

MESSENGER-INQUIRER

	University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service
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Conditions Favorable for Brown Patch in Tall Fescue Lawns

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With all the moisture from rain and as summer temperatures increase, brown patches may begin to appear in tall fescue lawns. There may be several causes of the brown patches, such as improper fertilization, mower problems, poor soil drainage, chemical injury, dog or insect injury, localized dry spots, excessive thatch, competition from other plants, buried objects, high temperatures, and other environmental stresses. However, the current weather pattern is favorable for the development of a disease called brown patch.

The disease is caused by *Rhizoctonia* fungi, which are very common in our soils. The most common pathogen is *Rhizoctonia solani*. Humid weather combined with daytime highs above 85 degrees F and nighttime lows above 60 degrees F create conditions that favor disease activity in tall fescue.

When high temperatures become stressful for tall fescue, a cool-season grass, the brown patch fungus infects the leaf blades and causes spots. These irregular spots are uniquely olive-green when fresh, or tan when dried, surrounded by a thin dark brown border. The spots can be

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readily distinguished from stresses due to other causes, which often result in a yellowing and dieback beginning at the leaf tip. The thin, brown border will still show the outline on an old spot even though the entire leaf blade may have been killed.

Areas in the lawn affected by brown patch develop as a jagged circle, varying in size from 6 inches to 5 feet or more. The affected area may lose the circular appearance and become irregular in shape as the disease progresses.

In an established lawn, fungicide sprays are not recommended to control brown patch. Even if an outbreak occurs, crowns and roots of established plants usually survive, and the infected brown areas of turf begin to recover when cooler weather arrives. An established, well-managed lawn will usually recover without fungicide applications. Fungicide applications by a professional to control brown patch may be considered if the lawn was newly seeded and established last fall or spring.

What can you do? Using good cultural practices helps to manage brown patch. Research at the University of Kentucky and elsewhere shows that the disease in tall fescue is worse when high levels of nitrogen fertilizer, especially during spring and summer, have been applied.

It is best to apply fertilizer to tall fescue in fall and early winter rather than spring or summer. Fall fertilization increases overall root growth and reduces the susceptibility to brown patch, as well as several other diseases. Nitrogen fertilization, including slow-release forms, does not cure summertime outbreaks of brown patch; it actually makes the disease worse.

Research also shows that raising the mowing height above 2.5 to 3 inches intensifies the disease. A taller mowing height reduces air circulation among the leaf blades. Poor air circulation leads to conditions favorable for greater fungal growth and disease spread during humid weather. Mow regularly to promote air circulation and rapid drying of the turf, making the lawn environment

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less favorable for fungal growth. To avoid stressing the grass, mow often enough so that no more than one-third to one-half of the leaf length is removed at any one mowing.

Make sure the mower blade is sharp. A dull blade shreds the leaves, creating an ideal site for infection.

If the lawn is irrigated, it should be done in the early morning so the leaves dry off quickly. This also washes off the dew, which is rich in nutrients favorable for fungal growth. Irrigating in the late afternoon or evening allows the grass leaves to remain wet from the time of watering until several hours past sunset. This lengthy period of leaf wetness gives the fungus a long period of time to grow and infect more plants. Irrigating turf in the early morning helps reduce brown patch during hot, muggy weather.

When irrigation is necessary, wet the soil to a depth of at least 4 inches to promote deep rooting. Check the watering depth by pushing a metal rod or screwdriver into the soil. It will sink easily until it reaches dry soil. Avoid frequent, light waterings, which encourage the grass to develop a shallow root system and provide the surface moisture the *Rizoctonia* needs to infect the leaves.

When seeding or renovating a lawn, avoid using excessive seeding rates since overcrowding can aggravate an outbreak of brown patch. In establishing a new lawn, only apply 6 pounds of tall fescue seed per 1000 square feet.

The combination of a high mowing height, high nitrogen fertility during the summer, and frequent irrigation usually leads to serious problems with brown patch.

For more information about managing brown patch, contact the Daviess County Cooperative Extension Service at 270-685-8480.

Annette's Tip:

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As a reminder, before digging in your yard, call 811 in Kentucky. Place the call at least 3 days in advance. This process keeps you safe, prevents costly repairs, and is the law.

Event: Agriculture Recovery Center

There will be an Agricultural Recovery Center location at the Daviess County Extension Office on Monday, June 23, from noon to 8 p.m. All people impacted by disasters are invited to attend, no matter their location of residence. Learn about disaster assistance programs available for farmers, ranchers, producers, and the farm workforce. Meet with representatives from various federal, state, and local government agencies to assist agricultural workers with their recovery needs. Please bring evidence of ownership, photos of damaged or lost tools and equipment, along with estimated replacement costs to expedite your application.

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