

Warm-season solutions

Southern turfgrass diseases have distinctive symptoms.

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Some familiar foes to turfgrass managers in the South include the following diseases and their control strategies:

Anthracnose – Areas with disease are

correlated to either poor fertility conditions or nematode populations. Minimizing stress conditions reduces development.

Bermudagrass decline – Pursue lab diagnosis to verify decline and separate this disease from similar appearing localized dry spots (fairy rings) and *Rhizoctonia* leaf and sheath spot disease. Raise mowing height by 50% to increase photosynthetic area and top-dress greens frequently.

Brown Patch – This spring/fall disease is most aggressive between 75-85°F. Disease

is favored by thatch, excessive soil moisture and readily soluble N sources. De-thatch severely affected areas, apply slow release N, water deeply but infrequently.

Cottony Blight – Excessive rainfall in the fall through spring period results in a higher incidence of cottony blight in overseeded situations. Many greens and tees develop patches or streaks of greasy-green invaded turf as the fungus moves readily with surface water or traffic movement. Improve air circulation and drainage and

FUNGICIDE MANAGEMENT FOR WARM-SEASON TURFGRASSES

Disease	Common Fungicides	Comments
Algae	Chlorothalonil, mancozeb, maneb	Reduce watering and verticut algal mats
Anthracnose	Chlorothalonil, cyproconazole, propiconazole, triadimefon	Minimize thatch
Bermudagrass decline	Azoxystrobin, fenarimol, myclobutanil, propiconazole, thiophanate methyl, triadimefon	Preventative use and azoxystrobin has curative potential for golf course and sod farms
Brown patch	Azoxystrobin, chloroneb, chlorothalonil, cyproconazole, fenarimol, flutolanil, iprodione, maneb, mancozeb, myclobutanil, PCNB, propiconazole, thiophanate methyl, thiram, triadimefon	Mow into infested sites last and collect clippings to minimize mower spread
Cottony blight	Chloroneb, etridiazole, fosetyl aluminum, mancozeb, mefanoxam, propamocarb	Minimize traffic and irrigation on infested sites
Dollar spot	Chlorothalonil, cyproconazole, fenarimol, iprodione, mancozeb, maneb, myclobutanil, PCNB, propiconazole, thiophanate methyl, thiram, triadimefon	Minimize thatch and achieve a balanced fertility for long-term control
Fairy ring	Flutolanil	Some success with puffball caused rings from shallow depths
Gray leaf spot	Chlorothalonil, propiconazole	Repeated applications during rainy period needed
Helminthosporium spots	Chlorothalonil, iprodione, mancozeb, maneb, myclobutanil, PCNB, propiconazole, vinclozolin	Minimize thatch
Leptosphaerulina blight	Chlorothalonil, iprodione, vinclozolin	
Pythium root rot	Chloroneb, etridiazole, fosetyl aluminum, mefanoxam, propamocarb	Avoid excessive irrigation; Foliar fertilization may help
Rhizoctonia leaf and sheath spot	Chlorothalonil, flutolanil, iprodione, mancozeb, PCNB, thiram	Can be confused with decline and fairy ring or take all root rot
Rust	Cyproconazole, mancozeb, maneb, propiconazole, triadimefon	Usually not needed for control
Take all root rot	Fenarimol, myclobutanil, propiconazole, thiophanate methyl, triadimefon	Preventative use only

restrict traffic across infested sites.

Dollar Spot – Low fertility sites receiving excessive irrigation or under high moisture weather periods are prime sites for disease development. Achieve balanced fertility and minimize thatch.

Fairy Ring – Use of flutolanil for fairy ring suppression has been variable in performance. The species of fungus involved and the depth of the fungus colony in the soil may be two reasons for fungicide performance variation. Fairy ring on bermudagrass can be confused with decline and/or *Rhizoctonia* leaf and sheath spot. A clinical diagnosis can be helpful here.

Gray leaf spot – This common spot on St. Augustinegrass is most damaging during the hot, rainy summer period. Sites poorly adapted to turf often serve to sustain the fungus. Shady urban lawn sites with persistent leaf spot problems should be redesigned and converted to shade-tolerant

ground covers, bedding plants or woody ornamentals. Affected lawns should be deeply watered in early morning hours. Avoid use of readily soluble N sources.

***Helminthosporium* blights** – Primarily damaging in spring and fall on ryegrass and bermuda and is favored by thatchy sites with low fertility and frequent irrigation. Can be mistaken for gray leaf spot on St. Augustine in late summer and early fall. Improve site fertility, reduce thatch, irrigate for longer periods with less frequency.

***Pythium* root rot** – Occurs on all grasses and is caused by a group of related fungal species. Feeder root destruction occurs in sites with poor drainage or excessive irrigation causing turf yellowing and death with a bleached straw color. Improve soil drainage and restrict supplemental irrigation. Foliar fertilization may aid in recovery of slight to moderately damaged areas.

***Rhizoctonia* leaf and sheath spot** – A

summer disease of bermuda only, until recent isolations from St. Augustinegrass. Can appear as a small ring, arc or patch. Lab diagnosis is important.

Rust – Disease develops in the cooler periods, especially in partially shaded turf. Affected turf is thin and chlorotic with obvious yellow to orange-red blisters on leaf surfaces. Collect infected clippings during mowing. Fungicides are infrequently used.

Take all root rot (patch) – Stress-related disease on urban St. Augustine-, centipede-, bahia- and zoysiagrasses. Develops in mid to late spring and continues through summer into early fall. Affected turf yellows, followed by a thinning to death. Fungal pathogen invades following stresses from disease, insects, nematodes, cultural or environmental factors. **LM**



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