

Diseases of Cool-Season Grasses

Fescue, Bluegrass, and Ryegrass

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This guide is designed to help identify the most troublesome diseases associated with cool-season turfgrasses. This includes such grasses as tall fescue, fine fescue (chewings, creeping red), Kentucky bluegrass, and perennial ryegrass. A description of the disease symptoms, a list of specific management practices that can be used to prevent or reduce turfgrass injury by disease and a chart to indicate when the disease is most likely to occur are presented.

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Disease development is dependent upon susceptible plants, a favorable environment and a pathogen. Diseases will not occur unless all factors are present simultaneously over a certain period of time. Management practices that favor a healthy turf such as planting improved, adapted cultivars, proper fertilization, and timely watering (e.g. avoid late evening watering) can prevent or limit turf injury by diseases.

Frequently inspect your lawn for early detection of diseases. Correct identification of a disease may require the assistance of a qualified individual. Environmental stresses, improper lawn care practices, and insect pests often display symptoms that resemble diseases. Sometimes a fungicide may be needed to help manage diseases. If a fungicide is necessary, correctly identify the disease, select the proper fungicide, follow label directions, and apply it at the correct rate and time. Contact your local Extension

agent or another qualified individual or refer to the *North Carolina Agricultural Chemicals Manual* for additional information.

Brown Patch (*Rhizoctonia* spp.)

Turf Affected

Fescue, Ryegrass, and Bluegrass

Symptoms

Circular brown patches up to 3 feet in diameter develop during hot-wet weather. Infected leaves become dark, wilt and die quickly when this disease is active. The whole patch eventually becomes brownish tan.

Management

Adjust soil pH to 6 to 6.5 and avoid excessive fertilization with nitrogen in late spring or summer. Avoid prolonged leaf wetness by minimizing shade, watering early during the day and providing good soil drainage. Water deeply but infrequently. Several fungicides can be used to help control this disease.

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Dollar Spot (*Sclerotinia Homoeocarpa*)

Turf Affected

Bluegrass, and Ryegrass

Symptoms

Straw-colored patches 2 to 6 inches in diameter develop. Light tan lesions with reddish-brown margins develop across the leaves.

Management

Use the most resistant cultivars. Adequate fertilization will help overcome the disease. Water deeply but infrequently and avoid late afternoon and evening watering. Collect and dispose of clippings when symptoms are present.

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Fairy Rings (*Mushroom-type fungi*)

Turf Affected

All types

Symptoms

Large arcs or rings consisting of very green grass, dead grass, mushrooms, puffballs, or a combination of these symptoms.

Management

Remove organic matter (stumps, waste lumber) from soil before planting. Power rake to remove thatch when it exceeds one-half inch. Remove soil cores, spike or force water into affected areas to allow nutrient and water penetration. Avoid over-fertilization in an attempt to mask the green ring. Soil fumigation or rototilling and replanting may eliminate fairy rings.

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Leaf Spot (*Helminthosporium spp.*)

Turf Affected

All types

Symptoms

Dark, circular, or oval-shaped lesions develop on leaves and stems. Some lesions become red, purple, or tan with dark margins. Turf appears yellow and turns brown when the disease is severe, resulting in a thinning of the turf.

Management

Use resistant turf cultivars. Avoid excessive fertilization and close mowing in late spring and summer. Water deeply but infrequently and avoid prolonged leaf wetness.

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Powdery Mildew (*Erysiphe graminis*)

Turf Affected

Bluegrass

Symptoms

White to gray powdery growth on infected leaves. Heavily infected leaves turn yellow and die. Symptoms are prevalent in shaded areas.

Management

Plant shade tolerant cultivars. Improve light penetration and air movement by pruning, removal or careful placement of trees and shrubs. Water deeply but infrequently and avoid prolonged leaf wetness. Raise mowing height.

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Red Thread (*Corticium fuciforme*)

Turf Affected

All grasses

Symptoms

Circular or irregular, bleached or reddish patches from 6 to 12 inches in diameter develop in cool-moist weather. Red threads radiate from the tips of dead leaves.

Management

Fertilize turf adequately to help overcome disease. Water deeply but infrequently. Collect and dispose of clippings when disease is present. Prune trees and nearby vegetation to improve air movement.

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Rust (*Puccinia* spp.)

Turf Affected

Bluegrass, Ryegrass, and Tall Fescue

Symptoms

Small yellow specks on leaves and stems develop into orange or red pustules. Heavily infected bluegrass and ryegrass lawns may have an orange or reddish hue. Heavily infected turf may become thin.

Management

Plant resistant cultivars. Ensure adequate fertilization and dispose of clippings when symptoms are evident.

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Slime Mold (*Mucilago*, *Physarum*, *Fuligo* spp.)

Turf Affected

All grasses

Symptoms

White, gray, powdery fruiting bodies that cover leaves in patches 6 to 12 inches in diameter during warm, wet weather.

Management

Remove by brushing, mowing, or washing the turf. Slime molds are not considered harmful and do not require fungicide treatment.

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Southern Blight (*Sclerotium rolfsii*)

Turf Affected

Bluegrass and Ryegrass

Symptoms

Circular, crescent shaped, yellow to dead areas up to 3 feet in diameter. Turf usually dies in ring with a tuft of green grass in center (frog eye). Weeds such as clover are also killed in spots. Small, round, seed-like bodies that are tan to brown are usually present at outer edge of ring.

Management

Fertilize and irrigate turf properly. Power rake to remove thatch when it exceeds one-half inch. Several fungicides can be used to control southern blight.

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Stripe Smut (*Ustilago striiformis*)

Turf Affected

Bluegrass and Tall Fescue

Symptoms

Black stripes develop on leaves in spring and fall. Infected plants die during the summer. Leaves curl and split and turf becomes thin.

Management

Plant resistant cultivars. Some fungicides can be used in the fall to control this disease.

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Integrated Pest Management

The Sensible Approach to Lawn Care

Many pest problems that cause your turf to look bad--diseases, weeds, insects and animals. If you are really unlucky, you may have all of them at one time.

So what do you do? Use a pesticide? Or, make changes in cultural practices? Both methods, or some others as well, may be needed. The balanced use of all available methods is called INTEGRATED PEST MANAGEMENT (IPM).

The idea is simple. It encourages the use of all available prevention and control methods to keep pests from reaching damaging levels. The goal is to produce a good turf and minimize the influence of pesticides on man, the environment and turf.

IPM methods include:

1. Use of best adapted grasses.
2. Proper use of cultural practices such as watering, mowing, and fertilization.
3. Proper selection and use of pesticides when necessary.

Early detection and prevention, or both, will minimize pest damage. saving time, effort and money. Should a problem occur, determine the cause or causes, then choose the safest, most effective control or controls available.

When chemical control is necessary, select the proper pesticide, follow label directions, and apply when the pest is most susceptible. Treat only those areas in need. Regard pesticides as only one of many tools available for turf care.

To learn more about integrated pest management, pest identification, turf care, and proper use of pesticides, contact your county Cooperative Extension Center.