



DNR NR151 Regulations For Non-Point Pollution Abatement

By Wayne Kussow, Department of Soil Science,
University of Wisconsin-Madison

Background

NR 151 is a new chapter in the Department of Natural Resources (DNR) Administrative Code. It came into being as a result of two legislative acts, the 1997 Wisconsin Act 27 and the 1999 Wisconsin Act 9. These acts require changes to the DNR Non-point Source Water Pollution Abatement Program and to the Wisconsin Department of Agriculture Trade and Consumer Protection (WDTACP) Soil and Water Resources Management Program. It is my understanding that it was a decision of the state's Natural Resources Board to include non-agricultural as well as agricultural non-point sources of pollutants in the new rules and regulations. The DNR response has been to create Chapter NR 151, Runoff Management, which includes performance standards and prohibitions, and addresses implementation and enforcement and the technical standards development process for non-agricultural performance standards. It is the DNR Bureau of Watershed Management that is responsible for the development and dissemination of the technical standards.

Components of NR 151

There are five subchapters to NR 151. It is Subchapter III -

Non-agricultural Performance Standards that is of concern to us. This subchapter sets forth performance standards for construction sites - new and reconstruction, post-construction of new and redevelopment areas, developed urban areas, and non-municipal property fertilizer and pesticide usage. By way of definition, performance standard means "a measurable number or measurable narrative specifying the minimal acceptable outcome for a facility or practice".

Construction sites - new and reconstruction: The performance standard is an 80% reduction in sediment loss as compared to a site where no controls are in place. This standard will initially pertain to sites of five or more acres in size and any grading or removal of topsoil from the bank of any navigable stream or lake where the area exposed exceeds 10,000 square feet. On March 10, 2003, the size of the construction or reconstruction site subject to regulation reduces to one or more acres. The landowner or person controlling the construction must submit to the DNR and have approved a best management plan (BMP) before construction can begin.

Post-construction (new development and redevelopment): This will apply to any

construction or reconstruction that has been subject to the NR 151 performance standards. The first requirement here will be to develop an approved storm water management plan that reduces the average total annual suspended solids load by 80% for new construction or by 40% for reconstruction. The second requirement here will be to have an approved BMP designed to keep water runoff volume to 90% or less of that which occurred during pre-development in residential areas and to 70% in all other areas. The requirements of this section are actually much more complex than indicated here. Depending on location, similar regulations will apply to fueling and vehicle maintenance areas!

Post-construction areas defined as being adjacent to surface waters are subject to further regulation. In these instances, buffer areas will have to be developed. Depending on the situation, the required width of the buffer strip can range from 10 to 75 feet. This is one of a number of sections in NR 151 where we really become irate because the recommendation is "that seeding of non-aggressive vegetative cover be used in the buffer areas. Native vegetation is preferable and short-rooted vegetation such as Kentucky

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O.J. Noer Turfgrass
Research and
Educational Facility.

"You will be most effective if you present well reasoned, science-backed arguments and you do so in writing".

bluegrass is least desirable".

Developed urban areas: This section specifically applies to municipalities that discharge runoff to waters of the state or to storm sewers that discharge to waters of the state. Among other things, the municipalities with pervious areas over five acres shall apply fertilizer based on soil test results and use pesticides in accord with an integrated pest management plan.

Non-municipal properties: This section applies to all properties not owned by municipalities and: (1) the property has over five acres of pervious area where fertilizers and pesticides are applied; and (2) the property discharges runoff to waters of the state or to a separate storm sewer that discharges to waters of the state. The owner of such property has until March 10, 2008 to commence applying fertilizers based on soil tests and pesticides based on an integrated pest management plan. It is suggested that the owner consider using slow release fertilizers to reduce the concentration of nitrates reaching groundwater.

Ramifications of NR 151

The green industry certainly needs to be concerned about NR 151. It applies to any turf area five acres or more in size and discharging runoff, directly or indirectly, into waters of the state. The list of potentially affected areas is long - golf courses, sod farms, commercial, institutional and school grounds, municipal parks, athletic field complexes, and even airports, roadways, and cemeteries. I'm willing to wager that somewhere down the line homelawns will come under scrutiny and possible regulation as well.

What should we be doing about NR 151? Many of you went to the hearings held by the DNR during the period of March 12 to 22. That's a good start because it has alerted the DNR

to the level of public concern and you raised important issues. Now the task is to educate, educate, educate. Dr. John Stier and I met with staff from the Bureau of Water Management in February. I shared with them a large volume of research on nutrient and pesticide losses from turf and talked about some of the misperceptions surrounding turf and its management. A week later I sent a second installment of research literature to them. Will they read these materials and pay attention to them? I believe they will, if for no other reason than that the new head of the DNR, in his inaugural speech, stated that DNR decisions will be based on science. What is needed now is constant reminder of this commitment.

Where Do We Go from Here?

First, let's not get unduly agitated and engage in heated verbal exchanges. Colleagues of mine have dealt with agricultural runoff regulation for several years and offer some sage advice. "You will be most effective if you present well reasoned, science-backed arguments and you do so in writing". Dr. Stier and I are doing so and I urge others to do likewise. But the deadline for doing so is very short. Written comments have to be submitted to Carol Holden, DNR-WT/2, P.O. Box 7921, Madison, WI 53707 no later than April 20. There are many issues that you might raise. Let me list a few of them.

1. There is no soil test for nitrogen, so what standards will be applied?

2. Are you aware that nitrogen rates used on turf are only about 1/3 those required for maximum biomass production? Hence, in contrast to agronomic and horticultural crops, runoff and leaching losses of N from turf are extremely low.

3. Are you aware that, because leaching loss of N from

turf is typically so low, differences between slow release and soluble N fertilizers are generally insignificant?

4. Are you aware that current soil tests for phosphorus give erroneous values for the calcareous soils and that a lot of turf is grown on such soils?

5. Are you aware that the interpretations of soil tests for turf are out of date, highly suspect, and vary from laboratory to laboratory?

6. Are you aware that states that have placed restrictions on phosphate fertilization use as cut-off criteria environmental rather than agronomic thresholds? Have environmental thresholds been developed for turf?

7. Many turf fertilizers contain micronutrients. Is their use subject to regulation based on soil test results?

8. Is there any scientific evidence that Kentucky bluegrass is inferior to native plant species when used in a buffer strip?

9. Are you aware that professional turf managers are educated in and do in fact follow integrated pest management programs?

10. Who is going to develop the BMP's and integrated pest management programs and educate the public in their site-specific development and implementation?

You can undoubtedly raise many other relevant issues and concerns. Please do so. It is vital that we impress upon the regulators that they have a lot of homework to do and they need to draw into their decision-making process individuals who are members of the scientific community. 🍀

Selection Of Kentucky Bluegrass Cultivars Using DNA Technology

By Geunhwa Jung, Department of Plant Pathology, University of Wisconsin-Madison


Selection of Kentucky bluegrass cultivars is getting more complicated and difficult for consumers because of the number of newly released cultivars on the market. At present, we do not have any idea how much the cultivars are genetically different from each other. However, those involved in making decisions about purchasing Kentucky bluegrass cultivars are eagerly looking for ways to facilitate their selection process. Here are some tips to keep in mind, which were taken from research-based results of our study completed last year — "Genetic characterization of Kentucky bluegrass cultivars using DNA markers."

Many Kentucky bluegrass cultivars were previously classified into 12 types (Compact type, Julia type, Compact-Midnight type, Mid-Atlantic type, Compact-America type, Bellevue type, Aggressive type, CELA type, Other types, BVMG type, Shamrock type, Common type), based on morphological and growth characteristics, disease reactions, and recommendations for blending options for each category of blue-

grass cultivars. The classification along with their morphological traits surely helps consumers select cultivars for their need. However, a very limited number of morphological traits were utilized for classifying Kentucky bluegrass cultivars. Because of the limited number, the resolution of differentiating individual bluegrass cultivars may not be precise enough to distinguish closely related cultivars. Also, what you see is the expression of morphological traits is strongly influenced by the environment.

On the other hand, DNA molecular markers have been successfully applied in registration activities like cultivar identification or control of seed purity of cultivars, as well as genetic relationships. Therefore, we studied the genetic relationships among 123 Kentucky bluegrass cultivars and PI (Plant Introduction: seeds or vegetative propagules or plants that have been introduced from another country) collections using RAPD (random amplified polymorphic DNA), a type of DNA marker. The specific objective of this work was to determine whether, for

example, Kentucky bluegrass cultivars such as Arcadia, Award, Impact, Midnight, NuGlade, Odyssey, Rugby II, Total Eclipse, Liberator, Explorer, Chicago, Quantum Leaf within the Compact-Midnight type are genetically and morphologically different from each other or not.

Preliminary results comparing morphological classification to genetic classification show those two morphological trait-based types, Compact-Midnight and BVMG are grouped similarly according to DNA marker based groupings. Then what is the practical application of the results? The results indicate, that if you have to make a choice of one cultivar out of the Compact-Midnight type, with the following characteristics of high turf quality, dark green color, high leaf spot resistance, medium low maintenance requirement, and high summer patch resistance (S. Bonos, et al., 2000), then my recommendation based on our research is to select any one of them because they are genetically and morphologically similar. 

Make Plans Now

To Attend

The WTA Fundraiser Golf Tournament

(You know what a blast the event was last year!!)

The Grand Geneva Resort in Lake Geneva, Wisconsin and golf course superintendent Jim Crothers will host the event.

All inclusive — Lunch, Range, Golf, Carts, Door Prizes

October 10th, 2001

NGLGCSA Hosts Another Great Conference

By Tom Schwab, O. J. Noer Turfgrass Research and Education Facility
University of Wisconsin-Madison

The Northern Great Lakes Golf Course Superintendents Association (NGLGCSA) held a very successful winter conference on March 26, 2001. When many southern Wisconsin golf course superintendents are watching their grass green up, the northern men and women are congregating at their annual show to listen and share important ideas for maintenance of their courses once the snow melts. Every year they decide on one subject for their symposium and delve into every aspect imaginable in the arena. Experts are brought in from far and wide to share their expertise on the subject and everyone leaves greatly educated.

The theme this year was irrigation. Talks focused on everything from irrigation installation, design, hardware, trouble-shooting, fertigation, water quality, pumps, ponds and more. You'd almost hope we have a drought this summer to test all the new knowledge that we gained. Not.

The presentations ranged from practical to scholastic. Dr. John Stier saved the day by giving one



NGL attendees were glad they came.

more talk than he was supposed to give when a previously scheduled person couldn't attend. John shined like he always does giving a talk about *Poa supina*. He told us about when to use it and the best management practices to maintain it. He also gave an update on the proposed DNR NR151 regulations for non-point pollution abatement and how it will affect the green industry. He suggested everyone write the DNR or attend a hearing to express concerns about some of the DNR's odd reasoning related to urban settings. In the afternoon John gave an in-depth dissertation on using effluent water for irrigation along with other water source issues. I don't think I would ever consider using effluent with all the problems of salts, solids, nutrients, negative plant and soils effects, and health concerns that he alluded to.

An old Wisconsin friend, Jim Spindler who now resides in Florida working for TerraBiotics, gave a presentation on fertigation. He told about the proper hardware and fertilizer that works best and gave other information on plant nutritional needs. I had to question one of his slides that conveyed fertigation is better for the environment than conventional fertilizing practices, when University of Wisconsin-Madison research shows that little to no runoff occurs with conventional practices. And I'm not aware of any research that finds fertigation

has less nutrient runoff. Other than that point, it was an interesting talk and showed turf managers there is another tool for them to consider out there.

Then there were numerous talks on all the hardware that makes up an irrigation system. Adam Mock from Reinders got a lively discussion going when he educated us on control systems options. He hit on all options — from practical to low-cost to computerized. In addition to control systems he told about the importance of maintaining grounding wires, surge suppressors, line conditioners, and so much more. Adam, like most of the speakers, has many years of experience and shared his knowledge generously.

Speaking of experience, two other great presentations came from John Markestad from Century Rain Aid and Hugh Wakefield from H.T. Wakefield Technical Services. John's talk was Troubleshooting Valve-In-Head Systems Before You Call An Expert. His tips will help us save time, money and frustration this next season. He also pointed out times when it's best to call in the cavalry. Hugh's talk focused on the muscle behind the irrigation system - the pump station. The kind of work that he specializes in should mostly be left to the experts because you could die if you have an accident working around that much electricity. He



A wealth of experiences were shared during the round table.

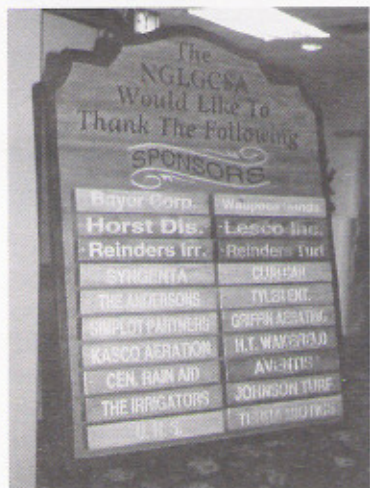
NGL Hugh Wakefield presented an animated talk on pump stations.



A wealth of experiences were shared during the round table.



Raffle prizes abounded.



The sign says it all.

said we can do minor lubrication and to definitely monitor the pump facility often to look for irregulari-

ties. But the best pump station maintenance we can do is to schedule routine check-ups by qualified pump or electrical contractors. Routine maintenance costs a fraction of an emergency call in the middle of the summer!

The last words of wisdom were given during a round table discussion moderated by Dr. Stier. Panelists Dan Barrett, Mike Jaeger, and Fred Fabian described their experiences with new irrigation installations. One common theme they all talked about is quality control. Make sure contaminants are kept out of the pipes by hasty assemblers, and keep an eye on and educate the people doing the work about

what is expected.

So that about sums up the education. The rest of the day was spent having fun dispersing the silent auction and raffle prizes. The NGLGCSA conference committee does a great job raising money at their conference to make sure the University does research pertinent to theirs and the whole turf industry's needs. I don't know how much money they raised but it appeared to be substantial. So, in sum, the conference raised important research money, and all attendees had lots of fun and received tons of education. Good job NGL. 🍀

WTA Presidents Message

By Dan Barrett

I would like to thank you for giving me the opportunity to serve as President of your Wisconsin Turfgrass Association. I recognize the commitment I must put forth to ensure the growth and stability of the WTA. The WTA Board of Directors and I will work diligently to serve the members, and support meaningful turfgrass research at the University of Wisconsin-Madison.

You will soon be receiving your 2001 WTA Membership Directory. Enclosed with your directory will be the WTA Annual Report. This report will provide a great deal of information on 2000 WTA activities including WTA financial charts. The WTA Board of Directors wants you to be an informed member of this association. We also appreciate and welcome any concerns, suggestions or comments you may have concerning your

Wisconsin Turfgrass Association.

I would like to thank Bob Erdahl of North Shore Country Club and Chris Wendorf of LL Olds Seed Company for their many years of service as WTA Board of Directors. Bob and Chris have served as WTA Presidents and have finished their terms as Board of Directors. These gentlemen have generously given hard work, commitment, dedication and professionalism in serving the WTA. Our sincere appreciation and best wishes are extended to both of them.

It is my pleasure to announce our two new Board members. They are Dan Biddick of National Seed and Scott Sann of Greenwood Hills Country Club. I would like to welcome these gentlemen to the Board of Directors and look forward to working with them on the Board.

There are some dates for WTA activities in the coming year to highlight for you. The WTA Field Day will be at the OJ Noer Facility on August 14, 2001. On October 10, 2001 the WTA Golf Fundraiser Outing will be held at the Grand Geneva Resort in Lake Geneva, WI. The WTA Turfgrass and Greenscape EXPO has been set for January 8th - 10th, 2002 at the Marriot Hotel and Convention Center in Middleton, WI. Please mark these dates on your calendar. Your participation is always appreciated and will continue to help make these events a success.

I would like to close by wishing you the best for 2001. Please feel free to contact myself or any of our Board of Directors if you have any questions, suggestions or comments. We are here to serve all of our valued members. Take care! 🍀

A New Tool For Turfgrass Managers

By Steve Pearson, Department of Horticulture,
University of Wisconsin-Madison

In the last issue of this newsletter I reported that the University of Wisconsin-Madison Turfgrass Research and Education Program was working on developing and constructing a new website. Well, I have good news to report, the site is now available on-line. We are still working on sections of the site, so it is certainly not in its final version.

What does this site have that might be useful or interesting to you? Well, the most useful tool on the site is probably access to the 2001 Wisconsin Turfgrass Research Report. If you attended the 2001 Turfgrass and Greenscape EXPO you received a CD with the 2001 Report on it. Having the Research Report on-line allows individuals who could not attend EXPO, access to this useful information. Additionally, the on-line format allows researchers and staff to add reports and information at any-time. The steady increase in the number of studies and trials

through the years has made the size of the report too large to print in paper form, but now individuals have the opportunity to print out the specific reports they are interested in. Each year the new report will be added to the site and the previous year's will remain available, eventually creating an archive of information for turfgrass managers to use.

Several other areas of the website may be of interest to you as well. For example, we have dedicated a large area of the site to the people who make up the Turfgrass Research and Education Program at UW-Madison. This area provides a short bio and contact information (e.g. phone number and e-mail) for all the professors, graduate students, and academic staff in the program.

If you have ever wondered what day Summer Field Day is this year, you can now access the answer via the Internet. Important events and their dates are posted on the News page of the website.

This area will be updated on a regular basis, so we encourage you to visit it often. Recently there has been a lot of talk about NR151 in the turfgrass community. If you don't know what it is or are interested in attending a hearing in your area, that information is posted on the News page as well.

I could continue to highlight what the site offers, but that would ruin it for those of you who haven't visited it yet. When you visit the site please keep in mind that we are still working on it, so bookmark it and visit it often! As the designer and creator of the site I encourage people to contact me with comments or questions. I would also like to acknowledge two people who assisted me on this project: first, Jeff Gregos for helping me with the program I used to build the site and for allowing me to use his computer; secondly, Allison Walston for creating and building the Entomology page.

Website Address:

www.hort.wisc.edu/uwturf

Wisconsin's Turf Industry Loses A Good Friend

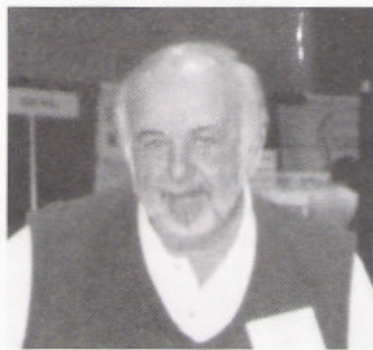
By Tom Schwab, O. J. Noer Turfgrass Research and Education Facility
University of Wisconsin-Madison

John Buck, owner of J.W. Turf Equipment, lost his life to cancer on March 26, 2001. I first met John at the John Deere Golf Championship that he hosted at Monroe Country Club where he was so enthusiastic about it becoming a premier event in the state. The tournament flourished and my friendship with him did also. My team won the event that year and we spent time together at the national tournament in California.

He was so gracious to our team and wanted to make sure we had a memorable event. Whenever I talked to him since then he was always willing to help out with my turfgrass needs. He's been a big donor of turf equipment to the Noer facility since I moved here and he always enjoyed participating in the Summer Field Day and Turfgrass EXPO. His sales people and mechanics have also been so helpful to me, which I'm sure is a characteristic that John nurtured in his employees. He was always a gentle man

when I talked to him. Outside of his business he seemed to have many interests also. He really liked to golf, collected old cars, and loved his family and friends. I'm sure there is so much more to tell about him but he lived a state away from me, ran an extremely successful business, and I only saw him at an occasional golf outing and the WTA educational events. At 61 he was way too young to pass from this world. I, like many of you, am going to miss his friendly manner. Our prayers are with him and his family.

John Buck will be remembered as a good friend to Wisconsin's Turf Industry.



WTA Field Day 2001, Not To Be Missed

By Tom Schwab, O. J. Noer Turfgrass Research and Education Facility
University of Wisconsin-Madison

The 2001 edition of the WTA Summer Field Day offers to be the best ever. The planning committee has been working hard over winter to think up new ideas to please attendees. The research tour will try to offer useful and current information. Mark your calendars now. The date is set for Tuesday, August 14th, 2001. The location is, as always, the OJ Noer Turf Research facility in Verona. The facility is the site where the

greatest amount of the University's turf research is conducted and it also provides ample space to host the large crowds of interested turf managers.

The day starts out with two different research tours. One focuses on golf subjects and the other is for lawn care, sod, and sports turf interests. The exact tour has not been defined as of this time, but every effort will be made to present talks that you want to hear about, not just ones that are presently located at the facility. If you have topics that you'd like to see presented, then please call the Noer facility and let us know at 608-845-6895. In addition to the tour, the researchers will make themselves available all afternoon to answer your individual questions one-on-one.

Many people think the research tour is the highlight of the day, but there is so much more! There is a huge trade show featuring over 50 companies that supply every turfgrass piece of equipment, product, or service that you would

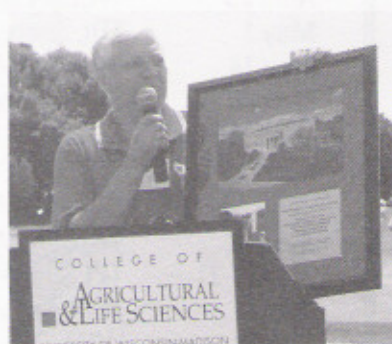
ever need. Many of the vendors let you test drive and compare their mowers and other vehicles during the trade show hours. Or if you prefer, sit back and take notes during the equipment demonstration period where factory representatives demonstrate all the latest features of different equipment.

The vendors also sponsor a silent auction where attendees can bid and get deals on needed supplies with the proceeds going to support turf research. The auction is going to have a new feature this year. Your name will be entered in a drawing for \$200 cash every time you place a bid. And remember that if you win a bid, we can bill you later. You don't have to bring cash to the show. The fun doesn't stop with the auction. There will be a putting contest and a radio controlled off-road toy truck race with the winners taking home other prizes.

If that isn't enough fun and education, then come to the WSTMA late morning program. Between the research tour and lunch there will be a sports field demonstration for WSTMA members. We are considering demonstrating different pieces of machinery that can be used to paint stripes and logos. We also may explore ways to make the paint last longer. There are a couple WSTMA members that will be conducting the demonstration. Contact one of the board of directors if you would like to help or have other demonstration ideas.

Lastly, don't forget the lunch. The lunch is always superb and almost worth the \$30 admission price in and of itself. Lots of good networking and comradeship is shared over lunch and throughout the whole day. And speaking of the admission price, it can be waved by becoming a new WTA member. Every new member in 2001 gets free admission to the

Chi Chi Rodriguez demos the Jake GK VI, SFD 2000.



Dr. Kussow accepts the first Wisconsin Distinguished Fellowship in Turfgrass Research during the 2000 show.

show. WTA memberships cost \$125. Call 608-845-6536 for more information.

Here is a recap of the highlights and the reasons why you must make plans now to attend this important event in August:

- Coffee, juice and donuts at morning registration
- Between 8 to 10 presentations during the research tour
- Lunch that will make your mouth water
- Ask the Expert table (one-on-one discussions with the researchers)
- Equipment demonstrations (on your own or with factory representatives)
- Huge trade show
- Auction
- Games
- All proceeds go to turf research at the UW-Madison to benefit your profession
- Free registration to new WTA members

It's really a fun day and well worth the small registration cost. I hope you all can make it and that you tell a friend also. Registration material will be sent out in mid May. If you don't receive something by the end of May then call Audra at 608-845-6536 or email at ajander2@facstaff.wisc.edu to check if you're on the mailing list or to ask any other questions. Mark August 14th on your calendars and plan to attend this huge once-a-year turfgrass event. 🍀



Scott Allsup demonstrates the JD 2500 greensmower.

CALENDAR OF EVENTS

April 17	TDL Snow Mold Field Day	Sentryworld, Stevens Point
April 23	WGCSA Monthly Meeting	Lake Arrowhead GC, Nekoosa
May 1	TDL Snow Mold Field Day	Gateway Golf Club, Land O' Lakes
May 14	WGCSA Monthly Meeting	Saint Germain GC, Saint Germain
May 30	Super / Pro Golf Tournament	Horseshoe Bay, Egg Harbor
June (TBA)	NGLGCSA Monthly Meeting	Lakewoods Forest Ridges GC, Cable
June 15	WSTMA Chapter Meeting	Spring Valley Turf Products and Miller Park
June 18	WGCSA Meeting & Dave Murgatroyd Memorial	The Ridges, Wisconsin Rapids
July 16	WGCSA Monthly Meeting	Evansville CC, Evansville
July 19-21	TPI Summer Convention & Field Day	Toronto, Ontario, Canada
Aug 14	WTA Summer Field Day	OJ Noer Facility, Verona
Aug 17	WNA Summer Field Day	Evergreen Nursery, Sturgeon Bay
Aug 18	UW Extension Homeowner Turf Field Day	OJ Noer Facility, Verona
Aug 22	NGLGCSA Monthly Meeting	Pinewood CC, Harshaw
Sept 5	WLCA Ed Fitting Memorial Golf Outing	Western Lakes Golf Club
Sept 10	WGCSA Monthly Meeting	Oshkosh CC
Sept (TBA)	WSTMA Fall Chapter Meeting	UW-Eau Claire and other City and Semi Pro Fields
Sept 15	Certified Landscape Technician Testing	M.A.T.C. North Campus, Mequon
Sept (TBA)	NGLGCSA Monthly Meeting	Antigo Bass Lake CC, Deerbrook
Sept 28-30	WNA/ Great Lakes Leadership Council	Grand Rapids, MI
Oct 5,6	WGCSA Couples Dinner Dance	Trout Lake Golf & CC
Oct 10	WTA Scholarship Fundraiser Golf Tournament	Grand Geneva Resort, Lake Geneva
Oct (TBA)	NGLGCSA Crew Outing	Minocqua CC, Minocqua
Oct 15	WGCSA Monthly Meeting	West Bend CC, West Bend
Oct 21-25	ASA Annual Meeting	Charlotte, NC
Nov 13,14	Wisconsin Golf Turf Symposium	American Club, Kohler
Dec 11,12	WGCSA/ GCSAA Chapter Seminar	Fond du Lac
Jan 8,9,10	Wisconsin Turfgrass & Greenscape EXPO	Marriott, Madison West
Jan 16-18	Mid-Am Trade Show	Navy Pier, Chicago
Jan 16-20	STMA National Convention	Las Vegas, NV
March 4	WGCSA Spring Business & Education Meeting	Fond du Lac

WTA Members — If you have an important date you'd like to share with other members
call 608-845-6895 or Fax 608-845-8162 and let us include it in the next calendar.

Abbreviations and Telephone Numbers

ASA	American Society of Agronomy Annual Meeting.....	608-273-8080
GCSAA	Golf Course Superintendents Association of America-	800-472-7878
Mid-Am	Mid-Am Trade Show 2001	847-526-2010
NGLGCSA	Northern Great Lakes Golf Course Superintendents Assoc.....	800-785-3301 ext. 4013
STMA	Sports Turf Manager Association	800-323-3875
Super / Pro	Super / Pro Golf Tournament	414-786-4303
Symposium	Wisconsin Golf Turf Symposium	414-786-4303
TDL	Turf Diagnostic Lab.....	608-845-2535
TPI	Turf Producer International	800-405-8873
UW Ext	UW Extension Homeowner Turf Field Day.....	608-845-6895
WGCSA	Wisconsin Golf Course Superintendents Association-.....	414-786-4303
WLCA	Wisconsin Landscape Contractors Association	800-933-9522
WNA	Wisconsin Nursery Association	414-529-4705
WSTMA	Wisconsin Sports Turf Manager Association	608-845-6895
WTA	Wisconsin Turfgrass Association	608-845-6536

Wisconsin Turf Research Attracts National Recognition

By John Stier, Department of Horticulture,
University of Wisconsin-Madison

Proof of a vibrant, cutting-edge program can often be found by seeing which programs attract national attention. In February two organizations, the Golf Course Superintendents Association of America (GCSAA) and Turfgrass Producers International Foundation (TPIF) awarded grants for two of our projects. Both grants were obtained partially because additional funds were provided by state turf associations, allowing the state gifts to be leveraged against national awards. The GCSAA grant of \$10,000 was awarded for the project "Use of *Poa supina* for shaded golf course tees". Additional funds were provided by the Wisconsin Turfgrass Association and by Northern Great Lakes Golf Course Superintendents Association. The objectives of the project are to 1) Determine the most shade-tolerant turfgrass for shaded golf tees, and 2) Develop a maintenance program using specified combinations of plant growth regulators and granular or liquid nitrogen sources. Kurt Steinke, an M.S. student, has been assigned to the project and will complete his degree during winter 2001-2002.

TPIF provided a second year of funding for the project "LPE for extension of sod shelf life" which in 2000 received supplemental

funding from the Wisconsin Sod Producers Association. Since 2000 TPIF has awarded \$22,000 for the project, which seeks to increase sod shelf life through application of lysophosphatidylethanolamine (LPE). LPE is a natural lipid found in all living organisms and is especially abundant in egg yolks and soybeans. LPE has recently been found to improve shelf life of cut flowers and various fruits and tomatoes by decreasing respiration and ethylene production by inhibiting a protein, D1, which is involved in mediating the early stages of senescence. Researching is being conducted both on a sod farm and in the laboratory to determine if LPE can effectively maintain sod quality after the sod has been harvested.

Drs. Chris Williamson (Entomology) and Geunhwa Jung (Plant Pathology) recently received a large award from the United States Golf Association (USGA) to determine turfgrass feeding preferences of black cutworm and to identify associated genes in the turfgrasses. This type of information could open the door for breeding turfgrasses which are resistant to black cutworm attack.

Dr. Wayne Kussow has long been attracting national recognition for his research on nutrient runoff. Such information is cru-

cial for many reasons, not the least of which is DNR's proposed NR151 Rule. Dr. Mike Casler, already recognized as a national forage grass breeder, is also gaining attention for his efforts in turfgrass breeding.

We have a great team at the University of Wisconsin-Madison thanks in part to the Wisconsin turf industry's support. This support comes in many forms, ranging from equipment loans, gifts of products and funding, and administrative support for filling the turf faculty positions. Most recently, the Wisconsin Turfgrass Association has begun developing endowments to provide Distinguished Graduate Fellowships. These fellowships will allow us to attract the best graduate students in the nation. All the types of support are essential for the UW turf program to compete on a national basis for funding and other types of recognition and assistance. With continued support we will be able to offer superior research results to assist turf managers in Wisconsin. The results will be needed as society grows and changes, and turf management regulations continue to grow even as we continue to battle age-old agronomic challenges such as weeds, diseases, poor soil, and water resources.



Exciting New Field Day For The Sod Industry

By Gena Halter, Halter Sod

The Wisconsin Sod Producers Association and Sod Growers Association of Mid-America are holding their first combined summer field day this summer. It will be called the Midwest Sod Council Field Days. The hosts of this year's field day are Bob and Bill Dunteman. It will be held at

the Dunteman Turf Farm in Kaneville, IL on July 26, 2001.

Many vendors with their latest products, equipment, and exhibits will attend this exciting show. There will be numerous demonstrations of sod harvesting, mowing, tillage, seeding, forklifts, and so much more. We

are anticipating an excellent show with lots of industry participation. The combined field day is scheduled to alternate between Wisconsin and Illinois sod growers every other year. For more information you may call me at 262-895-6820. I hope you can attend. 🍀

Action Packed EXPO

By Tom Schwab, O. J. Noer Turfgrass Research and Education Facility
University of Wisconsin-Madison

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The Wisconsin Turfgrass and Greenscape EXPO overflowed with valuable knowledge during this year's conference. There were useful tools and techniques presented over the two day conference from both local and distant experts. In addition to the local experts from the University of Wisconsin who you already know, there were other locals including Neil Radatz from Hawks Landing Golf Course, Raechal Sager from Miller Park, and Michael Koran from the Department of Agriculture. Experts from outside Wisconsin included John Donahoe (University of Illinois), Dr. Paul Rieke (Michigan State University), Dr. Jon Powell (University of Minnesota), Nicole Mason (Mark M Holeman Inc.), and Connie Rudolph (Saint Paul's Midway Stadium). The useful knowledge from the expansive roster of speakers will allow every attendee to approach this upcoming season with an armload of fresh ideas.

The conference started out with reflection into the UW-Madison Turf Team's past year of work during the 'Wisconsin Research on Parade' session. Drs. Kussow, Jung, Stier, Williamson, and Casler presented some of their year 2000 findings or gave an overview of where they've been and where they're going with their important turf research programs. Next at the podium was Jeff Gregos who demonstrated the new format of this year's Wisconsin Turf Research Report. The report is now on electronic CD-ROM, which might make it the first turf program in the country to offer their report this way.

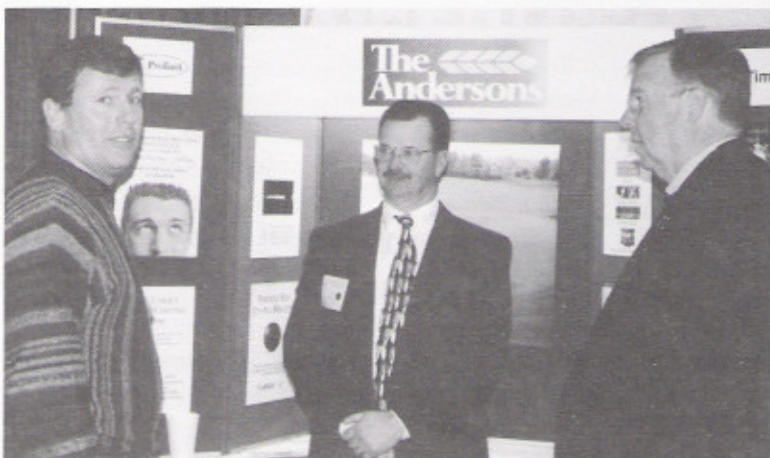
Attendees headed off to the trade show after 'Wisconsin

Research on Parade.' The trade show had been open all morning, well before 'Research on Parade', but took off full force after the morning session. Participants flooded the vendors with questions. Although the enthusiasm was great, the trade show was smaller this year for some reason. Maybe this was due to industry mergers or maybe the industry has taken a small downturn like the stock market cycle we're in. There were only 48 different booths compared to 56 last year, and the all time record 64 from three years ago.

Overall attendance was down this year also. There were 368 attendees and 121 salespeople in contrast to last year's record 405 and 140. The planning committee

knows how to improve attendance and will be starting the plans for the 2002 EXPO this month. Contact someone on the planning committee if you have suggestions for speakers, subjects, or improvements for future shows. The planning committee includes Rich Riggs (chairman and WTA representative), Paul Huggett, Audra Anderson, Jeff Gregos, myself, and all the professors. Most of the comments we heard so far have been positive, but there's always room to tweak the program.

Many of this year's positive comments focused on the high quality of speakers and education. There were twenty-four presentations in the three concurrent sessions. The ones I attended were



Mike Semler talking over old times with Tom Wentz.



Bill Vogel presents Brian Pyska with the annual Spring Valley scholarship.



Dr. John Powell from the University of Minnesota explains important turf pathology research.

extremely informative. It's unfortunate that you can't attend them all since they are occurring simultaneously. The golf presentations included information on new turf-grasses, fungicide and insecticide optimization, soils cultivation, top-dressing, drainage, and regulatory agency compliance. Lawn and landscape subjects included more on regulations compliance, sprayer calibration, exploring why some fungicide applications fail, ways to improve turfgrass through genetics, and challenges in setting up an IPM program. The grounds and sports turf session had presentations on field construction, management of sports field soils, setting up fertilizer/pesticide and other cultural practice programs, infield maintenance, and scheduling field use to ease turf stress. That may sound like a lot, but there's even more.

The second day of the conference had round-table discussions in all three concurrent sessions. Each session had the same subject, 'Where We've Been and Where We Need To Go.' Audience participation was energetic in each one. The panels and chairpersons conveyed many years of experience and knowledge to everyone's delight. The panels were comprised of veterans from



Bob Vavrek moderates lively round table discussion with panelists Randy Witt, Wayne Otto, and John Granholt.

each of the three professions and the audience learned lots from their vast experience.

Another thrill from EXPO was to have a keynote speaker during the first day's lunch. Professor emeritus Paul Rieke from Michigan State University gave the keynote expounding on his years of research in a talk titled, 'Maintaining Healthy Soil.' As you can see there was tons of great information to absorb from this year's EXPO.

Even the weather was fabulous again this year. Temperatures were in the upper 20's and the roads were dry. That makes two years in a row where it wasn't in the negative digits and snowing, which is usually the norm for EXPO week. The trade show exhibitors are really the ones that appreciate good weather. Every year they drive their trailers of equipment on the snowy roads, unload all that equipment in the freezing temperatures, and clean off the snow and road salt to present a great trade show. Many of them attend not only to sell their wares but also to help support turfgrass research. Part of their registration fee goes to support research at the University of Wisconsin. They also expound lots of good information for us to use in our professions. Please show them your appreciation by purchasing your supplies from them this year. The list of the exhibitors is shown on page 13 for you to clip out and

hang on your wall as a reference.

Many other supporters of turf-grass research and scholarships were recognized during the show. Numerous presentations of money were made between lunch and Dr Rieke's keynote address during a short awards session. There were ten recipients of scholarships ranging from \$500 to \$1,000. In addition sixteen donors gave a total of \$18,726 to the WTA for turf research, and the Wisconsin Golf Course Superintendents Association gave \$2,010 to support the UW-Madison Turf Diagnostic Lab. The donors and recipients of scholarships and research grants are also listed on page 10. The Wisconsin Sports Turf Managers Association also took this time to present their first ever 'Field Of The Year' awards to the two school districts. Waunakee Schools received the 'WSTMA Football Field Of The Year' award



Old school meets new school.

<u>Scholarship Donor</u>	<u>Recipient</u>	<u>Amount</u>
WGCSA J.R. Love Scholarship	Douglas Soldat	\$500
WTA	Paul Blumke	\$600
WTA	Robert Lisi	\$600
WTA	Phillip Spitz	\$600
WTA	Nathan Uselding	\$600
Aventis	Aaren Goninen	\$1,000
Bayer	Jason Grode	\$500
Spring Valley	Brian Pyska	\$600
Dave Murgatroyd Memorial Fund	Brandon Burns	\$500
Robert Newman Scholarship	Dan Harrier	\$1,000
<u>Turf Research Donor</u>	<u>Recipient</u>	<u>Amount</u>
Horst and Milorganite Program	WTA	\$1,978
Wisconsin Turf and Milorganite Program	WTA	\$1,050
Reinders and Daconil Program	WTA	\$7,560 (donation over 13 years = \$77,612)
Bulls-Eye Country Club	WTA	\$1,265
Riverview Country Club	WTA	\$923
Stevens Point Country Club	WTA	\$975
James Kellog	WTA	\$100
Paul Swain	WTA	\$100
Andrew Heistad	WTA	\$80
Lee & Fay Melville	WTA	\$75
Charles Helling	WTA	\$100
Dave Andrews Golf Shop	WTA	\$75
Wisconsin Sod Producers	WTA	\$1,375
Westmoor Country Club	WI Turfgrass Research and Development Fund (WTRDF)	\$2,670
Mike Lee	WTDRF	\$50
Lake Wisconsin Country Club	WTDRF	\$350
WI Golf Course Superintendents Assoc.	Turf Diagnostic Lab	\$2,010

and the Sheboygan School District received the 'Soccer Field Of The Year' plaque.

The sports field managers also took advantage of the conference to conduct their annual meeting. EXPO is a great venue to hold annual meetings since many of the members are at the site already. WTA and the Wisconsin Sod Producers also held annual meetings. There were new board members announced, financial statements dispersed, meeting sites discussed, research ideas mentioned, and future directions explored at these annual meetings.

So much occurs at the Turfgrass and Greenscape EXPO that it's really become the 'must attend' event of the year. It's full of activity every year no matter what reasons you come for. It may be for education, to shop for supplies and equipment, to conduct association business, to socialize, or to escape work and get a good lunch. Whatever your reasons, EXPO never falls short. 🍀

WWW. WITURFASSOC.ORG

By Jeff Gregos, Turf Diagnostic Lab
Department of Plant Pathology, University of Wisconsin-Madison

Now the Wisconsin Turfgrass Association WTA is only a mouse click away. By the end of April, the WTA will go international with its own web site. This site will help turfgrass managers of Wisconsin keep up with what's happening in your industry. Below are some of the highlights of the site.

- Contacts for WTA Board Members and UW-Madison Turfgrass Researchers.
- Recent study results from the researchers at UW-Madison.
- Upcoming events that the WTA hosts and printable registration forms when they become available.
- Copies of the WTA newsletter.
- WTA annual report and membership registration form.

- Information about the WTA Distinguished Graduate Fellowship Endowments and how you can help support Turfgrass Research at the UW-Madison.
- Links to the UW-Madison

Turfgrass, TDL, and other important web sites of the turfgrass industry.

- Learn about current projects of the WTA or hot topic that may affect you as a turfgrass manager. 🍀

2001 EXPO Exhibitors

Bayer Corp

John Turner 630-443-7807
Manufacturer of fungicides and insecticides

Cargotec Midwest

Duane Fleck 847-288-0190
Moffett demountable (Piggyback) forklifts

Century Rain Aid

John Markestad 608-742-0377
Irrigation products

Conserv FS

Elizabeth Morgan 847-526-0007
Legend grass seed, fertilizer, Kifco water reels

Contree Sales

Kevin White 920-623-3508
Builds and services turf spraying equipment

Eureka Sands

Keneth Miller 952-985-5700
Turf mix, top dressing (dried in bags & bulk), bunker sands
Sidley ProAngle & Native, turf renovations

Feick Design Group

Dan Feick 608-588-7888
Golf course architects & irrigation consultants

FMX Turf Products

Terry Donahoe 800-645-5648
Fertilizer & chemical distributor specializing in custom blends and custom application of fertilizer, herbicides, and fungicides

Gill Miller Inc

Sue Timmerman 715-425-9511
Golf course architects

Glenn Rehbein Companies

Mike Kelly 763-784-0657
High quality turf specifically grown for golf courses, sports fields and high end landscaping. Special turf blends for shade & rough areas

Great Lakes Golf Course Products

Mark Hammer 800-505-7926
Manufacturer of maintenance free golf course accessories

Hanley Company Inc

Scott Hellenbrand 608-837-5111
Turf equipment, tractors, skid steers and landscape equipment

Herfort Norby Golf Architects

Kevin Norby 952-942-0266
Golf course architects

Horst Distributing

Grant Mortimer 920-849-2341
Sales & service of turf maintenance equipment and supplies in Northeastern Wisconsin & the UP of Michigan

J W Turf

John Buck 920-485-2859
John Deere equipment for golf course and landscaping use

Johnson Turf Equipment

Vince Johnson 920-293-5131
Topdressers, brooms, spiker seeders, Hover mowers, Amazone grounds keepers, athletic field maintenance products, sod cutters & stump grinders

Lebanon Turf Products

Frank Baden 319-332-9288
Fertilizer, grass seed and seed establishment mulch

Lesco Inc

Rob Wasser 262-249-8928
Equipment, fertilizer, control products for turf, seed, & irrigation equipment

McFarlanes'

Dick McFarlane 608-643-3321
Tractors, skidsteers, and implements

Miller & Associates - Sauk Prairie Inc

Steve Barritt 608-643-8105
Site amenities, shelters, signage, precast concrete restrooms, showers & utility buildings, tee-signs

Milorganite

Jan Vogt 414-221-6814
Organic nitrogen fertilizer

National Seed

Dan Biddick 208-890-4453
Turf grasses, fertilizer, erosion control

Olds Seed Company

Chris Wendorf 608-249-9291
Grass seed for all needs

Par Aide Products

Dan Brown
Tee and green supplies

Pendelton Turf Supply Inc

Ed Witkowski 262-534-3334
Seed, fertilizer, pesticides, tee & green supplies & various other miscellaneous products

Premier Irrigation Inc

Patrick Lynch 651-480-8857
Irrigation installation services for golf courses

ProGreen Plus

Mike Akin 262-242-9100
Grass seed, erosion control products, landscape supplies etc

ProGreens of the Midwest

Jim Rollman
Deep drill aerification, hydrojecting

ProSource One

Conrad Stynchula 608-235-4999
Fertilizers, insecticides, fungicides, pesticides

Reinders Inc

Dave Berg 800-785-3301
Commercial turf, equipment, irrigation, fertilizer, seed, pesticides, landscape equipment, golf accessories and supplies

Simplot Partners

Cubby O'Brien
Fertilizer, pesticides, grass seed etc

Speciality Seeds

Arnold Gudgeon 715-238-7270
Seed & landscape supplies

Spring Valley Turf Products

Pat Staehler 262-677-2273
Formulator of quality golf & turf fertilizers

T J Emmerich Associates Inc

Bob Emmerich 262-966-1051
Irrigation design and consulting services

Tee Shot Marketing Inc

Paul Jones 218-836-2307
Aerators for golf courses, and sports fields

The Andersons

Tom Wentz 608-846-9457
Fertilizer, pesticides & spreaders

Turf & Ornamental Spray Systems

Scott Jansen 608-824-0220
Spraying systems

Tyler Enterprises Inc

Bill Davis 815-423-5551
Custom fertilizer, chemicals and grass seed for the turf professional

United Horticultural Supply

Shawn Hilliard 800-362-8049
Pesticides, fertilizers and seed

Waupaca Sand & Solutions

Jim Trzinski 715-258-8566
Custom blended soils & mixes for golf courses and athletic fields

Wellington Equipment Corp

Susan Bruce 262-790-0500
Golf car & utility vehicle rental & sales

Wisconsin Turf Equipment

Lyle Christopherson
800-443-1840
Jacobsen, National, Turfco, Smithco, Lebanon, Cushman, Ransomes, Ryan & Milorganite

Wisconsin Turfgrass Association

Audra Anderson 608-845-6536
Improving turfgrass management through research and education

Wolosek Lndscp & G C Materials

Dan Wolosek 715-423-3909
Mixes for golf courses and landscape firms

Zeneca / Syngenta

Jim Shone 708-217-8509
Plant protectants

CATCH THE BREWER FEVER

By Chris Brindley, Grounds Superintendent
University of Wisconsin-Stevens Point

The WSTMA would like to invite you to our next chapter seminar, on June 15th, where we will tour a fertilizer plant, get behind the scenes tour of Miller Park in its inaugural season, plus watch a Milwaukee Brewers game.

It's an outstanding package that would benefit everyone



who comes. If you have questions or concerns about fertilizers, you should attend. Top fertilizer professionals from the state will be there to answer your questions.

If you want to see a top-notch major league baseball field and how it's maintained, you should be there. Gary Vandenberg (Milwaukee Brewers director of grounds) will be speaking to us about his fields. If you want a day to talk to other WSTMA professionals like yourself then this is the place to be. The package includes the following:

- Continental breakfast.
- Speakers talking about fertilizer.

- Tour of a fertilizer plant.
- Hot lunch.
- Hot dinner.
- Tour of Miller Park.
- Presentation by Gary Vandenberg.
- **And an evening at a Milwaukee Brewer game!**

Mark your calendar for Friday, June 15, 2001 and attend this special event. Space is limited so please register early to make sure you won't miss this event. The deadline for registering is May 11, 2001 and the cost is only \$50-\$65. If you have any questions, please call me at 715-346-3622. 🍀

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WISCONSIN TURFGRASS ASSN.
O.J. Noer Turfgrass Research & Education Facility
3101 Hwy M
Verona, WI 53593-9537