

DISEASE REFERENCE

Fairy ring

Lycoperdon spp., *Marasmius oreades*, *Bovista plumbea*, *Agrocybe pediades* and many other fungi in the family Basidiomycetes

DAMAGE CAUSED

Symptoms of damage:

Type 1: rings of dead grass with outer zone of dark green stimulated turf; basidiocarps (mushrooms or puffballs) may be produced

Type 2: ring of dark green stimulated turf; basidiocarps may be produced

Type 3: rings of basidiocarps with no apparent effect on turf growth

Plants attacked:

All turf types and cultural conditions.

Pests/conditions that cause similar damage

Brown patch

Brown ring patch

PREDICTING DISEASE

Threat temperature:

When average air temperature for five consecutive days exceeds 60 F (16C)

Conducive environmental conditions:

Drought

MONITORING TECHNIQUES:

In spring, once threat temperatures (>60F or 16C) are reached, monitor for dark green rings, localized dry spot in a ring pattern or mushrooms/puffballs in a ring pattern.

THRESHOLDS:

Curative: Monitor for first signs of rings; make curative applications once rings are detected

Preventive: If there is a history of fairy ring, make preventive applications of fungicides and wettings agents in spring, once threat temperature is reached.

Type 1 symptoms



Type 2 symptoms



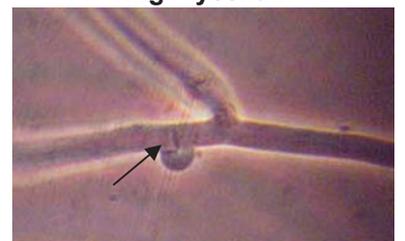
Type 3 symptoms



Thatch degraded by fairy ring fungi



Clamp connection on fairy ring mycelium



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MANAGEMENT STRATEGIES:

The products below have demonstrated good activity in research field trials on fairy ring. 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 OF CONTROL	PRACTICE	
Cultural	<ul style="list-style-type: none"> • Adequate nitrogen (0.1 – 0.2 lb nitrogen / 1000 ft² / wk [0.5 – 1.0 g nitrogen/ m² / wk] during season), but do not exceed 20 ppm total nitrogen in soil • Utilize wetting agents to prevent dry spots from developing 	
Biological	polyoxin D zinc (Endorse) ¹	
<p>Chemical Curative: Apply as soon as rings or dry patches begin to appear. Treat all areas with a history of disease.</p> <p>Chemical Preventive: If a history of fairy ring is present, preventive application may be needed when average air temperature for 5 consecutive days exceed 60 F (16 C)</p>	Active Ingredient (Product)	Signal word
	azoxystrobin (Heritage) ²	Caution
	Triadimefon (Bayleton 50 WP)	Caution
	polyoxin D zinc (Endorse) ¹	Caution
	flutolanil (Prostar 70WP)	Caution
	pyraclostrobin (Insignia)	Caution

¹ Designated as a biopesticide by the U.S. Environmental Protection Agency

² Designated “reduced risk” by the U.S. Environmental Protection Agency
