Eagle, Rubigan).

If you want the best protection, vou need to also consider the carrier volume or the amount of water used to apply the chemicals. In comparing different volumes, I have found that there is little difference between 1 gallon to 4 gallons per thousand on greens height of cut. But, this might be dependent upon several factors that I did not include on my study. For example, the density of the stand may inhibit the penetration fungicide. therefore of the decreasing its length of efficacy. I noticed that several of the DMI fungicides lasted upwards of 65 days. An ounce of caution though with DMI's and growth regulators. In combination these two can result in the loss of turf, and Poa annua populations should be determined before this combination is used.

In relation to volume, our current studies indicate that volume plays a major role in efficacy of fungicides used on fairways with the higher volumes lasting longer than the lower volume applications.

Finally, one other factor that may be diminishing the length of efficacy of fungicides is resistance. So far, several types of resistance have been found in the United States. The only positive case that I have identified in the state is benzimidazole resistance. The chemicals in the benzimidazole family include chemicals like benomyl (Tersan 1991) and thiophanate methyl (Fungo and Cleary's 3336). However, this does not limit the possibility of other resistance in the state.

# I think I have resistance; how can I find out for sure?

On the course, one way to determine if you should test for resistance is to evaluate the length of control that you are getting with certain products. This can sometimes be difficult because the labeled application timings can be based on normal conditions and properly calibrated equipment. Another issue is chemical application volume. Most chemicals have recommendations from 1-5 gallons per thousand square feet, but the most people tend to stay on the low side of the recommendation.

If a product like chlorothalonil is only lasting seven to ten days, this may not be abnormal. Consider the weather that you have had since the last application. If it has been



raining, the product will be washed from the foliage and protection will be lost. In comparison, if a product like triadimefon only last 7 days it could be a mis-application or evidence of resistance. In the TDL, we have a test to determine whether or not resistance is present on your golf course. With a sample we are able to test it against several of the chemicals that can pose a resis-

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4485 South Racine Avenue New Berlin, Wisconsin 53146 Phone: 414-896-9570 Fax: 414-896-9578 tance threat. These are compared to one that is grown on unamended media, and the growth rates are compared. This test can take several weeks as the pathogen is first isolated then plated on the amended plates.

Before submitting a sample to test for resistance, go through a simple check list evaluating the following; spray volume, calibration of sprayer including coverage by the spray nozzles, proper amount of chemical, weather conditions, amount of turf removal, typical application timing, etc. This evaluation may identify problems not associated with resistance.

## What are my options at managing for prevention of resistance to dollar spot?

As you know, dollar spot has the ability to develop resistance to the systemic chemical used for its control. A contact chemical such as chlorothalonil has several modes of action so the chance of resistance developing is greatly reduced. In a dollar spot management program, great care should be taken to implement a plan that



## TDL

safeguards against resistance. Currently, there are two such strategies, alternation and reduced-rate mixtures.

Alternation is the constant rotation of chemicals each time an application is made. With dollar spot, there are basically four classes of chemicals to choose from; benzimidazoles, DMI's, dicarboximides, and contacts. Understanding what class a chemical is classified under is vital to the development of such a plan. In each of these classes the following chemical are included:

### Benzimidazoles:

Thiophanate Methyl (Fungo, Cleary's 3336)

## DMI's:

Triadimefon (Bayleton), Propiconazole (Banner Maxx),Fenarimol (Rubigan), and Myclobutanil (Eagle)

Dicarboximides: Vinclozolin (Vorlan, Curalan) and Iprodione (Chipco 26 GT)

Contacts: Chlorothalonil (Daconil, Echo, Manicure) and Mancozeb (Fore)

With reduced rate mixtures the idea is to provide 1/3 control from each of the three components. This way none of the chemicals in the mix will be overpowering each other and leading to the selection of an isolate that is resistant to one class of chemistry. These chemical combinations have been evaluated for several years and provide 21 days of coverage or more. The principal behind them is similar to alternation with the use several different of chemistries. For current rates of these mixes please refer to the Wisconsin Turfgrass Research Reports or feel free to give me a call @(608) 845-2535.

The take home message from this is that just because you have failure of a chemical doesn't always mean that you have resistance. Chemical applications have many influences of which many can be controlled. With proper calibration, following label directions and fair weather, you should be able to obtain near 100% control of dollar spot.

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# What Some Others Are Saying About PDI

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

O ne of the advantages of editing a chapter publication is reading what other chapters are thinking about issues of the day. There is some interesting reading about the PDI issue these days. Quickly you discover you don't get a clear picture or the whole story about PDI if all you read is the canned GCSAA line.

So, following are a couple of opinions about PDI from colleagues in other parts of the country.

Mostly, I am not infusing myself into this issue, as difficult as it is not to do that. One reason for resisting the temptation is that PDI won't affect me to any great extent. Those it will affect need to fight the battles to resolve the issue in our best interests as a group.

Another reason I am on the sideline is actually twofold: two of the committee members command as much professional and personal respect as I can give. Both Dr. Paul Reike and Dr. Mike Hurdzan have impeccable credentials and a long record of doing what is best for our profession. They are bright men, well experienced and savvy and possessing absolute integrity. If they believe PDI is good, you have to pause and consider it carefully.

Finally, I believe in education for golf course superintendents. Let's see, I have four years of undergrad education in turfgrass management and two years of graduate study in turfgrass management. I have attended 28 consecutive GCSAA conferences, go to their seminars, never miss WTA fields days or winter conferences and always attend the WGCSA Wisconsin Golf Turf Symposium. I enthusiastically helped form the Wisconsin Turfgrass Association, helped get the



Noer Research Facility to a reality and worked with others to establish undergraduate scholarships. I believe this journal I have edited for 17 years is about education above all else, as is the Wisconsin Turfgrass News which two of us started and I edited for a decade. I think my track record regarding education in our profession is well established. So, if the PDI plan requires legitimate educational accomplishments, then I would have to consider it worthy of support.

On the other hand, how many of us joined GCSAA to have their employees meddling in affairs with our employers? I surely did not. I became a member because of the conference and show, the magazine, the comfort of knowing we had a "lobbyist" behind us on national issues and the possibility of decent seminars. Overall. I have been a satisfied member, although the seminars as a group over the years have been a disappointment. They have developed some useful services, for sure, and the bookstore pleases me. Beyond that, the association has shown a propensity to flub basic and straight forward tasks - two months to get their well promoted video tapes, screwed up travel and housing plans and book orders, missed lobbying opportunities, Golf Asia, etc. We all have our own lists of mistakes - human nature accounts for some of it, no doubt. Can you imagine the potential heartbreak if GCSAA gets between you and your employer? Good grief - this is how we feed our families and make house payments and spend our lives! I prefer NOT to have anyone in Lawrence, Kansas in the middle of superintendents and golf courses.

Last January I attended a GCSAA anniversary committee meeting in Kansas City. By the way, I am so pleased to be on this committee - it is exactly the kind of work GCSAA should be doing and doing well. Joe O'Brien asked me about my take on PDI. My reply was, "What's PDI?" Dave Fearis rolled his eyes!

Obviously the association has done a poor job of communicating this issue, so I (and lots of others) am immediately suspicious that, once again, something is going to get shoved past us that wouldn't stand the close and open scrutiny of the general membership. I feared GCSAA was going to try to "help me" again.

I then started to read the various company lines that usually started out something like this: "In response to member-driven requests for classification standards... "No Einstein is required to tell the difference between a fact sheet and a pitch. In 28 years

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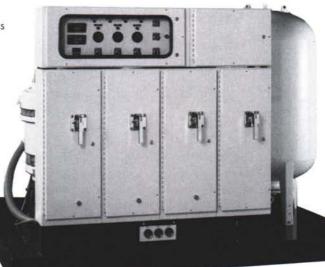
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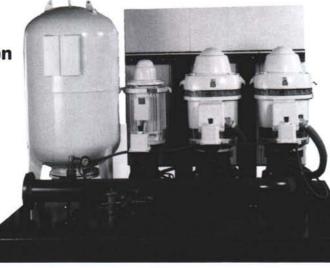
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as a regular GCSAA member and another five as a student member, NEVER ONCE have I ever heard any GCSAA member anywhere say we need member standards. And I have spent a lot of time around colleagues and at GCSAA meetings. Not ONE word! Member driven? An insult!

Then I asked, "Who's on this committee, anyway?" Three past presidents, the current prez, the prez-inwaiting. Not counting Mike Hurdzan and Paul Reike, there are 13 members; eleven of them are CGCS. Tell me that this constitutes a committee that reflects the membership. It doesn't, of course, and the sacrifice is credibility. Mostly, they are from big courses with big budgets. Past involvement in GCSAA indicates they enjoy the politics of the association and have time to spend just about any way they want. THAT IS NOT TRUE FOR MOST OF THE REST OF US. And there are burdens PDI will impose that too many may not be able to meet because of the time required. Quite frankly, the superintendents who should be held in our highest regard and accorded our highest classification are those putting out a quality product on a modest or low budget, day after day. They are the talented ones, regardless of how they received their training. Generally, big budgets make any job easier. The point is, if ten percent of our members have gone through the CGCS business, then they should represent ONLY ten percent of a committee

Like many, many other members, I am absolutely astounded that so much money can be spent before we have any idea about what is going on. I am not sure what that means, but the Franklin Covey company has to love it.

Next, Ray Davies came to Fond du Lac to educate us on PDI. Nice guy; I ate lunch with him and enjoyed the conversation at our table. But I didn't learn much from his presentation. He was obviously VERY well rehearsed and he became very defensive when challenged. In fact, as a result of Tom Harrison's calling him on that point, Ray apologized to Tom after the meeting. It was not very informative with regard to PDI.

As I look at the ongoing requirements, I think back to some of the dreadful GCSAA seminars I have sat through over the years. What a way to fill requirements. Are there guarantees we won't experience that when members HAVE to attend? Last year I registered for three seminars at conference (Frank Rossi's three on *Poa annua*) and got into one of them. If PDI were in effect, would I have to enroll in some seminars of no use to me? Or will GCSAA really change its spots and accommodate registrants?

Someone said (during a casual visit at another GCSAA anniversary committee meeting) that there are members who will oppose anything GCSAA proposes. That probably is true to some very small extent. But there are others who are suspicious because of past actions of the association. Remember the cancer study? Phase I was completed and presented in Dallas. We were promised Phase II of the study; suddenly, not a word about Phase II. What happened to Phase II of the cancer study? It was promised by some who are still involved in association affairs. Once you lose trust, it is tough to get it back. A deeper look at whether cancer is a greater risk for us than the population in general is of exponentially greater consequence and importance than something like PDI. Yet have you ever heard an honest answer as to why GCSAA went back on its promised Phase II study? All we got in response was some lame "member safety program" (that no one ever heard about, either).

Asking questions or opposing an issue presented by the association politicians often brings petty and nasty responses, some in the open and some more subtle. Will that happen with PDI? Has it happened already? I hope not, because there are serious and sincere GCSAA members who are as bright and as concerned as those making the PDI proposal who happen to have a different point of view. The intention here is to sim-



ply let Wisconsin GCSAA members read and consider them. If PDI is of value, it should pass on its merits, not on ugly politics.

The first opinion is a member viewpoint presented by Tom Mason, golf course superintendent in Birmingham Country Club in Michigan. Tom is an active GCSAA member and a leader in Michigan, a frequent speaker and assistant delegate of the Greater Detroit GCSA. His thoughts, titled, "PDI - But Not This PDI", appeared in the mid-summer 2000 issue of **A Patch of Green**, and are reproduced here with Tom's permission.

. . .

"I am amazed at the number of people who simply assumed that I am an advocate of GCSAA's current Professional Development Initiative. While I am for higher standards and making the profession better, this proposal for changing member classification and for what is expected of a Class A member is simply wrong.

### What is PDI?

To me, PDI is three different things. First, there is to be a standard for becoming and maintaining Class A status. Secondly, there has to be some by-law change to accommodate those who comply and those who don't comply. Thirdly, an enhancement of our education programs to accommodate what is expected.

### The Education

The effort to improve our education program is really an effort for the staff to understand exactly what a golf course superintendent does now and needs to be able to do in the future to remain an asset to his/her employer. The HR Web seems to be a very effective tool in quantifying the skills needed by a golf course superintendent. Thus, all money spent for instruction, career planning, reference materials, guidance counseling should be on target. To me, this is not a PDI issue. It is an ongoing education improvement and should not even be an issue for consideration.

## The Standards

To me, members of GCSAA who are Class A should be working as professional golf course superintendents. They should be actively trying to enhance the image of our profession. They should be working to contribute to the future of our profession. They should be working to enhance their value to their employer. They should not be penalized because of the amount of education they have or don't have. They should not be told by GCSAA that they need to take a seminar or a class. The survival and efficacy of their job should be up to them.

### The Committee

I have known many or most of the MSRG for many years. There is no reason for anyone to accuse this group of anything other than trying to advance the profession for all of GCSAA's members. They are truly dedicated and very capable of keeping their personal motivations out of the way of the finished product. I believe that the product is, as Stephen Covey puts it, "They climbed the ladder of success only to find that the ladder was leaning against the wrong wall."

### What's Wrong #1

One of the fundamental cornerstones of Stephen Covey's "Seven Habits for Highly Effective People" is what he describes as an "Abundance Mentality." Simply put, "Abundance Mentality" means that one believes that there is enough credit, reward, and success out there for everyone. If one works hard and smart, and works to make everyone else better, then they will be successful. PDI is an example of the antithesis of "Abundance Mentality." One that believes that there is only so much credit, reward and success out there and one should try to get as much out of it



## JOTTINGS FROM THE GOLF COURSE JOURNAL

as possible. Or, one believes that in order to be successful, then it has to come at someone else's expense.

I believe that golf course superintendents are in the service business. Superintendents need other people to be success, so they have to be team players. Superintendents need other superintendents to be successful, so our profession is elevated. So the very nature of our business is to be rooting for others to be successful.

## What's Wrong #2

I have been going to chapter meetings, conventions and GCSAA committee meetings for many years. A prevalent topic for discussion among other people is the lack of success associated with GCSAA's certification program. There is general consensus that there are many certified superintendents who are not even very good, let alone our best and brightest. There is a general consensus that employers are not recognizing certification and thus not rewarding certified superintendents. I agree, but since I am not certified one would think that I'm biased, so I don't respond unless asked. GCSAA continues to pretend that this is not a problem and this is not addressed in PDI.

#### What's Wrong #3

GCSAA has done a very good job in many areas of supporting the career of the golf course superintendent. They have done a fair job of marketing to the outside world as to the plight of the golf course superintendent. Unfortunately, they have done a dismal job of marketing to their own membership. GCSAA has not taken its message to the membership. They are seemingly waiting for their message to dawn upon the members. Good luck!

Members are too busy to read magazines and newsletters in a timely manner. So many or most opinions are made through the negative or sensational aspects of communication.

As the voting delegate for the Greater Detroit chapter for many years, I have tried to remain silent about my perceptions of this PDI. Hopefully, most members



## JOTTINGS FROM THE GOLF COURSE JOURNAL

will make up their own mind about either supporting PDI or not supporting PDI. In the fall of 2000 you will be asked to give guidance to your voting delegate as to your vote (I will remain as assistant delegate). Your vote will be cast exactly as you wish.

GCSAA is made up of members who come from a very diverse variety of golf course situations. Every year that goes by creates more different situations. We can never legislate our way to our mission. We have to create incentives for working toward our mission. We need members to appreciate that there is a mission."

. .

The following piece, titled "**The Professional Development Initiative**," was written by Lee Wagner, golf course superintendent at Emerald Springs GC in El Paso. He makes some excellent points to ponder in a thoughtful, well written commentary. It appears with permission.

"The leadership of GCSAA has determined that there should be minimum standards for membership in the association. These minimum standards would include some combination of formal education and experience. The reasoning behind this is that the level of professionalism in the association will be increased, the golf community will hold all superintendents in higher esteem, and the association will have a higher status among the "big 3" associations of golf management professionals (GCSAA, PGA, CMAA). All of these things should lead to better employment conditions for superintendents in general.

The Professional Development Initiative, as the plan is called, will include new criteria for classification of members. Continuing education will be mandatory for all members aspiring to be a Class A. A self-assessment tool called the HR web will be used to help members objectively rate their job skills, although at this time it appears that the HR Web will be optional for all but those in the Certification program. The maintaining of a valid state pesticide license will also be required for Class A status.

A lot of work has gone into the planning of the proposal for the PDI. The leadership of GCSAA even had a focus group of 40 employers said to be representative of the industry. The members of the various committees came away thinking that this is what employers in general want. The Membership Standards Resource Group (MSRG) has forged ahead with a plan that they feel will allow the association to implement such a program equitably without causing anyone to lose their current status by means of grandfathering current members. At some point in time, however, all members will be responsible for meeting the continuing education requirements. On the surface PDI seems like a good thing. Who would not want to improve our image as professionals? Who would not want to see a more educated membership? How could anyone possibly be against improving ourselves as individuals? Unfortunately there are problems with this proposal that need to be addressed before the vote is taken in Dallas at next year's conference.

Before proposing a solution, one should first identify the problem and decide if there actually is a need for a solution. The following are basic facts about professionalism, how our industry operates, and what role our association plays in the whole scenario.

A profession, by definition, must meet certain criteria. There is a small group of sociologists who have studied what makes a profession as opposed to a trade. What really makes a true profession is that there is a body of knowledge involved, which is necessary for the public good yet cannot be learned by the average person. This causes the professional association to be able to regulate entry into that field so that the general public welfare can be satisfied. This one very important criteria excludes what we do from being a true profession. The body of knowledge of golf course maintenance can be readily grasped by the average person. Unfortunately, it is quite true that golf course maintenance is also not

