

Fairy Ring

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Causal Agent(s)

Chlorophyllum, *Marasmius*, *Lepiota*, *Lycoperdon* and other basidiomycete fungi

Turfgrasses Affected

All warm-season turfgrasses.

Occurrence

Fairy rings, especially the mushrooms, are most commonly observed during the summer months when Florida receives the majority of its rainfall. Fairy rings occur when large quantities of organic matter, such as lumber, tree stumps, logs, etc., are naturally located or have been buried in a turfgrass site. The fungi “feed” off this material. The mushrooms, which are all sizes and shapes, are the fruiting stages of these fungi.

Symptoms/Signs

There are three types of fairy rings. *Type I* rings have a zone of dead grass just inside a zone of dark green grass. *Type II* rings have only a band of dark green turf, with or without mushrooms present in the band (Figure 1). *Type III* rings do not exhibit a dead zone or a dark green zone, but simply have a ring of mushrooms present (Figure 2).

Rings may be very small initially, less than 1 foot, but normally expand each year. It is not uncommon for rings to be 6 feet or more in diameter. The size and completeness (circular, semi-circular, quarter circles) of the bands varies considerably. Mushrooms will normally be produced during rainy weather. Since some of the mushrooms (ex.: *Chlorophyllum* spp. Figure 3.) are poisonous, mushrooms should be removed or destroyed. Chopping them up with the mower is adequate.

Cultural Controls

If necessary for aesthetic purposes, mask the dark green ring symptoms with nitrogen fertilizers. Although it is possible to excavate and fumigate the fairy ring sites, it is quite likely the rings will return if the food source for the fungi is still present underground. The rings will disappear naturally, but it may take up to five years.

In some situations, the fungi will coat the soil particles to make the soil hydrophobic (repel water). This will result in rings of dead grass because the grass is being subjected to a very localized drought situation. If the soil under this dead grass is dry but the soil under healthy grass next to it is wet, then it will be necessary to break up the soil under the dead grass. A pitch fork is a good tool. Then apply a soil wetting agent and water the ring, and only the ring, daily to rewet the soil and encourage turfgrass recovery.

Chemical Controls

azoxystrobin, flutolanil

The fungicides inhibit the fungus only. They do not eliminate the dark green or dead rings of turfgrass, and they do not solve the dry soil problem.

Refer to “Turfgrass Disease Management” PPP-64 for explanations of chemical and cultural controls.



Figure 1. *Type II* fairy ring with dark ring of turfgrass and mushrooms.



Figure 2. *Type III* fairy ring with only mushrooms present.



Figure 3. The mushroom of the poisonous fairy ring fungus *Chlorophyllum* spp.