

The Northern Wisconsin Turfgrass Research Project

Serving the Needs of the North

By Dr. Frank S. Rossi

The Tao of Turf

UW-Madison; Horticulture

Perspective

As I mentioned in an earlier article, where I elaborated on the meaning of my by-line, I am a native New Yorker. I moved from the metropolitan New York area for college in 1980 and except for a few summers and my two years at the Greenwich Country Club in Connecticut (1984-86), I have been away for over 12 years. As I have traveled and lived in Rhode Island, Upstate New York, Michigan and now Wisconsin, I have always sensed a resentment of the east. For awhile this was puzzling to me; however, now I have an idea what it stems from.

This past winter as the north central U.S. was in the deep freeze, recording temperatures in the 20 to 50 below range, the New York metropolitan areas was getting about 12 to 20 inches of snow in several storms. Being confined to the house for a few days when my daughter was off from school due to the weather, I watched some of the national news programs on TV. It became obvious to me that the weather in the eastern U.S. took precedence over the rest of the country. The newscast spent about 20 minutes of a 25-minute newscast on the "terrible storms hitting the eastern U.S." What about the north Central U.S., I wondered? Is something only a news story when it happens in New York? I began to resent the notion that the east is where the news is at and I believe at that moment I became a Midwesterner (still a New York sports fan).

In the golf course management arena, the same story applies. The winter of 1992-93 was devastating to our region, yet, did *USA Today* do a feature story on it? No. Then, this past winter of 1993-94 major winter kill hit many golf courses up and down the east coast and as far west as Pittsburgh, Penn. It seemed that every week *USA Today* had a story in the sports section regarding the "great winter that struck golf courses." And as we might expect, it was almost exclusively the annual bluegrass and perennial ryegrass that was killed. Thankfully, we recognize the importance of avoiding high populations of ryegrass on our golf courses.

As a result of the kill back east my phone rang for a while as I'm sure Dr. John Robert's did. I was happy to help in any way I could, especially since we have begun our research investigating the mechanisms of winter kill. to address the "forgotten needs" of our northern turfgrass managers, the UW-Turfgrass Group has begun a research project in the Northwoods (above 45° latitude). The Northern Wisconsin Turfgrass Research Project would be designed to serve the turfgrass managers in Minnesota, Northern Wisconsin and the Upper Peninsula of Michigan. And we don't need media attention to do it!

The Project

As a result of the location of the UW-Madison and the O.J. Noer Turfgrass facility, it is difficult to mimic conditions experienced in the Northwoods. Additionally, it is challenging to conduct research projects that require highly controlled conditions and regular environmental monitoring. Therefore, the first few studies in the Northern Project will include turfgrass species and cultivar evaluations and low-temperature disease management (specifically the snow molds). We have selected the Gateway Golf Course in Land 'O Lakes, Wis. (formerly Stateline, Wis.) on the Michigan-Wisconsin border. Todd Renck is the golf course superintendent and part owner. Gateway was selected for the location with the primary requirement being a commitment for 10 years to allow the plots to be maintained.

The other significant aspect in the planning of the Project was to garner support for the use of a putting surface for green research. Plans are underway to construct 5,000 to 10,000 ft² of additional putting green area at Gateway for projects such as the influence of traffic and management systems on putting green quality.

The Studies

The first experiment installed was the Northern Fairway Turfgrass Evaluation. This study includes 75 species and cultivars of turfgrasses with potential for use as fairway turf. The majority of the species (60) are part of the National Turfgrass Evaluation Program (NTEP) Fine Leaf Fescue Trial. The NTEP trials are conducted throughout the United States and Canada and are funded through the USDA and seed companies. We have included nine selections from a turfgrass breeder in Sweden, as well as several other species including *Poa supina*, commercially available Kentucky bluegrass cultivars that have performed well in our fairway trial in Madison, and some experimental fine-leaf fescues from Medalist America and Dr. Eric Nelson's breeding program. The trial is part of No. 2 fairway at Gateway and will receive typical fairway maintenance practices including traffic and divots from golfers.

Our objective is to evaluate the use of fine-leaf fescues and other alternatives to bluegrass for fairway turf in the north. The motivation behind evaluating these grasses emanates from my interest in the use of the fine-leaf fescues on golf courses. These grasses are able to provide good quality under lower fertility than the bluegrasses (e.g. 2# N/M/year vs. 4# N/M/year) and usually tolerate poor growing conditions including dry or wet and shady. Additionally,

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I have had the opportunity to visit golf courses throughout New England, the Maritime Provinces of Canada and more recently outside of Traverse City, Mich. (High Point Golf Club) where the fine-leaf fescues have been planted tee to green. In most cases where there is significant play, the fescues cannot hold up on the greens. However, tees and especially fairways

have been providing superior conditions for many years. A quick look at the maintenance budgets also adds a nice feature to the fescues. In general, pesticide applications are about 30 to 50% less than other courses in the area.

We do not expect the fine-leaf fescue to be without their problems, notably the lack of wear, tolerance and slow recuperative ability. Also, diseases such as red thread and leafspot could be devastating. Still, traffic pat-

terns can be managed successfully to limit excessive wear and conditions that are conducive to severe disease outbreaks are not common. We have also observed some cultivar difference in snow mold and leafspot susceptibility; however, these are only preliminary observations.

We are very excited about the opportunity to evaluate species under "real world" conditions, yet, a Northern Turfgrass Research Project would not be complete without disease evaluations. Dr. Julie Meyer, the UW-Madison Turfgrass & Agronomic Crop Pathologist, will be conducting extensive long-term disease evaluations. Also, Dr. Meyer's graduate assistant, Steve Millet, is working on a Ph.D. investigating the biology of Gray Snow Mold and could be conducting experiments as part of the project. Dr. Meyer will be evaluating commercially available and experimental fungicides for effectiveness, as well as several composted and microbial-based products as part of the biological disease management program.

The Future

We are currently planning on holding a Field Day at Gateway sometime in 1995 to view the progress of the project and provide an open forum for input for future efforts. We have been in contact with many seed companies interested in evaluating their materials in our project. Also, turfgrass research programs in Manitoba and Alberta, Canada have expressed interest in collaborating on projects that affect their turfgrass managers. So the future looks bright for the Northern Project, so bright I gotta wear shades!

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