
THE NORTHERN WISCONSIN TURFGRASS RESEARCH PROJECT

By Dr. Frank Rossi

The University of Wisconsin-Madison Turfgrass Group has begun a research project in the northern part of Wisconsin (above 45 degree latitude) to address the needs of turf managers in that part of Wisconsin and the rest of the upper midwest. In fact, the work is designed to serve turfgrass managers in Minnesota and the UP of Michigan, too.

Because of the geographical 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 on the Wisconsin-Michigan border. Todd Renck is the golf course superintendent and part owner. Gateway was selected because of its location; the primary requirement was a commitment for ten 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 5,000-10,000 square feet of additional putting green area at Gateway for projects such as the influence of traffic and management systems on putting green quality.

The first experiment installed was the Northern Fairway Turfgrass Evaluation. This study includes 75 species of 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* and commercially available Kentucky bluegrass cultivars that have performed well in our fairway trial in Madison. Also included are some experimental fine-leaf fescues from Medalist America and Dr. Eric Nelson's breeding program. The trial is part of the second 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 bluegrasses for fairway turf in the north. The motivation behind evaluating these grasses emanates from my interest in the use of 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/yr vs. 4#N/M/yr) and usually tolerate poor growing conditions—wet or dry or shady.

Additionally, I have had the opportunity to visit golf courses throughout New England, the Maritime Provinces of Canada and more recently the Traverse City, Michigan area (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 fes-

cues 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 patterns 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. A Northern Turfgrass Research Project would not be complete without disease evaluations. Dr. Julie Meyer will be conducting extensive long-term disease evaluations.

Steve Millet, a PhD candidate working under Meyer's direction, is 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.

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 for our project. Also, turfgrass research programs in Manitoba and Alberta, Canada has expressed interest in collaborating on projects that affect their turfgrass managers.

The future looks bright for the Northern Project. We will keep you informed of its progress and results. ♣