



Dollar Spot of Turfgrass

D. L. Roberts, J. M. Vargas, Jr., T. K. Danneberger, K. J. Kelly

Dollar spot is one of the primary diseases in Michigan of creeping bentgrass, annual bluegrass, creeping red fescues and Kentucky bluegrass. More money is spent for the management of dollar spot than any other turfgrass disease. The disease is easily recognized by the appearance of small bleached out spots in turf, ranging in size from a quarter to a silver dollar. Management is achieved through the use of a good fungicide program in combination with cultural practices which inhibit disease progression.

Symptoms

Dollar spot is characterized by circular straw-colored, bleached out areas ranging from the size of a quarter to a silver dollar (Fig. 1). These areas appear as sunken spots, especially when the turf is mowed to half an inch or less. Individual spots may merge and blight larger, undefined areas of turf (Fig 2). The white, fluffy mycelium (fungus strands) is often seen in these spots in the early morning while the grass is still moist.

On individual grass blades, dollar spot symptoms appear as bleached out or yellowing-blanching lesions extending the width of the blade. On bentgrass and Kentucky bluegrass, reddish brown bands occur on the ends of the lesions. The reddish brown banding does not appear on annual bluegrass.

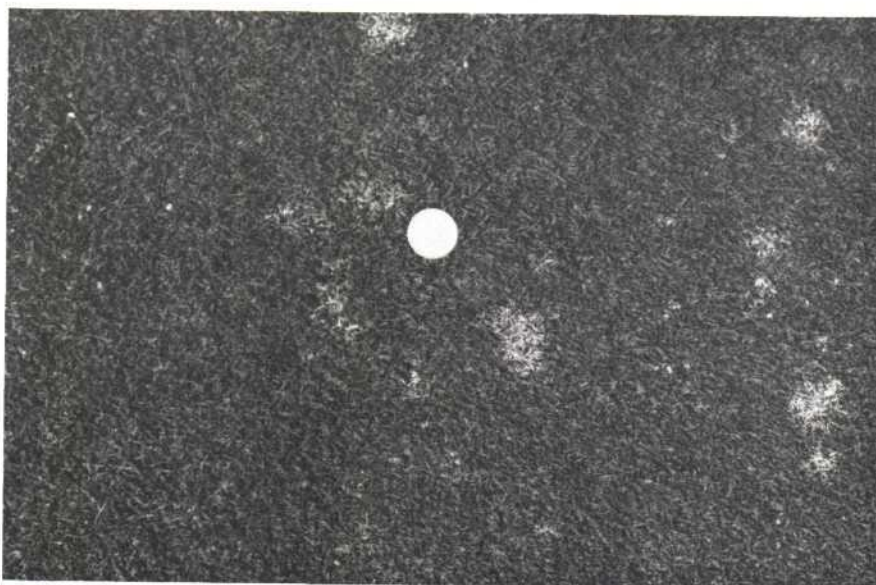


Figure 1. Dollar spot appears as straw colored areas the size of a quarter or silver dollar.



Figure 2. Entire turf areas can be destroyed when dollar spot infects non-resistant varieties, or when sound cultural and chemical controls are not used.

Causal Agent and Disease Cycle

Dollar spot is caused by *Sclerotinia homeocarpa*. The fungus overwinters as dormant mycelium in infected plant parts in the thatch and soil. The dollar spot fungus resumes growth near 60 degrees F, and peak activity for infection occurs between 70 and 90 degrees F. At least two strains of the fungus exist. One strain is favored by cool weather (below 75 degrees F), while the other strain is favored by high humidity, warm days (78 degrees F) and cool nights. The fungus produces a toxin necessary for disease symptom development. The fungus does not normally produce spores, so the disease is spread by movement of infected plant material by water, wind, or carried on mowers, maintenance equipment, hoses and shoes.

Cultural Management

No cultivars of creeping bentgrass or annual bluegrass are resistant to dollar spot. Most Kentucky bluegrass cultivars are resistant. Two susceptible cultivars which should be avoided in Michigan are "Nugget" and "Sydsport"

During periods of severe infection, the nitrogen levels should be kept high to reduce dollar spot and

Table 1. Recommended fungicides for the management of dollar spot.

Common Name	Trade Name	Manufacturer
Benomyl	Tersan 1991 Proturf Fertilizer + DSB fungicide	duPont O. M. Scott
Cadmium chloride	Caddy Cad-Trete	W. A. Cleary W. A. Cleary
Cadmium succinate	Cadiminate	Mallinckrodt
Chlorothalonil	Daconil 2787 Proturf 101 V Broad Spectrum Fungicide	Diamond Shamrock O. M. Scott
Cycloheximide	Acti-dione TGF	Upjohn
Cycloheximide + Thiram	Acti-dione + Thiram	Upjohn
Dyrene	Dyrene Dymec 50 Proturf Fungicide III Ortho Dyrene Lawn Disease Control	Mobay PBI Gordon O. M. Scott Chevron
Iprodione	Chipco 26019	Rhone Poulenc
Thiophanate-ethyl	Cleary 3336	W. A. Cleary
Thiophanate-methyl	Fungo 50 Topmec 70 W Proturf Systemic Fungicide	Mallinckrodt PBI Gordon O. M. Scott
Thiophanate + Thiram	Bromosan	W. A. Cleary
Thiophanate + anilazine	Spectro Turf Fungicide	W. A. Cleary

to make a fungicide management program more effective. Keep nitrogen levels high with light, frequent applications of 1/2 lb. per 1000 ft per month in June, July and August to manage dollar spot and promote growth of the grass plants during warm weather.

Chemical Management

Table 1 contains a list of effective fungicides for dollar spot management. Remember, use all fungicides in accordance with label directions. Do not misuse or misapply pesticides.

MICHIGAN STATE UNIVERSITY



COOPERATIVE
EXTENSION
SERVICE

MSU is an Affirmative Action/Equal Opportunity Institution. Cooperative Extension Service programs are open to all without regard to race, color, national origin, or sex.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gordon E. Guyer, Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824

This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the Cooperative Extension Service or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.