feed on grass roots until cool weather arrives in October. In November the grubs burrow deeper into the soil to over winter. The grubs return to the root area and begin feeding in March. Larvae pupate and adults emerge in May and early June. This life cycle is basically the same for all species, although there is some variation in timing. There are three important exceptions. Emergence and egg-laying for the oriental beetle is about three weeks earlier than for the Japanese beetle, and emergence and egg-laying for the green June beetle is about three weeks later. Timing of chemical applications for these two species should be adjusted accordingly. The turfgrass ateniens has two generations per year, overwintering as an adult and developing a second generation of egg-laying adults by July. Therefore, this pest may require two treatments.

Green June beetle larvae are also different in their feeding behavior. Instead of attacking grass roots, these grubs feed mainly on decaying vegetation. Their burrowing smothers grass and uproots seedlings. Sometimes in the fall or after a heavy rain green June beetle larvae come out of the soil and crawl on their backs on the surface of the ground. They can be identified by this unusual behavior and by distinct spiracles, or dark spots, one per segment, on each side of the body.

### Management

White grubs can be controlled in a timely and economical manner if proper controls are correctly applied at the right time. To prevent serious damage, examine all turf in April and again in August for the presence of grubs. Do not wait for brown patches to appear in the turf before inspecting the soil. Birds, moles, skunks and raccoons all feed to some extent on grubs, and their digging in the lawn may be a sign of a white grub infestation. However, it is best to verify that grubs are actually present before applying pesticides. Use a heavy-duty knife or a spade to cut a 1-square-foot flap of sod and roll it back. Examine the soil and roots in the top 3 or 4 inches. Repeat this process in several locations. If you find an average of five or more grubs per square foot, a pesticide application is justified. The condition of the turf, its value, and its uses (for example, whether it is a home lawn or a golf green), and the amount of damage done by animals searching for the grubs may affect your decision on whether to apply a pesticide.

## Smith Grounds Believes in Community Support

The Charlotte Chapter of IFMA held its Spring Golf Tournament on June 5<sup>th</sup>. Members of the Smith Grounds Management team attended the tournament as a show of support for the Chapter and its tournament benefactor, the USO of NC. A great time was had by all who were in attendance. IFMA Charlotte was able to raise thousands of dollars that will directly fund the efforts of the USO of NC.



USO of NC Color Guard



SGM Staff and Guests

## SGM Summer Services

- ✓ Second Round of Pruning will begin
- ✓ Annuals will receive Summer Fertilization
- ✓ Annuals will receive Fungus Control