

Brown Patch

Rhizoctonia solani (Main fungus listed)

Rhizoctonia oryzae

Rhizoctonia zea

Rhizoctonia cerealis (yellow patch)



Brown Patch of St. Augustinegrass.
Courtesy Joseph Krausz, TAEX, 1996.

DISEASE SYMPTOMS:

Circular or irregular shaped patches of light brown, thinned grass; turfgrass can be yellowish and may have a smoke-ring on outside edge - especially in the morning hours on cool season grasses; turf in the center of the ring may recover, leaving a ring effect; spreads rapidly; patches up to several yards in diameter; leaf sheaths become rotted and a gentle tug on the leaf blade easily separates from the runner; usually does not discolor roots; fungus attacks the base of the leaf sheath; get a water soaked , dark grass that soon wilts and turns brown.

HOST GRASSES:

Major Hosts: St. Augustinegrass, Zoysiagrass, American buffalograss, Annual bluegrass, Creeping bentgrass, Colonial bentgrass, Tall fescue, Perennial ryegrass.

Others: Bermudagrass, Centipedegrass, Bahiagrass, Fine fescues, Kentucky bluegrass.

DISEASE CYCLE:

Disease develops rapidly when air temperatures are between 75 and 85 degrees and wet conditions are present-Spring, Fall and sometimes mild Winter conditions; generally subsides when air temperatures exceed 90 degrees; foliar attacking fungus; occurs following extended leaf wetness for 10 hours per day for 2 to 5 days; leaves, stems, crowns and roots may be infected.

FACTORS THAT MAY PROMOTE DISEASE DEVELOPMENT:

Cool, wet or moist conditions; leaf blades with dew or free water on them for extended periods; excessive nitrogen and irrigation; lack of air movement; poor soil drainage; excessive thatch; compacted soils-lack of aerification; presence of active fungi; vigorous growth of turfgrass.

CULTURAL CONTROL:

Improve soil drainage; remove dew in early morning by mowing or watering or whipping; cultivate by coring or slicing; avoid excessive nitrogen and irrigation; reduce shading; improve air movement.

CHEMICAL CONTROL:

Most fungicides will do an effective job if used on a preventative basis-hard to destroy the fungus once it is established on the turfgrass. Many fungicides labeled to treat Brown Patch-only those which seem to be most effective are listed below.

Specific Fungicide Recommendations			
Fungicide (chemical name)	Efficacy	Application Interval	Example of Products (trade names)
Azoxystrobin	Good to excellent	14 to 28 days	Heritage
Triadimefon	Fair to good	30 days	Bayleton
Myclobutinil	Good to excellent	14 days	Eagle, Immunox
PCNB	Good to excellent	21 to 28 days	Terraclor, Turfcide
Mancozeb	Fair to good	7 days	Fore, Dithane, Protect, Penncozeb
Fenarimol	Fiar	7 to 14 days	Rubigan, Patchwork

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