



# WISCONSIN TURFGRASS NEWS

VOL. XVIII, NO. 2

FALL 2000

## WTA Golf Outing at The Irish Course of Whistling Straits

*By Jeff Gregos, WTA Golf Outing Committee*

The place to be on October 10, 2000 is at the WTA Golf Outing supporting the Wisconsin Distinguished Graduate Fellowships in Turfgrass Research. Your attendance will ensure that the University of Wisconsin-Madison's turfgrass program will continue to grow and become one of the best, if not the best in the country.

The WTA has three fundraising events during the year: WTA EXPO, WTA Summer Field Day, and WTA Golf Outing. The revenue generated from these events is the lifeline for much of the turfgrass research done at the University. So, in order to maintain the quality research and generate the funds for the Wisconsin Distinguished Graduate Fellowships in Turfgrass Research, our fundraising efforts must be kicked up a notch or two.

I have been told that during the time of the fund drive for the O. J. Noer Turfgrass Facility, events such as the golf outings were filled to capacity. Our current fund raising effort is probably as momentous as the O. J. Noer, as it will ensure that funding is always available for graduate students in turfgrass research. Being the first major event for the Fellowships, it is important that we set the precedence for other fundraising events in the future.

We understand that it has been a long summer and many budgets are depleted more than you would like at this time of year. But, it is important that we get a full house at this event to guarantee that our goal of \$1,000,000 is raised to support four graduate fellowships, one in each of

the disciplines of turfgrass research: soils, horticulture, entomology, and plant pathology. This might require some recruitment on behalf of each WTA member. Many members of your club or business acquaintances might have an interest in participating in this event, and should be encouraged to do so.

### **Fellowships**

The primary objective of this fellowship is to ensure that the University has the resources available to

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attract the nation's most talented students and enable them to pursue their studies in the Turfgrass Sciences at the University of Wisconsin-Madison.

The Fellowships will provide selected graduate fellows, in both master's and doctoral programs, with stipends and professional development funds derived from sources independent of traditional government funding. Annual support for one graduate student currently requires approximately \$24,000, including a stipend and fringe benefits of \$22,000 and professional development funds of \$2,000. To attain this level of support, an endowment of \$500,000 is necessary for each fellowship.

The WTA's current goal is to establish four Fellowships in turfgrass research. Each endowment requires a contribution of \$250,000, which will be matched by the Wisconsin Alumni Research Foundation (WARF). This goal would require a fund-raising effort of \$1,000,000 over the next several years on behalf of the WTA. This golf outing and other events hosted by the WTA, as well as the financial assistance from

WARF, will provide a significant portion of the funds needed to obtain this goal.

#### **The Course**

The Kohler Company's, Pete Dye designed golf course, which opened on August 1<sup>st</sup> of this year, will play host for the first WTA Golf Outing supporting the Wisconsin Distinguished Graduate

Fellowships for Turfgrass Research.

With its tranquil grasslands, soaring dunes and cavernous bunkers, this course should provide both a challenging and rewarding day for this very important event.



## **The Event**

<b>Where:</b>	<b>Irish Course at Whistling Straits Haven, WI</b>
<b>What:</b>	<b>Golf and Lunch Recognition and Awards Ceremony after Golf</b>
<b>When:</b>	<b>Tuesday, October 10, 2000 10:00 Shotgun</b>
<b>Event:</b>	<b>2-Man Best Ball</b>
<b>Cost:</b>	<b>\$200.00 per person</b>

If you have any questions please contact Audra at (608) 845-6536,  
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# Tips for Insuring Proper Placement of a Pitching Rubber

By Paul Zwaska  
Beacon Ballfields

1. To find where the mound and rubber should be located, stretch a tight string line from the apex at the rear of home plate to the center of second base. This will establish your centerline. Measure 59' along the centerline from the apex of home plate towards second base. That point on the centerline is the center of the pitchers mound. Scribe a 9' radius circle from the mound center point on the centerline. The area of your mound is now outlined.

2. To locate where the front of the pitching rubber lies on the centerline, measure 18" back towards second base from the mound center point on the centerline. This should make the total distance from the front of the pitching rubber to the apex of home plate, 60'6". Mark this location on the centerline with a stake so that when you butt the pitching rubber up to the stake, the front of the rubber is at 60'6". Be sure to put the stake just off to the side of your center string line so as not to impede the string line.

3. If the area where the mound is to be built is level with the rest of the surrounding grade, it is easy to establish what the height of your mound should be. Using a ruler or measuring tape, place it at the base of the stake and measure up the stake ten inches. Draw a line with a magic marker or pen at that spot on the stake. That is the elevation that the top of your pitching rubber should be when the mound is finished.

4. If you are using a six by six inch pitchers block for the rubber, mound up 4" of fill dirt around the stake and tightly compact it using hand tamps. This will give the

rubber a firm foundation to sit on. Make the foundation long enough and wide enough for the rubber to sit on. Also, try to level the top by eye as best as possible.

5. Now you are ready to set the rubber. Position the rubber on the raised mound of soil right up against the stake so that the rubber is sitting approximately where it will be buried. Using a level, check the levelness of the rubber from front to back and side to side. In order to achieve a level pitching rubber, adjust the soil beneath it until the rubber is sitting perfectly level.

6. The pitching rubber is 6" wide by 24" long. Scribe a line down the center of the rubber dividing the rubber into two 6" by 12" halves. This scribe line is your centerline. Set your rubber under the string centerline and butt the front of the rubber up against your stake. Align the pitching rubber so that when you pop the center string line, the string will settle out right over your scribed centerline on the pitching rubber. Once you have achieved this, go back and double check to make sure that the pitching rubber is sitting level.

7. Once the rubber is level and in-line with the center string line, it is time to measure your distances between the pitching rubber and home plate. This is a good time to remove the stake that was used to mark the approximate distance and elevation of the rubber. When measuring, always use a steel tape whenever possible as they will not stretch like other measuring tapes. You will first measure from the apex at the back of home plate to the front center of the pitching rubber. Remember, you are

measuring from the white apex on home plate, not the black. The distance you need to achieve is 60'6".

8. The other measurements you will need to make are from the front corners of the home plate to the front of the pitching rubber. With a ruler, measure 8 1/2" away in both directions from the scribed centerline on the pitching rubber. Put a mark on the front of the pitching rubber at that 8 1/2" mark on either side of the centerline. Next, measure from the front corners of home plate to the corresponding marks on the front of the pitching rubber. The two measurements need to be the same in order for the pitching rubber to be square to home plate. Adjust the rubbers position as needed to achieve equal measurements. Then double-check the 60'6" measurement down the center of the rubber.

9. Once you believe you have all of the measurements set, check and double check all measurements including mound height, level, centerline alignment, and distances. When you are absolutely sure all measurements are correct, then you can begin to add soil and clay around the rubber to construct the mound. It is a good idea to have a well-balanced person stand on the rubber during the installation of the soil so the rubber is not dislodged. Once the rubber has enough soil and clay packed around it to stabilize it from any further movement, check all measurements one last time. It will still be fairly easy to adjust before you finish the mound and allow it to set-up and harden.



The author is pictured here giving a presentation during Field Day 2000.

# Japanese Beetles: An Invasive Pest

By Chris Williamson

*Turfgrass and Ornamental Entomologist, University of Wisconsin-Madison*

## History

The Japanese beetle is a native of Japan. It was accidentally introduced into the United States in 1916 near Riverton, New Jersey allegedly in root-ball nursery stock containing larvae (grubs). Since then, it has spread and is currently present from southern Maine to South Carolina and Georgia and westward to Illinois, Iowa, Missouri, and portions of Wisconsin and Minnesota as well as parts of southern Ontario. As for the state of Wisconsin, currently, Japanese beetle infestations have been confirmed in Beloit, Eau Claire, Milwaukee, and the west side of Madison.

## Importance

The Japanese beetle is one of the most important and destructive pests of turfgrass and woody-ornamental plants in the eastern United States. Many millions of dollars are spent each year to control Japanese beetle adults and grubs, and for replacing and renovation of damaged turf and ornamentals. Adult beetles attack a wide range (over 300 species) of ornamental plants. To make matters worse, Japanese beetle grubs are also destructive. They typically feed on the roots of all cool-season turfgrasses and on ornamental plant roots. This feeding can cause severe damage or death to plants.

## Description

Japanese beetle adults are shiny, metallic green, oval, and approximately 1/2 inch long. They have coppery-brown wing covers with five patches of white hairs along the sides of their bodies. Male Japanese beetle adults are usually smaller than females, but otherwise look similar. The eggs are approximately 1/16 inch long, oblong, and pearly white. Upon absorbing moisture from the soil, they double in size within a couple of days becoming spherical in shape. Thereafter, larvae emerge from the embryo. Japanese beetle grubs have three pairs of jointed legs, and a yellow-brown head capsule. Like other white grub species, Japanese beetle grubs assume the C-shape position in the soil. They can be readily identified by their distinctive arrangement of hairs on the ventral (underside) of their abdomen (rear) near their anus. The arrangement of hairs includes two rows of short spines that are arranged in the shape of a truncated V pattern.

## Damage Symptoms

Japanese beetle adults usually feed from the upper leaf surface, leaving only a lace-

like skeleton of veins. Feeding damage caused by adult beetles results in leaves turning brown, dying, and eventually falling off. Certain plant materials are preferred over others. Preferred hosts include lindens, grapes, Norway maples, purple-leaf plums, and roses to name a few. Adult beetles are particularly attracted to flowers and fruits.

The Japanese beetle grubs are below-ground feeders that feed on the roots and rhizomes of all commonly used turfgrass species, cultivars, and varieties. They can eliminate the plant's entire root system. Where abundant, grubs can destroy large areas of turf in a relatively short period of time. First evidence of injury by grubs is localized patches of pale, discolored and dying turfgrass that displays symptoms of drought stress. The small damaged areas rapidly enlarge and coalesce as grubs grow and expand their feeding range. Such areas of turf will have a "spongy" feel under foot and can be easily lifted or rolled much like a carpet. Raccoons, moles, and skunks are highly attracted to white grub infested turf, and the foraging of these animals are strong indicators of white grub activity. Also feeding by flocks of birds, especially starlings, are potential indicators of possible white grub infestations.

## Life Cycle

The Japanese beetle has a one-year life cycle. Adults emerge from the soil beginning mid to late-June, and peak adult activity occurs in mid-July in Wisconsin. Mating and egg laying begins soon after emergence. Virgin females produce a pheromone (air-borne sex attractant) that attracts males. More than 20 males may aggregate on the ground around a single female. Japanese beetle adults typically feed in direct sunlight in groups on foliage that has been damaged by other Japanese beetles. Adult feeding usually begins at the top of a tree or shrub and progresses down until most of the plant foliage has been fed upon. Adults prefer to feed in groups in direct sunlight on foliage that has been damaged by other adults. Once mated, females leave host plants in the late afternoon and fly to suitable sites to begin laying eggs. They prefer to lay eggs in areas with moist, loamy soils covered with turf or pasture grasses, particularly when sites are located near preferred food plants. Females will lay their eggs in irrigated turf rather than in dry, compacted soil. Each female

lays between 1-4 eggs in the upper three inches of soil, and this cycle is repeated every few days until the life-span of the female is completed. A typical life span ranges from 30-45 days and as many as 60 eggs can be laid by each female.

Eggs usually hatch in approximately two weeks depending upon environmental conditions. Thereafter, the young grubs (first instar) begin feeding on the fine roots and organic matter in the upper three inches of soil where the eggs were laid. Grubs go through a physiological process called molting, whereby the insect grows from a certain life stage (instar) to an advanced or larger stage. Japanese beetle grubs remain in the second instar for approximately 2-3 weeks and the third instar for 3-4 weeks. Later in the summer (late August), most grubs will feed in the upper two inches of the soil, however they will burrow deeper during periods of drought. The grubs will continue to feed and grow until late fall, or around the first frost. Thereafter, the grubs will begin to burrow deeper as soil temperature fall below 60 degrees Fahrenheit. Most grubs will overwinter 2-8 inches in the soil. However, grubs will continue to burrow further into the soil profile as soil temperatures continue decreasing. As soil temperatures begin to reach 50 degrees Fahrenheit in the spring, grubs will move back into the root zone and resume feeding vigorously for another 4-6 weeks. After this event, the grubs will burrow slightly deeper to begin preparation of an earthen cell which is created for the Japanese beetle to transform (pupate) from the grub stage into the adult beetle whereby it begins its life cycle over again.

## Management

### Adults

#### Plant Selection

The use of resistant plant species when planning a landscape or replacing plant materials is essential to managing Japanese beetle adults. Certain plants are highly attractive and often sustain heavy feeding damage. Also, other plants such as grapes, multiflora rose, sassafras, smartweed, and Virginia creeper may attract adult beetles resulting in a higher incidence of egg-laying in adjacent turf.

#### Trapping

There are commercial Japanese beetle traps available, however, research studies have shown that the use of such traps will

not protect a landscape from damage. In fact, traps attract more beetles than are caught, thus susceptible plant material in the vicinity of the traps are likely to sustain greater damage than if no traps were used.

#### *Chemical Control*

A number of insecticides are labeled for control of Japanese beetle adults. However, the number and selection of products available to a homeowner is vastly different (limited) from what is available to commercial or licensed applicators. Homeowners have a select few products from which to choose. They include carbaryl (Sevin), acephate (Orthene), diazinon, and permethrin. The aforementioned products are foliage sprays only, and where beetles are abundant, they require weekly applications to protect susceptible host plants. As for licensed applicators, many more products are available. Such products include pyrethroids (Astro, Delta Guard, Scimitar, Talstar, and Tempo) imidacloprid (Merit), acephate (Orthene), and carbaryl (Sevin).

#### **Grubs**

##### *Cultural Control*

Because eggs and young grubs cannot survive relatively dry soils, withholding irrigation during peak adult beetle flight may help to reduce respective grub populations. However, adequate moisture in late August and September can help the turf tolerate

and/or recover from grub damage.

##### *Biological Control*

There are plethora of biological products that allegedly control Japanese beetle grubs, however performance of many of these products has been quite inconsistent. Such products include Milky disease spore, insect-infecting nematodes, and fungal pathogens such as *Beauveria bassiana* and *Metarrhizium*.

##### *Chemical Control*

Most soil insecticides provide adequate control of Japanese beetle grubs, as well as other white grub species. However, specific criteria or conditions must be fulfilled in order to achieve optimal control. These include factors such as accurate timing of the treatment, treatment must be watered into the turf, and minimal thatch must be present. Until now, the most common approach to grub control was to apply short-residual insecticides after eggs had hatched, and before grubs had caused visible damage. This approach is termed "curative" control. And, the ideal treatment time is early to mid August. Such curative treatments can be applied later even after the damage appears, but larger grubs (2<sup>nd</sup> and 3<sup>rd</sup> instars) are more difficult to control. Similar to the control products available to homeowners for adult beetle control, licensed applicators have a few more prod-

ucts available. From a curative control perspective, homeowners and commercial applicators only have a few options for effective grub control. These products include: diazinon (homeowner and commercial), carbaryl (Sevin, homeowner and commercial), trichlorfon (Dylox/Prolox, commercial only), and chlorpyrifos (Dursban, homeowner and commercial). Although Dursban is labeled for grub control, it is a poor choice. Because spring grubs are distributed variably throughout the soil profile, curative spring grub control applications are not recommended.

Due to the development of novel or improved grub control products, preventative treatments of long-residual insecticides are now available and seem to be the preferred control or management strategy of many turfgrass managers and homeowners. As a result, turfgrass managers are choosing to apply products such as halofenozide (Mach 2 and Grub-Be-Gone, commercial and homeowner, respectively) and imidacloprid (Merit and Grub-X, commercial and homeowner, respectively) during May, June, or July to control young grubs that hatch in late July and early August. This approach seems to provide added value from the standpoint of an "insurance policy" against potential grub damage.

## Beaver Stadium: Real Turfgrass at the Nittany Lions Home Field

*By John Stier*

*Department of Horticulture, University of Wisconsin-Madison*

I've always admired Pennsylvania State University's commitment to their football field. During the 1980's and early 90's, when almost every major college football program sold out to artificial turf, Beaver Stadium held fast. During the mid 1990's on up to the present, as we watch the University of Michigan, the Ohio State University, Indiana University, University of Illinois, and soon Michigan State University, rip out the artificial turf, Beaver Stadium mowed its grass. Many of the newly renovated Big 10 fields have invested large amounts of money in Prescription Athletic Turf systems and other sand-based fields. Beaver Stadium has always been a native soil-based field.

Bob Nubik, the field manager, takes pride in the football field and the multiple practice fields. During our recent trip to the Penn State Turf Field Day, Bob welcomed us despite having a loaded schedule and deal-

ing with stadium reconstruction (another level is being added to the stadium to raise the seating capacity by 10,000 to approximately 105,000). The field was originally Kentucky bluegrass. Although it hasn't been overseeded per se since 1995, divots are filled after each event with a sand:soil:seed mixture. Currently, the field is primarily perennial ryegrass, though sufficient Kentucky bluegrass exists to provide good traction and shear strength.

The field is mowed at 7/8 inch, pretty short for a football field. The saving grace may be Bob's control of the field. The band practices elsewhere, and halftime band shows are limited or forbidden during rainy days. Other than the games, a couple scrimmages, and a spring game, no other events are held on the field. Practices sessions are held on practice fields. Cheerleading camps, soccer camps, and other activities are all held elsewhere. The quality that

comes with a turf manager being allowed to do his or her job shows: the field is smooth (a crown provides surface drainage), uniform, and has a dense turf cover. While most sports turf managers have to face 6-plus months of continuous activities, Beaver Stadium shows what can be done when a field is not abused.



A view of Beaver Stadium from the south end zone.

# Another Great Day - Field Day 2000

By Tom Schwab

O.J. Noer Turfgrass Research and Education Facility  
University of Wisconsin-Madison

The 2000 Wisconsin Turfgrass Field Day is now history. This was the 17th in a long list of memorable field days. Attendees' comments were all positive about the day's activities and education. There were so many new things to see and do that they couldn't help but have a good time. Attendance totaled 384 turf managers and 117 sales representatives that descended on the Noer Facility for the big show on August 8th.

The day was perfect but almost became a disaster. The grounds were already soft from a two-inch rain three days before field day, and the weather stations were predicting another inch or more the night before. Everyone was relieved on Tuesday morning to see the ground dry. We all had enough rain disasters for one year! The prediction for rain has to be the reason that attendance didn't beat the previous year's record because the research tour, trade show, and numerous special events should have helped to break records again.

The research tour that the professors and staff put on is second to none. So much information can be gathered from this tour to help those who manage turfgrass do it better. There were talks for golf turf managers on breeding better bentgrass, resisting insect problems, choosing the best chemicals to manage turf diseases, and exploring the use of fine fescue for fairway turf. Additionally golf turf managers explored the use of supina bluegrass for shaded tee boxes, learned about a study that will compare whether fungicides work better on different bentgrass cultivars, and looked at various management options for both above and below ground putting green management.

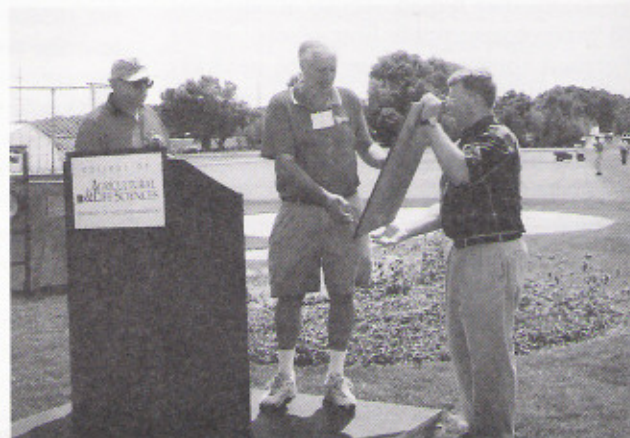
Lawn, landscape, sod industry, and athletic turf managers learned about many other interesting subjects on their tour. They learned about attempts to establish turf quicker, use of new herbicides for better post-emergent control of crabgrass and broadleaves as well as herbicide tolerance of supina bluegrass, and they looked at an idea to increase sod shelf life. Other presentations focused on pesticide runoff from urban landscapes, how to properly align a pitcher's mound and rubber, and cold

weather tolerance and demonstration of ornamental grasses.

The research tour and education all took place in the morning. An exceptional trade show and many other special events took place in the afternoon. You had to be there to believe all that took place. There was a dunk tank, putting contest, and silent auction to raise turfgrass research dollars. A presentation about attracting bluebirds and a picture-tour of the Spring 2000 Noer facility flood were interesting. The equipment demonstration also drew lots of attention. And before lunch the most prestigious event took place. Professor Wayne Kussow was recognized for his many years of turfgrass research and assistance to the turf industry. The WTA used the field day to announce a new program that will help support turfgrass graduate students. It will be called the Wayne R.

Kussow and Wisconsin Turfgrass Association Distinguished Graduate Fellowship in Turfgrass Research Program.

All these factors made Field Day 2000 a huge success. The planning committee should also be commended for this achievement. The committee, which is made up of Jim Trzinski, Chris Wendorf, George Magnin, Bruce Schweiger, Conrad



Professor Kussow receives recognition for years of helping turf managers by naming him for the first Wisconsin Distinguished Graduate Fellowship for turfgrass science.



The equipment demos delighted the large crowds.



Stynchula, Randy Smith, and the professors and staff at the Noer facility, were dedicated to making this the best field day ever.

The trade-show exhibitors should also be thanked. They always do a great deal to help raise research dollars through their registration fees and their contributions to the silent auction. Plus they make it interesting by introducing all the latest innovations in turf care equipment and products.

And last but not least, you, the attendees are what really made Field Day 2000 a success. You brought vitality, good questions, dedication, and the drive to make turf management better by participating in this annual event. Another great WTA Summer Field Day was had by all!

A list of field day exhibitors is shown on right. Be sure to give them a call any time you need supplies or equipment to grow better turfgrass.

Ampac Seed Company  
Aventis  
Bayer  
Beacon Ballfields  
Century Rain Aid  
Contree Sales Inc  
DTN Weather Service  
Finn Corp.  
Glenn Rehbein Company  
Goossen Industries  
Hanley  
Horst Distributing  
J W Turf  
Jacklin/Medalist Seeds  
Johnson Turf Equipment  
K E I  
Lebanon Turf Products  
Lesco  
LL Olds Seed Company  
McFarlane Manufacturing  
Miller & Associates - Sauk Prairie  
Milorganite

National Seed  
Natural Fertilizer of America  
Olsen Distributing  
Par Aide  
Pendelton Turf Supply  
ProGreen Plus  
ProGreens America  
ProLawn  
ProSource One  
Reinders  
Specialty Seeds  
Spring Valley Turf Products  
The Andersons  
Turf & Ornamental Spray Systems  
Turf Partners  
United Horticultural Supply  
WINDS  
Waupaca Sand & Solutions  
Wisconsin Turf Equipment  
Wolosek Golf Course Mix  
Zeneca

## WTA Establishes Kussow Fellowship

*By Monroe Miller  
Blackhawk Country Club*

The Wisconsin Turfgrass Association used the occasion of the 2000 Field Day to announce the establishment of the Wayne R. Kussow Wisconsin Distinguished Graduate Fellowship for turfgrass science. The fellowship will be in the Department of Soil Science where Dr. Kussow is a faculty member.

The University of Wisconsin Foundation, the Wisconsin Alumni Research Foundation, and the University of Wisconsin - Madison Graduate School initiated the Distinguished Graduate Fellowship program as an endowment project to ensure Wisconsin's continued prominence as a research institution.

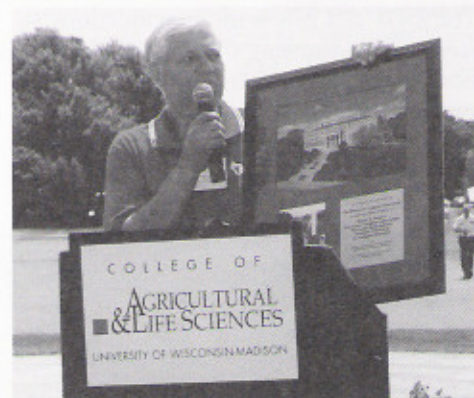
The program forms a partnership between the donor and the University. An endowment of \$500,000 is required to maintain a graduate student, and the program matches a donor's \$250,000 gift with the same amount. Donors, such as the WTA, are able to detail how the gift would be used. In this case, the graduate student will study soil-related problems in turf (e.g., nutrition, compaction, root zone amendments).

The WTA plans on developing a fellowship in each of the departments of soil sci-

ence, horticulture, plant pathology, and entomology. The first of these four Distinguished Graduate Fellowships will also serve as a way to honor Wayne Kussow for his years of devotion and dedication to the turf industry in Wisconsin. Dr. Kussow received all of his education from the University of Wisconsin-Madison in soil science - B.S., M.S., and Ph.D. A native of Oconto, Wayne has spent all but a year of his career at the University of Wisconsin-Madison.

The research he has conducted at the Noer Facility, in the lab, and in the greenhouse has contributed mightily to the betterment of the turfgrass industry everywhere, especially in Wisconsin. His commitment to teaching and to undergraduates is impressive and appreciated by students (and parents!); in addition, he has been recognized by CALS for his undergraduate advising. And although not part of his formal appointment, Wayne finds time to do outreach and extension work to share with us what he has learned from science and research. He is a familiar speaker and frequent writer in Wisconsin.

Since the retirements of Professors Love, Worf, Newman and Koval, there have



**Professor Wayne R. Kussow**

been many changes in the turf program; Kussow has been the constant factor and the glue that held it together during a period of many changes. He kept the turf program focused and moving forward.

In essence, it is impossible for us to ever truly repay someone like Wayne Kussow. But we can show him and the rest of the world the high regard we hold for him by naming, for all time, the first turfgrass Wisconsin Distinguished Graduate Fellowship for him. It is a great honor for a great man.

# New Sod Regulations from the DOT Affect Producers and Landscapers

By Dr. John C. Stier

Department of Horticulture, University of Wisconsin-Madison

In an effort to minimize sodding failures, the Wisconsin Department of Transportation (DOT) will be implementing new regulations. These will affect primarily sod producers and landscapers who bid on DOT projects.

This summer the DOT met with members of the WSPA and University of Wisconsin-Extension to rewrite sod specifications for roadside projects. The impetus for the meeting was concern over sod failures primarily in areas with sandy soils. Currently the DOT has only one set of sod criteria. The failures were most often related to the use of peat-grown sod on sandy soils; due to the limited amount of moisture in sandy soils, the peat-grown sod occasionally died and the area had to be resodded. Ideally the DOT would like the soil type of each site to be matched to the soil type of the sod. Realizing this is impractical if not impossible, the DOT, WSPA and UWEX agreed on the following specifications.

Three classifications of sod will exist. The DOT did not want specifications so strict as to prevent the use of conventional sod. Most of the sod sales to DOT projects will not be affected. Sales to areas where sod is used for erosion con-

trol purposes will be limited to sod, which was seeded using at least 70% low maintenance turfgrasses. The specifications were written broad enough to include sod raised by growers for Illinois and Minnesota DOT. Thus, the erosion control sod specifications allow for alkaligrass and buffalograss in addition to fine fescues and low-maintenance cultivars of Kentucky bluegrass. The turf UWEX program will be responsible for maintaining an updated list of acceptable grasses for the erosion control sod. This list will be available from the WSPA and the UWEX turf program through the Horticulture department. About 5% of the DOT sodding projects will require erosion control sod for sandy soils: this specification has strict requirements on the organic content of the soil used for sod production.

#### Synopsis of new sod types for Wisconsin DOT projects:

a. Lawn sod - This will be typical high-end sod, used on a majority of projects primarily in urban and suburban areas. The property owner will conduct necessary maintenance including mowing, fertilizing, and irrigation. The primary purpose is for aesthetics. Sod shall have a

lush appearance with a dense uniform texture and bright color. Blade widths shall be less than or equal to 1/4 inch. Sod shall be weed-free and contain no more than 3/8 inch of thatch. At least 4 cultivars or species of turfgrasses shall be used for production, with at least 2/3 being improved Kentucky bluegrass varieties.

b. Erosion control sod - Used for erosion control, the other objective is aesthetics. Maintenance will be limited to mowing. Sod shall be free of noxious weeds. At least 70% of the grasses in the seeding mix shall be acceptable low maintenance varieties or species.

c. Erosion control sod, sandy soil - Used for erosion control and aesthetics on sites with sandy or gravelly soils. Maintenance will be limited to mowing. This sod shall meet all requirements of (b), and have been produced on soil containing 10% or less organic matter by mass.

The new regulations will be phased in over the next two years. The next step is to revise the seeding mixtures for DOT projects to include as many native species as possible.

**Show your support for**

**the first-ever**

**WTA Golf Fundraiser**

**intended for**

**The Distinguished Graduate Fellowship  
in Turfgrass Research**

**Or**

**Come enjoy the most unique golfing  
experience of your life**

**At**

**The Irish Course of Whistling Straits**

**On**

**October 10, 2000**

**Details are in the mail or call Audra at 608-845-6536  
for more information**



# An Important Tool for Wisconsin's Turf Managers

The New Turfgrass Management Information Directory

By Dr. John C. Stier

Department of Horticulture, University of Wisconsin-Madison

One of the turf world's best kept secrets, the Turfgrass Management Information Directory, has just been released as a 3rd edition. This gem of a book is updated every 2-3 years. This book provides contact information for most things related to turf. Have you ever thought of getting a correspondence degree in turf management? Look in the "Teaching/Training Program" section. Need topdressing sand analyzed for particle size and shape? Check out the locations in the "Soil, Plant, and Water Analysis Laboratories" list. Want to figure out how to calibrate your sprayer, then determine the surface areas of your turf? The "Conversions and Calculations" section provides step-by-step instructions and easy-to-follow examples, including formulae for trapezoids and ovals.

If you're visiting another state and wanted to grab a peak at their turf program, the "University Personnel" section gives contact information for various turf researchers across the U.S., Canada, and Great Britain. The "Industry Section" provides similar information for key personnel in turf and green industry companies.

The Table of Contents lists this and other information:

- 1) Teaching/training programs
- 2) Instructional resources (slides sets, videos, and software)
- 3) Services (diagnostic laboratories and computer services)
- 4) Green Industry Organizations (Golf, Lawn Care/Landscape, Parks & Rec, Sports Turf, International, Equipment, etc.)
- 5) University Personnel
- 6) Industry Personnel
- 7) Publications (books, newsletters, trade and scientific journals)
- 8) Poison Control Centers
- 9) State Departments of Agriculture in the U.S.
- 10) Seed Certifying Agencies (Wisconsin has one!)
- 11) Common Turfgrass Chemicals (fungicides, herbicides, insecticides, and PGRs, including formulations, common and chemical names)
- 12) Turfgrass Seeding Information
- 13) Scientific Names for all kinds of pests
- 14) U.S. Climatic Zone maps
- 15) Number and Distribution of Golf Courses (Wisconsin is listed 10th in the U.S. with 497 courses)
- 16) Conversions and Calculations
- 17) Worldwide Web Sites (watch it; there are so many listed for turf you might forget to do your job!)
- 18) Glossary of Turf Terms (e.g., a "sticker" is defined as an adjuvant used to prevent pesticides from being washed or abraded off treated surfaces)

The book is available through Ann Arbor Press. It is compiled by Keith Karnok (Univ. of Georgia) and the Turfgrass Division (C-5) of the Crop Science Society of America. For more information, see [www.sleepingbearpress.com](http://www.sleepingbearpress.com), or you can see my copy if you stop in at the O.J. Noer Turfgrass Research and Education Facility.

## The Best in Education for All Wisconsin Turf Managers

Wisconsin Turfgrass and Greenscape  
EXPO 2001

January 9 & 10 at the  
Marriott Convention Center, Middleton

### *The Wisconsin Turfgrass News*

is the official publication of the  
Wisconsin Turfgrass Association,  
edited by Tom Schwab.  
O.J. Noer Turfgrass Research  
and Education Facility

# Fundraising for Turfgrass Research at The Bog

By Tom Schwab

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

The Wisconsin Turfgrass Association Golf Fundraiser is back on track after a short hiatus in 1999. The fundraiser was held at The Bog in Saukville on June 8th, 2000. Sixty-two individuals participated in the golf event and another thirty-six sponsors gave \$100 donations towards the success of the outing. Approximately \$4,600 was raised, after expenses, to better the turf industry of Wisconsin in many important ways. Some possible uses of these funds may go to support the Wisconsin Turf Industry Survey, back the Turf Diagnostic Lab, grow the WTA Distinguished Graduate Fellowship Program, provide scholarships for undergraduate turf students, or to solve important turf questions for our industry. WTA past president Bob Erdahl and administrative secretary Audra Anderson did a terrific job organizing this event.

In addition to being a noble event, it was a blast. The venue was spectacular, weather was perfect, and high spirits a plenty. A break like this was especially needed after the flooding and record rains that many of us endured the previous month. General manager Pat Shaw and superintendent Tony Gonzales had the course in spectacular shape with little evidence of the record May rains, other than participants were required to keep carts on the paths. The day was slightly cool, in the 60's, but the sun was shining all the way through. And the wind was blowing just enough to wave the cattails and add an additional challenge to the course.

The Bog can be described as challenging, breathtaking, unique, diverse with natural features, and impeccably designed and maintained. Each hole is separated from the other with wetlands, flora, and hills so that we rarely even saw the other 15 foursomes in the event. The WTA fundraiser has been held at many wonderful golf courses, and The Bog is yet another that will be remembered for many years to come.

Attendees enjoyed a delicious buffet lunch before golf and plenty of hors d'oeuvres after. In addition everyone enjoyed a long warm-up on the range that helped participants take home some of the many flag and event prizes. The day's event was a one-person best ball tournament that was paid to two randomly drawn places. The winners were not random though — as the quorum of Otto, Worzella, Nees, and Ziegler still took the prize money. The other winners were a group of sluggers that Mike Lee

sent over from the Kohler group.

The day could not have been more enjoyable. The only aspect that could have been improved is the number of attendees. If anyone has suggestions to increase attendance or make the outing better, or if you would like to volunteer a golf course for next year, please call the Noer Facility at 608-845-6536. Wisconsin's turf industry remains healthy and growing because of your dedication and support.



Our gracious host, Pat Shaw, made sure everyone had a fabulous day.



Beautiful views like this abounded at The Bog.

The WTA would like to thank everyone that contributed to this year's event, especially the \$100 hole sponsors that may or may not have also participated in the golf event. The hole sponsors are listed below in alphabetical order.

Aventis / Chipco	Pine Hills Country Club
Bayer Corporation	ProGreen Plus
Blackhawk Country Club	ProSource One
Butternut Hills	Rivermoor Country Club
Carl Grassl	Spring Valley Turf Products
Edgewood Golf Course	Sue Kershasky
Horst Distributing Inc	The Andersons
L. L. Olds Seed Company	The Bog
Lange-Stegmann Company	TimberStone Golf Course
Lohmann Golf Designs	Tom and Dianne Schwab
Maple Bluff Country Club	TruGreen-Chemlawn
Miller & Associates - Sauk Prairie	Turf Partners
Milorganite	United Horticultural Supply
Natural Athletic Turf	Waupaca Sand & Solutions
Norm Ray	Wausau Country Club
Novartis	West Bend Country Club
Oneida Golf & Country Club	Wisconsin Turf Equipment
Ozaukee Country Club	Zeneca
Pendelton Turf Supply Inc	

## CALENDAR OF EVENTS

Oct 2	WGCSA Monthly Meeting	Horseshoe Bay CC, Egg Harbor
Oct 3	NGLGCSA Crew Outing	Hunter's Glen Golf Club, Crivitz
October 13,14	WGCSA Couples Dinner Dance	Trout Lake Golf & CC
Nov 14,15	Milorganite/WGCSA GolfTurf Symposium	Brookfield Marriott
Nov 28-30	NCTE	Pheasant Run, St. Charles, IL
Dec 13,14	GCSAA/WGCSA Regional Seminar	Marriott, Fond du Lac
<b>Jan 9,10</b>	<b>Wisconsin Turfgrass &amp; Greenscape EXPO</b>	<b>Marriott Madison West</b>
Jan 10	WNA Winter Workshop	Edgewater Hotel, Madison
Jan 17-19	Mid-Am Trade Show	Navy Pier, Chicago
Jan 17-21	STMA National Convention	Tampa, Florida
Jan 24,25	Conex-Landscape Expo 2001	Midwest Express Center, Milwaukee
Feb 7-9	TPI Midwinter Conference and Exposition	Albuquerque, New Mexico
Feb 11-18	GCSAA International Conference & Show	Dallas, Texas
Feb 25-27	WLF State Convention	Osthoff Resort, Elkhart Lake
March 5	WGCSA Spring Meeting	Marriott, Fond du Lac
March 14,15	Reinders Turf & Irrigation Conference	Waukesha Expo Center
July 19-21	TPI Summer Convention & Field Day	Toronto, Ontario, Canada

*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

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
NCTE	North Central Turfgrass Exposition	312-201-0101
Reinders	Reinders Turf & Irrigation Conference	800-782-3300
STMA	Sports Turf Manager Association	800-323-3875
TPI	Turf Producer International	800-405-8873
WGCSA	Wisconsin Golf Course Superintendents Association	414-786-4303
WLF	Wisconsin Landscape Federation	414-529-4705
WNA	Wisconsin Nursery Association	414-529-4705
WSTMA	Wisconsin Sports Turf Manager Association	608-845-6536
WTA	Wisconsin Turfgrass Association	608-845-6536

**WISCONSIN TURFGRASS ASSN.**

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