Peer-Reviewed Publications in 2010


Fund Project Ongoing Projects (does not include projects completed before 2010). Developing alternative turf species for salt and drought affected sites. 2010-2013. Local Road Research Board (MdDOT). $176,516.


By Brian Horgan, Ph.D. and Eric Watkins

University of Minnesota Turfgrass Research Program Update

The University of Minnesota Turfgrass Science program has had another successful year. Our research program has conducted research in three primary areas: (1) Environmental Protection, (2) Production and Management of Turfgrasses and (3) Turfgrass Breeding and Genetics. At the end of this article, we have listed peer-reviewed scientific publications from 2010 and also a list of current research projects that are being funded at our research center. As you can see, our team of students and researchers has been very successful in conducting important research that will benefit turfgrass professionals in both the short-term and the long-term.

When interacting with stakeholders, we often are asked how the University of Minnesota financial situation affects our research and education program. Unfortunately, the declining financial resources available within the University are beginning to impact our program; in the past, the college was able to help support our field facility manager position, which is no longer the case. In the near future, we expect to see severe reductions, or even elimination, of funds dedicated towards personnel that help keep the TROE Center operational. Fortunately, the turfgrass science program has been well-supported by the turf and grounds industry in Minnesota. When we talk to colleagues throughout the country, we realize how fortunate we are to have a great relationship with industry partners such as MGCSA and MTGF. The funding we receive from these organizations has allowed us to successfully compete for a number of large grants (see list at end of this article).

Typically, industry groups, such as the MGCSA and MTGF, can support research in one of two ways. The first model supports research by funding the infrastructure necessary for longer-term, impactful research projects. The second model supports specific research projects but does not provide funding for critical infrastructure and personnel. One advantage to the project-specific funding model is industry professionals can quickly use the research results. For instance, a trial that evaluates a series of plant growth regulators for use on annual bluegrass would provide research results within a short time frame and lead to changes in turf management.

For these types of research projects, we are endorsing a graduate student fellowship and are happy to report that we have commitments for $240,000 (goal is $400,000). We appreciate the MGCSA’s support of this fellowship.

The first model allows us to confidently present research proposals to outside funding agencies because we know that the infrastructure and personnel costs associated with maintaining our facility are in place. Most funding agencies want to fund graduate student research and related supplies and are not interested in funding infrastructure or long-term research personnel. This model provides industry a significant return on investment since a graduate student costs our program approximately $40,000/yr (same amount granted by MTGF to our program in 2011).

In summary, our program relies on general funding for infrastructure and personnel (TROE Center and people to run it). This allows us to invest in long-term research projects that will have implications for turf management throughout the region and country for decades to come. At the same time, a fully-funded research center allows us to perform ready-applied research. It is our desire that MTGF and the allied organization, such as the MGCSA, will continue to support the TROE Center and the personnel necessary for the continuation of a nationally recognized, impactful turfgrass research program.

We hope that MGCSA members will be able to join us for the 2011 Turf and Grounds Field which will be held on Thursday, September 15 on the St. Paul campus. Details will be provided later this summer at www.mtgf.org.