

Death by fungi

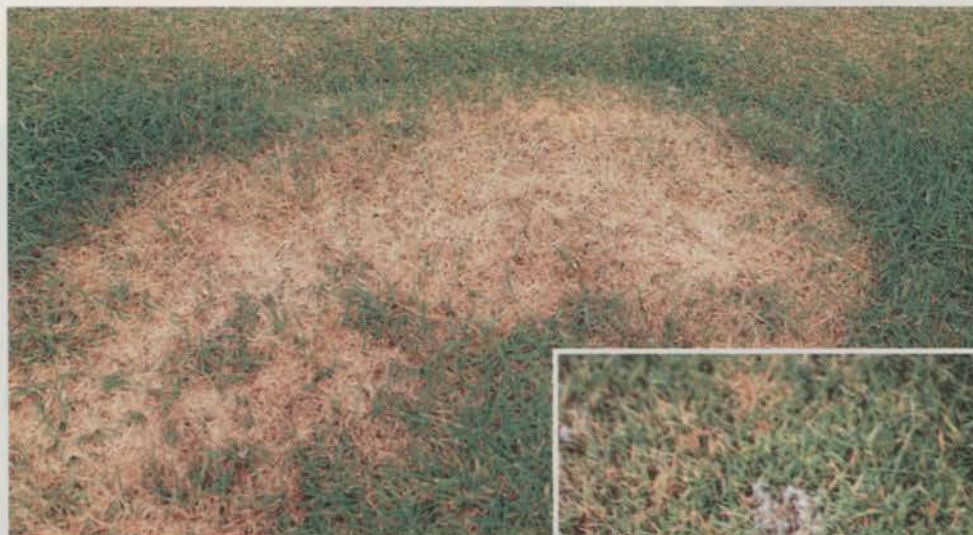
BY BRUCE MARTIN

The value of healthy lawns goes beyond aesthetics. In addition to pleasing the eye, they provide erosion protection, noise reduction and maintain or increase property values. In stressful environments, diseases can take their toll on lawns. Many companies offer disease control services along with other lawn care activities, such as fertilization, weed control and insect control.

A multi-faceted approach, including the use of fungicides, is often your best disease management strategy.

Fungicides work best when turfgrasses are cultured properly within their limits of adaptation. Turf managers must recognize the limitations of sites for culture of the turfgrasses and modify the sites for optimal growth, including selecting the best-adapted turf for the site, and managing it for optimal health. This could include eliminating trees, selective pruning, proper grading for drainage and/or the installation of supplemental drainage. Even with proper care, disease may occur if weather conditions and other factors are right.

When disease turns a healthy lawn into a blotchy brown mess, one part of the solution may include a fungicide.



Fungicides can help treat southern blight (above), which causes large crescent-shaped bare patches and dollar spot, named for its round coin-sized depressions.



When this occurs it's time to consider the judicious use of proven fungicides.

Lawn care disease control

Both cool-season and warm-season turfgrasses can be plagued with a variety of diseases and disorders. Major cool-season grasses used in lawns include Kentucky bluegrass, perennial ryegrass and tall fescue. Warm-season turf-

grasses include St. Augustine, centipede, zoysia and Bermudagrass. All of these are affected by one or more important diseases, and are harmed most by disease when environmental conditions favor the pathogen (usually a fungus) and disfavor the optimal growth of host plant.

The most common damaging diseases include brown patch in cool-season grasses,

large patch in warm-season grasses, dollar spot and leaf spots (caused by *Bipolaris* and *Drechslera* species). Kentucky bluegrass is also prone to summer patch (*Magnaporthe poae*) and can also be damaged by stripe smut, leafspot and melting-out diseases (*Drechslera poae*). St. Augustinegrass, tall fescue and perennial ryegrass can be troubled by gray leaf spot (*Magnaporthe grisea*) in



St. Augustinegrass, tall fescue (left) and perennial ryegrass can be troubled by gray leaf spot

addition to brown patch or large patch (*Rhizoctonia solani*).

What's old is new again

In the 1920s, the first fungicide for turf disease control, Bordeaux mixture, was actually a combination of two products: copper sulfate and lime. Old ideas, it seems, can be good ones and finding the right mixture and adding a bit of modern technology creates some of the best solutions.

Not all fungicides are alike, of course; they each have their strengths and weaknesses that must be recognized if they're to be used to greatest advantage. How-

ever, by putting two or more fungicides together for disease control several advantages occur. This is evident in Armada, a product offered by Bayer Environmental Science. The product provides broad-label control of many of the major lawn diseases, such as brown patch, dollar spot, anthracnose, fusarium patch, gray leaf spot, leaf spots (*Bipolaris* spp.), summer patch, pink patch, red thread, stripe smut, southern blight and rapid blight.

With these types of products (mixtures) you do not have to keep up with two active ingredients, look up rates for each, mix in the proper proportions or

wonder about incompatibility. Also, mixtures can even be more economical than purchasing the separate fungicides.

In the case of Armada, both active ingredients have cases of documented resistance. Therefore, the label indicates that no more than two sequential applications be made to turf when gray leaf spot is the targeted disease, or no more than three sequential applications for any other turf disease. In lawn care, with the restrictions placed on chlorothalonil use, our options for resistance management are limited, so use fungicides prudently in a well-thought-out integrated pest management strategy. **LJM**

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