

DISEASE REFERENCE

Gray leaf spot, *Pyricularia grisea*

DAMAGE CAUSED

Symptoms of damage:

Foliar disease

Early symptoms include water-soaked lesions on foliage that eventually enlarge, turning grey or brown. A yellow “halo” may form around the lesions

The tips of infected leaves eventually darken, wither and twist before dying.

Production of fungal conidia on foliage produces a gray, velvety or felt-like appearance

Dying plants form large (6 – 12 inches or 15 – 30 cm in diameter), irregular shaped patches of discolored turf that eventually coalesce into larger patches



Plants attacked:

Ryegrass

Fescue

St. Augustinegrass

Kikuyugrass

Pests/conditions that cause similar damage

Pythium blight

Predictive models

Optimum conditions when Maximum daily temperature + minimum daily relative humidity ≥ 140 .

Conducive environmental conditions:

Average air temperatures >68 F

Presence of free water on leaf surface

High relative humidities

Geographic distribution:

All U.S. states with the exception of the upper mid-West and Pacific Northwest

MONITORING TECHNIQUES:

Begin scouting once average air temperatures reach 68 F (20 C). Target the most susceptible areas of the course (high mown perennial ryegrass, areas that are shady or have low air movement).

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If there is a history of the disease, preventive fungicide applications once the temperature (F) /humidity index of 140 is reached (maximum temperature, F plus minimum relative humidity)

MANAGEMENT STRATEGIES:

Strains of gray leaf spot resistant to QoI (strobilurin) fungicides have been documented in several locations. These products are noted with a red asterisk (*) Follow resistance management guidelines by rotating products as outlined in IPM Template Reference “Fungicide Resistance Management Groups.” Always consult the most recent version of all product labels before use.

TYPE	TIMING/ THRESHOLD	PRACTICE	
Cultural	N/A	<ul style="list-style-type: none"> • Use tolerant varieties of ryegrass or resistant turf varieties (bermuda, bluegrass, bentgrass) • Be moderate with nitrogen fertility (less than 20 ppm soil nitrogen) • Avoid sand topdressing and aerification during GLS threat period • Improve drainage and irrigation to avoid wet areas • Avoid springtime applications of ethofumesate 	
Biological			
Chemical	Preventive: apply when maximum temperature (F) plus minimum relative humidity = 140 OR Early curative	Active ingredient	Label signal word
		Azoxystrobin (Heritage)* *	Caution
		Propiconazole (Banner) plus chlorothalonil (Daconil Weatherstik)	Warning/Caution
		Pyraclostrobin (Insignia) *	Caution
		Thiophanate-methyl (Cleary's 3336)	Caution
		Triadimefon (Bayleton) plus chlorothalonil (Daconil Weatherstik)	Caution/Caution
Trifloxystrobin (Compass)* *	Caution		

* considered reduced risk by the U.S. Environmental Protection Agency.

* has been ineffective in some locations due to development of resistance.

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