



TURFGRASS MATTERS

Mid-Atlantic Association of Golf Course Superintendents

May, 1996

Volume 1, Number 2

Gray Leaf Spot Blasts Ryegrass Fairways in 1995

Dr. Peter H. Dernoeden
Department of Agronomy, University of MD

I first diagnosed gray leaf spot at Chartwell CC in early November of 1986. Since that time it has appeared sporadically, with no more than one or two cases being observed in a year. The only gray leaf spot I diagnosed in 1994 was restricted to a small area on one ryegrass fairway at Baltimore CC, on 6 October. In late July 1995, however, a deluge of samples brought to me from area golf courses revealed that we were having an epidemic.

As you know, July 1995 was that hottest on record, and except for a two or three day hiatus, the heat wave persisted throughout August. There was only one major rainfall event during the entire month of August, which occurred on 6 August. These environmental conditions are what triggered the problem, and the disease continued to be active into late August, despite cooler night temperatures. The pathogen, *Pyricularia grisea*, remained virulent during somewhat cooler weather because the drought and high day temperatures greatly restricted the ability of perennial ryegrass to grow actively and defend itself. The epidemic subsided by the third week of September, but the pathogen continued to attack and injure seedlings throughout October. There was a resurgence of destructive levels of gray leaf spot in early to mid-November of 1995.

The gray leaf spot pathogen also causes rice blast, the most destructive disease of rice worldwide. Literally overnight, the fungus produces enormous numbers of spores. It seems to

initially attack through leaf tips: at least the initial symptoms include the discoloration and twisting of leaf tips. The



first really noticeable symptom from a standing position is the appearance of reddish-brown spots, which are 1-2 inches in diameter. These spots can easily be confused with *Pythium* blight or brown patch. The major difference is that there is no foliar mycelium associated with gray leaf spot. In the early morning hours the twisted leaf tips may appear felted and either gray, purple, or yellow. The felted appearance is the result of the production of prodigious numbers of spores and their spike-bearing stalks known as conidiophores. Within hours, leaf tips turn brown and are usually twisted. Below the twisted areas a small number of leaf lesions may or may not be evident. The lesions are circular to oblong, about 1/8 inch or less in diameter, grayish-brown with a dark-brown border. Gray to brown lesions with or without a dark-brown border can also develop along the margins of leaf blades. Leaf lesions are not produced during the initial infection

phase, therefore, twisting of the youngest leaf is the most important early warning symptom to look for when scouting for gray leaf spot. During prolonged hot and humid weather the spots enlarge to 3 to 18 inches in diameter. Large areas of turf may be enveloped and collapse in 3 to 5 days, and at this point, the turf develops symptoms that mimic drought stress. The disease is most severe in heat-sink areas such as south facing hillsides or knolls. Another unusual feature of the disease was that it is more destructive in the rough, particularly the first-cut rough where the

soil has been compacted by cart traffic. Evidently, the higher canopy in the rough provides a more ideal micro-environment for the pathogen. This is also supported by the observation that the disease was generally less severe in low-cut, perennial ryegrass approaches, collars or tees. The reduction of disease

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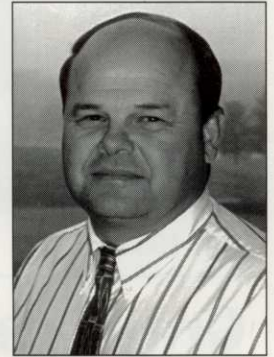
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President's Message

Bill Shirk, CGCS



I would like to start this message with a few "thank-you's".

First, I would like to thank our March meeting host, Rick Hildreth and the rest of Swan Point's staff.

Secondly, I would like to thank our April meeting host, Mike Legere, CGCS, and Holly Hill's staff.

Thirdly, I would like to give an early thanks to the rest of the Board of Directors. Through the first three Board meetings, a tremendous amount of work has been accomplished. Each Director's input has truly been a team effort in accomplishing many goals.

Lastly, I would like to thank the Turfgrass Matters Committee, Chris Ayers, Chairman, Dean Graves, Bruce Cadenelli, Doug Fleming, R. Tucker Mostrom, Kevin Pryseski, CGCS; and Lentz Wheeler for our first Turfgrass Matters, Volume I, Number I. It really was outstanding and shows the results of their hard work. When I became a Director, I had always wanted to see a better quality Newsletter, and now I realize that this can happen and that the quality will do nothing but get better. Great job!

May will find the Superintendent-Pro Tournament at Queenstown Harbor Golf Links. This event has been billed a steel spikeless event.

Although we hope everyone will be comfortable with this decision, we certainly don't want to offend anyone in wearing some kind of soft spike. Although it is not mandatory, we hope everyone can comply with this. After all, this is a fun event with good fellowship, not a chance to win the U.S. Open.

On a much sadder note, I was notified of the passing of a dear friend to me and to the turf industry, Ken Baker. I have known Ken for many years, and it will take a long time to adjust to the fact that Ken will no longer be around to visit and talk to.

Even though Ken was a salesperson for G.C. Cornell, I never felt that he was a salesman, but a real friend. When Ken would visit or during many trips to Superintendent meetings, both ESAGCS and MAAGCS, we talked about our families, our golf courses, our problems and many other topics. Ken was always there to help, no matter what the situation! Ken and I had some great times, as many of you did.

As I said above, Ken will no longer be visiting us, but I know he will be watching over his many friends, as he did for many years. Ken, you truly will be missed. ■

Mid Atlantic Association of Golf Course Superintendents

P.O. Box 4465

Lutherville, MD 21094 4465

For Message/Fax:

(800) 726-6501

or

(410) 825-4653

For Newsletter Questions or

Comments Contact:

TURFGRASS MATTERS

c/o Chris Ayers

Lakewood Country Club

13901 Glen Mill Road

TURFGRASS MATTERS

Committee

Chris Ayers
Editor

Dean Graves

Bruce Cadenelli

Doug Fleming

R. Tucker Mostrom

Kevin Pryseski

Lentz Wheeler

FORGING A STRONGER PARTNERSHIP

Business Issues Facing Your Golf Market Suppliers

Lynn Matson

President, Turf Equipment and Supply Company



When Bill Hughes and I purchased Turf Equipment & Supply, we naively thought we could quickly fix the problems that were plaguing the company and then sit back and pretty much let the company run itself. We even talked about buying a sailboat to explore the waters of Chesapeake Bay.

Thirteen years later, reality has turned out to be quite a different story. The problems that we encountered in 1983 have long ago been addressed. But new ones have cropped up. And they just keep coming.

The fact is that the one constant in business is change. And each change comes with a new set of problems and challenges. The notion of

sitting back and letting a business run itself seems almost ludicrous today. And the sailboat ... well, it's in someone else's slip. Fortunately, I think we enjoy piloting the business almost as much as being out on the bay.

When Bruce Cadenelli and Chris Ayers asked me to write this article, I believe they had this whole concept of change in mind. Your profession is changing just as quickly or maybe even faster than our business world. Given these dynamics, the only way that we're going to maintain our customer/vendor relationship is through good, ongoing communications.

This article is an attempt to share with you a few of the issues that we're facing as business people in our efforts to serve you, our golf customers.

Hopefully it will help foster a better understanding and strengthened relationship between us.

To help me better represent the full breadth of the golf business community, several other local business people have contributed to this article. Their names appear below. I very much appreciate their time and support.

While every business person may look at the golf market from a slightly different perspective, we all agree on one point. Golf has been very good to us. We've benefitted from its growth. We like its honest hard working character. And we enjoy working with you, the course superintendent and our primary customer.

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Our Host for the May Meeting:

Bill Shirk, CGCS

of Queenstown Harbor Golf Links

Bill Shirk has made a life as well as a career of golf in the Eastern Shore area. Since his graduation from the two year program at the Pennsylvania State University in 1972, Bill has sought the temperate coast east of the Chesapeake Bay, and both he and the shore have benefitted handsomely. Bill tutored under Alex Watson, CGCS, Bob Orazi, CGCS, and Dave Cammarota before moving on to head the Greens Department at Seaford Golf & Country Club in Seaford, DE. He then moved to Prospect Bay C.C. for the next 11 years where he received his CGCS certification in 1989. Bill moved to Queenstown Harbor Golf Links in 1990 to open the new course and undertake an ambitious environmental program with it. His stature has grown beyond the Eastern Shore to land him this year in the presidency of our Mid-Atlantic association. The GCSAA recognized Bill's strong commitment to Queenstown's conservation and environmental efforts by awarding the course an Environmental Steward award in 1993.

The coast offers Bill opportunities beyond golf, which he plays often and well. He fishes and hunts avidly when Queenstown's 36 holes allow him. He has built quite a family even while pursuing such a demanding career. Cheryl, his wife of 23 years, works in medicine and earned her Masters Degree several years ago. His son, Adrian is a very active thirteen years old and his younger sister, Ashley, is a very bright and active eleven. Bill is very proud of his family and his career, and of course, his manicured links amid the sprawling wetlands of the Eastern Shore. ■

Our Host for the June Meeting:

Gerald Hasbargan, Jr.

of Prospect Bay Country Club

The career to-date of Gerald Hasbargan, Jr., of Prospect Bay Country Club in Grasonville, MD, exemplifies the opportunities and tradition that are the golf industry in the Mid-Atlantic area. He earned the Emmet Gary Scholarship from the Maryland Golf Association on the way to his B.S. in Agronomy from the University of Maryland, Class of 1981. Gerald built his early experience under Bill Black at Congressional Country Club, Mike Evans at the Country Club of Woodmore, and Sam Kessel at the Country Club of Fairfax. His goal as superintendent, now that he has his own course on the Eastern Shore, is to formally enter the CGCS process this year.

Gerald has not been a total slave to golf turf for the last decade and a half. He has also built a family. He married Brenda, his wife of fifteen years, upon graduation from Maryland. Together they are raising three beautiful girls, Tiffany (13), Ashley (10), and Shelby (3).

The Mid Atlantic has much to offer all of us, but few can boast such success in reaping the bounty of local resources. ■



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Terri Poole

Extension Agriculture Agent



he response to my article last year on the use of straw for algae control in ponds was huge. However, there are still people asking questions who have not heard about this simple solution to a nasty problem. Now that spring is almost here, let us take another look at this topic for those who missed it last year.

Every summer many farm ponds in the region are covered with algae. This not only hampers fishing and swimming, but also affects the water quality of the pond.

Anyone who has a pond knows that trying to control algae can be frustrating. Many have tried dragging it off, coloring the pond water or applying chemicals and weed killers. Some have resorted to algae eating fish.

A simple, inexpensive, environmentally safe method for controlling algae in ponds may have come along.

Extension Water Quality Specialist Dr. Dan Terlizzi wrote about how the British observed that barley straw reduced algae growth in ponds.

This discovery was made by accident when bales of hay accidentally fell into a farm reservoir. The pond grew far less scummy with algae.

This presents pond owners with a practical and inexpensive control for pond algae that fits well with the environmental approach. We may not have to rely on chemical control measures.

Further observations have found that hay does have some inhibitory effect, however, straw is more effective and barley straw is the most effective. It has not been discovered exactly how the hay or straw works to control the algae. Some speculate that a chemical compound is released into the water during the decomposition process and it controls the algae. Researchers at the Aquatic Weeds Research Unit have named this compound "Factor X."

Because Factor X is released from decomposing straw, it is necessary for it to be in the pond a month before algae develops for best results. Straw bales also need to be replaced two or three times during the algae growing season.

Factor X does not appear to kill existing algae in a pond. It is important to put your bales of straw in early. April or early May may be a good time to put them in the pond.

Some experts have suggested that loose straw is more effective than bales, however the bales will obviously be easier to handle and remove after one or two months in the water. Whether using loose or bale straw, you will need some type of system for handling the water-logged straw. An enclosure of poultry wire or plastic mesh has been used successfully in trials.

On the down side, barley straw may be hard to find right now due to the time of year and barley dropped in value as a cash crop last year. If you cannot find barley straw, don't give up, use an alternative. Wheat straw, oat straw or even hay will work. Remember, the original observations were with bales of hay in the pond. Don't wait, use whatever you can get and stock up on barley straw when it is harvested in late June. ■

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Forging a Stronger Partnership

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Business Changes

Before we start talking about the changes that are affecting business, let's nail down the one thing that has not changed...the need for every business to make a profit. Profit is not something that is just desirable. It's absolutely essential. We must make a profit today if we're going to survive and be around to meet your needs tomorrow.

But making a profit is becoming increasingly difficult. Here are some of the reasons why:

Competition — A competitive company must serve the interests of both its employees and its customers. But staying competitive is much harder than it used to be. The big difference is the breadth, intensity and speed of the competition. It has meant more choices for customers and in many cases even lower prices. But it has also brought fundamental changes to the way business operates.

Think about our own industry for a minute. Look at all the companies that have been attracted to the golf market by its fast growth and all the new products that have been introduced in the last few years. I counted 29 new products being advertised in just one recent issue of *Golf Course Management*.

At the same time the old familiar companies that have been serving the golf market for years have been introducing new models at a record rate. They're also expanding into whole new product categories. Just look at Toro. Today the company offers you sprayers, utility vehicles, and greens aerators as well as turf nutrients, pond aerators and tub grinders.

To understand just how fast this product proliferation is happening, consider these points. In 1983 the Toro equipment distributor price sheet was 15 pages long. Today it's 59 pages. Said another way, about 75% of our sales today are from products that have been introduced in the last five years. At the same time Jacobsen, Deere and Ransomes have also been rapidly expanding their lines.

New chemicals, irrigation equipment and information systems are coming out at an even faster rate. The most visible display of all of this activity is probably your National Golf Show. You know how difficult it is to get around and take everything in at the trade show.

While all this change has given you many more choices, consider what it has meant for your local suppliers. First, it has resulted in more head-to-head competition in more product categories with the inevitable pressure to reduce selling prices.

But it has also meant that we must: stock much more inventory and secure more bank financing to carry it; put many more units in our demo fleets and add more trucks and trailers to haul it; hire more sales, service and support personnel; increase our insurance coverage; spend more for trade shows and field day activities; invest more in both internal and customer training and education; and, spend much more time forecasting sales and managing inventory.

As wholesalers, we know how to operate on short profit margins. But recognize that all of these added requirements put even more pressure on margins and require significant additional financial investments. As owners, we're required to be even better managers, particularly of our inventory and other assets, and accept even greater personal financial risks. No wonder companies can so quickly get into trouble.

Government and Environmental Issues — While the primary pressures on business today are competitive in nature, government regulations and environmental factors are also affecting our operations and reducing our profit margins.

John Strickland noted that the EPA now requires expensive air cleaners on his mixing and handling systems. Tim Davisson reported that every material in his warehouse must be registered twice a year with the Maryland Department of Agriculture and that he pays a fee for both what he sells and what's stored in his building.

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Even environmental issues are driving up costs. John Strickland said that wetland restrictions are reducing the availability of peat humus. Local sand deposits are being depleted resulting in higher freight costs to truck it in from more distant locations. At Turf Equipment, we're in the process of planning for the installation and financing of a closed loop water treatment system to protect our property and meet government regulations.

Parent Company Restructuring

These same competitive, government and environmental factors, as well as other rising costs, are also affecting our parent companies. Competing on a national and international basis, these companies are restructuring to be more competitive and to provide a better rate of return to their stockholders.

We have to support the activities of our parent companies. We want these companies to be strong. After all, we're only as good as the products they manufacture. But the business climate today doesn't allow these corporations to simply pass along higher costs in the form of increased selling prices. Instead, they're re-engineering their products and their operations. The problem we face is that some of the changes being made by our parent companies directly reduce our profits.

Here's an example. Brian Finger reported that some of the chemical companies he represents issue immediate price increases that are actually larger than the profit margins he makes selling their products. That undermines any profits he can potentially make on outstanding quotes. In other cases, we're seeing parent corporations cut back on price supports, floor plan terms, co-op programs and even the direct profit margins we can make on the products we sell.

All of these factors are making it increasingly difficult for local vendors to make a profit on our business operations. At the same time we recognize that you are facing growing demands in your profession. As a result, you are requesting and deserve more service, more support and more training and education from your local vendors. And we want to be able to give it to you. But that requires investments in quality personnel, facilities and equipment. Our challenge clearly comes down to finding ways to give you better service in the face of shrinking profit dollars. Those of us who do that the best will survive and prosper.

Future Changes

So what does the future hold? Here are a few thoughts on what might be coming.

Restructuring/New Technology — Call it whatever you want, we're all constantly trying to find ways to reduce the operating costs of our business operations so we can invest more in areas that directly improve our customer service. New technologies are also attractive because they help us run a simpler and more efficient business which translates into lower operating costs.

Consolidation — Just like in other leading edge industries, we're likely to see the golf business go to fewer and bigger players. However, there will always be room for small niche companies with truly innovative and specialty products.

Unbundling Services — Today when you buy a piece of equipment you really get several services as part of your purchase including product information, set up, delivery, operator training, warranty coverage, payment terms and often a product demonstration. All of these services cost money to provide.

In the future these services might be broken apart or unbundled. You'll have the option of buying and paying for just what you want. The parent companies might directly provide you with the products/services they can best and most efficiently deliver. The local distributors, dealers and reps will fulfill those areas that we can best handle.

Expanded Role — Another future change may involve out-sourcing as golf customers look for the lowest cost way to manage their golf properties. This could even take the form of manufacturers retaining ownership of the equipment on your course plus providing maintenance services or even operators, all for a service package fee.

The best way to keep an eye on these future developments is to watch the golf management companies like Club Corporation of America, American Golf or KSL Fairways and Billy Casper Golf Management right here in

Continued on page 8

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Partnership

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our own region. These organizations are applying proven business management practices to what they see as a cottage industry in an effort to give the golfer a better product at a lower cost. As a result, they're changing many of the requirements that the manufacturers and their local representatives are being asked to meet.

Your Role

From our perspective as your suppliers, here are a few ideas that we believe can make a fundamentally good relationship between us even better:

1. Understand and support the idea that your suppliers need to make a fair profit on your business.
2. Deal with us honestly and up front. If you know you really don't want our product or service, tell us so we don't waste your time or ours.

3. Share your plans and needs with us as early and openly as possible. Chip McDonald needs the time to properly prepare for his work, particularly to secure permits. Equipment distributors need your input so we can forecast inventory requirements and have it on hand to meet your desired delivery dates.

4. Support the vendors who actually support you and your associations. Remember the companies that lend you equipment for the special events at your course and those people who are always there for you with their expertise and solutions to your problems. Those kinds of value-added services require financial investments and are often not available from companies that just give you the lowest price.

5. Share information about good products and services among yourselves on a more frequent basis. Tim Davisson suggested informal superintendent meetings, greater use of your associations to get the word out and more exchanges via the computer network.

6. Give us your honest appraisal of our products and services. We're all trying our best to give you just what you need at the lowest possible price. Your feedback will help tell us if we're on target and guide us into the future.

My thanks to these business leaders for their many contributions to this article:

Larry Cornell, Geoff Mack
G.L. Cornell Company
Irrigation Services, Inc.

Tim Davisson, Tom Malehorn
Davisson Golf, Inc.
Pro-Lawn Products

Ray Finch, Chip McDonald
Finch Turf Equipment, Inc.
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Brian Finger, Rich Schneider
Summit Hall Turf Farm
Scotts ProTurf

Rick Hill, John Strickland
Century's Aqua Flo
EgypT Farms, Inc.

**The next issue of "Turfgrass Matters" will feature the companion piece to this article by Dean Graves, Superintendent of Bethesda Country Club, presenting a superintendent's views of supplier relations. ■*

MAAGCS Golf Notes

Jim McHenry,
Director of Golf

The Golf Gods have not been very good to us so far this year. We had a very cold start at the National Tournament in Orlando (low temperatures in the 20's and wind chills in the single digits) and our March golf outing had to be cancelled due to the weather (it snowed the weekend before). And if that wasn't enough, April's 4-man scramble at Holly Hill's got buried under 5" of snow. Enough is enough!!

Obviously, there are no tournament results to share with you, so I will fill you in on upcoming events.

May 15 was our 24th annual Superintendent/Professional golf tournament, held at Queenstown Harbor Golf Links. Bill Shirk, CGCS, our host

for the day, promised us better weather than we had seen for our first two outings. Results from this special day will be published in the next edition of "Turfgrass Matters".

June's meeting will be held at Prospect Bay C.C. with Gerald Hasbargen as our host. The golf event for the day will be our POINTS TOURNAMENT. Tee times are available from 10:00 AM to 1:00 PM. You must call the Pro Shop at Prospect Bay to reserve a time (410 827-8924). Please make your own foursome, or ask to be paired with a group. Cost for the golf will be \$10/person for the cart and \$10/person for the tournament.

Lastly, remember to find a partner and get ready for the 2-Man Championship scheduled for July 9 at Hidden Creek. ■

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Thinking Out Loud

by Bruce Cadenelli



Like most in this business, I see a tremendous amount of reading material cross my desk each month. At last count, twelve magazines alone come into the office every thirty days. In this information age it is extremely difficult to stay on top of everything. I've long wanted to hire someone to read for me, sort out the useful from the useless, allowing me to get through the pile of information in short order. Like much in life, this is wishful thinking! I raise this point to suggest that all MAAGCS members can contribute to the newsletter by sending Chris Ayers information, articles, or anything of importance to be included in future issues. We all read things, or are doing projects at our clubs or businesses that others would find useful and informative. Plus, none of us is that well informed that he cannot learn from other professionals. Keep this in mind as you scan your reading material each month.

I know Chris Ayers and the newsletter committee received many positive comments on the initial '96 issue. Chris, and his assistant, R. Tucker Mostrom, deserve most of the credit. As we are still learning the ropes it will take some time to find and develop our "voice" for the Mid Atlantic and the publication. It will also take more people getting involved before that can happen, so please do your part and contribute to "Turfgrass Matters." Everyone has something to offer. The newsletter is probably our best image-building tool, so we all benefit when it's a first class publication.

HGE or Human granulocytic ehrlichiosis is a new recently identified tick born disease. This is a sometimes fatal bacterial disease transmitted by the deer tick. Yes, the same culprit that gives us Lyme Disease although at times the symptoms may be more intense. One major difference is that HGE does not produce the familiar bulls-eye rash, which can make diagnosis more difficult. Keep your guard up!

I offer an unsolicited plug for the magazine "Maryland Gardener," a lovely and useful publication which is produced quarterly. The magazine is filled with intelligent articles and timely seasonal tips. Cost is \$12.60 per year and can be found at many magazine stands, or by calling (410) 867-1332.

In the March 1996 issues of Golf Digest, Meadow Lakes Golf Course in Prineville, Oregon, was awarded the magazine's first Environmental Leaders in Golf Award. Check out the article, page 36, if you still have the magazine handy. It's another example of how golf and the environment go hand-in-hand.

Each December, the Mid-Atlantic offers a GCSAA seminar at our home-away-from-home, Turf Valley. With more courses employing Spanish laborers, I am wondering if the time is right for the two of us to hold the two day seminar on Spanish designed for the Superintendent and the Assistant. This seminar, designed especially for turfgrass professionals, is a fairly new offering from our national association. Please let the BOD know your thoughts. *Yo creo que el tiempo es correcto para hacerlo este seminario.*

Elsewhere in this issue is an article discussing the use of barley bales in ponds for algae control. With the assistance of Chesapeake Environmental Management, we at Caves Valley will be conducting scientific studies this year to see if results are obtainable. Look for progress reports as the year develops.

Bio-fungicides, biologicals, biorationals, mycorrhizae, insect growth regulators. What's it all mean? How do you sort

out the hype from the truly useful? As we all take the next step away from "chemicals" and into the world of new "safer environmentally friendly" products, a lot of us will be experimenting with a number of different materials. It seems to me that Turfgrass Matters is an excellent vehicle for all to report their findings. Let's discuss what works and what doesn't. One of my first thoughts is that prices need to come down from some of these products to gain wide acceptance. How many of us can afford to treat an area when a new bio-fungicide costs nearly \$7.00/1000! It will be most interesting to see where our business is five years from now.

As the years pass, I've come to appreciate more and more the work of the USGA Green Section staff. Since they see so many clubs each year, their wealth of knowledge is substantial. Stan Zontek has been calling on courses for twenty-five years, while Keith Happ has made a smooth transition from superintendent to staff agronomist. Stan tells me they are nearly fully subscribed in the Mid-Atlantic region, but they can certainly assist more clubs if others wish to take advantage of the service. The bottom line is that they are there to help, whether or not you are a member club. So, don't go it alone! Call their office at (610) 696-4747 for information on their services or to simply get your questions answered. ■

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Gray Leaf Spot

Continued from page 1

in low cut areas may be due in large part to the routine collection of clippings from these sites. While this disease was believed to be just a foliar blighter, during the summer of 1995, it outright killed perennial ryegrass. It is likely that the extreme heat also contributed to the death of plants. Mr. Steve Potter, CGCS, remarked that the rapid spread and destructiveness of gray leaf spot made Pythium blight seem like a "wimp disease."

Gray leaf spot will be more damaging to fairways whose growth is slowed by plant growth regulating chemicals. Herbicide use also intensifies disease severity. Currently, the only fungicides known to control gray leaf spot are Daconil and Dyrene. High rates of Daconil 2787 F (8 to 10 fluid ounces per 1000 ft²) are recommended, but may only provide 5 to 7 days of control. Dyrene at high use rates also arrested gray leaf spot for about 5 to 7 days.

After the disease is stopped, small amounts of water soluble nitrogen (about 1/9 to 1/10 lb N/1000ft² from urea) should be sprayed on 7 to 10 day intervals. These small amounts of N are needed to stimulate growth of the ryegrass and enhance the recovery process. Although a high canopy may be more conducive to pathogen activity, the height of cut should be increased after there has been significant damage to expand leaf area and the photosynthetic capacity of plants. Spores of the pathogen are disseminated by mowers and it is essential that clipping be removed and not returned to fairways when the disease is active. Once turf shows signs of recovery, it may be helpful to reduce the height of cut, but this should only be done if clipping can be removed. Water should be applied in the morning, and overseeded areas may require additional syringing during the day time. Avoid night irrigation to reduce leaf wetness periods, which could enhance gray leaf spot, Pythium blight, brown patch and other diseases. Once night temperatures have cooled in

September, a balanced (N-P-K) fertilizer should be applied at 1.0 # N/1000ft²), with 25% to 50% of the N being provided by a slow release N-source. Overseed as soon as possible, but maintain the Daconil or Dyrene sprays to protect seedlings throughout September.


In nearly every case, gray leaf spot also was association with at least one other potential pathogen. The most common secondary organism was *Leptosphaerulina trifolii*. *L. trifolii* rapidly invades the weakened tissues, further speeding the demise of the ryegrass. *Pythium aphanidermatum* (i.e., cause of Pythium blight) and *Rhizoctonia zeae* (a potent agent of brown patch) were also commonly found in ryegrass samples I inspected. Hence, in addition to Daconil or Dyrene, a Pythium-targeted fungicide also was recommended, particularly just after seedlings have emerged.

The gray leaf spot epidemic of 1995 was the most destructive disease problem in perennial ryegrass fairways that I have ever seen. I'm often asked what should be expected next year, which quite frankly is impossible to predict. It all depends on weather conditions, and should we have another prolonged (>4 weeks) humid heat wave similar to that experienced in 1995, it's likely to happen again. The recurrence of gray spot epidemic, however, can be likened to the ice-kill of ryegrass fairways during the 1993-1994 winter. Both types of weather conditions were extreme and are not likely to be experienced again for many years.

Managing perennial ryegrass for gray leaf spot:

- Monitor sites severely damaged in 1995 on a daily basis beginning in early July.
- Look for twisting of the youngest leaf; do not wait until leaf spot lesions appear.
- Collect clippings and slightly reduce the height of cut on fairways in July and August.
- Irrigate at dawn and avoid the nighttime irrigation.
- Avoid using herbicides and plant growth regulators in July and August.
- Rotate Daconil or Dyrene into the spray program for brown patch in mid-July.

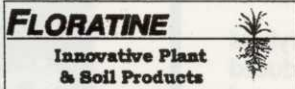
Because of a predicted shortage of perennial ryegrass seed, budget for at least six weekly applications of Daconil or Dyrene. ■



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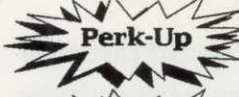
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Reroutings

Joseph H. Emanuel, CGCS formerly at Lexington CC, Lexington, KY, now at Hurst Bourne CC, Louisville, KY. He can be reached at (502) 425-0160.

Gregg Rosenthal, CGCS formerly at Little Bennett GC, now at Timbers of Troy, Elkridge, MD. He can be reached through the MAAGCS office number, (800) 726-6501, for the time being.

Congratulations

Jeffrey C. Michael, of Mt. Vernon CC, has attained his certified status as a CGCS.

Charles E. Poole, of Nutters Crossing GC, has attained his certified status as a CGCS.

Get Well Wishes

Steve Potter, CGCS at Woodholme CC, recovering from back surgery in March

Condolences

Sean Remington, at Chevy Club, and his family, on the loss of father-in-law, Avon Poteet, on the 25th of March.

Nick Vance, CGCS at Rattlewood GC, and his family, on the loss of his mother, Elizabeth Weeks, on the 9th of March. ■

New Golf Art

GCSAA has developed a new piece of "clip art" that superintendents can use to encourage golfers to repair ballmarks, replace divots, and rake bunkers. "It's every player's responsibility" is a black & white, camera-ready ad slick that any GCSAA member can reproduce in club/course newsletters, local golf publications, or even on scorecards. To obtain a copy, contact the GCSAA Public Affairs Department @ (913) 832-4490.

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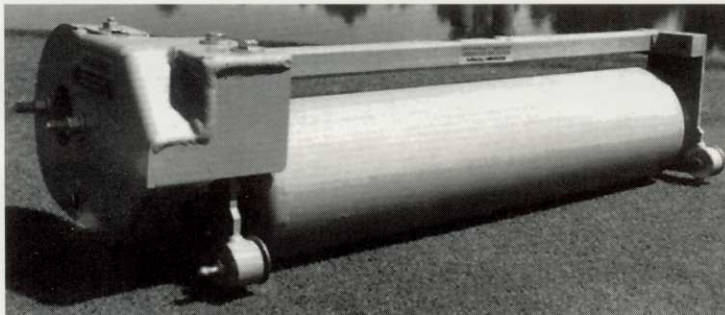
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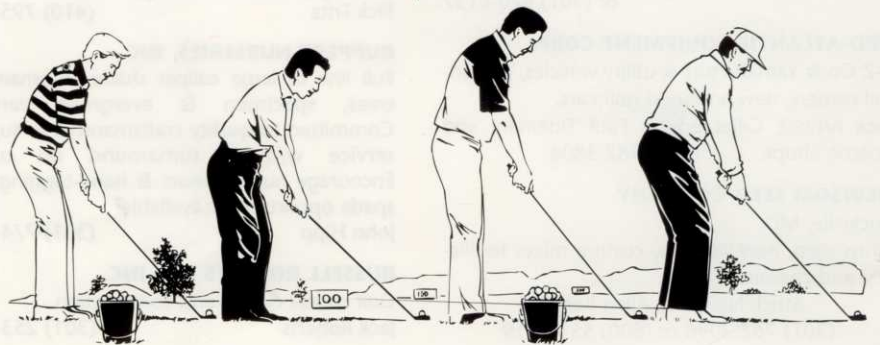
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