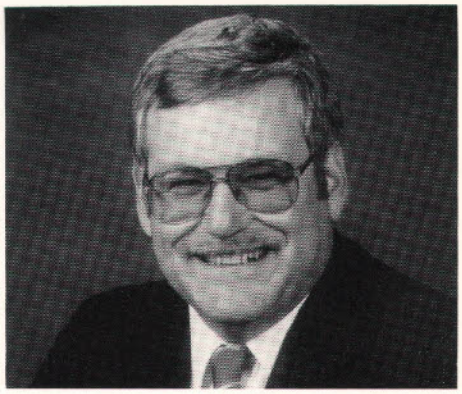
Pride in the GCSAA

By Roger Bell



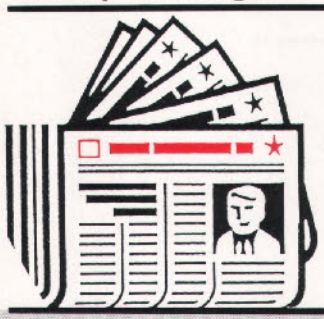
As you read this message, the 60th Anniversary GCSAA Turfgrass Show and Conference in Anaheim will be history. I hope that you were able to see for yourself how the turf industry has become a significant economic force in this country. The equipment manufacturers, the chemical suppliers, the seed growers, the golf course builders and architects — in fact, representatives of all the allied areas of golf — come together for one overwhelmingly impressive display of technology and goodwill. Even more impressive, though, is the fact that we — the golf course superintendents, are at the very center of this massive production. After all, the show is sponsored by the GCSAA.

Moreover, Wisconsin superintendents are well-represented in the GCSAA's efforts. WGCSA members serve on (national) GCSAA committees for Government Relations (Mike Semler), Membership (Jim Belfield), Communications and Awards (Monroe Miller), and Scholarship and Research (yours truly). Countless other Wisconsin superintendents belong to the Golden Tee Club as a visible sign of support for GCSAA Scholarship and Research. One of WGCSA's student members, Jeff Bahr, received a GCSAA scholarship in Anaheim. Congratulations to Jeff — and to the University of Wisconsin Turf Program for producing GCSAA scholarship recipients in three of the last four years of competition.

If you missed the show in Anaheim, remember there is a regional GCSAA seminar scheduled in March in Milwaukee. The WGCSA is a joint sponsor.

Wisconsin leads the nation in percentage of its citizens who are golfers. It's only appropriate that we match that level of involvement in the GCSAA and its activities.

Thanks to those who give back to their profession through their volunteerism — and an invitation to the rest of you to join us. We certainly have a lot to be proud of in the WGCSA!



GOLF Has Gone To The NERDS

By Rob Schultz

Get out the plastic pencil holders for the shirt pockets. Get out the floodwater, striped trousers. Get out the plaid shirts.

Golf is being taken over by nerds and their hi-tech garbage. Great golf words like spoon, niblock and mashie have been replaced by berrylium copper, boron and lexan. Call it Revenge of the Nerds Part III.

Call it disgusting.

Whatever happened to the good 'ol days of golf? Let's take a moment to remember those wonderful lazy days at the course when golf was played with metal shafts and wood woods, when nobody knew what a stimpmeter was, or when Ping was something that happened when your drive struck the ball washer.

I don't spend any time inside clubhouses anymore. I can't stand the insipid dialogue that reverberates against the walls.

Nerds. Golfers have become low-class, disgusting, materialistic, power-hungry slobs.

On one hand, you've got your crud-faced elitist golfers. You know who I'm talking about. These chuckleheads only talk to golfers who have handicaps under five or belong to a club with an initiation fee of $10,000 or more. You could be a Nobel Prize-winning scientist who discovered a cure for AIDS, but unless you regularly shoot below 75 or belong to Maple Bluff you're a nobody.

I like to call these people the Stimpmeter Freaks. They think their scores revolve around how the golf course superintendent mows the greens. If the green is a tad shaggy or cut too thin, all hell breaks loose.

"I three-putted five holes today because of that jerk who takes care of the course. I could have had a 72, but I ended up with a 76," gripes Billy Bob Bogus as he storms into the locker room. "I'll bet the stimpmeter was a 7."

Billy Bob expects me to respond affirmatively. But I don't have the slightest idea what he's talking about. I just want to pull him up by the collar and ask, "DO YOU REALLY KNOW WHAT THE HELL A STIMPMETER IS?"

I've never seen a stimpmeter. I wouldn't know it if I stepped on one. I always thought a stimpmeter was something to measure how many times George Bamberger was manager of the Milwaukee Brewers.

So as far as dealing with the Billy Bob Bogus's of this world, I just shrug when they complain about the speed of greens and the stimpmeter. Then I point to the practice green.

"Usually golfers find out how fast or slow the greens are by taking a few practice putts before the round," I'll say to Billy Bob. "That way they can get used to what they'll be putting on 18 times during the round. At least, that's the way they did it in the olden days."

Then I walk away muttering "Nerd."

The golfers I feel sorry for are the equipment freaks. Every year they dig deep into their wallets and buy the latest fad in equipment. What a bunch of suckers. They've paid off many golf pros' mortgages.

Just for fun, I paged through a few of the golf publications that are stuffed into my mailbox each month. The advertisements are hilarious as they take aim at those poor, gullible wretches who are looking for the special club that will drop their handicap five more strokes.

Ping advertises that golfers will lower their scores if they buy Ping's clubs with the ZZ-lite Microtaper. Is that a portable AK-47 or a golf club?

Another equipment company gave its golfers a choice of clubs. It offered either beryllium copper deep-faced heads with golf graphite/boron shafts or stainless steel heads with gold graphite/boron shafts. That sounds more like a description of a creature from the deep.

Some of my favorites included a description of the new Airwood. It's loaded with 120 psi of air pressure. After your round you can stick it under your car and use it as a MacPherson Strut.

Then there are Thermopar's woods, which feature injection-molded Lexan. I got a great mental picture of some golf club maker holding a syringe, rubbing some alcohol on the top of the club head and then sticking the needle into it. I hope he used rubber gloves.

Finally, Titleist is offering its Lithium-Surlyn balls. They're supposed to drive women crazy.

Each year, as I venture out to the practice tee for the first time, I'll see hundreds of equipment freaks testing their new purchases. They'll walk by showing off their shiny clubs.

This year I'm going to retaliate. When somebody asks me if I bought anything new over the winter, I'll answer, "Yep," and then pull out my driver.

"It's made for the U.S. Air Force," I'll say, "And it's nuclear."

"You just pull off the grip, slide some heavy water tablets inside and you're all set."

Then I'll promptly place a new Lithium Surlyn Titleist on the tee, waggle my nuclear-powered driver a few times, take a mighty swing and send the ball . . . dribbling along the ground for about 130 yards.

"You'll see," I'll conclude. "It's just as good as all the rest of the new equipment on the market."

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CLASSIFYING FUNGICIDES BY CHEMICAL GROUPS

By Dr. Gayle Worf

Have you ever wondered whether there is any systematic way of fitting various fungicides into categories that would be helpful in seeing their relationships, and helping to keep track of them? In other words, is there a "taxonomy" for them?

The answer is "Yes, there is!" Like any other taxonomic system, not everyone agrees with any one classification. Also, the language of the chemists is foreign to most of us, and sometimes they find several ways to describe the same compound.

The classification I've indicated below is one we use in class on the campus. While it is somewhat arbitrary, it provides a skeleton upon which the flesh of fungicides can be attached and studied. It tells you, among other things, which ones are inorganic or organic, and of the latter, which have primarily systemic or non-systemic properties to them. They also happen to be organized more or less according to their date of origin. As a turf person, you might find it interesting to see which groups have one or more products important to you. And the outline provides a point of discussion about several of the chemicals, a topic I plan to come back to in succeeding articles. At that time, we'll discuss the strengths and problems with the various groups, thinking particularly about such issues as their current registration, re-registration problems, possible environmental and toxicological concerns, and other important pieces of information about them.

A classification of fungicides

Inorganic compounds:

1. Sulfur
2. Copper
3. Mercury, inorganic (Organic mercuries including alkyl formulation, such as Ceresan and Panogen, and phenyl mercury compounds)
4. Cadmium, chromium and other heavy metals

Organic compounds that act primarily as protectants, or surface compounds:

1. Dithiocarbamates
   a. dimethyldithiocarbamates, as thiram, ferbam, ziram and metam-sodium (Vapam)
   b. ethylenebisdithiocarbamates (EBDC's), as zineb, maneb, mancozeb and metiram (Polyram)
2. Dicarboximides (sulfenimides), ad captan, folpet (Phaltan), and captafol (Difolatan)
3. Substituted aromatics, as hexachlorobenzene, pentachlorophenol (PCP, Penta), pentachloronitrobenzene (PCNB, Terraclor), chlorothalonil (Bravo, Daconil), dicloran (Botran)
4. Dinitrophenols, as dinocap (Karathane)
5. Quinones, as dichlone
6. Aliphatic nitrogens as dodine (Cyprex)
7. Triazines, as anilazine (Dyrene)
8. Thiazoles, as ethazol (Terrazole, Truban, Koban) and TCMTB (Busan-72)
9. Organotins, as fentin hydroxide (Du-Ter)
10. Antibiotics, as cycloheximide (Antidione) and streptomycin (Agri-strep)
11. Fumigants, as chloropicrin, methyl bromide, and methylisothiocyanate (Vorlex)
12. Organic acids, as propionic, phosphoric and other acids
13. Other

Systemic fungicides

1. Oxathiins, as carboxin (Vitavax) and oxycarboxin (Plantvax)
2. Benzimidazoles, as benomyl (Benlate, Tersan 1991), thiabendazole (Mertect, Arbotect), ethyl thiophanate (Cleary's 3336) and methyl thiophanate (Topsin M, Fungo 50)
3. Demethylation inhibitors (Ergosterol biosynthesis inhibitors) ("sterol inhibitors")
   a. Pyrimidines, as ethirimol (Milcurb) and fenarimol (Rubigan)
   b. Triazoles, as triademefon (Bayleton, Tilt, Banner)
   c. Piperazine, as triforine (Funginex)
   d. imidazoles, as imazalil and prochloraz
   e. Morpholine, as dodemorph (Milban) (several others not yet registered)
4. Phenylamides (acylinines), as metalaxyl (Subdue, Ridomil, Apron)
5. Imides ("new" dicarboximides), as iprodione (Rovral, Chipco 26019), vinclozolin (Ronilan, Vorlan, Ornalin), and procymidone
6. Forestyl Al (Aliette)

The Ice Man Cometh

By Rod Johnson

Just when we thought we were out of the woods, having recovered from last summer's drought in fine fashion, Mother Nature has raised her ugly head to remind us just how wicked she can be. Ice, Ice, and more Ice!

From all reports this winter's ice accumulation is a wholesale headache. Concerns have been voiced by Superintendents from throughout the entire state. In southern Wisconsin the ice formed on or about December 27th as a result of a few inches of slushy snow followed by rising temperatures and rain. A quick drop in temperatures turned golf courses into cross country ice skating areas. Reports from the North had ice accumulations a full week ahead of Christmas. This ice was formed by an inch of rain which fell on a limited snow cover.

Concerns, confusion and a lack of well-documented facts sent many of us scrambling for answers. Matthew 22:13, "and there will be weeping and wailing and knashing of teeth in outer darkness" may have been an early reference toward the problems of turf subjected to extreme environmental stresses.

The terminology "Ice Damage" is broad and merits clarification. How and when the damage might occur must be examined to best understand it and to take the best steps to avoid damage or to lessen its impact.

In the 1960's it was common belief that turf died under prolonged ice accumulations due to suffocation. It was believed that turf died, a victim of its own natural processes which cause a buildup of respiratory carbon dioxide under the ice sheets. It was believed that the impermeability of a solid layer of ice caused a toxic buildup of the gas.

Dr. James B. Beard of Texas A & M University has challenged this theory. His studies have included the suspension of various grass species in blocks of ice for extended periods of time. As one might expect, there was a variance in survival rates between the species. To no superintendent's surprise, *Poa annua* was on the low end of the survival scale. As the number of days of ice suspension increased the percentage of population surviving decreased. The point at which the *Poa* population began to decline was 60 days. Its survival curve shows a fast downward trend after that point. Bentgrass and particularly the creeping varieties have survived the ice test for more than 90 days with no significant losses. Kentucky bluegrass seems to fall into a range between these two.

Dr. Beard has theorized a different "ice damage", a theory that I readily accept — crown hydration. In an article appearing in the November 1972 issue of the USGA Green Section Record, Dr. Beard stated that "the injury most commonly associated with extended periods of ice coverage occurs during freezing or thawing periods when standing water increases the crown tissue hydration level and subsequent injury of the turfgrass plant occurs when temperatures drop rapidly below 20 degrees Fahrenheit."

I find it easiest to visualize this crown hydration damage by thinking of the affected grass plant as a can of Coke subjected to a rapid deep freeze. When environmental conditions are favorable for this the saturated components of the grass plant literally explode.

Is there a difference in grass species survival during this occurance? I believe so. My own dead grass of last spring (or should we say my "field trials") indicate varying survival rates. In the seven-plus acres of fairway turf which were lost, the small amounts of Bentgrass which were present survived. Perennial ryegrasses survived marginally. Areas of Kentucky bluegrass survived well. *Poa annua* was a total bust!

What to do, or in the case of the timing of this article, what could I have done?

Understanding that different species survive for different durations under ice cover and that crown hydration problems more readily occur during periods of freezing and thawing, some steps can be taken to minimize damages.

Should I attempt to clear the ice? If the underlying turf is predominantly *Poa annua* and you'd like to keep it, attempts should be made to minimize losses by the removal of ice during the period 50-60 days from its formation. It's amazing how much ice you can rid yourself of by mechanically removing

any snow and loose ice and applying Milorganite. Milorganite applied at a rate of 20 lbs. per 1,000 square feet absorbs the sun's energy and does an excellent job of speeding up the ice removal process. In most years, complete ice removal before early March may not be practical. Weather restrictions would limit success and I personally would prefer taking my chances with a January ice cover over the potential of desication and/or direct low temperature kill.

The early March removal of ice would also enhance the possibility of escaping the crown hydration problem. Elimination of the free water source at this critical time can only help. The removal of ice, snow and water from large areas such as fairways could be a real problem. In these areas, efforts could be concentrated on speeding up surface run-off by clearing drainage runways and by making sure that drain tiles and catch basins are unobstructed by debris or ice. It may also be well worth considering the pumping of free water from localized pockets formed by natural depressions or from areas where frost levels have made drain tiles ineffective. I have found the foam tennis court roller squeegees very helpful in removing excess surface water from greens and other small areas.

This winter's ice accumulations will add to the experience banks of Wisconsin Superintendents, thereby further adding to our abilities to deal with adversity. April will tell if a follow-up on "Recovering from Winter Damage" is necessary.

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TEACHING OLD DOGS NEW TRICKS

By Dennis Thorp

I finally took the plunge this past week and added a 3.5 inch 720 K disk drive to my machine so I could effectively communicate with IBM PS/2 machines. Maybe from now on I'll just send my articles in on floppy disks, save the wear and tear on my printer and let the editor "bring it up" directly on his machine for corrections and changes. When he can take the whole monthly edition to the print shop on disk and they don't have to re-enter it on their machines, the association may be able to achieve some dramatic savings. Of course that would entail all of the authors and the print shop working from compatible software.

When I was first contemplating the task of making Monroe Miller and Pat Zurawski comfortable with their computer, I thought I would just have them purchase the software they wanted and after I installed it on their computer, I would attack the task of teaching them how to use it. Clean and neat, but not very satisfying, at least from my standpoint.

Probably not very much fun for them, either. I've found that if a subject isn't fun or interesting, students have a harder time learning what I'm trying to teach them. I've always felt that one doesn't need to know how a television works to enjoy it; however, a computer is somewhat different. TV is, after all, a passive medium, while the computer is an active one — interactive to be exact. So in their case, I had them send me the software so I could learn it and when we got together, I had them load and configure the software. Some work is always required to make the computer and the software work together, under my "expert" supervision of course!

For the first session I taught them the basics of disk operations and file transfer. We were essentially working from the hard disk so learning how to make and change directories was important. But the ability to upload the downloaded files determines how confident any operator can be with himself and his machine. Until someone actually creates a file, whether it is a spreadsheet, a document or a data file, loses it, and somehow is able to bring it back from wherever, he can never feel confident and tends to be "afraid" of the machine. That limits the possibilities for growth. There are programs that can "un-erase" or otherwise recover a scrambled file, but I decided to save that for lesson 2. Re-entering a program from a hardcopy printout may be good for the soul and a good teaching tool, but it is definitely hard on the fingers and the temper.

The first step, then, is to format some blank "floppy" disks, hereafter referred to simply as "disks." The removable disks that I am used to are 5.25 inches square and look fairly fragile. These 3.5 inch disks look much more substantial and can be comfortably carried in a shirt pocket. However, all the procedures are the same. The first step is to "format" a box of disks. I covered **format** in a previous article, but a little refresher may be helpful.

Think of the disk as an empty file drawer and the formatting procedure tells the computer how to put the information on the disk and retrieve it. Until a disk has been formatted, the computer cannot use it. Running out of formatted disks when they are needed, such as during a "hard disk backup", can cause severe stomach distress.

Learning how to backup the hard disk is the next step. Computers by themselves are basically useless. It is only the information that one can get out of them that has any value. The hardware can be replaced fairly easily, but the files in it may have taken many, many hours to create. In case of fire, theft or any other breakdown, the data can all be quickly recovered, if regular **backups** have been made and kept in a safe place.

Most of the hardware is covered by insurance, after all, and some policies cover the software, too. However, check with your carrier to see what is covered and what isn't. A box of disks, containing all your programs and data, in the safe of the clubhouse may be the cheapest insurance you can ever buy. Since this computer already contains an irrigation control program, we will first back this up so our new operators can get some experience and confidence, and I will feel comfortable with the fact that no matter what happens, we can quickly return to where we were at 8:00 in the morning.

After this has been done, we will proceed to create two new directories on the hard disk and load our programs. **"Make directory"** and **"change directory"** are the next two commands we will work with. They are abbreviated as "mkdir" and "chgdir" or simply "md" and "cd". We are creating file folders on the hard disk for our programs and then transferring them from the floppy disks to the hard disk.

So first we have to get past the irrigation program that dominates the system to the "root" or main directory. The presence of a "C:\)" on the screen lets us know we are there.

This computer already contains a directory called "\DOS" and now we are going to create directories called "\LOTUS" and "\WORDSTAR". After this has been done, we will change to the Lotus directory or "cd\lotus" (upper case and lower case can be used). Now we are prepared to copy the files from floppy disk to hard disk, following the directions given in the software documentation. Once we (or rather "they") configure the software, we will be ready to do some productive work. I may throw in some worksheets I have already created to get things rolling.

The problems we encountered were fairly typical and more than a little frustrating. I brought my machine along with me to this session so we would be able to transfer files "onsite". The programs we had only came on 5.25 inch floppies so I had to transfer them to the 3.5 inch format. Most programs will come either way, so be sure to specify the proper size disks when ordering

Continued on page 11

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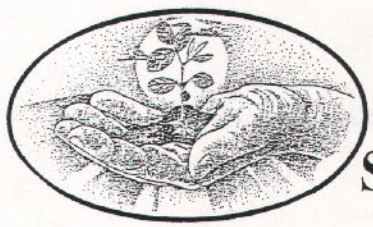

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