THE FIGHT AGAINST FUSARIUM BLIGHT

Summers in Indiana are made to order for Fusarium blight — it thrives on hot, humid weather accompanied by a long, dry spell. The disease has been a serious threat on many golf courses, but the 1974 season resulted in considerable encouragement for Terry Pfotenhauer and Dave Bolyard, a pair of Indianapolis golf course superintendents who have been seeking a solution to Fusarium problems.

Pfotenhauer studied turfgrass management at Purdue University and has served as superintendent at the Country Club of Indianapolis since 1963. He experienced severe loss of grass at his club from Fusarium and became interested in a good preventative program after attempting unsuccessfully to control the disease by syringing during the daytime. Steve Frazier, superintendent at Meridian Hills in Indianapolis, told him about the excellent control of Fusarium blight with a special turf fungicide program. Pfotenhauer convinced his greens committee to try the fungicide last year in hopes of keeping the course in top shape for an important local tournament scheduled for July.

Heavy flooding, due to 12 inches of rain in May alone, delayed the start of Pfotenhauer's 1974 course preparation work. "Late in May after the water subsided, we began slicing the fairways with knives every seven to 10 days to break up the compaction and improve the weak root structure of our grass," he told GOLFDOM.

"About June 21, we applied five ounces of the fungicide per 1,000 square feet. To prevent drying, the application was made in the evening in hopes of gaining some benefit from dew present on the grass. We also watered it in most of that night," he said.

According to Pfotenhauer, the control of Fusarium blight with that application lasted about 60 days. He observed some dry spots in late August where the grass would wilt and then regain its turgidity after watering, but there was no turf damage. His fairways are a mixture of common Kentucky bluegrass and bentgrass. "The Merion bluegrass began showing Fusarium somewhat early, after about 35-40 days. If I had large amounts of Merion, I'd follow up with a second application to obtain necessary control."

In the beginning, cost was a major concern. Pfotenhauer said, "Now that the committee and our members have seen our success in controlling the Fusarium, they are eager to do it again. In fact, the budget has been increased for 1975 to treat with the fungicide at seven ounces per 1,000 square feet. I believe the higher rate will lengthen the period of effective control on Merion and other grasses. We put it on in early June.

"The appearance of our course in 1974 not only impressed our members but also the LPGA committee that selected us as hosts for the U.S. Women's Open in 1978.

"I prefer the preventative approach to control, but its never too late to apply the fungicide for Fusarium. If you've got it, you can apply the fungicide and stop the disease. If you use the fungicide as a curative, it is important that you carefully observe your course daily for a development of the disease. And it helps to be ready to spray immediately."

Late last July, Dave Bolyard was

Fusarium blight at the Country Club of Indianapolis is examined by Stan Morris (left), distributor salesman, Riley Lawn & Golf, Indianapolis, and superintendent Terry Pfotenhauer.



FUSARIUM continued

visiting Pfotenhauer, observing his control of Fusarium. They both agreed conditions were ideal for the blight. Bolyard returned to the Hillcrest Country Club later that day and found that the disease was present in every fairway. He and his board of directors took quick action and controlled the disease with the same fungicide Pfotenhauer was using — Tersan 1991, manufactured by DuPont.

Bolyard, who holds two degrees from Michigan State University (a two-year technical certificate in turfgrass management and a B.S. in agronomy), came to Hillcrest in 1973. In his first year at the club, Bolyard was unable to determine the extent of his Fusarium problem because he had suffered considerable



Poa annua loss and had lost other grass due to scalding. He said, "The scalding appeared to result from standing water due to heavy thatch and compaction." Bolyard sliced the fairways in the fall of 1973 and seeded a bluegrass mixture of Victor Nugget and Windsor at the rate of 50 pounds per acre. He applied a broad-spectrum fungicide in 1974 for disease control. He had planned to remove the thatch in the spring, but heavy rains made that impossible. A few Fusarium spots were observed in early July, but Bolyard assumed they were isolated infestations due to compacted soil and weak root systems.

When Bolyard discovered he had a serious Fusarium problem, he went to his greens chairman immediately with a proposal including the slicing of the fairways and the application of a wetting agent, followed by five ounces of the fungicide per 1,000 square feet. Board approval was granted and within a week the fungicide was obtained and applied.Bolyard watered it in immediately after application and watered heavily for the next two or three days to get the material into the root zone.

"Within a few days, the disease was stopped," he said. "Some grass was lost before we got the chemical on, but good growing conditions in August and September helped fill in most of those spots. I didn't see any new Fusarium the rest of the year. When you weigh the cost of the chemical to control Fusarium blight against the cost of renovation and the loss of playing time, a disease control program looks very favorable."

This year, Bolyard plans to continue removing thatch to encourage deep root growth and to spray his fairways with five ounces of the fungicide per 1,000 square feet at the first sign of Fusarium blight. Both he and Pfotenhauer carry out planned fungicide programs for control of leafspot, Pythium and snow mold on their fairways, tees and greens.

As for the Fusarium blight, the two superintendents have far more confidence in their ability to control the disease than a year ago. Their programs differ a bit with Pfotenhauer using preventative measures and Bolyard a curative approach, but their goal is the same fairways free of Fusarium.

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