



## Drechslera Leaf Spot: *Drechslera* spp.

### Introduction

These common leaf spot diseases encountered in New York are most destructive during cold, wet, overcast weather such as occurs during spring and fall. They are also common where turf is sprinkled with water frequently. Leaf spot fungi cause gradual browning and thinning or melting-out of grasses and, if severe, the entire turf plant may be lost. Crown and root rotting often follow leaf-spotting as the season progresses and temperatures rise. Diseases caused by the species of *Drechslera* and *Bipolaris* were formerly grouped together as *Helminthosporium* leaf spot, crown rot, and root rot. Now, however, they have been segregated into several genera. Many species of *Drechslera* cause what is known today as *Drechslera* leaf spot, crown rot, and root rot.



Figure 1: *Drechslera* spores

### Symptoms and Signs

Small, dark-brown, purplish, or purplish-red colored spots appear on the leaves from the early spring to late fall. As these leaf spots increase in size their centers may fade to a straw or light-brown color. The spots are usually surrounded by narrow dark reddish-brown to purplish-black borders. As the disease progresses in favorable weather, the spots run together and girdle the leaf blades. The crown rot stage appears with the first warm weather, causing a reddish-brown decay of the crown, rhizome, and root tissues. Plants lack vigor and wilt during mid-day as the root are destroyed.

### Disease Cycle

The fungi which cause the disease survive from year to year in dead clippings or infected grass plants. Spores are produced in the spring and carried to new leaves by air currents, mowers, splashing water, feet, etc. The spores germinate in a film of moisture and infect the leaves, causing spotting. New leaf infections may occur as long as the weather remains moist and the temperatures are favorable. With the arrival of relatively dry weather in the summer, the leaf spot phase decreases and crowns and roots are attacked. Crown and root infections in midsummer lead to the melting-out phase of the disease and large patches of turf may be killed.

### Management Strategies

Mow grasses at the recommended maximum height for satisfactory turf use. Mowing should be done frequently so that no more than 1/3 of the leaf surface is removed at any one time. Avoid letting

thatch accumulate over 1/2 inch in depth. Fertilize on a regular program to maintain as uniform a level of soil nutrients as possible. Use a balanced fertilizer, and avoid applications before late May or early June. Avoid excess nitrogen, especially in the spring.

In dry weather, apply enough water to soak the soil at least six to eight inches deep. Frequently sprinkling and water-logging the soils should be avoided. Many Kentucky bluegrass varieties are resistant to this disease including: 'Bonnieblue', 'Bristol', 'Challenger', 'Eclipse', and 'Midnight'. Most fescues are susceptible. 'Reliant', a hard fescue, has excellent tolerance to leaf spot diseases. Varieties including 'Spartan', 'Tournament', 'Waldina' (all hard fescues), and 'Shadow' (chewing fescue) have good tolerance to such diseases.

For homeowners, several fungicides may be used to aid in disease management. For a list of specific products, that may be registered for this use in New York State, please refer to our [turf fungicide table](#). Before purchasing, be sure the specific product is labeled for the intended use; apply fungicides at intervals recommended on the packaging label during cool moist weather from April to June. September and October applications may be necessary if favorable weather persists. Try to avoid the use of "systemic fungicides" such as thiophanate-methyl or triadimefon on infected turf, as these fungicides may tend to increase the severity of disease.

Be certain any formulation of pesticide you purchase is registered for the intended use, and follow the label instructions. The label also contains information on how to apply the fungicide as well as any precautions.

Additional pesticides may be available for commercial turf applications. Commercial applications should refer to the appropriate pest management guidelines, or contact their local Cooperative Extension Office for more information on currently registered products.

#### Reference:

*Compendium of Turfgrass Diseases*, Third Edition, 2005. R.W. Smiley, P.H. Dernoeden and B.B. Clarke. APS Press.

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**READ THE LABEL BEFORE APPLYING ANY PESTICIDE!** Changes in pesticide regulations occur constantly. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office.

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