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Symposium on Turfgrass Diseases 1979: Summary

by Jane F. Rissler, Plant Pathologist

On May 15-17, seventy-five university and government research and extension scientists, commercial lawn-care people, chemical company representatives, sod producers, and golf-course superintendents from many parts of the United States and Canada attended a symposium on turfgrass diseases at Columbus, Ohio. The meeting, jointly sponsored by Ohio State University and ChemLawn Corporation, provided an opportunity for turf pathologists to present and discuss their current research. Dr. Charles Darrah, Dr. David Wehner, Dr. Jame Rissler, and Mr. Kevin Mathias from the University of Maryland attended the symposium. In this article, major conclusions and observations from the meetings will be summarized.

Three themes recurred through the sessions of the symposium. First, there are often difficulties in diagnosing the cause of disease in turfgrasses because many pathogens can infect the plants but will be dormant until appropriate environmental conditions develop. Under these conditions, the pathogens can become active and cause disease. There-

fore, attempts to isolate the causal organism from turf lead to the culturing of several different pathogens without a convincing indication of which organism is causing the problem. Second, stresses due to environmental conditions or cultural practices can actually cause symptoms which are similar to some of the major fungal disease of turfgrasses. Therefore, application of fungicides in these situations will not be likely to reduce the disease problem. Third, these same stresses can affect turfgrass in a different way in that they can cause the plant to be more susceptible to development of fungal diseases. Therefore, disease problems often can be prevented if stresses are not imposed on the plants.

Separate sessions in the symposium were devoted to the major turf diseases: *Rhizoctonia* diseases, *Phythium* diseases, *Sclerotinia* dollarspot, *Helminthosporium* diseases, and *Fusarium* blight.

Rhizoctonia diseases. The major emphases in this session were 1) symptomatology and diagnosis and 2) differentiating among species of *Rhizoctonia*. It is becoming increasingly apparent that organisms classified as *Rhizoctonia* can be turf pathogens under warm, cool, and cold conditions. Warm weather brown patch caused by *R. solani* can usually be diagnosed from a consideration of both symptomatology and prevailing environmental conditions. Other organisms closely resembling *R. solani* have been isolated from turfgrasses which appear diseased during cool, wet weather. These pathogens are not the same as the one causing brown patch. However, certain specialized techniques involving both the structure and functioning of the organisms are required to distinguish among them. Problems and procedures associated with the classification of *Rhizoctonia* species were discussed.

Phythium diseases. *Phythium* blight of turfgrasses, also known as cottony blight, grease spot, spot blight, damping off, can be caused by several species of *Phythium*. Three topics were discussed: 1) isolation and identification of *Phythium* species, 2) cool vs. warm-season *Phythium*, and 3) seedling diseases caused by *Phythium*. Several techniques were given for isolating these organisms from diseased plant tissue and from soil and for inducing the organisms to produce reproductive structures once they were obtained in culture. Differentiating among the species of *Phythium* requires microscopic observations of these reproductive structures. *Phythium* species which cause

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President's Comment:

Fast Greens

Should we maintain a putting surface for the noisy minority or for the silent majority? More and more, I read or hear about "fast" putting surfaces. I was even told recently that the esthetics of the green were not important as long as it was a good "fast" surface. I wonder how long we would be on the job if we had 18 brown greens that putted "fast"?

In my opinion, the putting surface should be suited to the majority of your membership. The limiting factor being the climatic conditions in your area. The conditions in some areas are very limiting in regards to height of cut.

What the membership wants is a good year around (where possible) putting surface. It is our job to try and meet this need.

Sam Kessel