

# LAWN TURFGRASS DISEASE – INFORMATION CHART

Remember the main reasons for brown grass are adverse weather conditions and improper maintenance. The table addresses infectious diseases caused by fungal pathogens.

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DISEASE NAME <i>(Pathogen name, the fungus)</i>	SUSCEPTIBLE GRASS <i>(All capital letters indicate most common affected.)</i>	SIGNS & SYMPTOMS <i>(Signs are the fungus or a part of the fungus, symptoms are the result of the infection on the plant, abnormal appearance or growth.)</i>	ENVIRONMENTAL FACTORS <i>(Temperature &amp; Moisture conditions that favor disease development.)</i>	* MANAGEMENT STRATEGIES <i>(This is the first line of defense and tool to manage disease. After these have been implemented and depending on the circumstances then fungicide applications may be considered.)</i>
<b>Brown Patch/ Rhizoctonia Blight</b> <i>(Rhizoctonia solani)</i>	TALL FESCUE PERENNIAL RYEGRASS BENTGRASS Kentucky bluegrass Fine Fescue (JUVENILE TURF PLANTS)	- Irregular to circular patches (6"-2') - Patches variable shades of tan to brown - Outer edges of patch may be darker - Irregular shaped lesions on leaves - Gray to white fungal growth may be present when turf wet and high humidity - May be confused with <i>Pythium</i> blight	Hot/Wet Days > 80 to mid 90s and warm nights, mid 60s +. Abundant water, wet soils.	1) Avoid excessive Nitrogen fertilization, esp. in summer. 2) Avoid excessive watering & poor drainage. 3) Increase air circulation by removing surrounding vegetation & increase sun light. 4) Manage to prevent lush succulent turfgrass plants. 5) Lower mowing height of tall fescue to increase drying. 6) Select more resistant cultivars to the disease.
<b>Dollar Spot</b> <i>(Sclerotinia homoeocarpa)</i>	BLUEGRASS BENTGRASS Fine Fescues Perennial Ryegrass	- Circular tan patches/spots (1-6") - Leaf lesions light tan with dark edges - Leaf lesions go across leaf blade (a band) - White fungal growth may be present in early morning when dew present	Moderate days 60 to low 80s Prolonged periods of wet leaves. Dry Soil – slow leaf growth so poor recovery from damage	1) Avoid Nitrogen deficiency. 2) Choose resistant grass varieties. 3) Manage watering to minimize time leaves are wet. 4) Water to increase growth. 5) Select more resistant cultivars to the disease.
<b>Fairy Ring</b> <i>(Soil borne Basidiomycete fungi)</i>	All Turfgrasses	- Dark green or brown circles (1-10+') - Grass in dark green ring may grow taller - Rings may turn brown and die - Mushrooms may grow in the ring - A white fungal mat may be present in the thatch area of the ring and smells musty	Grow over a wide range of temps. And soil moisture conditions, often favored by moist soils. Brown turf may develop in prolonged hot dry periods.	1) Improve water penetration; aeration, deep watering, and wetting agents. 2) Remove infected soil and sod; replace with clean soil & sod or seed.
<b>Gray Leaf Spot</b> <i>(Magnaporthe oryzae)</i>	PERENNIAL RYEGRASS Tall fescue (in S.E. USA) St. Augustinegrass (in S. USA)	- Starts as v. small dark spots/flecks - Leaves often quickly wither and die - Irregular patches to large areas die - Only P. ryegrass affected, other grasses and weeds are not affected - No fungus (mold) is found on plants	Prolonged hot humid weather patterns in late summer and fall, long summer stress conditions for cool season grasses. Moist soils, (turf may appear wilted but soil moist).	1) Plant resistant varieties or avoid perennial ryegrass. 2) Avoid lush turfgrass, use moderate fertilization. 3) Manage watering to minimize time leaves are wet. 4) Use resistant grass species, i.e. Kentucky bluegrass.. 5) Minimize turf stress; reduce compaction, avoid chemical injury (herbicides).
<b>Leaf Spot/Melting Out</b> <i>(Drechsler &amp; Bipolaris spp.)</i>	KENTUCKY BLUEGRASS (Common bluegrasses) Fine fescue Perennial Ryegrass	- Initially very small dark spots on leaves - Spots enlarge in size - Center of spots may be a lighter brown - Leaf sheaths can be entirely - Crowns rot, turf thins ("melting out")	Leaf Spot-Cool/Wet Melting Out/Hot Dry <i>(Leaf Spot:</i> spring & fall, <i>Melting Out:</i> summer)	1) Raise cutting height. 2) Mow frequently to avoid stressing turf. 3) Avoid excessive nitrogen. 4) Avoid frequent watering and wet turf. 5) Select more resistant cultivars to the disease.

<b>DISEASE NAME</b> <i>(Pathogen name)</i>	<b>SUSCEPTIBLE GRASS</b>	<b>SIGNS &amp; SYMPTOMS</b>	<b>ENVIRONMENTAL FACTORS</b>	<b>* MANAGEMENT STRATEGIES</b>
<b>Powdery Mildew</b> <i>(Erysiphe graminis)</i>	KENTUCKY BLUEGRASS Fine Fescue	- White or gray colored powdery appearance to leaf surface (does not easily rub off) - Leaves may yellow and turf stand thin	Moderate/High humidity Shade Areas of poor air circulation	1) Reduce shade. 2) Increase air circulation 3) Use resistant Kentucky bluegrass varieties.
<b>Pythium Blight</b> <i>(Pythium species)</i>	PERENNIAL RYEGRASS BENTGRASS Kentucky bluegrass (JUVENILE TURF PLANTS) (Rather uncommon on mature high cut turfgrasses)	- May start as small dead spots - Leaves often look dark/black/greasy - Fluffy gray to white ‘cottony’ fungus may be present when disease is active - Spots may run together and have an irregular shape, turf quickly dies, brown - May be confused with brown patch	V. Hot/Wet (This is a water mold, abundant water is required.) (Days high 80s to 90s ++ and warm nights 70 and above.) Often found in low wet areas, with poor drainage.	1) Improve soil drainage. 2) Increase air circulation by removing surrounding vegetation. 3) Avoid excess watering. 4) Avoid high rates of Nitrogen. 5) New seedling often affected in hot wet conditions
<b>Red Thread</b> <i>(Laetisaria fusiformis)</i>	PERENNIAL RYEGRASS FINE FESCUE Kentucky bluegrass Tall Fescue & Bentgrass	- Patches appear as tan, light pink or reddish - Leaf tips and edges of leaves have fine pink or red strains of fungus present - Size of patches variable (2-12”)	Moderate/Wet Foliage Prolonged periods of wet leaves	1) Follow a complete fertilization program, avoid deficiencies in nitrogen and phosphorous. 2) Promote growth by aeration, watering, etc.) 3) Use more resistant cultivars.
<b>Rust</b> <i>(Puccini species)</i>	PERENNIAL RYEGRASS KENTUCKY BLUEGRASS (Some varieties of Key bluegrass are susceptible, some resistant)	- Starts as small yellow flecks on leaves - Flecks enlarge, to form rust colored raised spots (pustules, spores rubs off on shoes...) - Over all turf yellows and thins	Moderate/Wet Foliage, Dry Soil (Dry Soil – slow leaf growth so poor recovery from damage.)	1) Avoid Nitrogen deficiency. 2) Use resistant varieties of Kentucky bluegrass & perennial ryegrass or turf type tall fescues. 3) Water if dry, promote growth.
<b>Slime Mold</b> <i>(Myxomycete species)</i>	All Turfgrasses	- Small pin head size balls/ debris on leaves, vary in color yellow, white, gray, purple, etc - Cosmetic problem , rubs off leaves	Moderate to warm temperatures/ Prolonged wet foliage	1) Mechanically remove by raking or mowing. (Causes no injury, only cosmetic.)
<b>Snow Mold / Pink</b> <i>(Microdochium nivale)</i>	CREEPING BENTGRASS Perennial Ryegrass Kentucky bluegrass	- Infected grass in patches, bleached, matted - Grass appears slimy when wet - Patches may run together to form large irregular affected areas - Crowns are often alive for recovery.	Cool wet winters. Saturated, unfrozen, soil for long periods is ideal. No snow required. Occurs in winter and spring.	1) Avoid lush turf in winter, keep mowing to prevent long turf in winter. 2) Rake leaves. 3) Control drifting snow, prevent piles of snow.
<b>Summer Patch</b> <i>(Magnaporthe poae)</i> <b>&amp;</b> <b>Necrotic Ring Spot</b> <i>(Ophiosphaerella korrae)</i> <b>These are Patch Diseases</b>	KENTUCKY BLUEGRASS Fine fescue	- Begins as dark wilted spots like drought stress (1-3”) and enlarge to patches (about 12’ in diameter) - Shapes are variable, crescents, streaks etc. - Outer edge of circles/patches are brown with green centers are common. - Crowns and roots usually die.	Warm/Extremes in soil moisture (Fluctuating wet to dry) Poor quality soil, compacted, clay, buried stone and debris etc... Usually occurs on sodded lawns with poor site preparation (the turf has a weak or limited root system).	1) Avoid low mowing & thatch buildup. 2) Maintain soil pH between 6 & 7. 3) Watering frequently to avoid water stress. 4) Use very slow-release fertilizer. 5) Renovate the damaged areas with resistant grasses. 6) Difficult to manage with fungicides.

\* For fungicide recommendations check with county cooperation extension officer and State Land Grant University in your area.

For additional information look under publications at - [turf-disease.osu.edu](http://turf-disease.osu.edu)