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## **DOLLAR SPOT OF TURFGRASS IN HOME LAWNS**

Dollar spot is a common lawn disease that occurs in the early summer, late summer, and early fall in the condition of cool nights follow warm days with high relative humidity. The disease causes unsightly lawns with brown spots and patches and may contribute to further declining of turfgrasses. Most cool season turfgrasses including Kentucky blue grass, perennial rye, and fine fescue are susceptible to this disease.

### **SYMPTOMS AND DIAGNOSTICS**

The initial symptom of dollar spot appears a white or straw-colored lesion with reddish-brown margins across the leaf blade (Figure 1). As the lesion expands, the upper part of the blade becomes bleached and dried. A diagnostic sign of dollar spot is white,



Figure 1. Breached lesions with reddish brown margins (arrows) on grass blades.

cottony fungal growth on infected grass blades, which is often observed in the early morning when dew is present (Figure 2). But cottony mycelia disappear when the dew evaporates during the day. In a lawn, the symptoms of dollar spot appear small circular brown, or straw-colored spots, and then they expand and coalesce into large straw-colored patches that can reach to several feet in diameter (Figure 3). Dollar spot normally attacks leaf blades of grasses although the disease occasionally damages crowns and roots.

### **DISEASE DEVELOPMENT**

Dollar spot is caused by the fungal pathogen, *Clariireedia jacksonii* (previously *Sclerotinia homoeocarpa*). The fungus survives as



Figure 2. White fungal mycelia on infected blades in the early morning.



Figure 3. Brown spots and patches with straw-colored grasses.

mycelia or a compact mass of fungal hyphae (stroma) in infected turfgrasses or plant debris, such as clippings and thatch. The fungus does not produce spores. The spread of the disease to adjacent plants is contributed by radial growth of the fungal mycelia. A long-distance dispersal of the pathogen is contributed by the movement of diseased grass clippings and thatch through mowing machines and shoes. The fungus initiates infections in the spring when night temperature exceeds 50°F, but symptoms may not appear until early summer. The favorable condition for the disease development is moderate temperatures (60° to 80°F) with extended periods of leaf wetness. Turfgrasses growing in the soil with low nitrogen fertility are more susceptible to dollar spot and suffer more severe damage. When turfgrasses are stressed from drought conditions and low mowing, they are more vulnerable to dollar spot.

## MANAGEMENT

*Use resistant turfgrasses:* Although most cool season turfgrass species are susceptible

to dollar spot, there are significant differences between varieties. If available, use resistant turfgrass varieties. The use of blends or mixtures of multiple species and varieties is another option to reduce the damage from dollar spot.

*Cultural practices:* Apply an adequate amount of nitrogen fertilizers by monitoring soil fertility, which hastens turfgrasses quick recovery from the damage. Water lawns deeply and infrequently to avoid drought stress during the summer. Avoid over-watering or watering lawns in the late afternoon or evening. Limit traffic on wet turf in the early morning to avoid spreading the disease. Avoid excessively low mowing to prevent turfgrass from stress in the summer. Wash equipment before entering an uninfected area or another property. Prune trees and shrubs around lawns to promote good air circulation.

*Fungicides:* Fungicide application is rarely necessary for dollar spot in home lawns because most damaged turfgrasses may recover by regrowing from unaffected roots and crowns. If needed, a preventative fungicide application should be implemented in the spring and repeated by following the recommendations in the label whenever environmental conditions favor the disease development. Many fungicides are registered for control of dollar spot, which includes myclobutanil, propiconazole and thiophanate-methyl. For organic lawn care, *Streptomyces lydicus* WYEC108, *Bacillus subtilis* QST713, *Pseudomonas aureofaciens*, and plant extract of *Reynoutria sachilanensis* are registered for the control of dollar spot. Read and follow the entire label of any product before treatment.

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