(Continued from page 19)

OK, so hopefully I've proved beyond a reasonable doubt that golf course superintendents need the services of the TDDL more than any other turfgrass managers and that we are also in the best position to financially support the TDDL. Can I expect the checks to start rolling into the WTA office? Probably not! Why? Because it's tough to go before your chairman or owner and ask for a donation to any organization. Money is tight and no one wants to just give it away without getting something in return.

I can deal with that, and so can the WTA. In fact, as Figure 1 illustrates, the WTA has decided to reward donors to the 3 year TDDL fund raising campaign with benefits that approximate the value of the money that is contributed. A quick glance at Figure 1 reveals four levels of donation—\$100, \$200, \$500, \$1,000—and the four types of benefits.

Figure 1

Three Year Donor Program 1997-1999

Yearly Donation

Yearly Benefits	\$1,000	\$500	\$200	\$100
Number of Free Samples (1)	10	5	2	1
Priority service on free samples (2) Yes	Yes	Yes	Yes
Disease Diagnostic Seminar for your staff at the Noer Center (3)	Yes	Yes	Yes	Yes
Field Diagnostic visit to your facility by TDDL staff (4)	Yes	No	No	No

- Free samples include same-day analysis for Pythium and Rhizoctonia. Free samples do not include analysis for Nematodes.
- Priority Service provides for immediate service on all free samples. Additional samples will be processed on a first come-first serve basis.
- 3. The Disease Diagnostic Seminar will be held at the O.J. Noer Turfgrass Research & Education Facility in conjunction with the WTA Summer Field Day.
- The Field Diagnostic Visit will provide on-site diagnosis of your turfgrass disease problems by members of the TDDL staff.

Unused benefits do not carry over into the next year.

The first benefit is free analysis of your samples. You get one free for every \$100 you contribute. This compares to the normal charge per sample of \$60 for the standard analysis and \$100 for same-day analysis for Pythium and Rhizoctonia. And yes, your free samples do include the \$100 same-day analysis for Pythium and Rhizoctonia. Thus, it is possible that the value of your donation could be returned to you in full just through the free sample analysis.

The second benefit is priority service for all of your free samples. This means that when you walk in the door of the O.J. Noer Turfgrass Research & Education Facility and hand your dead grass to the TDDL staff person, your problem will be diagnosed ASAP. Remember, this special service only applies to your free samples.

The third benefit is a Disease Diagnostic Seminar that

will be held in conjunction with the WTA Summer Field Day in August. This is a "Hands On" event for you and your staff and will focus on sampling techniques, disease identification in the field, microscopic examination of pathogens in the lab and the overall operation of the TDDL.

The fourth benefit is only for the high rollers at the \$1,000 level. It involves a visit to your facility by the TDDL staff to assist you in the identification of your particular disease problems. Even if you don't need a diagnostic visit, the staff of the TDDL will pay you a visit so that they can get to know you and your golf course. After all, for a big donation, you deserve some special treatment!

So what do you think? Are you getting some valuable benefits for your donation? Is it worth—say \$500 a year? It probably depends on the year. If 1995 repeats itself—God forbid—you could get your money's worth on just the free samples. If the next three years are free of serious disease pressure, you may not think it is such a good deal.

Good deal or bad deal is one question that you have to answer—but there are two other questions that are more important. The first is, "Can I afford to be without the services of the TDDL?" The second is, "Will the TDDL be a success without my donation?" The answer two both of these questions is an emphatic NO.

I guarantee you that at some point in your career you will need the TDDL to help you solve a tough problem. I can also guarantee you that if you don't support the TDDL with your donation, the chances of the TDDL being there when you need it are slim to none.

Bottom line—starting in 1997, the WTA will need a minimum of \$42,000 a year to operate the TDDL. If you don't help out, the job won't get done—period.

Start making plans now to include your contribution to the TDDL in your 1997-1999 budgets. The donation levels are structured to encourage participation by all golf courses. The WTA realizes that a \$100 donation from a small golf course is just as important as a \$1,000 donation from a large golf course with a much bigger budget. Speaking of you guys and gals at the big clubs, now is the time to put a crow bar into that budget and come out with a big donation. Show some leadership and help the WTA generate some excitement for the TDDL.

I know one person who is very excited about the TDDL. That's Dr. Doug Maxwell of the UW-Madison Department of Plant Pathology. Doug is in charge of the TDDL and is really fired up about the turfgrass industry. He attended the GCSAA conference in Orlando and came away truly impressed by the whole affair. You will be able to meet Doug and get all your questions about the TDDL answered at the May meeting of the WGCSA.

Doug has spent the last few weeks getting the TDDL organized out at the O.J. Noer Turfgrass Research & Education Facility. He has released the job opening announcement for the lab technician and is expecting a lot of qualified candidates to apply. With Doug at the helm, we can all rest assured that our donations will be wisely used and the performance of the TDDL will live up to our expectations.

Look for the official information about the three year fund raising campaign for the TDDL to arrive at your club in the middle of the summer—note the timing, just when you start to get those sleepless nights worrying about disease! Remember, if we all do our share to help the TDDL, we will all be able to rest easier when disease problems come knocking at our course.



Managing Summer Pests In Turf

By Henry T. Wilkinson Department of Plant Pathology and Agronomy University of Illinois

Editor's Note: With summer fast upon us, this timely article by Hank Wilkinson seemed to be a perfect fit for From Across The Country this issue. A call to my good friend and fellow editor, Fred Opperman, netted his kind to permission to share it with GRASS ROOTS readers. It appeared in the April 1996 issue of ON COURSE, the official publication of the Midwest Association of Golf Course Superintendents. Nearly everyone will remember this journal as THE BULL SHEET. The association changed the name this past year-yet another sign of the politically correct times we live in, I guess. That notwithstanding, it is still an excellent journal presented by an equally excellent editor.

Summer pests in turf include diseases, nematodes and insects. The intention of this article is not to give you specific directions for each disease, nematode or insect but instead to give you some general, but very useful, directions for dealing with disease problems.

All turf managers should appreciate the subtle difference between controlling pests and managing pests. Pest control, to me, refers to reducing the population of a particular pest. For example, reducing the population of white grubs by treating them with an insecticide is a form of control. On the other hand, producing strong turf and reducing turf stress through proper fertilization, watering, and the use of insecticides when white grub populations exceed their damage threshold. collectively, are how to manage white grubs so their damage does not become severe. In brief, managing pests does not mean that you try to eliminate them; it means you try to keep them in balance or check.

An excellent example of this is the fungi that degrade thatch. These fungi

are beneficial, but these same fungi also can cause fairy rings, yellow ring and other diseases of turf.

If you eliminate them, thatch will increase, and you will have other problems. The key to managing these fungi is not to allow your turf to grow too fast and encourage the fungi to rapidly destroy the thatch that is produced.

Foliar diseases of summer

These diseases would include dollar spot, brown patch, smuts, and rusts on cool season grasses. All of them primarily attack the leaves and thus can be described as non-killing. I say this because they do not attack and kill the survival structures (crown, rhizomes or stolons) nor do they attack and kill the roots, which could result in death of the plant.

However, that they attack the leaves in the summer results in disease symptoms that seem to last a long time. This observation also suggests a means of managing the severity of these diseases. If the turf is growing, then the severity of these diseases is reduced. The simple reason is that if the leaves continue to extend while being attacked, then through mowing the diseased leaf tissue will be removed, i.e., you see less diseased tissues.

I am not suggesting that the faster the grass grows the better, but instead, keeping the grass growing at a reasonable rate (mowing required at least once a week) will keep disease severity down. This is due to a couple of reasons. First, actively growing turf can tolerate more disease than a weak plant before stress will send the plant into a survival mode; and second, the strong growth will allow the grass to replace the damaged tissue. Thus, when you mow, the grass rids itself of the diseased tissue. Foliar disease severity increases when there is high humidity and/or free moisture.

I would recommend that you water the turf thoroughly enough to keep the root zone moist, but avoid frequent, light waterings that keep the leaves and thatch damp. Mowing turf is an excellent way to reduce the period that leaves are wet because the short leaves are dried by air movement faster than long leaves. Wet leaves are conducive to disease. You will not damage or stress your turf with frequent mowing, but do not make large or sudden changes in the height of cut.

Finally, if the prevailing conditions and the management that you must adhere to allow disease severity to exceed your threshold level of acceptance, then fungicides should be used. I strongly recommend that you make full use of cultural practices to prevent or reduce disease before you elect to use fungicides. I say this because it is better for your turf to be culturally managed than chemically treated. It is unclear how many of the beneficial



fungi in turf are negatively affected by fungicides, but it is clear that fungi are important for healthy balanced turf. A program that is taking advantage of cultural practices for disease management will also reap the greatest benefits from fungicides. In fact, our research suggests that in a properly managed turf, the use of fungicides can be reduced both in rate and application frequency.

Pythium blight of summer turf

This is the most destructive disease of turf and occurs during the warmest time of summer. It affects all species of grass, can destroy many square feet of grass in hours, and is prone to attack intensely managed turf.

Water and temperature are the main driving forces for this disease, but high nitrogen (greater than 5%) in the leaves also fuels this disease. To manage this disease: water infrequently, keep the turf areas open to circulation so the leaves dry each day, slow down on the amount of applied nitrogen, and know the "hot" spots in your turf where Pythium blight may develop.

Pythium blight usually develops in the same general areas of a turf each year, and the pathogen is spread by moving water. If you are going to use a fungicide to keep the population of Pythium in check, try treating only the "hot" spots. Use a systemic prior to conditions that support the disease. If the disease becomes severe, use a contact fungicide in between applications of the systemic. Also, be sure to change the type of fungicide that you use to avoid potential pathogen resistance.

Summer patch

As the name implies, this is a soil-borne disease that is seen in the summer. However, it actually starts developing in the spring of the year when the soil temperatures are about 21 degrees C two inches beneath the turf. When you see summer patch in June-September, there is little you can do to stop the disease, for most of the damage is done.

The times to manage summer patch are spring and fall. Fortunately, summer patch can only be spread by the movement of infected, living turf. Thus, it will develop year after year in the same areas. Once you have observed the problem, focus your management on those "hot" spots. In the spring and fall, make sure that your management promotes strong turf growth. Next, consider the use of a fungicide in the spring and possibly the fall. Soil-borne diseases like summer patch, once started, are very difficult to manage without the help of fungicides to reestablish balance in the turf.

Summary

I have only described the most prevalent summer diseases of turf. I strongly recommend that you keep a calendar upon which you record when you observe each disease that affects your turf. Also, be sure to get an accurate diagnosis of the diseases that you observe. Next, identify on a map of your turf areas where the various diseases occur. Take your calendar and area maps to a pathologist and discuss your situation. You will be pleased to find that planning ahead can make the management of disease realistic.





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Badger Turf and Grounds Club Kicks Butt!

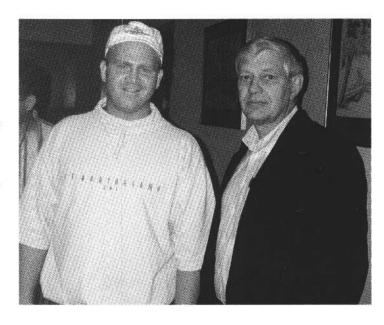
By Steve Millett Department of Plant Pathology University of Wisconsin-Madison

The turf and grounds management program at the UW-Madison has long been recognized as one of the world's best four year educational programs. There are many people, events, things and victories that all Wisconsin turf managers can be very proud of, including the Badger Turf and Grounds Club. It was nine years ago that 13 turfgrass students, with the guidance of Dr. Wayne Kussow, formed the now world famous Badger Turf and Grounds Club (BTGC). The BTGC has grown in many ways in its nine years of existence.

Building on the rich tradition of excellence, thirteen turfgrass students formed the BTGC in 1987. If any of you have THE GRASS ROOTS, Vol. XIV, No. 3, May/June 1987 issue, check it our for yourselves on page 41. The founding members include: Dan Millies (secretary/treasurer), Jeff Pilz (vice president), Michael Lee (president), Professor Wayne Kussow (advisor), Lora Ripp, David Kidd, Roy Janzen, Larry Lennert, Ron McCarthy, Jeff Bahr, Gary Grunke, Mike Lyons, Todd Monge, Pat Zurawski. There have been many turfies that have since benefitted from being a part of this unique Gramineae family. We thank all of these founding turfies for their leadership and passion for excellence.

Today, the BTGC boasts an active roster of 30. Women now make up 21% our membership, as compared to 7% in 1987. We have 11 seniors, 8 juniors, 6 graduate students, 1 freshman hockey stud (Scott Wendels), one active alumnus (Oscar Peterson) and one cool advisor (Dr. Kussow). We meet and eat pizza at least once a month in room 270 Soils. Our agenda for the 1996 season can be remembered by the acronym "HELP", which stands for: Have fun, Earn money, Learn cool stuff, Philanthropy.

Have fun. The turfies kicked off 1996 with a bang and a first. The first



Chris May ('95), GCS at the Four Seasons Resort, and Dr. Kussow at Roast-A-Rama.

ever *BTGC* alumni social was held at this year's Turf Exposition in Madison. For those of you attended, I am sure you can say that we did indeed have fun. Look for a repeat performance at 1997's Turfgrass Exposition.

Earn money. In order for any organization to survive it must have money. Our club is no exception. We sold the first edition of "Turfgrass Disease Management" handbooks at the Expo and raised \$150. Furthermore, Blackhawk Country Club has annually given the BTGC the opportunity to aerify as a fund raiser. We thank Monroe Miller and Blackhawk Country Club for this valuable experience and generous gesture. If there are any other superintendents who wish to utilize the labor force of the BTGC for a task, please contact me, Dr. Kussow or any of the

Learn cool stuff. The Turfgrass Exposition and Turf School provided turfies with the opportunity to assist in the workshops, labs, seminars and demonstrations. We are currently scheduling guest speakers to come

ine and talk about turf related areas. Another first for the turfies is our world wide web site:

"http:/www.wisc.edu/phstest/
turfclub/turfclub.htm". Our vice
president, Jon Thronson, is responsible for making us the world's first turf
club on-line! You can contact every
BTGC member via e-mail at this site.
We are planning to get resumes and
other useful information on this homepage, so look for it to expand as the
season progresses. Kudos to Mr.
Thronson for an outstanding job.

Philanthropy. Our goal here is to establish a new home lawn for a Habitat for Humanity project here in Madison. If anyone would like to donate some materials for this project, please contact me, Dr. Kussow or one of the turfies.

Besides the HELP agenda, we have had other successes, including the newly created **President's Travel Fund.** This fund was started by past president Josh LePine. As you may know, Josh won a President's Scholarship at last year's GCSAA (Continued on page 27)

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(Continued from page 25)

meeting in Orlando. Josh made us all very proud by graduating with such an accolade. Josh, being the cool guy that he is, wanted to give something back to the turf program and the *BTGC* before he went off to Winged Foot CC in New York. Mr. LePine donated \$100 for the sole purpose of sending turfies to the next GCSAA meeting in Las Vegas. We tip our hat to our friend Josh LePine for upholding the highest ideals of Wisconsin turfhood. (Donations for this fund can be made our and sent to the *Badger Turf and Grounds Club*.)

Our most recent turfie-event was a bitter-sweet one. Tara Zabkowicz (our secretary/treasurer and favorite women's crew star) and Amy Bevington (social chair) organized and hosted the Rossi Roast-A-Rama. About twenty turfies came to say good-bye to Frank (including Chris May, class of '95. Chris is the super at The Four Seasons Resort in Nevis, West Indies, where his biggest problems are hurricanes, donkey damage on greens and monkeys on the fairways). It was fun seeing Frank squirm and it turned out that the only person being hard on

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Frank was himself. We wish Dr. Rossi continued success at Cornholio University. Good-bye, Frank. We will miss you.

The Badger Turf and Grounds Club is building upon the rich tradition of the University of Wisconsin-Madison. For nine years now we have grown

and shared many experiences. It is the "turfies" who make this unique Gramineae family so special. It is the unseen things like laughter, courage, friendship, dedication and love that make us the best turf club in the world. Yes, the Badger Turf and Grounds Club kicks butt!



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Done Deal

By Tom Schwab, Superintendent
O.J. Noer Turfgrass Research and Education Facility

How many times has it been reported to you that the Noer Facility will be acquiring new land? Well, it's done. The UW Foundation is finally letting us use the land that surrounds the facility to expand our research and to meet the needs of the ever-expanding summer field day. The new addition is about 34 acres.

The details of the acquisition are a little complicated. There are two main points. 1. We have to rent the land, basically to pay the taxes. The way I understand it is that if the Foundation gave us the land there would be no taxes. Then the land would be deemed tax exempt state research farm land. I think the Foundation doesn't want to give us the land because they're concerned that it may be needed to build another 18 holes at University Ridge golf course some day. 2. We're only getting the land on a three year rolling horizon. That means the Foundation can take the land back anytime as long as they give us a three year notice. We're happy about the rolling horizon. It would be hard to start a new study if the land could be taken away before the investigation was done.

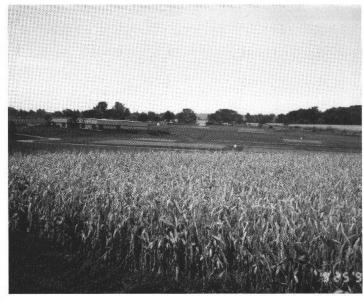
The good news is that we can finally use the land. I told the WTA board about the new land at their last meeting. Two board members gave me more good news. Wayne Horman said Scotts will donate the starter fertilizer and Chris Wendorf told me L.L. Olds will donate the seed. Once again, industry comes through to show their dedication to turf research.

Initially we'll just be establishing about six acres to turf which will be used for equipment demonstration and vendor parking for Field Day. The rest of the land will be cropped by West Madison Agricultural Research Station with the proceeds helping to pay the rent. More of the new land will eventually be established to investigate other turf studies including shade, low input, propagation, and variety/cultivar turf studies; we also may research other horticultural and agricultural plants as well.

I dream of the day that we may

have to sink another irrigation well to maintain other high input studies, build our own research golf hole and other athletic turf studies, build a green house for indoor turf studies, construct a mixing/ loading/ storage building, and have the new Turf Disease Diagnostic Lab (TDDL) staffed and equipped to handle many more urban plant queries.

The Noer Facility also has a new phone system to report about. Our old system was rude. The calls were frequently interrupted by "call waiting" beeps. The old system couldn't handle the addition of the new TDDL with all its electronic, homepage, URL, surfin' and turfin'. The turf hotline will be continued by horticultural outreach specialist Amy Sausen, but she needed another line for her e-mail and voice line. WTA administrative assistant Audra Anderson will also soon be getting on the net. You may want to jot down these numbers for reference this summer:



Ground view and...



an aerial view of the NOER Facility and its area of expansion.

Telephone and Fax numbers:

Noer Facility Main # or Audra Anderson608-845-6536
Noer Facility Fax608-845-8162
Tom Schwab or Dr. Kussow608-845-6895*
Turf Disease Diagnostic Lab
Dr. Maxwell, Dr. Meyer, Steve Millett608-845-2535*
Amy Sausen608-845-2545*
Turf Hotline608-845-TURF (8873)

*new numbers

E-mail addresses:

Tom Schwabtgschwab@facstaff.wisc.edu
Dr. Kussowwrkussow@facstaff.wisc.edu
Dr. Maxwelldum@plantpath.wisc.edu
Dr. Meyerjrm@plantpath.wisc.edu
Steve Millett

Amy Sausen.....

smm@plantpath.wisc.edu

asausen@facstaff.wisc.edu



Catherine (center), working at last year's Summer Field Day.

Very soon you will have one more number to remember. I am in the process of setting up what is called an electronic list server or electronic discussion group. It should be operational soon and is free if you are already on the internet. The group will be Wisconsin golf course superintendents, WTA members and eventually other managers in our region who share similar turf knowledge. How it works is that anyone in the group can e-mail a question or message to the rest of us. If anyone in the group wants to answer the question or make a comment, they would e-mail back. It's called a discussion group because everyone in the group will see all questions written to the group and (Continued on page 31)

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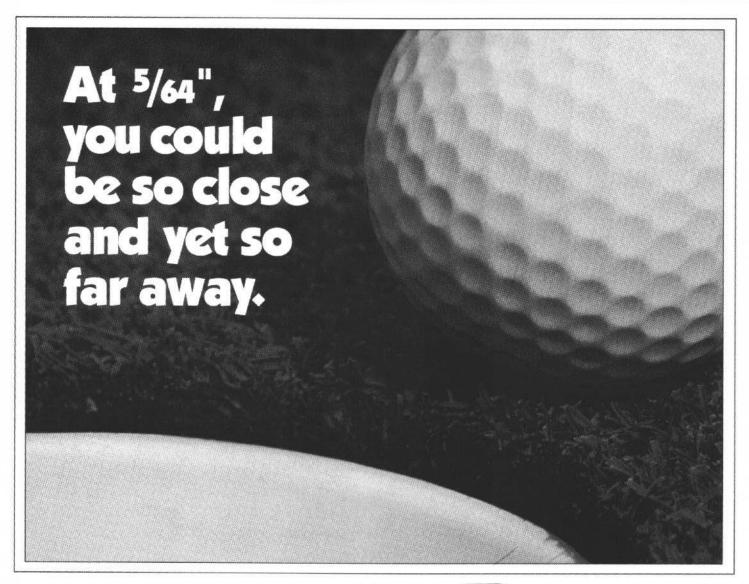
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