

repair. The *ground under repair rule* is one of the more generous rules in the game. Whether the lie of a ball, a player's stance, or his swing is interfered with by *ground under repair*, the player is entitled to free relief. There is no penalty stroke, and no loss of distance involved with the application of this rule. What happens however, if a ball comes to rest

in a bunker that you and your crew are renovating? Does the player get free relief outside the bunker from *ground under repair* inside the bunker? Once again the answer is no, unless the Committee gets involved. It is recommended that the Committee should, during the renovation period, define the bunker as *ground under repair* and classify it

as *through the green*. Only by doing **both** of these things is the player going to get relief outside of the bunker under repair.

Our final example involves the seasonal accumulation of leaves. Does the fabled leaf rule exist? Is a player allowed to drop another ball where his original ball entered a pile of leaves that your staff has created or hasn't cleaned up yet? Once again, the answer is no, unless the Committee takes action. The Committee must write temporary local rules declaring the seasonal accumulation of leaves to be *ground under repair* (Decisions 13-4/33, & 33-8/31). Without these local rules written by the Committee, a ball lost in a pile of leaves is simply a lost ball (Rule 27-1: stroke and distance), and touching leaves in a bunker on your backswing invokes *the general penalty* for touching a loose impediment in a bunker (Rule 13-4).

It is our responsibility as golf course superintendents to relay pertinent information to the Committee, informing them about conditions such as aerification, construction projects, or leaf accumulations on the golf course. The Rules of Golf define the Committee as the Committee in charge of the competition, or if the matter does not arise in a competition, the Committee in charge of the golf course. This definition might apply to a Championship Committee, a Tournament Committee, or simply a Green Committee. It is the Committee's responsibility to write local rules that will apply to your golf course. So when a player encounters scenarios similar to those we've outlined, if the Committee has **not** written the local rules granting relief from aerification holes, granting relief from a bunker totally under repair, or granting relief from the seasonal accumulation of leaves, don't blame the golf course superintendent. We are simply doing our jobs. **Blame it on the Committee.** ♣

EVEN WHEN IT'S EMPTY, IT'S LOADED.



Carryall Turf II

Our new Turf II is loaded with a great package of standard features. All of which makes a great vehicle an even greater value. Turf II is part of Carryall's complete line of versatile, dependable vehicles.



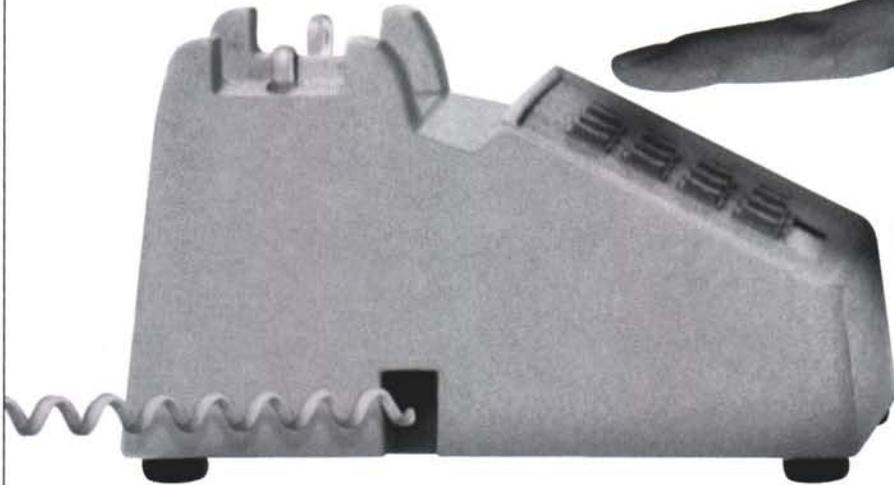
CLUB CAR
INGERSOLL-RAND



Club Car, Inc.
Wisconsin Branch

4485 South Racine Avenue
New Berlin, Wisconsin 53146
Phone: 414-896-9570
Fax: 414-896-9578

To get 20 competitive quotes, you can make 20 calls...



or 1 click.



Introducing Greentrac.com® - a new way of purchasing that has vendors from around the globe competing for your business. Instantly.

Imagine this: you need supplies . . . sod, golf carts, computers. Anything you require to run your operation. You go to our website and enter your requirements in a simple electronic Request for Proposal (eRFP). Instantly, it goes out to vendors around the globe. Then, you sit back as they start competing for your business. Bids come in and, using whatever cri-

teria you want - price, delivery, features, warranties - you pick the winner. That's Greentrac.com, the revolutionary new service that's simply the easiest, most efficient way to purchase since the town marketplace. The cost to a buyer for using Greentrac.com? Zero. The savings in time, money and energy? Infinite.

Main Office: 2121 East Coast Highway, Suite 200 • Corona del Mar, CA 92625 • (877) 774-8722 TOLL-FREE • (949) 759-8131 FAX
David J. Oberle • Regional Director • 4250 Wexford Way • Eagan, MN 55122 • (651) 681-8050 TEL • (651) 681-8055 FAX • doberle@greentrac.com

For a free CD demonstrating what Greentrac.com can do for your business, call toll-free (877) 774-8722 or email us at customerservice@greentrac.com.



From screen to green, your best way to buy. And sell.™

www.greentrac.com



Old Home Day

By **Monroe S. Miller**, Golf Course Superintendent, Blackhawk Country Club

It wasn't an original idea that John Dunn proposed to the board of directors at the Cambourne Hill Golf Club in Trelawny, Wisconsin. He knew of it from family on his mother's side still living back in New England and it seemed as though it would be a wonderful way to get at something he had been wanting to do for several years.

John is one of Wisconsin's more senior golf course superintendents and he had spent most of his career - the last thirty years - at Cambourne Hill, a venerable classic old course in the southwestern corner of Wisconsin.

Trelawny was founded in the 1830s by immigrant miners from Cornwall. They settled in hills and valleys with high hopes of riches from lead and copper and zinc mines newly discovered in the area. The miners were happy to escape the dangerous tin mines and low ore prices in Cornwall, England and brought great skills, strong work ethics and optimism to their new homes in Wisconsin.

Although they eventually built sturdy, tidy limestone cottages for their families, at first they merely built temporary shelters at the mouth of the mine they were working. They covered these holes in the side-hills with tarps or canvas or even a temporary wooden cover and lived like badgers. The name stuck and is used with great pride yet today as we are known far and wide as the Badger State.

John asked the directors of Cambourne Hill if he could schedule a first ever Old Home Day at the club. In 1899 New Hampshire governor Frank Rollins declared an Old Home Week all over New Hampshire. This was to be a week when anyone who had moved away from New Hampshire's many small towns could return at the same time and visit with one another. Over the years, as folks became more busy, it evolved to Old Home Day. They returned also to see what they missed (or imagined they missed), usually the rural landscape, simplicity, independence and their rural origins. It was a day for descendants to return to the land of their fathers, grandfathers and great-grandfathers. For everyone, Old Home Day was a day of nostalgia.

It was that feeling of nostalgia that inspired John Dunn. For thirty years he had managed the golf course in Trelawny with skill and professionalism. He provided players at "The Hill" with excellent conditions on a modest budget. John was progressive yet careful, par-

ticular about details, and completely dedicated to the club, the players and to golf. And he was able to do this so successfully, he said, because every one of those thirty years he had an excellent crew.

A summer at Cambourne Hill was a real prize in Trelawny, allowing John to hire the best kids available. He was demanding of them and had strict rules that absolutely had to be followed. But he was also fair, and after a short time kids realized how important that was. Their seasons at the course gave them a real sense of pride and respect for authority that usually lasted a lifetime.

The thought about an Old Home Day occurred to him as he watched a new employee - Steve McAllister - mow fairways with all the determination he could muster. Steve was a third generation to work for John. His grandfather Frank mowed roughs after he retired from the farm. A short time in town with little to do was all Frank could take. So he asked John for work and John was thrilled to have him. Frank's son Keith had worked full time at Cambourne Hill until he came upon a better opportunity. And now Keith's boy Steve was reporting for work at the same course and for the same man.

John sat on his golf car in the rough between one and ten, and his mind wandered back over the years



THOMAS J. EMMERICH
CERTIFIED IRRIGATION DESIGNER

- *GOLF COURSE
- *COMMERCIAL
- *RESIDENTIAL
- *MASTER PLANNING
- *SYSTEM EVALUATIONS

TOTAL PACKAGE DESIGN SERVICES

T.J. EMMERICH ASSOCIATES, INC.

IRRIGATION CONSULTANTS
N68W W30986 CLUB CIRCLE EAST
HARTLAND, WISCONSIN 53029
414-966-1051

and he thought of all the kids who had worked for him. Half were still in town, from the current mayor Dick Harrison - to the community's only physician, Dr. Jeremy Forester. Kids had worked their way through college at the golf course. Many returned to the community and many more pursued careers all across the state and the nation.

John counted among him former employees a full dozen who had gone to Madison, graduated, and become golf course superintendents. Still others were assistants. And it seemed so strange that the current club president and a couple of the directors had spent summers in his shop, mowing greens and tees, cutting cups and all the other daily tasks of summer on a golf course. As he reflected back, John thought of those wonderful kids who had done so many different things and accomplished so much. One had given his life in Desert Storm; another served in the state legislature. John got lost as he remembered so many of them.

And yet there were some he had lost track of, kids he'd really enjoyed and liked. "I'll have to try to find out about them someday," he thought to himself. It was then, at that instant, that he thought about a golf course staff reunion, a gathering for a day of all the employees on the golf course for the last thirty years. "It'll be like Old Home Day out East," John said out loud to himself.

So Old Home Day was John's proposal to the board. Obviously they were brimming with enthusiasm over the prospect of a reunion. John had hesitated a bit because during the golf season time was a precious commodity, and generous amounts of time would be required to plan such an event.

He shouldn't have worried. As word spread through the club, so did the excitement. Committees were formed; groups went to work on details that ranged from finding the hundreds of people who had worked on the course to a schedule of events for Old Home Day. The momentum brought a spirit to the club John hadn't seen since the centennial celebration.

The clubhouse office staff cross referenced payroll records with John's records to insure no name was left out. The Games Committee considered events for children, for spouses, and for non-golfers. Of course there would be a golf tourney; but there was also swimming and tennis. There were plans made for putting games and chipping contests. A cup cutting competition was planned, along with a parade of old and new golf course equipment.

John Dunn could hardly contain himself as the planning moved along. Invitations were sent out and immediately replies started coming back. The staff found time in afternoons to empty the shop and repaint absolutely every surface. John put together a big scrapbook for each decade - 1970s, 1980s and 1990s.

Q. Why FLOWTRONEX™?

REASON #1. SUPERIOR PRODUCTION

The Silent Storm Variable Frequency Drive pump station combines efficiency and simplicity to save you up to 50% on your power bills and countless hours in maintenance to your pump station and entire irrigation system.

REASON #2. INDUSTRY LEADERSHIP

FLOWTRONEX PSI is the world's largest pump station manufacturer, with more installations than all of our competitors combined.

REASON #3. WORLDWIDE SERVICE

Using the revolutionary FlowNet service network, FLOWTRONEX PSI is able to provide 24-hour support and fast on-site service when you need it.



SALES

Mike Green
262-971-0626

SERVICE

Hugh Wakefield
920-563-8699

FLOWTRONEX™

800-786-7480

www.flowtronex.com

10661 NEWKIRK STREET • DALLAS, TEXAS, USA 75220 • 214-357-1320 • FAX 214-357-5861

The 2000 crew worked on a formidable Plexiglas scoreboard-like feature where each returning employee would write his/her name, spouse, number and names of children, years worked at Cambourne Hill, current job and current address.

The kitchen staff planned great food for the day, from a pig roast cooked over an open fire outside to their famous Cambourne saffron cake filled with raisins and black walnuts. Beer from our best micro breweries and wine from Wisconsin vineyards provided the refreshments.

Word of Old Home Day was all over town. And more than a few of Trelawny's citizens remarked, "I knew I should have taken that job John recruited me for when I was seventeen. If I had, I'd be able to be part of Old Home Day."

A group of the local guys who were going to Old Home Day were talking about mowing roughs at Cambourne Hill with the Farmall B and the set of Airfield Blitzers.

"Whatever happened to the B tractor?" one wondered.

"Chances are John traded it in at Trelawny Motors IH Farm Store. Let's see if anyone there knows."

To make a long story short, they found the tractor abandoned at a farm in weeds that had grown nearly head high. They bought it for \$100, refurbished it and were going to present the key to John Dunn. As one of the guys said, "this old tractor didn't look this good or run as well on the day it was made. John will be dumb struck when he sees it."

The response to Old Home Day was tremendous, beyond the committees' (and John's) wildest expectations. Ninety percent of those invited said, "Yes, I'll be there." Some who were unable to attend sent videos with greetings to John, reminisces of the time they had spent on the CHCC crew, and some looks at their families. It was the next best thing to attending.

The two motels in Trelawny filled quickly, as did those in Eliside, Redruth, Linden and Mifflin. Some stayed with their parents or other family members in Trelawny. Others took advantage of the Housing Committee's offer to bunk with the family of a CHCC member.

Old Home Day dawned bright and clear and cool. The golf course was as magnificent as the day. The early morning was set aside for tee times on the course. A simultee started at 11:30 a.m. In the middle of all the activities - golfing, lunch, horseshoe games, lawn darts, swimming tennis and conversation - was John Dunn. He even took a swing around the golf course driving the beer cart!

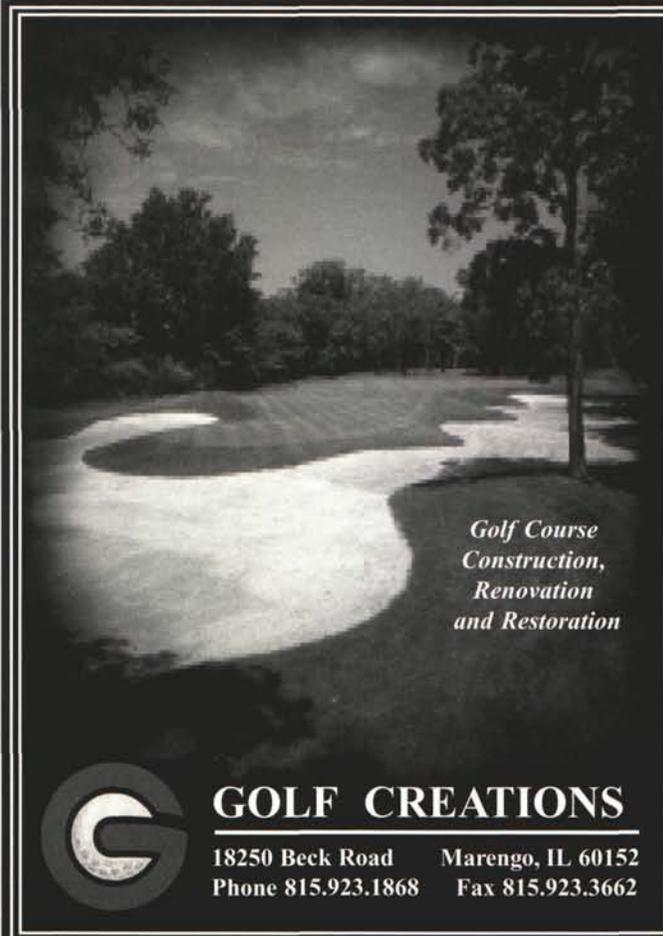
After golf, there was a big family picnic for everyone at Old Home Day. John had spent time with everyone over the course of the morning and the afternoon, but

organizers had a small program planned nevertheless. Each former golf course employee stood, introduced himself or herself and the family with them, gave a sketch of what they were now doing and where they lived, and the summer(s) worked in John's shop. Old friendships were renewed, and new ones were made. The careers followed went from superintendents to professors, farmers to stock brokers, local business owners to one airline pilot. And everything in-between.

As the summer day slipped away and the sun settled down in the western sky, nearly everyone stayed at the club. They talked among themselves of how important their summers at CHCC had been in their youth. It was, for many, their first job and first paycheck. It was where they learned to get up early, to get to work on time and the importance of putting forth their best effort. They learned teamwork and felt camaraderie, made friendships, met spouses and fell in love with golf. Nary a one had a negative comment, maybe a reflection of how time softens the rough edges of almost all experiences. To a person, they were sentimental and nostalgic.

And, as they headed away from Old Home Day, they agreed that, "We must do this again."

"Don't worry," said John Dunn. "We will. We will." ❧



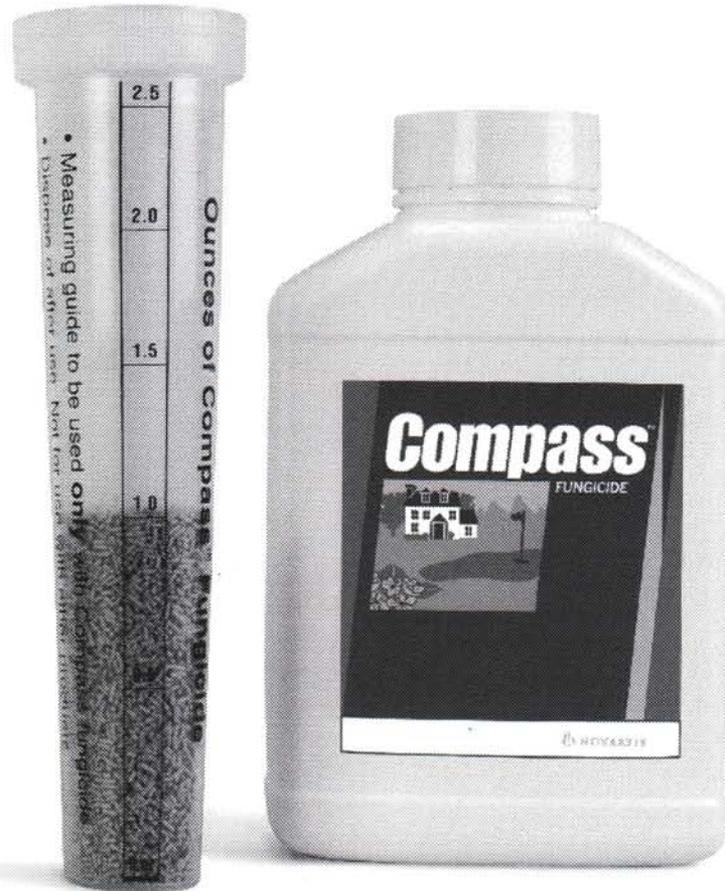
*Golf Course
Construction,
Renovation
and Restoration*

GOLF CREATIONS

18250 Beck Road Marengo, IL 60152
Phone 815.923.1868 Fax 815.923.3662

New Compass™

Locked-in disease control for both lawns and landscape ornamentals at the lowest rates ever.



COMPASS™
Mesostemic power,
mastered by Novartis

- New Compass controls Brown Patch, Leaf Spot, Gray Leaf Spot, Red Thread, Rust, and more.
- Compass gives you preventive and curative options.
- Lowest rates ever mean 95% reduction vs. contacts.
- New technology, yet competitively priced.
- Just in time, a reduced-risk fungicide that is environmentally sound.
- Mesostemic power ensures locked-in, rainfast disease control up to 28 days.

BRIAN ANDERSON
(616) 682-0108

 **NOVARTIS**

www.cp.us.novartis.com

Important: Always read and follow label instructions before buying or using this product. ©1999 Novartis Crop Protection, Inc., Turf & Ornamental Products, Greensboro, NC 27419. Compass™, the Mesostemic device logo, and the Novartis logo are trademarks of Novartis.

Development of Typhula Species Specific PCR Primer



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

In the last issue (July/August, 2000) of *The Grass Roots*, we talked about how DNA marker technology can be utilized to understand genetic relationship or diversity (fingerprinting and population structure of fungal pathogen) of any living organisms, such as Typhula fungal species that cause snow mold.

Gray snow mold caused by *T. incarnata* and speckled snow mold caused by *T. ishikariensis* complex are major problems for golf course superintendents in Wisconsin and the Great Lakes Region. In this issue I will intro-

duce research results of the successful development of PCR (polymerase chain reaction) primers, which are based on the sequences of the internal transcribed spacer (ITS) regions of nuclear ribosomal DNA (rDNA), distinguishing Typhula species (*T. ishikariensis* complex and *T. incarnata*).

The ITS sequences have been widely used to compare various fungal taxa, to differentiate *Fusarium* sp. and *Rhizoctonia solani* AG-2-3. As a reminder from the last issue, RAPD (random amplified polymorphic DNA) marker was used to understand

genetic relationship among Typhula isolates, the three genetically distinct groups (A, B, and C) within *T. ishikariensis* complex that were found in Wisconsin isolates. Our lab's first goal was to design a PCR primer differentiating Typhula species.

We all remember Dr. Steve Millett, who graduated from Plant Pathology, Univ. of Wisconsin-Madison. His PhD research topic was on distribution and characterization of Typhula species using sclerotial morphology, monokaryon x dikaryon mating experiment with known tester isolates, and

ProGreen Plus
A WISCONSIN COMPANY



E.C. GROW Inc.

Have Your Fertilizer Needs Covered

MINI FAIRWAY

Sized for Bentgrass fairways or tees, with Nutralene and Sulfate of Potash.

FAIRWAY

Sized for Bluegrass fairways, tees or roughs with Nutralene or SCU, and Sulfate or Muriate of Potash.

NURSERY/ ORNAMENTAL

For beds. Extended release with Nutralene, Sulfate of Potash, Micros, and extra Sulfur.

Toll Free

1-888-PRO-GREEN

7 7 6 - 4 7 3 3

Mequon

11020 Buntrock Ave.
(262) **242-9100**

Fax: (262) 242-2117

New Berlin

16680 W. Cleveland Ave.
(262) **789-9550**

Fax: (262) 789-9509

NOT JUST PAR FOR THE COURSE

For over 20 years Waupaca Sand and Solutions has been working to provide you with premium products that outperform all others. Today, as the largest supplier of golf course sand and materials in the Midwest, we can provide you with custom-engineered products that are not just par for the course.

TOPDRESSING MATERIALS

Fines Free Topdressing Sand™
Standard Topdressing Sand
Premium 80/20 Topdressing

BUNKER SANDS

South Rim Bunker Sand™
North Face Bunker Sand™



PRECISION BLENDED CONSTRUCTION MIXES

GREENSMIX™ Construction Mix
7-2-1 Construction Mix
Tee Mix
8-1-1 Construction Mix

SPECIALTY PRODUCTS

Petal Power Bedding Mix
Green Dyed Divot Sand
Cartpath Materials @ Landscape Products
Bridge and Trench Gravel

As you grow, so does our commitment
to making your job easier.



A DIVISION OF FAULKS BROS. CONSTRUCTION, INC.

715-258-8566

sandguys@execpc.com

Waupaca, WI • Rockford, IL • Antioch, IL • Muscatine, IA

Variable	PCR	RAPD
Length of primer sequence	15 - 25	8 - 10
Number of amplifying band	one	10 - 15
Specificity	High	Low
Reproducibility across lab	High	Low
Primer sequence	Two primers of known nucleotide sequence	Single primer of arbitrary nucleotide sequence

Figure 1. A gel profile of Typhula fungal isolates using two molecular marker types, PCR and RAPD. Note multiple bands were amplified in RAPD reaction but a single band in PCR reaction.

DNA sequence comparison of ITS regions of rDNA of Typhula species. From the DNA sequences of ITS region performed by Millett (1999), Typhula species-specific PCR primers were designed. Then they were tested to confirm the validity using *T. ishikariensis* and *T. incarnata* isolates collected mostly from Wisconsin and a few from other countries. All of the samples (83 and 48 of *T. ishikariensis* and *T. incarnata*, respectively) tested so far have been positive. Our lab successfully developed PCR primers amplifying a single bright band compared to multiple bands in RAPD reaction (refer in figure 2, Jung, 2000) for each of *T. ishikariensis* and *T. incarnata* species. PCR primers separating two diverse groups A and C (Biological Species Group I) from group B (Biological Species Group II) described in figure 3 (Jung, 2000) were also designed.

Rapid and accurate diagnosis of Typhula species pathogenic to turfgrasses is an important part of managing the diseases that they cause. Furthermore, it is not easy to identify the *T. ishikariensis* complex isolates due to taxonomy confusion among researchers and maybe complexity of Typhula organism itself. For these reasons our results are valuable not only for golf course superintendents but for researchers as well.

What are differences between PCR and RAPD marker? Some variables are compared in Figure 1.

RAPD gel picture



PCR gel picture



The next step is to plan an experiment that answers the question, "Is there any difference in fungicide sensitivity among each genetically diverse groups of *T. ishikariensis* complex?" Then those isolates will be used for the inoculation of turfgrass species in the field condition in order to associate with in vitro results.

What we are learning from present and future results is to aid golf course superintendents in reducing their fungicide input by provid-

ing information of proper fungicides controlling Typhula isolates.

References

Millett, S. 1999. Distribution, biological and molecular characterization, and aggressiveness of Typhula snow molds of Wisconsin golf courses. Ph.D. Dissertation, Univ. Wisconsin, Madison, WI.
 Jung, G. 2000. Application of DNA marker technology to turfgrass pathology research. *The Grass Roots* Volume XXIX (4):37-41.



AMETEK®

ACCESS BOXES

Manufactured in
Sheboygan, Wisconsin

Specify **AMETEK** ACCESS BOXES —
 A Wisconsin Product!





Dollar Spot Control: The Ins and Outs and What You Should Know

By **Jeff Gregos**, Department of Plant Pathology, University of Wisconsin-Madison

In the recent weeks leading up to the composition of this article, many of the superintendents in Wisconsin were experiencing severe dollar spot outbreaks. Some also reported that the length of control of some stand-by chemicals was diminished. In the following, I hope to answer any questions that you may have about dollar spot control.

Why doesn't my fungicide application last as long as it did in the past?

There are numerous factors

involved with the length of efficacy of chemicals. I will look at several that pertain to the type of weather that we are having this summer.

Early on in the season, rain would have been a major factor reducing the length of efficacy. Rain not only washes off contact chemicals, which provide protection on the outside of the plant, but also increases shoot growth. With increased shoot growth, you lose protection by both removal at mowing and the emergence of new, unprotected leaves. Under

normal conditions, emergence of new leaves occurs about every five days. With localized protection, any leaf that emerges after application will have reduced or no coverage. Chemicals that are local protectants include iprodione (Chipco 26 GT) and vinclozolin (Vorlan). Chemicals that provide the best coverage on old and unemerged foliage are acropetal systemics. Acropetal is the movement upwards in the plant. Fungicides with this type of action include the DMI's (Banner Maxx, Bayleton,

ProGreen Plus 
A WISCONSIN COMPANY LLC



Have Your Fertilizer Needs Covered

GREENS GRADES

Very fine, consistent particle sizing with Nutralene and Sulfate of Potash.

PRE-EMERGE COMBINATIONS

For fairway and rough with Barricade, Dimension, Gallery, Team, and Tupersan.

SOLUBLES

Dissolve instantly - perfect for spoon feeding and quick response.

Toll Free

1-888-PRO-GREEN

7 7 6 - 4 7 3 3

Mequon

11020 Buntrock Ave.
(262) **242-9100**

Fax: (262) 242-2117

New Berlin

16680 W. Cleveland Ave.
(262) **789-9550**

Fax: (262) 789-9509