had to cut back on some of our capital projects recently."

The golf department is so self sustaining that it must also help offset city administrative costs by contributing to the departments it works with, like purchasing and accounting. The golf program also makes a payment in lieu of taxes to cover what the city would receive in property taxes if the courses were privately owned. This amounts to about \$150,000 per year, according to Ray. And even the non-golfing citizens of Madison receive benefits from the courses - like green space. wildlife/bird habitat, and a place for winter recreation.

Being city-owned can create some unique challenges — like citizens wanting to control how the golf courses are managed. "We have a fairly aggressive number of people who would love to see our golf courses be pesticide free," Ray points out. "Most of them don't realize how deteriorated the courses would become if we just stopped using pesticides. So we're developing education programs to let the public know that we are good keepers of the environment: we were leaders in integrated pest management; we've partnered with the International Audubon Society to get our golf program registered and hopefully have our courses become certified sanctuaries; and we continually look for ways to improve things from an environmental standpoint."

In recent years, as more golf courses have sprung up in the Madison area, the city's courses have had to compete just like the rest. "Ten years ago we never had to market or advertise," Ray points out. "Now we're doing more and more specialized marketing. We're offering discounted greens fees during off-peek hours. We're working hard to develop outings and special play packages.

"And we're doing a much better job of maintaining the course and the clubhouses so we can meet our



customers' demands and maintain our position in the marketplace," he continues. "The customer certainly is winning in the Madison marketplace as far as having good quality golf courses to play and a lot of choices out there."

One way Ray's job differs from other superintendents is that he and all of his employees (13 permanent, 60 seasonal) are City of Madison employees. How does this differ? For one, the city won't hire anyone under 18 years of age for the type of work found on the golf course. So his seasonal workers are all college kids and recently retired people who are looking for a part-time job. Also, he's unable to provide internships to turf students because of conflicts with the city's hiring process. And all of his employees are union employees with negotiated salaries, so Ray doesn't have any control over this end of his budget.

All in all, Ray loves his job. "It's a wonderful place to work," he says. "I've got a really good staff so there's no major need for me to come in on weekends on a regular basis. To be in the golf business and to love the game the way I do and be able to have a 40-hour work week, that's just a dream come true."

Ironman competition...

Another dream came true for Ray

when he finished his first Ironman competition in 2004. For those who don't know the particulars, an Ironman (trademarked name) race consists of a 2.4-mile swim, a 112mile bicycle ride, and a full marathon (26.2 miles) — all in less than 17 hours! Talk about variety!

Ray was introduced to the competition by the brother of his 'significant other,' Judy Klingelhoets. "I was just going around watching Joe compete," Ray recalls. "I was always impressed by people who could do these kinds of things. Since I was getting up there in years and had a sedimentary lifestyle, I started doing some causal running. Then I decided, 'When I'm 50 years old, I'd love to be in good enough shape to compete in an Ironman.' So I started swimming and biking, too.

"Joe took me under his wings." Ray continues. "My goal was to be in a competition when I was 50. But, the spring before when I was still 49, Joe said he thought I was ready to compete in September in the Madison Ironman. So I did my first Ironman in 2004. My goal was to just finish. If things went well I thought I could finish in 14 hours — the race officials allow up to 17 hours. I completed the race in just under 13 hours. I was bit by the bug and signed up for the next one in 2005."

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PERSONALITY PROFILE

There are only five Ironman competitions in the country - in Wisconsin, Idaho, Arizona, Florida and New York. They fill up quickly, according to Ray, with 2,000 people (men and women) in each race. There are also shorter versions of the race — a Sprint Ironman, a Half Ironman, and an Olympic Ironman. Ray competes in some of these to help train. "It keeps me motivated in my training," he says. "It gives me feedback as to my condition and where I'll be when the Ironman comes in September."

He trains six days a week. "Some days I'll take it pretty easy. Other days I'll try to do two things maybe swim for an hour and run for 10 miles, or bike for 30 miles and then go for a run," Ray explains.

"They call that 'bricking' - doing two events in one day to get your body used to going from one activity to another."

Ray is signed up to do the Wisconsin Ironman again this September, and he plans on competing here every year. But he'd also like to experience the other four competitions. So he's signed up for the race in Tempe, Arizona next spring.

Ray's other avocation is golfing. "I still play golf - not as much as I used to — but I still enjoy it," he says. "I know all of the golf course superintendents in the area and most of the golf professionals. They've all been very good to me as far as letting me play on their courses. It's really been a nice, close-knit family."

Speaking of family, Ray has one 17-year-old daughter, Sarah, from his first marriage. She lives in Reedsburg with her mother. "She's a great kid. She's working in the Dells this summer," Ray points out.

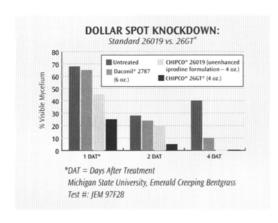
With ample variety in his work and in his sport, Ray is not planning on spicing things up by changing jobs anytime soon. "Exactly when I retire is up in the air. But I'm sure I'll retire here. The city is part of the state retirement system, which is a really good system. I could retire as early as 55. But as long as I enjoy my job, enjoy coming to work, and have some really good people to work with, I don't see any reason to retire too early."





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A Team-Up for Dollar Spot Control Longevity



By Dr. Geunhwa Jung, Steve Abler, Jonathan Rivers, Mark Manemann, Patrick Sisk, and Jim Knulty, Department of Plant Pathology, University of Wisconsin-Madison, The Milwaukee Country Club, The Big Foot Country Club

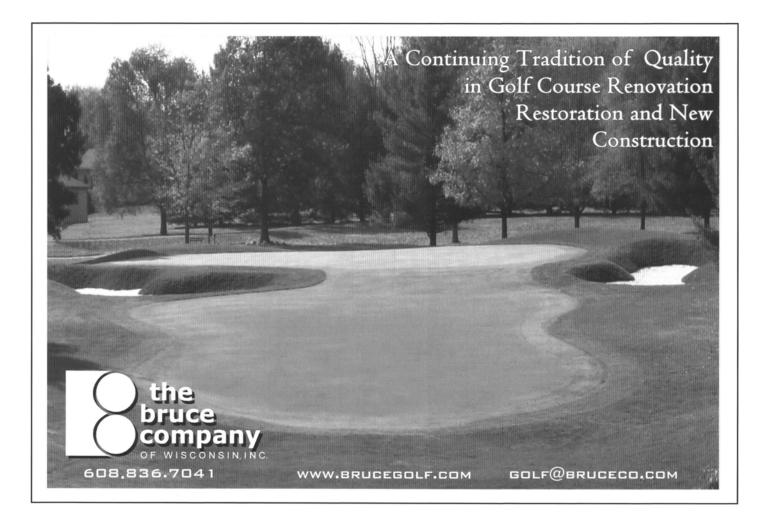
In recent years, university researchers and fungicide industry scientists have been investigating more innovative ways to control dollar spot more effectively and economically than ever before.

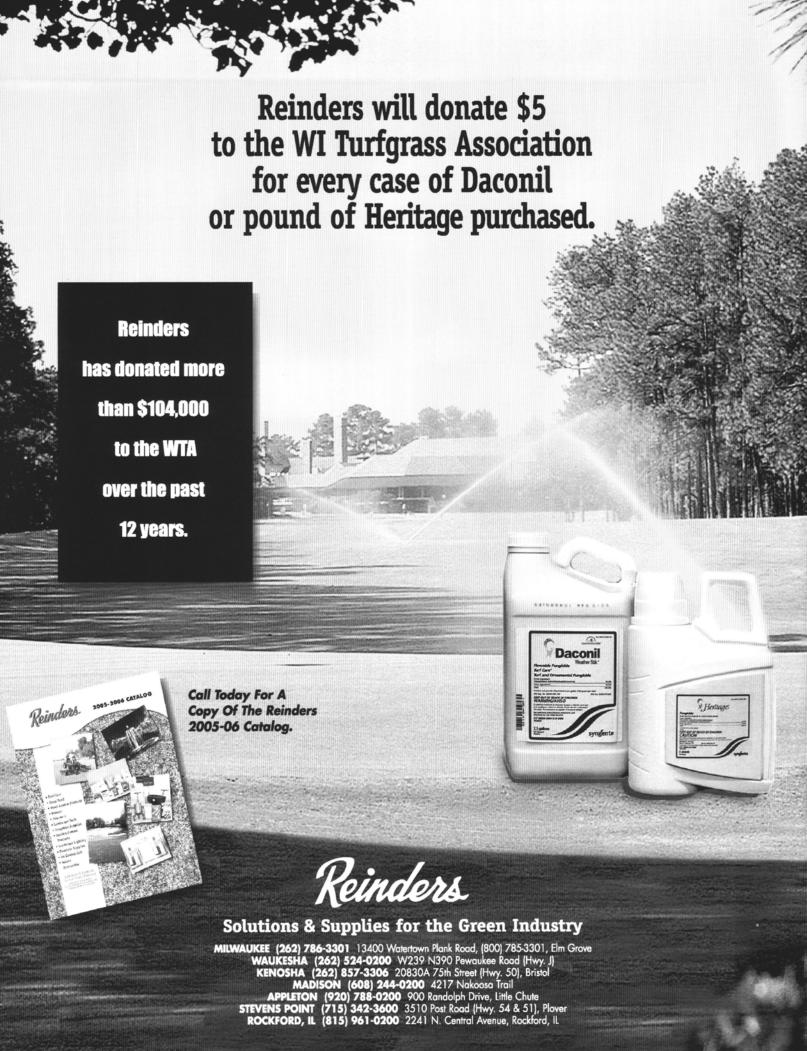
One new interesting idea is the use of a late fall or early spring applications to delay the initial occurrence of dollar spot. The biological theory behind these early applications is to knock back the initial inoculum density, meaning that the initial inoculum density needs to be built up to a certain level by the pathogen in order to cause a disease.

You might remember a recent *Grass Roots* article (Abler et al., 2005) reporting last year's results on longevity of fungicide efficacy on dollar spot control conducted at O.J. Noer Research and Education Facility. In a nutshell, we found a significant differ-

ence in longevity (the longest duration of control) among registered fungicides tested in our plot. Two fungicides, Emerald and Eagle had an acceptable control (a few dollar spots) for up to 48 days after last treatment and Banner Maxx, Curalan EG, 3336F, and Bayleton were significantly different from untreated check up to 25 days after the last treatment.

Along the same lines, this year we have launched eight experiments only for dollar spot control on greens and fairways at the O.J. Noer Turfgrass and Research Facility and on fairways at two golf courses (Milwaukee Country Club and Big Foot Country Club) in Wisconsin. There are twenty-six treatments (13 different fungicides) applied individually and as synergistic combinations. Here is a detailed description of the experiments: 1. To test whether the fungicides





applied for snow mold control last fall delay of initial dollar spot incidence at the O.J. Noer (fairway), 2. To test an effect of early spring application made in early May to delay of initial dollar spot occurrence at the O.J. Noer (green and fairway) and the Milwaukee CC (fairway), 3. To test the treatments for their longevity when treatments are applied at the time disease is first noticed at the O.J. Noer (green and fairway), and 4. To test the treatments for their curative efficacy with 14 day intervals for 2-3 times after 20-30 percent dollar spot damage appears at the O.J. Noer (green) and the Big Foot CC (fairway). At the end of this season, we will have a comprehensive understanding of various efficacy of individual fungicides registered for dollar spot control.

A unique aspect of this project is the collaboration among people with different backgrounds. In addition to University researchers, undergraduate students J. Rivers and M. Manemann, are performing experiments for academic credit. Also, superintendents P. Sisk and J. Knulty graciously allowed us to use plots on their courses in order to get a hands-on research experience. The superintendents will maintain and monitor their respective plots, rate disease severity as well as turf quality, interpret results, and present them to other peer superintendents. The undergraduates will do exactly the same things at the O.J. Noer. Further, we will work together to organize dollar spot field days to be held right on the respective golf courses. Stay tuned for a date and a time for the field days, which will be announced in the near future.

Another interesting part of this collaborative research is to find out whether there might be any discrepancy in disease and turfgrass quality assessment between superintendents and university researchers by comparing the data collected by them. Of course, final results (research data, advantages and limitations of the three way collaboration, and etc.) will be discussed and published in *The Grass Roots*. The undergraduate students will write them up in place of a final written exam. Research, extension, and teaching will be all accomplished through this cooperative effort.

I sincerely want to thank Pat and Jim for their kindness to provide research plots and their willingness and valuable time to lead these projects.



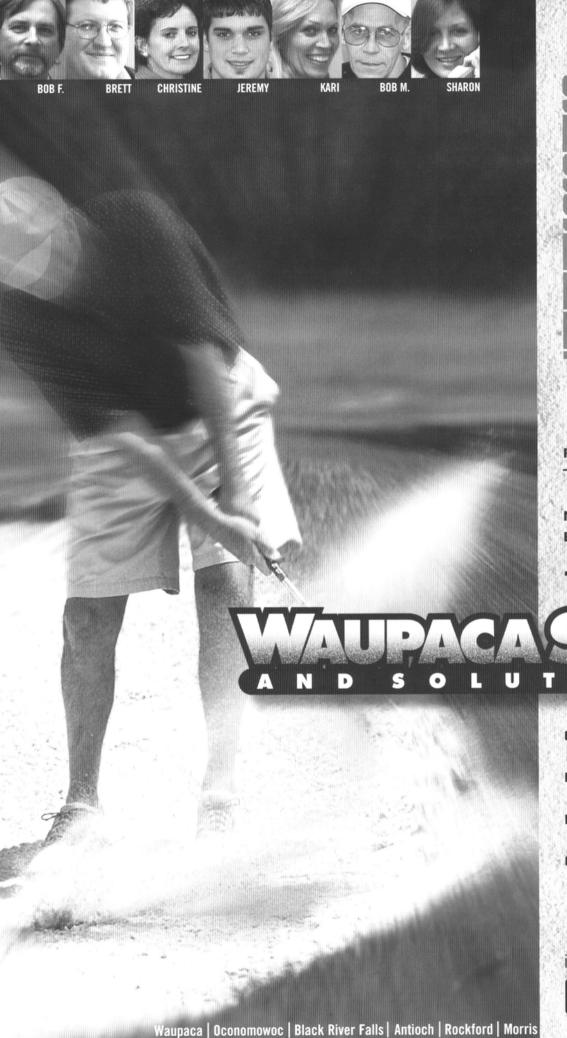
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When It Comes to Green Speed — Be Specific!



By Larry Gilhuly, Northwest Director, USGA Green Section

Editor's Note: This is a topic discussed with other superintendents, but one that hasn't been written about extensively. It is valuable information, especially in the context Larry writes about. I saw it on the June 27th, 2005 USGA Green Section regional updates and appears with permission.

sst! Want to know a great secret that is being used $oldsymbol{\Gamma}$ by golf course superintendents all over the Pacific Northwest? This secret has allowed some to raise mowing heights, create smoother surfaces without causing more stress, and keep the green speeds desired by their golfers. Specifically, it is called "site specific" rolling and golfers in the Pacific Northwest (and other portions of the country) cannot tell the difference in their greens, other than they are healthier and seem to play better.

The idea of site specific rolling (rolling only 20' - 30' around the holes rather than the entire green) makes perfect sense when research on this subject (Michigan State University, 2002) showed that rolling entire greens more than three times weekly can cause problems with wear. By changing holes on a regular basis and rolling only the portion of the green around the hole six times weekly, the entire green is rolled only one to two times weekly based on green size. Here are the positives that have been reported that can also be applied to your course to minimize stress on the turf and the golf course superintendent:

- 1. Improved smoothness with increased rolling. How many times do superintendents hear that the greens are "bumpy" or not fast enough? Unfortunately, this oft-heard refrain is often due to a bad day with the putter; however, increased rolling will improve what is really needed for putting greens - a smoother and firmer surface. Focusing efforts in the area where players can truly tell the difference in speed results in less complaints concerning green speed as players cannot tell the difference of six inches to one foot in green speed when striking a 40' - 50' putt over a non-rolled area. It is when the ball slows near the hole when players generally judge both green speed and smoothness.
- 2. Less time for the rolling operation. Many golf course superintendents report that site specific rolling is the perfect (and only) answer when an early morning shotgun requires rapid preparation. To date, no golfer has been able to notice

- the difference when entire greens are rolled compared to 20' - 30' around the hole. However, greens that have excess organic material near the surface during wet weather could provide noticeable differences.
- 3. The ability to raise moving heights for healthier turf. With the many different aeration units now at the disposal of the golf course superintendent, the potential negative of increased rolling on some portions of the greens can be offset with spiking, small tine aeration, or other forms of aer-Most importantly, if you begin rolling greens five to six times weekly in a site specific manner, the mowing heights on the greens can be raised slightly while green speeds will remain at desired levels. This slight increase in mowing height (one superintendent reported going from under 0.100 to 0.125 and keeping the same speed with greater smoothness) can have a very positive impact on rooting depth and summer turf survival. With Poa annua dominated surfaces this is definitely a step in the right direction.

If you are faced with an ever-increasing demand for green speed, be specific to provide positive results for your golfers and your turf.









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