

(Continued from page 19)

Both pathogens over-summer as sclerotia, and in late autumn, their sclerotia germinate. Cool wet weather (50 to 65° F) favors sclerotial germination. The sexual state usually isn't observed and the primary inoculum is believed to be the mycelium germinating from the sclerotia. Under snow cover, the mycelium infects the turf-grass leaf blades and causes the distinctive disease symptoms. Sclerotia are produced in and on infected leaf blades or sheaths. Then, as spring debris decomposition and turfgrass recovery occur, the sclerotia fall into the thatch layer.

Our understanding of these diseases has changed over the years and so have the recommended management tactics. In 1932, Monteith and Dahl wrote, "Putting greens in the snowmold belt should be fertilized as little as possible after August. Since there is a decided difference in the susceptibility of grasses to this disease, the ability of a grass to withstand attacks of snowmold should be given consideration." Furthermore, these Badger boys wrote, "It is well to treat the greens with one of the



Figure 1.
My dog Elvis standing on a fungicide equivalent-SR7100! Typhula snowmold has nailed the other bentgrass.

mercury fungicides. The removal of snow, the sweeping off of any debris or any mass of the fungus remaining on the putting greens, and any other treatment tending to hasten the drying of the surface after the spring thaws begin, will in many instances tend to reduce late damage by snow mold."

Wernham and Kirby wrote in May 1943, "the placing of snow fences to reduce the amount and duration of snow on the grasses has been shown to be a preventative measure."

In 1951, Howard, Rowell and Keil, in their absolutely fantastic bulletin, wrote, "Control: Collect clippings when mowing diseased areas to remove inoculum (sclerotia) on the leaf tips." Gayle Worf wrote in 1979, "If you have had good success with a treatment schedule or practice in past years stay with that program. Compatible combinations of "effective" fungicides are virtually always more dependable during severe winters than individual fungicides applied alone. Summer fungicide programs are generally helpful in supplementing snow mold fungicide effectiveness. Physical removal of snow after March 1 can be useful, especially if topdressing was applied so that desiccation is less likely to occur."

The following abbreviated comments are given to assist Wisconsin superintendents in protecting their tees and greens.

1. If last year's snow mold program worked, don't change it. If it is not broken, don't fix it.
2. Map out previously damaged areas and overseed with resistant varieties.

(Continued on page 22)



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(Continued from page 21)

3. Be prepared to battle three fungi: *T. incarnata*, *T. ishkariensis* (Typhula snow molds) and *Microdochium nivale* (pink snow mold).
4. Apply a combination of effective fungicides (i.e. Chipco/Daconil 4 & 8 oz. or Chipco/Daconil/PCNB at 2 & 4 & 4 oz.).
5. Deploy resistant varieties in problem areas where fungicides won't be used. Do this before September 15 with turfgrasses such as velvet bentgrass or SR7100-Colonial bentgrass (Figure 1).
6. Apply 1/2# to 1# dormant slow release organic N. However, don't fertilize in the fall with a quick release N so you have lush green grass going into winter.
7. Snow fences can be placed so the duration and depth of snow is limited.

8. Spring raking or brushing of diseased areas will increase drying and hasten recovery.
9. Crisscross your fertilizer and fungicide applications to increase uniformity.
10. If you use a topdressing put it down after you have applied fungicide.
11. Collect the season's first clippings to reduce inoculum spread.
12. Greenscovers will aid in spring green up (~3 weeks) but they should only be used when a fungicide combo has been applied.

Our snow mold research at the O.J. Noer Facility endeavors to provide improved consistency, economy, human safety and environmental protection. Your observations, suggestions and concerns on snow mold development in relation to your management strategies is greatly appreciated.

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May Meeting — A Soaker

By Andrew Kronwall

The overcast morning of May 20th didn't stop 80 superintendents from making the trip to Zimmermann's Kettle Hills Golf Course in Richfield, Wisconsin. Now hungry for that first outing of the year, superintendents and sales reps from around the state converged on golf course superintendent Bob Belfield. The pressure was on, but Bob and the staff of Kettle Hills were ready and able to accommodate those brave enough to venture out into the drizzle for a friendly round of golf. Although only a few finished, we were able to see the wonderful condition Bob has his golf course in, despite the weather.

We played a Modified Peoria format between the downpours. The die-hard finishers were:

FIRST PLACE

Brian Schmidt	70
Rod Johnson	68
Steve Schmidt	65
Mike Burwick	65
TOTAL	268

SECOND PLACE

Carl Braem	64
Roy Zehren	70
Richard Chapman	71
Paul Feldhake	66
TOTAL	271

After golf we met for our educational session with Mr. Phil Pellitteri, UW-Madison Department of Entomology, discussing the invasion of Japanese beetles into our state. Along with numerous slides, a display case of specimens and a mountain of information, Mr. Pellitteri had the sales reps smiling and the superin-

tendents reviewing their pesticide budgets.

Dr. Doug Maxwell, UW-Madison Department of Plant Pathology, (first time golfer extraordinaire) presented a brief report on the Turfgrass Disease Diagnostic Lab (TDDL). The TDDL will be a great resource for superintendents throughout our state. The TDDL is now based in the O.J. Noer Turfgrass Research & Education Facility. Experts in plant pathology are available to assist turfgrass managers for immediate consultation. For a complete overview of the TDDL pull out your March/April edition of *THE GRASS ROOTS*. The article titled *Wisconsin TDDL Takes Big Step Forward* written by Bob Erdahl will explain all the great things happening at the TDDL. If you haven't read this article yet, do yourself a favor and read it start to finish ASAP. ♣



Nakoma Golfers Will Miss Smith's Touch

By Rob Schultz

Madison's private golf clubs have been blessed over the past 20 years. They have had golf course superintendents who have been spoiling their members with near-perfect playing conditions since the early 1970s.

That's why so many in the golf course maintenance business were saddened when they learned that Nakoma's Randy Smith recently resigned. The 51-year old Smith finally bowed to the pressures and demands of one of the most difficult courses to maintain in this state and plans to spend more time with his family.

Although some Nakoma members might not know it now, they're going to miss Smith, one of the few people who understands just how much work is ahead for the club to get the course back to its proud shape of the '70s and 80s.

"There are many challenges ahead here," said Smith as he sat behind his desk inside Nakoma's maintenance facility this week. "And we have to face the fact that the challenges here are becoming even bigger with the (poor) weather of the past three years — especially last summer."

That's not great news for Nakoma, which has already taxed its members with recent subsidies for a remodeled clubhouse, not to mention the redesign of the 10th and 11th holes and the addition of two other new greens a few years ago. Once one of the most popular private clubs in town, Nakoma has lost many members over the past years and joins those that don't have waiting lists.

Nakoma does not have a master plan for the improvement of its course. But if asked, Smith would suggest re-building 14 greens, replacing its outdated 31-year-old irrigation system, re-growing some of its fairways and creating an environmentally sound drainage system for the swampy, muck-based course that sits just 18 inches above the water table.

Smith, who has been working 70-

hour weeks as Nakoma's superintendent for 24 years, is hard-pressed when asked which part of his job is most frustrating. But taking care of its poa-infested greens probably would rank No. 1. Nakoma's members can claim accurately that their greens are similar in grass-type to those at Maple Bluff and Blackhawk, both of which have outstanding putting surfaces every summer.

The difference is Nakoma's bad soil doesn't drain well and has many greens shaded by large trees that can't be trimmed because they're part of the UW Arboretum. Plus, the entire course is unfortunately sloped to face the north. Thus, the greens hold ice and snow much longer than most courses because the sun can't burn it off during warmer spring days.

"We're still waiting for the snow and ice to melt when some other courses are already mowing," said Smith, who sees patchy greens every spring because the poa annua grass that make up its 14 older greens dies every year. "What's frustrating is that they'll barely heal from the winter kill when they get hit from the usual stress. You get three 90-degree days and they really stress. The poa can't tolerate it and they start to decline."

What makes matters worse is that golfers are demanding that their greens be cut shorter so they're faster. It seems everybody wants their greens at U.S. Open speeds. But that kills greens, especially the stressed-out ones at Nakoma. A USGA official told the golf course superintendents at their national convention last February that it's time for the national tournaments, as well as all clubs, to mow the greens so they're nine or 10 on the stimpmeter instead of the crazy 12 - 13 that exists now.

"We gave him a standing ovation when he said that," said Smith. "But the people he needed to tell that to wasn't us but the golfers at the clubs. I can get our four greens at 10 (on the stimpmeter) right now. The other

14 are a stretch to get there. They just can't handle it."

Smith said the new superintendent will need a strong voice if he hopes to succeed at improving Nakoma. He or she will need to make the members understand that many connected with turfgrass research, from the USGA to local scientists at the O.J. Noer Center, have recommended that Nakoma replace its old greens.

That was a hard sell for Smith, who members have asked to perform too many miracles over the years. "I've had mixed feelings from the members," he said. "But when we sit down and talk, they at least have begun to understand how our feelings are about the matter."

Smith plans to stay around and help part-time as long as he's needed. He initially planned to leave June 4, but changed his mind because Nakoma needed him for the transition. It's tough to find a superintendent to switch jobs at the busiest point of the season. "I'd like to converse with the new superintendent to help them do this thing," he said. "And if they can find a better way to get the job done, that's fine."

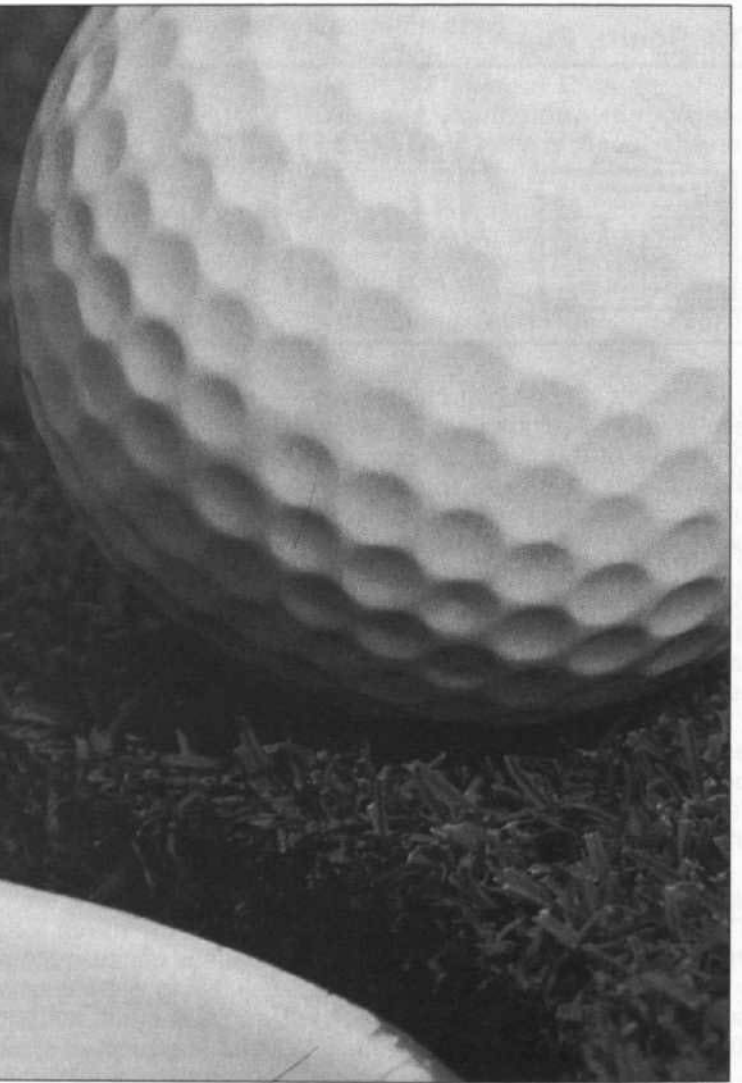
Nakoma won't be far from Smith's mind or heart wherever he goes. He plans to contribute \$500 to the Nakoma Foundation earmarked for the Audubon Sanctuary Program. He also would like to volunteer his time to help organize pictures and slides for the club's historical library.

"All my memories of this place are wonderful memories," said Smith, one of the nicest men and brightest teachers in the business. He has managed and trained many turfgrass students who have gone on to become superintendents at other courses and even Camden Yards baseball park in Baltimore.

But Smith also listened to his mind and heart when they told him it was time to go. "It was a decision made by my entire family," he said. "We decided to look at other opportunities that are out there. It's better to do that at 50 than at 60 or 65."

Smith has no idea what his next job will entail. "But I just bought a fishing boat," he said. "In my new career, whatever it may be, there will be time left to do some fishing as well as hunting." 🍷

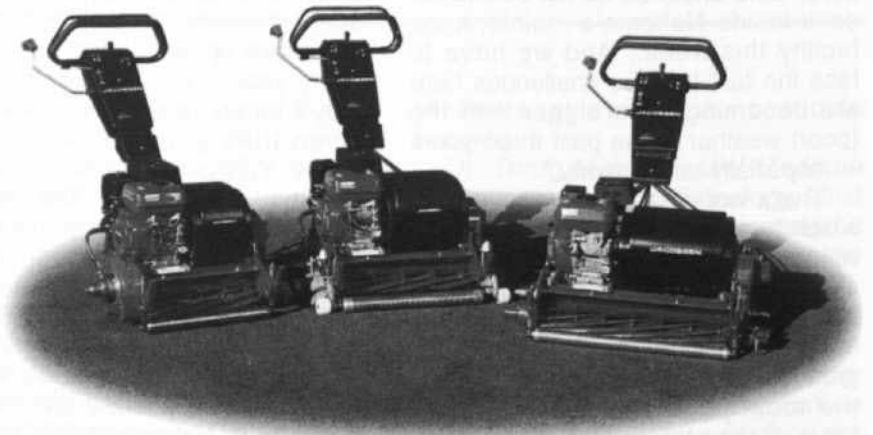
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Lake Breeze Golf Club Hosts July Meeting For WGCSA

By Andy Kronwall

Lake Breeze Golf Club in Winneconne was the setting for the July WGCSA meeting. Host superintendent Jim Hasz and his staff had the course in excellent shape. Playing from pure bluegrass fairways into pure bentgrass greens was a treat. Jim provided each player with a golf course history/stat sheet which was very interesting (great idea), but it did not include his secrets for preventing *Poa annua* invasion.

The event for the day was a 4-person / 2 Best Ball. Additional prize money was generously donated by: Reinders \$100, Horst \$50, Lesco \$50, and Scotts \$50; please remember to thank these distributors the next time they call on you. The winners for the day were:

1st Dennis Robinson
Greg Kalenberg
Robert Gosewehr
Ken Wojtalewicz

2nd Scott Schaller
Dave Brandenburg
Steve Schmidt
Jeff Ruesch

Low Gross

Lee Reinke 78
Jerry Klimke 78
Greg Kalenberg 78

#1 Closest to Pin Kris Pinkerton

#15 Closest to Pin Brian Feldman

#9 Longest Putt Bob Reinke

#17 Long Drive Mark Keinert



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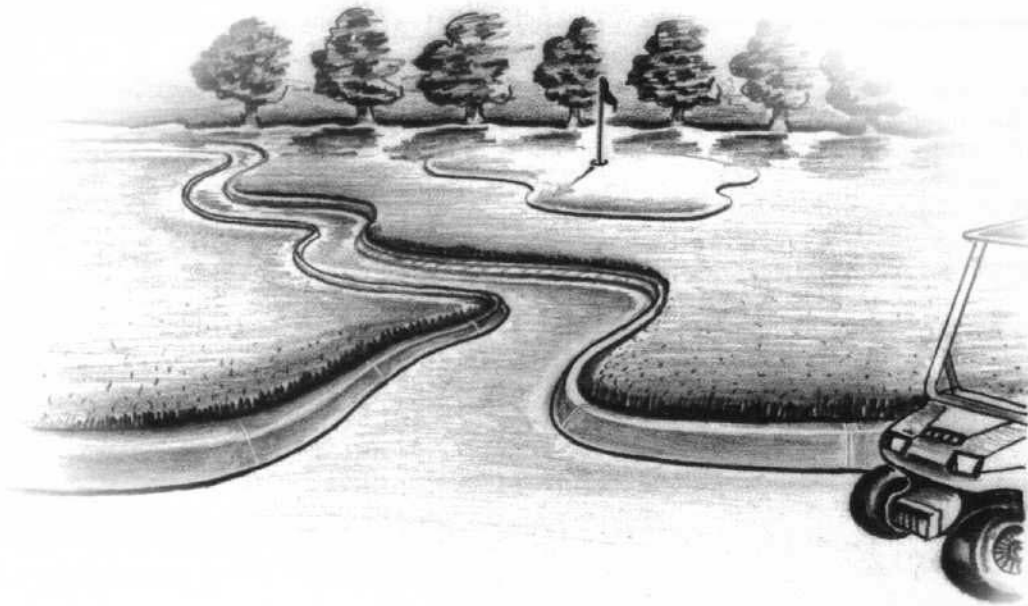


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The Surrounds



By Wayne G. Horman

The July WGCSA meeting was held at the Lake Breeze Golf Course, just north of Oshkosh. Jim Hasz, the golf course superintendent, did a great job having the course well prepared for the event.

On my way home I thought "who in their right mind would ever want to host a monthly meeting?" Think about it for a moment: a group of your peers playing your course. Every hole is an evaluation of design, course maintenance, green speed (yes, even superintendents comment about this topic), and, of course, the question "what products does he use?"

It takes a strong person to handle that kind of pressure for a day, and unlike the usual outings and tournaments that superintendents deal with, this one event is voluntary. All I can say is "thank you" for having us, and all the golfers do appreciate your efforts and your thick skin for hosting the event.

The Anderson Consulting World Championship of Golf was held at Blackwolf Run Golf Course in Kohler on July 29th and 30th. The River course hosted the best bracket of the four held around the world. Seeing some of the greatest golfers in the world challenge their game on one of Wisconsin's best courses was really exciting. The event was just one more step toward the Kohler Company

holding its first major event — the 1998 U.S. Women's Open.

In the spring Randy Slavik from Wausau Country Club passed the GCSAA certification. A big thank you also goes out to Randy and the WCC for offering to host the Wisconsin Turfgrass Association golf outing on September 30th. This event is one of our biggest fund raisers of the year.

Nakoma Golf Club filled the golf course superintendent position in July with Clark Rowles, formerly employed by Geneva National in Lake Geneva. Rowles succeeds Randy Smith and is only the fifth superintendent in the history of Nakoma.

KSL Fairways purchased the Lake Windsor Golf Course, outside of Madison. Jerry Panella, the superintendent at Lake Windsor takes over at the Mequon Country Club, formerly the Ville Du Parc CC, also owned by KSL.

Rod Schultz is the new superintendent at Lake Windsor. He comes to Wisconsin from another KSL property—Walden Lake CC in Plant City, Florida.

Ed Kirchenwitz is having a busy summer. Kirchenwitz is the superintendent at Whistling Straits, the new golf course on Lake Michigan under construction by the Kohler Company. After spending most of his time supervising the project, he finally took a couple of days off to

spend time with his new baby boy. His wife Amy gave birth to Ellis David on July 15th.

The Seven Mile Creek golf course project in Waunakee is getting closer to the seeding stage. The 18-hole public golf course project is being built and operated by the Bruce Company.

Whispering Springs Golf Club in Fond du Lac is opening for limited membership play in late August. The Bob Lohman designed course will be open for public play late this year or early next spring.

The insects were active in July and August on golf courses throughout Wisconsin. Cutworms were spotted in limited numbers on courses all over the state. The population was small compared to 1995.

BTA grubs were active in the southern portion of the state in late June and early July. The population of *Aetaenius* is growing and their numbers have spread from the Milwaukee area into Madison this year.

Japanese beetles have been spreading north over the last few years. This year the adult beetle was spotted in Cambridge, just outside of Madison. A very cold winter could help reduce their population.

I hope the rest of the season goes well for all of you. It won't be long before the 1996 season comes to an end. 🌿

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So, do you think Dr. Kross is continuing his study to determine if you are at greater risk of cancer? THINK AGAIN.

Editor's Note: It didn't occur to me, when I asked the question in the last issue of THE GRASS ROOTS, that GCSAA had actually decided to terminate Dr. Kross and his study of golf course superintendent susceptibility to cancer from Phase II of the mortality study. When Joe O'Brien told me that over the phone, I was literally stunned.

Subsequent to that conversation, I received the following letter from Bruce Williams.

Two thoughts occur to me:

- 1. I have no doubt that GCSAA can afford whatever it costs to find out if we are at greater risk of cancer than the population in general. Like any other organization, company or family, it is a matter of priority. What could possibly be more important than our health?*
- 2. As Bruce concedes in the last two paragraphs of his letter, GCSAA didn't bother to tell anyone about dropping Prof. Kross from Phase II. Was that an oversight? Did someone "forget" to share the information? Was it calculated?*

I don't know. But this is always clear, with this issue and many others over the years past: GCSAA will always be better off when it consciously operates an open door, fresh air, tell-all policy. When secrecy (or even the perception of it) reigns, so does suspicion.

MSM

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July 12, 1996

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Mr. Monroe S. Miller
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Dear Monroe:

I read your editorial in the May/June issue of *The Grass Roots* and I would like to clarify the post-Mortality Study activities and bring you up to date regarding the status of this important project. Let me assure you that the health of golf course personnel is very important to the leadership of GCSAA. That is exactly why the Board funded the Mortality Study in the first place and approved GCSAA's Safety Awareness Program as a result of that study.

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When the results of Dr. Kross's study were released in Dallas two years ago, many of us in the golf course maintenance profession asked ourselves, "What about me? Does this mean that I will get cancer?" Because of the alarming nature of those preliminary results, we realized it was extremely important to identify what the most appropriate next step should be. The Board of Directors assigned this task to the Research Committee and funded outside health and safety experts to help develop a sound post-Mortality Study program.

Technical Assessment Systems, Inc., of Washington, D.C., was contracted in December, 1994, to:

1. Conduct a peer review of Dr. Kross's manuscript to be submitted to the *American Journal of Industrial Medicine*.
2. Review follow-up research proposals:

A 30-month occupational assessment study was proposed to identify health and safety risk factors for golf course personnel and to implement an occupational exposure assessment and hazard identification techniques on representative golf courses. The initial estimated cost of this study was nearly \$700,000.

An 18-month study was proposed to assess the current health status of golf course personnel, using surveys, focus groups and other methods of data gathering. Estimated cost for this study and a final report was between \$150,000 and \$200,000.

3. Recommend an appropriate strategy for follow-up action.

GCSAA is dedicated to serving its members, advancing their profession and enriching the quality of golf and its environment.

Mr. Monroe S. Miller

Page 2

July 12, 1996

With TAS's counseling, the Research Committee faced a critically important question: "Should GCSAA commit the huge amounts of funding necessary to conduct a long-term cohort study regarding cancer and pesticide use? Or would a more appropriate course of action be to accept the fact that *no occupation is devoid of health risks* and to develop an extensive safety awareness program to educate members of the proper techniques to minimize risk exposure?"

The Research Committee recommended the safety education and awareness approach. This approach offered not only lower costs, but also a much larger positive health impact for our members. Dr. Kross's preliminary research spotlighted the importance of behavior and lifestyle factors in cancer risks. The mainstream media are effective at covering the health risks associated with smoking and poor diet. What was lacking was comprehensive specific do's and don'ts for at-work behavior. The comprehensive safety awareness program the Research Committee envisioned would include methods to reduce the risks associated with maintaining golf course in many operational areas besides just pesticide exposure, such as U.V. radiation; exposure to fuels and solvents; safety in the maintenance facility, especially around brazing and welding equipment; operator safety of mechanized equipment; and many others.