

## Introduction

This is the 18<sup>th</sup> annual Wisconsin Turf Research Report. Each year the number of projects conducted by the turf group grows and the results are compiled in the report in an effort to get the information to you, the end user. This year the turf group decided to distribute the reports via CD (compact disk) and the internet in lieu of the paper version of years past. Publishing the increasingly large report was very cost inefficient. There are two electronic formats to make the conversion from paper as easy as possible. While some project information is useful immediately, other projects are undertaken with the understanding their practical utility may be several years away, but the preliminary research is needed before the next step can be taken.

The turf research program has again grown this year. Dr Geunwha Jung completed his first season with the UW turf program in 2000. The total number of graduate students in the program has now reached eight. Stephen Pearson was hired in April to serve as a research specialist for John Stier. The O.J. Noer is still scheduled for a major expansion of nine acres in the near future. The land was acquired as a gift from the UW foundation via the Athletic Department, making the Noer facility one of the largest in the country.

## Acknowledgements

Many special thanks go out to all of the turf industry people and organizations that donated their time, money, and supplies to the turfgrass program. With the expanding program has come the need for additional research plot area, equipment, fertilizer, chemicals and other items. The industry has graciously supported the growing program by increasing their donations and assistance. Without the tremendous support the turfgrass program would cease to function as we have become accustomed. The annual donations of equipment, construction materials, irrigation supplies, fertilizers, pesticides, sod, seed, and other items are all vital to the program. The successful research and extension programs are combined with a solid teaching program which returns alumni support back to the industry and university. We are also grateful for the opportunities many of you have provided for us to conduct research on your property.

## Authors and Assistants

**Mrs. Audra Anderson**, secretary of the Wisconsin Turfgrass Association and receptionist for the Noer facility, is the spark which keeps the station functioning administratively as well as WTA-related functions, notable field days and the Turf and Grounds Expo. Her energy and good cheer provide a healthy and vigorous atmosphere at the Noer facility which fosters good working relationships and productive work efforts.

**Mr. Krome Burke-Scoll** joined the turfgrass program this past spring as Dr. Jung's research technician, conducting molecular based research.

**Dr. Mike Casler**, professor in the Department of Agronomy, has primary responsibilities in research and teaching. As with other members of the turf program, he assists with field days and other educational events. Dr. Casler brings a wealth of grass breeding experience to the turf program and has several projects designed to develop better cultivars for golf and athletic turf. Some of the efforts are geared towards the development of snow mold and *Poa annua*-resistant bentgrasses. He was assisted in 2000 by his technician Andy Beal and a number of student workers.

**Ms. Daniele Filiault**, graduate research assistant in the Department of Horticulture, is working towards her Master of Science degree in cold stress physiology of turfgrasses. She presented some of her work at the American Society of Agronomy meeting in Minneapolis this November. She will complete her M.S. program in 2001 and plans to pursue a Ph.D. in turf research.

**Mr. Gary Gaard**, technical assistant in the Department of Plant Pathology, is the turf diagnostician for homeowner samples for the Turfgrass Diagnostic Lab. Mr. Gaard has been responsible for working with the Ice Age Trail which crosses through the Noer property and for enhancing the wildlife habitat in and around the facility.

**Mr. Jeff Gregos**, outreach specialist in the Department of Plant Pathology, is the commercial turf diagnostician for the Turfgrass Diagnostic Lab. Mr. Gregos also conducts an extensive battery of product tests for control of turf diseases both at the Noer Facility and on golf courses throughout the state. In 1999 Mr. Gregos began working toward a Master of Science degree with research emphasis on identifying snow-mold resistant turfgrass selections. Mr. Gregos is active in extension programs including field days and Expo and provides critical technical assistance at the Noer facility. Mr. Gregos was assisted in 2000 by Bob Lisi.

**Dr. Geunhwa Jung**, was hired as a turfgrass pathologist in the Department of Plant Pathology in January 2000. Dr Jung's research is largely directed towards molecular characterization of turfgrass germplasm and pathogens. His major emphasis is on research but will be participating in extension functions. He was assisted by Krome Burke-Scoll and Elizabeth Scheef.

**Dr. Wayne Kussow**, Professor in the Department of Soil Science, has primary responsibilities in research and teaching yet frequently assists with extension efforts. Dr. Kussow's work is in soil fertility, soil amendments and related areas for golf and lawn turf. His recent work in nutrient runoff and leaching is having a dramatic effect at the state level and beyond, while his practical suggestions for soil test reports and homeowner education will change and improve the public's ability to properly understand and apply turf fertilizers. Dr. Kussow advises the majority of the turf students and teaches a general soils course in addition to a course in turfgrass fertility. Dr. Kussow was assisted this summer by John Baus.

**Ms. Sabrina Mueller** is a graduate student in the Department of Soil Science. She is conducting research on root zone microbial activity under the direction of Dr. Wayne Kussow.

**Mr. Stephen Pearson** was hired by Dr. Stier in April 2000 as a research specialist. He has been with the turf program for 3 years working for the Turfgrass Diagnostic Lab prior to employment with the Department of Horticulture.

**Mr. Tom Schwab** is the manager of the O.J. Noer Facility. In addition to managing the grounds, building, and equipment for the facility he conducts applied research for turf product evaluations and is responsible for ornamental grass evaluations. Mr. Schwab is also the editor of the WTA and WSTMA quarterly new letters. Mr. Schwab was assisted this year by Kyle Meyer, Shawn McGwire, and Brad Roper.

**Mr. Kurt Steinke** began his Masters of Science program in the Department of Horticulture during the autumn of 1999. His thesis work will be on stress tolerance of supina bluegrass, particularly assessing its potential for shaded golf tees as it relates to cold temperatures and its tolerance to herbicides. Mr. Steinke completed enough work in the fall to present a poster at the American Society of Agronomy meeting in Minneapolis this November.

**Dr. John Stier**, assistant professor in the Department of Horticulture, has primary responsibilities in extension and teaching. His research areas are environmental stress tolerance, particularly cold tolerance, athletic turf management, and supina bluegrass management for both golf and sports turf. Additional research includes putting green management, herbicides, growth regulators, and NTEP trials. He teaches introductory and advanced turf courses. Dr. Stier was assisted in 2000 by Andrew Hollman.

**Ms. Allison Walston** came to the UW turf program from the University of Kentucky. Allison is working on her Master of Science degree with funding from the Wisconsin Department of Agriculture, Consumer Protection on a project to quantify pesticide runoff from urban landscapes, a project jointly overseen by Dr. Chris Williamson and Dr. John Stier. Allison presented a poster highlighting her work at the American Society of Agronomy in Minneapolis this November.

**Mr. Zichun Wang** is continuing work on his Masters of Science working towards breeding snow-mold resistance bentgrasses. This interdisciplinary project is funded through CALS. The project involves the Agronomy, Horticulture, and Plant Pathology departments.

**Dr. Chris Williamson** is the turfgrass and ornamental extension entomologist in the Department of Entomology. Dr. Williamson's research is largely directed towards management of black cutworm and white grub in golf turf. He co-developed the Holistic Turf Pest Management course with Dr. Stier last year in addition to conducting research trials throughout the state as well as participating in numerous extension activities throughout the year. Steve Hong who is a first-year graduate student in the turf program assisted Dr. Williamson this year.

## **DISCLAIMER**

The results in this report are not necessarily intended as turf management recommendations. Products, application procedures and other research approaches may not be legal or appropriate for some or all areas of turf management in Wisconsin. No endorsement of products or companies is implied or intended. Whenever practical, common names for chemical products have been used.

This publication was paid for and distributed by the Wisconsin Turfgrass Association as a benefit to its membership and the turfgrass industry. Any questions or comments should be directed to the authors of the research report. Comments on the electronic format used should be directed to Jeff Gregos.