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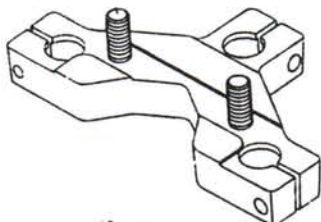


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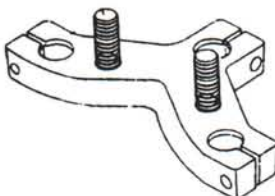
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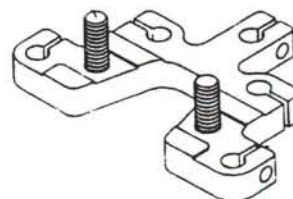
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*denotes standard tine set

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Fred Opperman

The Midwest Association of Golf Course Superintendents (MAGCS), founded December 24, 1926, is a professional organization whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance.

We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.



Kevin Czerkies, CGCS Sportsman's C.C.

7his month, my term as President comes to a close. It's been an enjoyable and rewarding time for me. Now the time has come to pass the gavel to Bob Maibusch. I know the association will be in good hands under Bob's leadership. He's served many years on the Midwest board and is very informed of the activities of GCSAA.

Quite often this year, I was asked how my presidency was going. Well, my standard answer was, "Better than Bill Clinton's." The hardest part about 1998 was not the time requirements of this association or the maintenance of my golf course. No, the hardest part about 1998 was being the loyal White Sox fan that I am and listening to the Cub fans gloat. I can't blame the Cub fans though, they've got a lot of pent-up frustration. At least it only took the Sox a half season to rebuild.

At the annual meeting last November, I stated that this association has some great leaders as Board of Directors. The time that these guys put in attending meetings and running their respective committees was remarkable. Many times they ask themselves,

"Why did I volunteer to do this?" I would like to recognize them on their fine efforts.

Brian Bossert was very busy this past year. Thanks to large vendor contributions, Brian was able to arrange the best hospitality room ever at the conference in Anaheim. Also, Brian was our golf chairman this year. The Golf Committee is known as the toughest committee to run. As chairman, you are busy each and every month running a golf event for 120 people while trying to attend to your own golf course needs. If that wasn't enough, Brian took the reins and headed up the ad hoc Web Site Committee.

Luke Strojny served as arrangements chairman. Talk about a thankless job. Luke's job was mainly behind the scenes. He worked with each host club on times, meals, costs, and anything else that goes into running a monthly meeting. Luke has an excellent schedule of golf courses lined up for 1999.

Kevin DeRoo deserves a hand for the educational topics and speakers that were brought to us from the Education Committee. I'm looking forward to the Annual Meeting this year, for this committee has arranged some fantastic speakers.

Bob Maibusch served as vice president, Employment Committee chairman, as well as chairman of the ad hoc Scholarship Committee. Hopefully, as vice president, Bob learned from my mistakes and will have a flawless year as president.

Greg Thalmann chaired our Membership Committee. This committee isn't so bad during the years when we're not conducting a survey. Good thing for Greg

this was one of those years, because mid-season, Greg was handed the pro shop operations at Fox Run in addition to the course maintenance.

Jim McNair, the father figure on the board, chaired the Public Relations and Long-Range Planning Committees. The highlight from the Public Relations Committee was the letter issued explaining turf-related problems in 1998. Hopefully, this might save someone's job this off season. Thanks also goes to Randy Kane for his help with this letter. Due to an outstanding long-range plan already in place, Jim had an easy time with that committee.

Fred Behnke chaired the Editorial Committee. This committee serves as support for this fine magazine that you are reading. Excellent feature articles and Super-N-Site articles were produced from the Editorial Committee.

In addition to the secretary/treasurer position, Don Ferreri chaired the Environmental Committee. Our association continued to be financially responsible with Don at the helm. He was able to pay off his house and still keep the MAGCS in the black.

On a sad note, Ed Braunsky will be leaving the board after ten years of faithful service. During his final year, Ed chaired the Benevolence, Bylaws and Nominating Committees, as well as held the title of immediate past president. Unfortunately, the Benevolence Committee kept Ed very busy this year. I know I speak for everyone on the board, Ed will truly be missed. We never experienced a dull meeting when Ed was in attendance. I'm fortunate that Ed and I became good friends through the past few years.

(continued on page 30)

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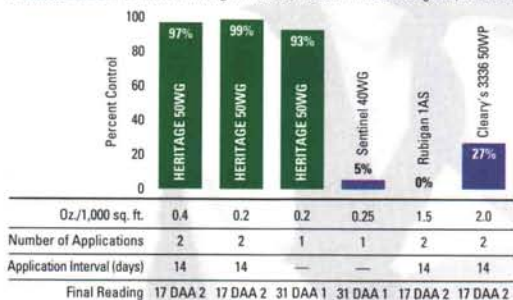
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Anthracnose¹ (*Colletotrichum graminicola*) on 80% Annual Bluegrass, 20% Perennial Ryegrass

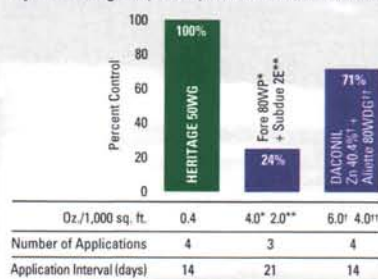


Dr. Don Scott, Purdue University, 1995

US 67-95-P354

¹ Also isolated from plots: 2 species *Rhizoctonia*; 3 species *Pythium*; and several species *Curvularia*.

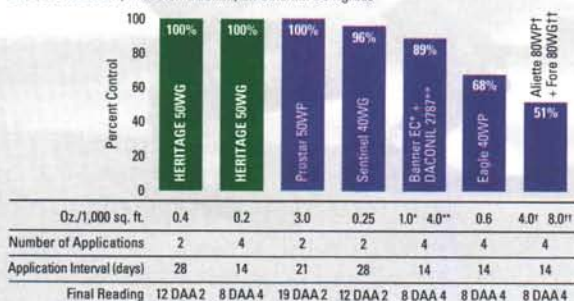
Pythium Blight (*Pythium aphanidermatum*) on Perennial Ryegrass



Dr. John Watkins, University of Nebraska, 1996

USNP-96-P030

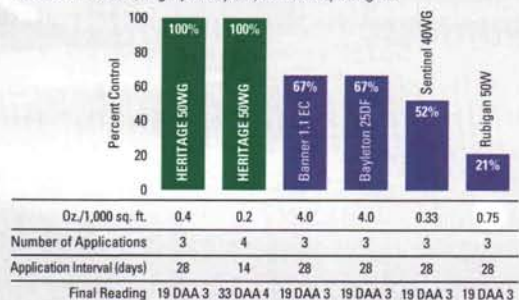
Brown Patch (*Rhizoctonia solani*) on Colonial Bentgrass



Dr. Pat Sanders, Penn State University, 1994

US 66-94-P356

Summer Patch (*Magnaporthe poae*) on Kentucky Bluegrass



Dr. Bruce Clarke, Cooke College, Rutgers University, 1994

US 66-94-P362

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CHANGING THE COURSE
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On Course November 1998



*Ed Braunsky, CGCS
Geneva G.C.*

7his will be my last column as a member of the Board of Directors of the MAGCS. Please stop the applauding and the cheering! It has been a long and eventful ride. I have had a ball during the last nine years. So without further ado, here is the list of the Top 10 things that I will miss about serving on the board of the MAGCS:

1. I will miss getting together with George Minnis, our executive secretary, who has done a terrific job. It will be hard to drive my truck near his house and not want to stop in. I said it before and I will say it again, George has done a terrific job.

2. This one is easy. Toro tees. I will miss that bag full of tees. Maybe I can swing it so that everyone will receive some in the future.

3. Riding to board meetings with Jim McNair. Jim and I always had great conversations when we would venture to the different meetings sites. It was always great to get all of that junk about life and work off of your chest. Thanks, Jimmy!

4. Brian Bossert does not eat meat! I will miss seeing what gets dished out to Brian. I always would look for barnyard animals

to follow the server in with that mound of lettuce that was headed Brian's way. Great job, Brian! The Bulls will not be playing this year, so forget about those ticks.

5. I will most certainly miss all of the complaining that comes out of the MAGCS. Hey, guys and gals, if you do not like a monthly meeting site, get crazy and host a monthly meeting. If we are that important at our clubs, it should be no problem securing sites for monthly meetings. Don't forget to keep the cost of the meetings at a reasonable price(that was always fun).

6. Golfing with Jim Burdett. Jim only golfs with members of the board or past presidents, so I still have a half a chance. I have often yelled out to see if anyone would like the chance to play a round with Jim but had no luck.

Seriously, Jim is a good friend and a devoted MAGCS member.

7. I will miss guys like Adolph, Frank and Howard. It has been a busy year on the benevolence front. Rest in peace, guys.

8. Who would not miss writing articles for *On Course!* Try to sit down and write several articles. It is not easy. Great job, Fred Opperman, on a great magazine.

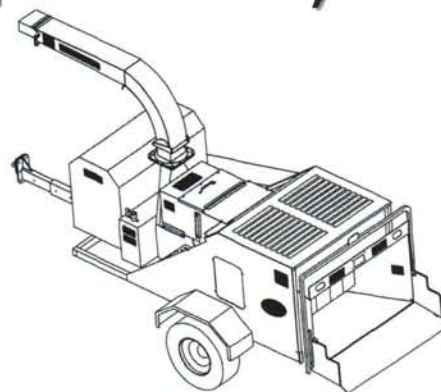
9. As a board member, you receive a lot of phone calls, faxes and letters. Those will be missed. I will still call Kevin Czerkies though. His phone system has some of the best music on it. Often I will call and asked to be put on hold just to hear the rest of "Muskrat Love." Great job this year, Kev!

(continued on page 22)

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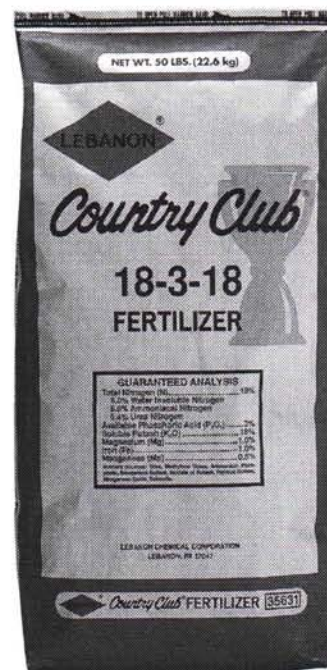
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1998 Autumn Field Day at Cantigny Golf Club

Carl Hopphan
ITF Director of Development

Dr. Randy Kane, Chicago District Golf Association "Turf Doctor," and Scott Witte, Cantigny golf superintendent, co-hosted a great Field Day on site of the Cantigny Golf Experimental Green. The Thursday, September 24, 1998, event had a 3 p.m. starting time under cloudy sky conditions. About forty golf course and turf industry people enjoyed learning about some interesting research findings.

The 1998 growing season was the fourth for the experimental bentgrass putting green. Fertility on the green for this season has totaled 3.2 pounds of N per 1000 to date. The west half of the green (all Pennncross) was maintained at tee height this year and

(continued on page 30)



Dr. Randy Kane explaining the test green to a group of about 35 superintendents and commercial members.



Our host for the day, Scott Witte, superintendent at Cantigny, along with his first assistant, daughter Kori. Please notice the attire of today's superintendent: a radio to keep in constant touch with the crew and Kori's constant pal, a "Bunny Guy" doll, stuffed in his pants pocket.



L to R. Michael Bavier, Jr., assistant at Ivanhoe Club; Steve Davis, AgrEvo; Henry Michna, Winnetka G.C.; and Dr. Bruce Branham, University of Illinois, looking at the Prograss test plots on the 7th fairway at Cantigny.

Photo credit: Fred Opperman



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The Turfgrass Family Tree

Amy Forbes
University of Illinois
Urbana-Champaign, IL

If you've ever looked at a family tree, think of how hard it is to gather all the information necessary to trace your background. Now imagine doing it with no documentation of who your grandfather married, or who his father married. How would you construct the tree? Theoretically, you could look at all the people around you and measure every imaginable trait—hair color, eye color, height, nose shape and size—and relate this to your genetic history. You probably look more like your brother or sister than your cousin or aunt. Although this method would work, it would be nearly impossi-



A breeder test block of grasses.

ble considering the time it would take to not only gather but to analyze the information.

Now suppose you could look at the DNA from each person. While DNA makes each of us a unique individual, we all have some similarities that make us humans. Because DNA is passed on from parents to children, you have more genetic similarities to your mother and father than you do to your next-door neighbor. Even though your mother's and father's families used to be genetically distinct, they are now joined by you and your siblings (Figure 1). These are the ties that can be used to re-create a genetic family tree, human or grass.

(continued on page 10)

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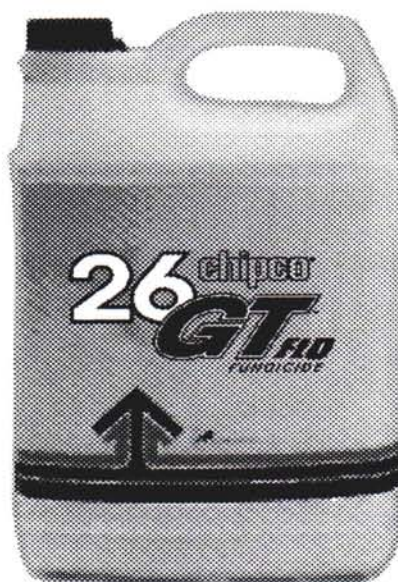
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Diversity and the grass family tree.

Though you can see evidence of diversity all around you, it is greatest near a species' point of origin. It is in these areas that a plant or animal has had the greatest amount of time to change according to environmental pressures. Theoretically, exposure to drought conditions or insect predation will promote survival of those individuals that are more tolerant of drought or insect damage. Perennial ryegrass, along with many other cool-season turfgrasses, originated in Europe near the Mediterranean Sea. Natural grass stands from this area represent a nearly limitless source of genetic diversity for breeders. It is from these grasses that we are trying to construct a perennial ryegrass family tree.

Just as there is variation between two species of grass (creeping bentgrass versus Kentucky bluegrass) or between two

*Theoretically,
exposure to drought
conditions or insect
predation will
promote survival of
those individuals that
are more tolerant
of drought
or insect damage.*

varieties of grass (Crenshaw versus L-93 creeping bentgrass), there is often variation between individuals within a variety of grass. This is the case with perennial ryegrass,

which is an outcrossing species (each plant requires pollen from a separate plant to produce seed). Although two individuals within a variety are more alike than two individuals from different varieties, there are still some differences we can see when we look at the DNA. These differences, and similarities, can be used to determine common genetic (parental) backgrounds.

Does diversity matter?

With humans, we know that genetic diversity does matter. Laws prohibit siblings and first cousins from marrying in an attempt to prevent problems associated with inbreeding. Inbreeding is the mating of two individuals who are genetically more alike than the population at large. It has the effect of reducing genetic variability and enhancing problems of genetic disorders. After Queen Victoria of England

(continued on page 12)



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