

# Cool-season disease tips

*The goal of every turfgrass manager is to create a healthy turfgrass ecosystem.*

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**A**nyone that has ever taken a soil microbiology course comes away with a new appreciation of the abundance of microbes in the plant/soil rhizosphere.

One pound of soil and roots may contain over 900 billion organisms — bacteria, fungi, actinomycetes, nematodes, insects and other living creatures.

Turfgrass diseases result from the complex interaction of pathogen, host and environment. Turfgrass management practices can affect all three, greatly influencing disease development. Those practices that favor vigorous, but not lush, grass growth and are detrimental to growth of the pathogen result in less disease injury to the turf. Good turfgrass management is an effective disease deterrent.

The goal of every turfgrass manager should be to create a healthy turfgrass ecosystem. This is a challenge, since growing seasons in the northern latitudes are never the same. In 1996 the Northern Plains were relatively cool and wet. 1997, however, was just the opposite — hot, dry and windy. 1998 was the year of El Niño.

Because each season is different and because the relationship of host, pathogen and environment are so ecologically interwoven, disease predictions are difficult.

The chart below should provide some general information that can help you:

## PREVENTIVE AND CURATIVE FUNGICIDE PROGRAMS FOR MAJOR DISEASES OF COOL-SEASON TURFGRASSES

Disease	Preventive/ Curative	Initial application	Products
Leaf spot/melting out	P	May	chlorothalonil, iprodione, mancozeb, propiconazole, vinclozolin
Stripe smut	P	April or October	cyproconazole, fenarimol, flutolanil, propiconazole, thiophanate-methyl, triadimefon
Necrotic ring spot	P	When soil temperatures reach 60°F at 2" depth	azoxystrobin, cyproconazole, fenarimol, iprodione, thiophanate-methyl
Fairy ring	C	At first symptoms of green ring	flutolanil
Dollar spot	P/C	June for ryegrass and bentgrass	chlorothalonil, cyproconazole, iprodione, mancozeb, propiconazole, thiophanate-methyl, triadimefon, vinclozolin
Brown patch	P/C	June for ryegrass and bentgrass	azoxystrobin, chlorothalonil, cyproconazole, flutolanil, iprodione, propiconazole, thiophanate-methyl, triadimefon, vinclozolin
Summer patch	P	When soil temperatures reach 65°F at 2" depth	propiconazole, thiophanate-methyl, triadimefon
Pythium blight	P	June	azoxystrobin, chloroneb, ethazol, fosetyl-Al, metalaxyl, propamocarb
Rust	P/C	July	chlorothalonil, cyproconazole, mancozeb, propiconazole, triadimefon
Typhula blight	P	October/November	chlorothalonil, cyproconazole, fenarimol, flutolanil, iprodione, PCNB, propiconazole, triadimefon, vinclozolin
Microdochium patch	P	October/November	azoxystrobin, chlorothalonil, cyproconazole, fenarimol, iprodione, PCNB, propiconazole, thiophanate-methyl, triadimefon, vinclozolin

This list is presented for information only and no endorsement is intended for products listed nor criticism meant for products not listed. Check with local specialists for specific recommendations and read and follow label instructions.