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# HOLE NOTES

Official Publication  
of the  
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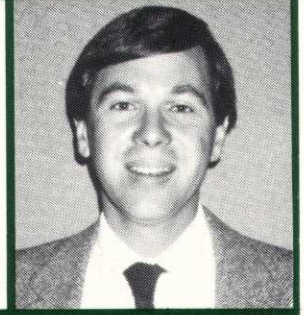
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## FROM THE PRESIDENT'S DESK

### It's So Important To Keep Abreast Of All Developments



With the first days of Spring, golf course superintendents begin asking questions about how Mother Nature has dealt with their turf over the Winter.

As we recall last year, ice covered our greens for most of the Winter, yielding a tremendous loss of turf. Both bentgrass and Poa annua suffered equally. The present outlook appears less damaging. The season's snow cover, gradual melting process and moderate temperatures have resulted in healthier turf conditions. With April here, golf course turf looks quite promising.

\* \* \* \*

**I want to thank** Shane Andrews, Kevin Clunis and the Education Committee for organizing a great March Mini-Seminar and Pesticide Recertification Seminar at the Northland Inn.

At this time I must remind any individual who did not recertify his/her pesticide license at the Northland Inn to contact the Department of Agriculture and arrange to attend a class during this year, or you will have to retest after December 31, 1991. Our Association will not have a recertification class at the November conference.

\* \* \* \*

**Kevin Clunis and the Environmental Committee** were quite busy this past month. (See the *Environmental Update* story on Page 10.) The committee is compiling a resource booklet to keep us informed of changes in the laws and criteria on forms and records that must be maintained to comply with State regulations. Items of interest include underground gas tanks, pesticide and fertilizer records, and how to become a certified pesticide applicator. With special thanks to Kevin, we will have an excellent informative booklet to aid us in complying with state regulations.

\* \* \* \*

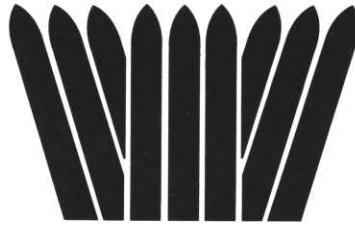
**Results from the MGCSA Water Use Survey** of golf course water consumption have been finalized and tabulated for last year. As this is a continuing study, no meaningful results are yet available. However, we still need more survey participants, particularly in southwestern and northern Minnesota, to broaden our survey base. If you have a water meter on your irrigation delivery system, please contact Greg Hubbard to volunteer your services. Complete anonymity is assured. Let me thank Keith Scott and Kevin Clunis for their committee participation and, of course, those 14 superintendents who participated in this survey during 1990.

\* \* \* \*

**I hope to see all of you** at Owatonna Country Club April 22.

— Tom Fischer  
MGCSA President

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## Moorhead Country Club Cuts A 'Sweet Deal' With Crystal Sugar For Irrigation Water



*Moorhead Country Club, in the foreground, is receiving irrigation water from the holding lagoons at the neighboring American Crystal Sugar factory.*

Irrigation at Moorhead Country Club had a sour future until the club found a way to use recycled water from the nearby American Crystal Sugar Company factory.

Now environmentalists, the club, the sugar company and city officials in Moorhead and neighboring Fargo, N.D., agree the arrangement is a sweet deal for all concerned.

Moorhead Country Club had recently installed a Toro Network 8000 irrigation system, and the system's efficiency already has created dramatic changes for the club and golf course. But no matter how efficient the new system is, its value would be far less without a reliable long-term source of water.

Low river levels, due to a three-year drought, were reducing the club's ability to draw water from the Red River of the North, which borders the club. To make matters more ominous, both Moorhead and Fargo are planning to build new water treatment plants upstream of the club, which will further reduce river levels.

At the same time, American Crystal faced the opposite problem. Because sugarbeets are more than 70 percent water, sugar processing results in a huge surplus of water in need of treatment. The company has installed a water treatment facility and holding ponds to store

the water, but the treated water can only be discharged to the river during periods of relatively high flow.

In a casual conversation between Larry Murphy, golf director at MCC, and Ron Hayes, then president of American Crystal, the contrasting problems came up. "Why," the two men asked, "couldn't the club use some of the surplus water from the factory?"

After extensive water testing it became apparent that the recycled water from the factory would cause no significant problems for irrigation. According to Mike Kasprowicz, turf grass manager at MCC, only minor fertility and maintenance adjustments were needed for the club to use the water as its primary irrigation supply.

Two years were required to gather all the necessary permits and approvals to make the plan a reality. And currently, the Minnesota Pollution Control Agency club limits the amount of water the club can draw from American Crystal. With accurate testing and record-keeping, plus the Toro system to deliver precise amounts of water, Kasprowicz is hopeful the MCPA will allow increased use of the recycled water.

Moorhead Country Club installed a 6-inch line from its irrigation holding pond to the edge of the American Crystal property. American Crystal ran a

matching pipe from its lagoon to the MCC line. Electric valves, float sensors and a manual back-up system regulate the water level in the MCC pond.

Before this system was complete, the club filled its pond with a 4-inch line, so fluctuations in the pond's level were quite obvious. With the new system, fluctuations are limited to about four or five inches; it's a big aesthetic improvement to see the pond nearly full at all times.

**With this system, everybody wins!** The club has a reliable supply of water without worrying about river levels. American Crystal Sugar Company has a very low-cost alternative to storing water until it can be discharged to the river. The Fargo-Moorhead community and downstream cities will see less impact on the Red River.

These days, it's rare when a major industry (or golf course, for that matter) is recognized for its positive impact on the environment. For this new use of discharge water for irrigation, however, American Crystal recently received an environmental project award from the International Coalition for Land and Water Stewardship in the Red River Basin. Members of Moorhead Country Club are receiving their reward in the form of a healthier, more beautiful golf course.



**Stephen G. Cadenelli**  
New GCSAA President

## New GCSAA President Steve Cadenelli Stresses 'Professionalism Through Education'

The man elected to preside over one of golf's largest associations wants the public to know that golf course superintendents are more than just the people who keep golf green.

"Professionalism through education" is just one of the areas that Stephen G. Cadenelli, CGCS, intends to promote during his term as president of the Golf Course Superintendents Association of America (GCSAA).

"I never want to stop learning," says the 55th president of GCSAA. "I don't believe there is a substitute for education. I truly believe there will be no way to survive and function in this new world as a turfgrass manager without a broad educational background. If I am remembered for anything after my year as elective leader of GCSAA, I hope it is for promoting education as never before."

**Cadenelli has directed** the construction and management of the Metedeconk National GC course in Jackson, N.J., since 1985. He was elected during the association's annual meeting in Las Vegas, Nev., on Feb. 12.

Cadenelli, 42, takes the helm of the growing international association at a time when environmental considerations are a top priority for the men and women who manage today's golf courses.

"I'm proud of the role GCSAA has played in the move to environmentally sound management of golf courses," he said, "and I want the association to continue to point the way. We have broken a lot of new ground for the industry, and it is imperative that we continue to set the example.

"It is essential that GCSAA help its members meet their responsibilities to the environment. We also must go on educating the public as to the benefits of golf courses and of the fact that, in the capable hands of highly educated superintendents, golf courses are a positive contributor to the environment. Again, one of the keys to our success is education of ourselves and the public."

**GCSAA's new president points** to the continued working relationships that the association has with the United States Golf Association and the U.S. Environmental Protection Agency as vital in seeking scientific solutions to the unanswered questions facing golf courses. The results that come from these efforts will help ensure the future of the game, Cadenelli says.

The Massachusetts native notes that today's superintendents must be versed in legal matters, technical turfgrass science, personnel management, financial planning and equipment maintenance.

"These factors have created significant opportunity for golf course superintendents, for never has the golf community recognized the need for highly educated professional turfgrass managers as it does today," he says.

**Education and hard work** helped Cadenelli rise from working as an assistant superintendent of a nine-hole golf course in western Massachusetts to a highly-rated championship facility in central New Jersey. He now faces the challenge of heading up a professional

organization with membership of more than 10,000.

Today, Cadenelli is vice president of Sambol Construction, the family-owned company that built and manages the Metedeconk club in Jackson. Cadenelli heads a golf course management staff of 22 employees at the Metedeconk course. The course is a distinctive Robert Trent Jones Sr. design, known for successfully balancing sensitive wetlands with a highly playable golf course.

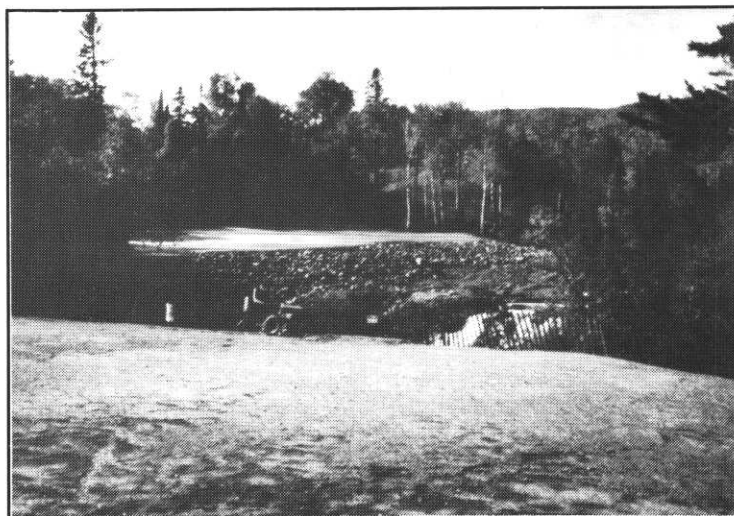
Cadenelli is a member of the GCSA of New Jersey, the Metropolitan GCSA, the Connecticut Association of GCS, the New Jersey Turfgrass Association, the New York Turfgrass Association and the Alliance for Environmental Concerns. He served this past year as GCSAA's vice president. He has also been the chairman of planning, finance, education, certification, communications/awards and public relations committees of GCSAA.

**The new president** and his wife, Linda, reside in Wall Township, N.J. Their son, Matt, studies at the University of Colorado, and their daughter, Tara, is a student at Boston University. Cadenelli's term will run through the association's next annual meeting, scheduled for the GCSAA 63rd International Golf Course Conference and Show in New Orleans, La., Feb. 10-17, 1992.

Since 1926, GCSAA has been the professional association for the men and women who manage the playing fields of golf. Today, the 10,300-member association offers a wide range of educational opportunities and communication tools for superintendents. GCSAA is headquartered in Lawrence, Kan.

# Beauty Abounds at New Golf Course at Lutsen; So Does the Challenge Of Building It

By **MIKE DAVIES**  
Superintendent  
Golf Course at Lutsen



**ATTRACTIVE CHALLENGE**—How about this shot of and to the 11th hole at Lutsen?

Driving from Duluth up the North Shore, most people love the beauty of the rugged shore of Lake Superior, the cascading rivers and the wildlife that inhabits the area. Golf course superintendents, on the other hand, look at all the rocks and wonder how grass could ever survive.

At Lutsen's new golf course we have it all. Lake Superior can be seen from 11 holes. Eight holes play along or over the Poplar River. You can even glimpse deer, moose, bear and wolves throughout the course, and yes, we did have plenty of rock to deal with.

Construction of the 18-hole golf course started September 18, 1989. A hundred



**SPECTACULAR SCENERY**—Mike Davies, Lutsen superintendent, poses at the 8th hole, which has a 90-foot drop. Poplar River is on the left and Lake Superior can be seen in the background.

acres of fairways, greens and tees were cleared that Fall before Winter shut us down. Construction started again on April 20, and we finished last October. I could write a book on what happened in between, but I'll stick to the highlights.

**One of the first objectives** we wanted to accomplish was to form an Erosion Control Plan. Before any construction was started, we knew that the "eyes" of the county, and indeed the "eyes" of many environmental groups, would be watching this project very closely. The Poplar River, which twists and winds throughout the golf course, is a designated trout stream. It is heavily fished in both the Spring and Fall. We also knew that our topsoil was precious, and we had to keep it from washing into the river.

Working with the Department of Natural Resources, the Soil & Water Conservation Service and the local Cook County Planning and Zoning Commission, we put together a comprehensive soil erosion plan that everyone agreed on. We channeled run-off from two fairways along the Poplar River into a sediment control pond. (This pond allows solids to silt out before entering the Poplar River and also serves to catch any run-off pesticides.) Temporary diversions were built throughout construction to help control water flows from summer and fall rains.

**A big factor** in the successful completion of the new golf course was the spirit of "team effort" by everyone involved. Construction was directed by Dick Freitag and his crew from Alpine Construction Company, based in Eau

Claire, Wisconsin. We had three local contractors who supplied men, equipment and a wealth of construction methodology and techniques that only workers experienced with this terrain would know. Weekly meetings with the Golf Course Construction Committee helped keep everyone informed of progress and identified concerns.

**Twelve of the 18 holes were seeded** by mid-September, and, weather permitting, should be ready to play next summer. The other six holes were dormant-seeded and will be ready by Spring of 1992.

Being involved in a project of this size from the ground floor was a very special opportunity for me. It was a learning experience from the start.

The first goal we had was to keep the public informed of our efforts to discourage any negative environmental effects. We minimized soil erosion and pesticide run-off. We had the honor of receiving Cook County's 1990 Conservation Landowner of the Year Award. This award is given in recognition of conservation efforts that show a commendable concern for man and the environment.

Now I'm hoping for a summer of warm, sunny days and an occasional light rain at night so I can get the course in shape to play. I encourage and challenge all of you to a round of golf at one of the finest golf courses in the Midwest.

\* \* \* \*

*(Ed. Note: The golf course at Lutsen does not as yet have a name. A contest will be held to name it.)*

# Necessities in the Nineties

By James M. Latham, Director  
Great Lakes Region, USGA Green Section

Looking back on the 1990 golf growing season, there was no major, all-encompassing event or condition that makes it memorable. There was no central focus like *The Drought of '88* which affected the entire Great Lakes Region. It was not, however, one of those vintage years when things were generally pleasant. But when the quality of bunker sand shares equal interest with the quality of the grass during some Turf Advisory Service visits, golfers must not be very unhappy. There were intense local problems - severe winter-kill of *Poa annua* from Fargo to Stevens Point with an epi-center (again) in the Twin Cities; prolonged rains and high temperatures which caused turf losses (quality or quantity) in northern Illinois; heavy white grub invasions from Indiana to Iowa, and a few floods (like the 23 inches of rain falling in the Quad City area during the month of June).

The bone-chilling cold early last December (1989) did much less damage here than was expected. There were major losses of warm season grasses from Missouri to Texas. That cold spell, incidentally, killed some golf turf all the way to Houston. How would you like to see about 70 acres of dead grass on your course?

The Wisconsin Golf Turf Symposium turned 25 this year, just a kid as compared with some conferences, but one which sets some sort of mileposts in the field. Each is devoted to a single topic, which is usually a mirror of the interests of the day or at least the near future. Looking at some of the topics covered, some rather pointed questions can be asked. For example, Symposium Number One (1966) dealt with winter injury. Number Two covered the physical nature of soils - with much emphasis on green building and Number Three took on *Poa annua*, as did the 11th and 18th. Even though speakers at these Symposia are acknowledged leaders in their fields and attendees are certainly capable of learning, these subjects remain major problems. It indicates the complexities of dealing with the environment of this high quality, special purpose turf and the costs involved in creating a favorable environment for the root systems of defoliated bentgrass.

**Why were there so many greens built in 1990, which are either doomed to failure or will at least be a severe threat to the tenure of future golf course superintendents?**

Perhaps it parallels some of our bureaucracies. The construc-

tion division (of either a municipality or industry) is pressed by management to design and build something for the lowest possible cost. When plans and specs are presented, the numbers look good - to everyone but the operating division who see their costs mushrooming just to keep the new stuff running and who must go back to management every year for funds to repair or replace the installation. They are the people who must justify their budgets, while the designers are off on some other money-saving tangent involving untested ideas devised by their own rationalizations or egos.

Sound familiar? But boy, does that new structure or machine get media attention and cover photos. All the while the operations people are already wondering how they can prepare a budget just to keep the monster running and, of course, without pointing out the lack of foresight of those in management who approved the project in the first place. "Keep construction costs down! We'll handle operations and maintenance when the time comes." Sure! I drive a lot of miles on Interstate 43 (Green Bay/Milwaukee/Beloit). It is probably the roughest stretch of new highway ever built. The slabs of concrete had not cracked before they were running Super-Zambonis over some sections to "groove the pavement for safety." Hell, they were trying to smooth it. Who OK'd that work and who inspected it? Probably shock-absorber salesmen.

The point here is, who OK's plans and specs for golf courses? Why do owners who, after being told of construction deficiencies go ahead and accept the job? Then they reject a rehab budget on the grounds that it's a new course and shouldn't need it or that play cannot be discouraged because cash flow is needed (usually in the clubhouse or pro shop).

It is more difficult to deal with the *Poa annua* thing. But winterkill of *Poa annua* is real, even though "out of sight - out of mind" (no seedheads) never fit a subject better. Ask the Minnesotans who have seen it two (2!) years in a row. The kicker in '89 and '90 was the extremely poor spring weather which severely retarded seed germination of both bentgrass and *poa*. Anything green was acceptable, even though it meant starting the same vicious cycle again. The fact that bentgrass loss was

(Continued on Page 9)

## Necessities in the Nineties

(Continued from Page 8)

negligible or nonexistent should deliver a strong message.

**Prevention? The thin fabric covers were of little or no help in the Twin Cities.** If there is snowmelt followed by a deep freeze, they offer no thermal protection and may even enhance the day/night temperature spread. The very thick mats have done well, perhaps because they prevent mid-to-late winter thawing. These observations by superintendents in the area certainly make sense to me. Maybe that's the reason old timers topdressed heavily in late fall or put brush on the greens to hold snow cover. The basic idea may have been to protect against desiccation, but it provided insulation as well. (Or maybe there was less *Poa annua* to worry about in those days when the normal close mowing was a quarter-inch.) The insulation theory is valid, since the primary winterkill of Perennial Ryegrass fairways in Milwaukee (1986) was in areas receiving full sun, not the narrow, shaded fairways where mid/late snowmelt was minimal.

The problem today lies in the difficulty of making bentgrass more competitive during the growing season. This isn't difficult in fairways where the bent stolons have about a half-inch of growing room. But vertical space is hard to come by on a green where the cutting edge of a bed-knife is only one-eighth-inch above a firm surface. Mike Bavier at Inverness in Chicago commented on the vertical threshold in bentgrass spread between fairways and greens a few years ago. Just what that threshold is is still not known. It may be purely academic, because we

are unlikely to see high-cut, slow greens again.

**We need a feasible program to not only weaken or eliminate *Poa annua* but to make the bentgrass more competitive.**

To weaken poa without improving the bent just makes the turf chronically weak, usually in the most important areas on greens where the holes are cut or the walk-on/walk-off traffic is concentrated. I am concerned by the implication that growth retardants selectively affect *only* poa and that they will open the door to automatic bent encroachment into the poa-infested surfaces of closely mown putting greens. That idea is no more valid than a groomer being substituted for a verticut. We just wish it were true. It seems to me that interseeding into weakened poa must be a part of the procedure, with appropriate after-care. Or perhaps just seeding at every topdressing?

This takes us, again, back to the basics of what makes plants grow - but we have to make that read *defoliated plants*. Among the requirements are well developed root systems, an adequate amount of sunlight (for the remaining leaves or parts thereof), adequate fertility and moisture, adequate soil oxygen and protection against pests. It's getting harder to survive on a diet of magic potions, but even harder to perform some of the necessary cultural programs without interfering with an increased number of golfers every day. Working smarter and talking more convincingly have never been more important than they are today and that they may call for assessing the programs of fellow superintendents who are dealing with similar problems, questioning "experts" and just "visiting around." The nineties will not be a good time to paint oneself into a corner by failing to look at the whole picture.

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# Environmental Committee Update

By Kevin Clunis, Stillwater Country Club

As reported in an earlier edition of *Hole Notes*, the Environmental Committee was formed to help our organization better understand the environmental considerations for golf courses.

Presently we are putting the final touches on a compliance guideline to governmental regulations for golf courses. The committee, made up of several golf course superintendents, university personnel and associate members, focused on five areas of concern. The areas we researched were Aboveground Storage Tanks, Underground Storage Tanks, Pesticide Laws, Pesticide Spills and Hazardous Wastes.

When you receive your copy of this guideline, please take time to look through it. Included in each of the chapters are phone numbers of the various state agencies along with MGCSA Superintendents. If you have questions, do call the people listed.

There is so much information in this guideline that it is difficult to summarize. But here are a few points to take note of:

- You must keep pesticide records for **five years**.
- A new Restricted Use Pesticide list is included.
- Storage of pesticides away from seed is discussed.
- You must store pesticides in their original container.
- When filling your spray tank, you **must** have a backflow preventer in line.
- The Department of Agriculture will be running inspections of golf courses this year.
- You **must** report spills of all pesticides on non-target areas, no matter the size.
- Eligibility for 90% reimbursement on reported spills is reviewed.
- On USTs installed before 1988, you must have corrosion protection and spill/overflow prevention installed by 1998.
- On all USTs installed before 1974, you **must** have leak detection now; on tanks installed between 1975-1979, you have until 1992 to install leak detection; on tanks installed between 1980-1988,

you have until 1993 to install leak detection.

- You **must** register all UST and Aboveground Storage Tanks (AST) with the State of Minnesota.
- Only requested tanks are eligible for the Petro Fund.
- Hazardous wastes will soon be collected by the state of Minnesota under a new program.

This guideline is for superintendents by superintendents. This is a professional document to help you and your club achieve compliance with environmental regulation. We will be revising chapters and adding new ones as time goes on.

Another matter of concern to golf courses is a proposed ban on mercury fungicides. The House of Representatives introduced a bill (House File 160) that would ban the use of mercury fungicides

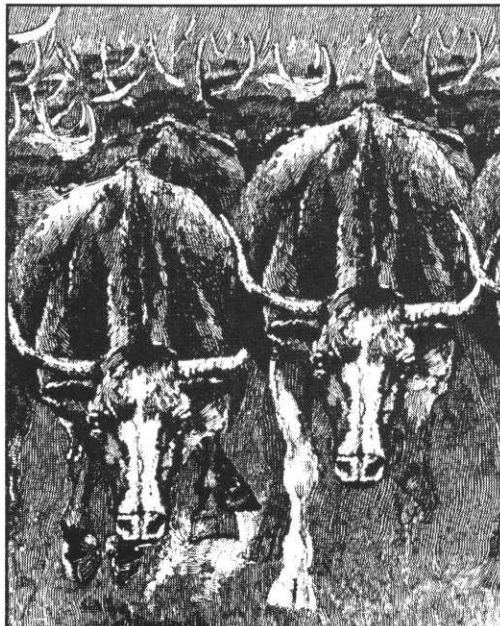
on golf courses by January 1, 1992. Dr. Ward Stienstra and myself testified to the House Committee on Environmental and Natural Resources in behalf of the MGCSA in opposition to the ban. The testimony went well, but the committee passed the bill anyway. As of this writing, the bill is in the Appropriations Committee seeking funds. Our best chance is that this bill will die in committee. It also doesn't have support of our governor, so he could veto it unless it gets stuck onto some conglomeration of a bill package.

I will keep you informed as more information comes along. But in the meantime, some alternative snow mold prevention measures should be considered. Even if we survive this episode of a proposed ban on mercury, the future of the product is, at best, clouded.

## STOLEN

Three (3) Mower decks & Three (3) Verticutters for a Jacobsen Greens Mower were stolen from Sleepy Eye Golf Course over the weekend of March 23-24.

Any information or questions, please call Dave Rubey, Sleepy Eye Golf Course at (507) 794-7802.



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