

Management of Superficial Fairy Ring

J. F. Powell, N. M. Dykema, P. J. LeCureux, and J. M. Vargas, Jr. Department of Botany and Plant Pathology

Superficial fairy rings are characterized as circular rings or arcs of darker green or faster growing grass. Dense white mycelia of the fungi may be seen in the thatch and the surface of the soil in the zone of stimulated growth. Caused by a variety of soil-inhabiting fungi belonging to the class *Basidiomycetes*, they are generally found on bentgrass greens and tees. These fungi are most prevalent in areas that were previously forested, where stumps or logs have been used as fill, and in high sand content soils. The occurrence of superficial fairy rings has been associated with the use of fungicides. It is believed that the fungicides suppress bacteria and fungal populations that are competitors or antagonists to these basidiomycetes. The fungi survive by decomposing organic matter in the soil and thatch, resulting in the release of nitrogen. It is availability of the free nitrogen which yields the characteristic zone of stimulated plant growth. Although not pathogenic to the grass, superficial fairy rings may reduce the aesthetic quality of affected turf.

Until recently, management practices have focused on masking the symptoms of superficial fairy ring through high levels of fertility, mechanical removal of thatch, frequent aeration, and the removal of fairy rings by fumigation or excavation as no fungicides were available for chemical control. However, the fungicide ProStar (flutolanil) has recently been labeled for the management of fairy rings. In this study, ProStar (50WP) was applied (July 29, 1994) to superficial fairy rings at a 6 oz./1000 ft² rate, and drenched in with 10 gallons water/1000 ft². If necessary, a second application will be made 30 days later. Plots will be monitored and rated to determine whether control is achieved through the use of ProStar.