

Annual Open House and Equipment Sale

TORO

**3 BIG DAYS IN PLYMOUTH
2 BIG DAYS IN FARGO**

TORO

9:00 a.m. — 4:00 p.m.

In Plymouth

- ★ Tuesday, Oct. 10, 1995
- ★ Wednesday, Oct. 11, 1995
- ★ Thursday, Oct. 12, 1995

14900 - 21st Avenue N. • Plymouth, MN 55447-4655

In Fargo

- ★ Wednesday, Oct. 18, 1995
- ★ Thursday, October 19, 1995

4310 Main Avenue • Fargo, ND 58104

End of Season Close-Out Specials

- ★ Used, Demo, and New Equipment plus some miscellaneous items on sale.
- ★ Your Sales Representatives will be on hand!
- ★ Financing available; a Bank Representative will be on site to assist you.

FIRST-TIME ONLY

**NEW DISCONTINUED EQUIPMENT — 50% SAVINGS (WOOD CHIPPERS)
LIMITED QUANTITY**

*Blow-Out/
Close-Out on
Turco Tow-Type
Top Dressers*

*Blow-Out/
Close-Out on
Turco Tow-Type
Top Dressers*

USED EQUIPMENT

(over 100 to choose from)

- ★ Greensmowers, All Brands
- ★ Rotaries from 52" to 16 ft. (20 to choose from)
- ★ Tractor with Loaders (5 on hand)
- ★ Fairway Mowers, All Brands
- ★ Tee/Utility Mowers
- ★ Lots of Misc., Cabs, Brooms, Snowblowers
- ★ Parkmasters, F-10's
- ★ Skid Loaders
- ★ Cushman Truckster (many)

DEMO EQUIPMENT

(over 70 to choose from)

- ★ Rotary Mowers, 2-3-4-500 Series
 - ★ Riding Greensmowers - GR3000, GR3100
 - ★ Walk Greens Mowers - GR1000, 500
 - ★ Workman Vehicles - 2 & 4WD, Gas/Diesel
 - ★ Fairway Mowers - 5100, 5300, 6500
 - ★ Turf Sweeper, 4800 HL (1 only)
 - ★ H.D. Triplex RM3500
 - ★ 216, Triplex, 2 & 3WD, Gas/Diesel
- ...plus many other demo's*

Bring In Your Grass Clippings & We'll Test Them

Increase Root depth and mass — N.I.R. Tissue Testing Demonstrations (Nutrient Levels Identified)

Special Deals on Sustane Fertilizers & Spreaders

(20% discount on 3-Point Spreaders (4 sizes) with a minimum 1-ton order)

Big Discount on all Standard & Par Aide in Stock

Miscellaneous Parts Specials

Clearance on Irrigation Supplies

Pumps, Controllers, Sprinklers, Valves

New 3-Point Hitch Equipment

Chippers - Blades - Cutters - Scrapers - Fertilizer Spreaders - Aerators

***NOTE: Items will
differ between
Plymouth and Fargo**

**Barbecue on the Grill!
...served from
11:30 a.m.—1:30 p.m.**

MTI DISTRIBUTING CO.

TORO

14900 21ST AVE. NO., PLYMOUTH, MN 55447
(612) 475-2200 • 1-800-362-3665

HOLE NOTES

Official Publication
of the
Minnesota Golf Course
Superintendents' Association

1994-95 MGCSA BOARD OF DIRECTORS

Officers

President Kevin Clunis, CGCS
St. Croix National Golf Club
715/247-4260 • Fax: 715/247-4266

Vice-President James Gardner, CGCS
Rochester G&CC
507/281-3241 • Fax: 507/282-8682

Secretary John Granholt
Eau Claire G&CC
715/836-8422 • Fax: 715/836-8425

Treasurer Tom Kientzle, CGCS
The Pines at Grand View Lodge
218/963-7732 • Fax: 218/963-2269

Ex-Officio Joe Moris
Tartan Park GC
612/736-8791 • Fax: 612/733-5009

Directors

William S. Cox Tianna CC
218/547-2141 • Fax: 218/547-1710

Butch Greeninger MTI Distributing Co.
612/475-2200 ext. 202 • Fax: 612/475-0351

Richard Grundstrom Indian Hills GC
612/770-3091 • Fax: 612/770-2302

Thomas Johnson New Richmond GC
715/246-4850 • Fax: 715/246-7059

Monty Montague National Mower/
Turfo Mfg., Inc.
612/646-4079 • Fax: 612/646-2887

Charlie Pooch .. Les Bolstad U of Minn. GC
612/627-4138

Dave Sime Benson GC
612/843-2109

Fred Taylor Mankato GC
507/388-2546 • Fax: 507/387-4991

Pat Walton, CGCS Rolling Green CC
612/478-2179 • Fax: 612-478-6025

EDITORIAL COMMITTEE

Tom Johnson
Scott Turtinen
Larry Vetter

EDITOR

Tom Johnson

Editorial and Business Office
Scott Turtinen, Executive Director
Minnesota Golf Course
Superintendents' Association
240 Minnetonka Avenue South/P.O. Box 617
Wayzata, Minnesota 55391-1617
TEL: 612/473-0557 • FAX: 612/473-0576
TOLL FREE: 800-642-7227

FROM YOUR PRESIDENT'S DESK

The Second Season



The game is over. The hockey season has come to a close. Almost. The regular season is done but the playoffs are ready to start. The body of this old hockey player hurts all over. But somehow, some way, one must see it through to the very end and do the best job possible. A second season to make up from what the regular did not accomplish.

This season was one of the most stressful on plants, as well as humans, that we have faced (survived) in quite a few years. Reports ranged from fair turf conditions to poor. Playing "temporary greens" is not a pleasant term used around anyone associated with golf. But as some superintendents are waiting anxiously for the season to come to an end, the second season should begin. It is a time to renovate and return the golf course to as good condition as possible before the real end when Old Man Winter returns. Somehow, we must pick ourselves up and proceed as we know best. What we do now, the golfers will appreciate next year.

* * * *

Life seems to be going by at a faster and faster pace. Our jobs become more demanding, our families demand more attention and our free time diminishes. This trend is not only felt from our association, but from all walks of life. What the results of this one is that the time to do what we want to and do things we might like to do is making a major problem for our association. It became evident when Joe Moris began looking for candidates to run for the Board of Directors. Time after time he was told no, with most of the reasons being "not enough time, too busy with work." Volunteering to run for directors does take time. The work this Board has accomplished is tremendous. Getting involved in our association is *your* responsibility. This is ours together and cooperation by everyone is expected. Joe was able to round up a great slate of candidates after *way* to many calls and visits. Please think about this responsibility we have as members of this association. I will be expecting more cooperation next year at this time than was shown this year.

* * * *

Surveys are coming back and results are being tabulated. It is not too late to send the survey in if you have not done so. If we don't hear from you, we will be looking for you. Part of the responsibility of this Board will be to have 100% response from member clubs. We hope to have results back by the December Conference.

* * * *

Speaking of the conference, Fred Taylor and the rest of the committee are putting the final touches on this year's extravaganza. The conference position will have many more speakers than last year and the trade show is looking for 300 booths, double from last year. Please look for information and registration forms coming soon.

* * * *

I would like to thank all the participants at this year's Stodola Scramble. A debt of gratitude is owed to The Minikahda Club and Town & Country Club for allowing our association to host our prestigious event. Thank you to Doug Mahal, Bill Larson and their respective staffs for having their courses in excellent shape.

While I was unable to attend the Stodola Scramble, I was representing our association at a reception at Somerset Country Club, hosted by the USGA, honoring the state of Minnesota for being the first state to host all 13 USGA championships. It was a wonderful evening, capped off by surprise speeches from Patty Berg and Les Bolstad. It was delightful to listen to stories of golf from years before. What came to mind while I listened is that golf really hasn't changed, only that there is more participation. The game has tradition and let's be proud to be part of it!

— Kevin Clunis, CGCS, President

HOLE NOTES is published monthly except bimonthly December/January, February/March for \$2 an issue or \$20 per year by the Minnesota Golf Course Superintendents Association, 240 Minnetonka Avenue South, Wayzata, MN 55391-1617. Scott Turtinen, Publisher. Application to mail at second class rates is pending at Wayzata, MN. POSTMASTER: Send address changes to HOLE NOTES, 240 Minnetonka Avenue South, Wayzata, MN 55391-1617.

Inside This Issue of Hole Notes

- 5 Sunny Skies Shine For 11th Stodola Scramble**
- 6 Experience a Big Factor in Preparing Course for Winter**
By Edward Mason
- 10 Protect Your Most Valuable Asset**
By Kalani Voeller
- 10 Impacts of Congressional Action/EPA's Appropriations**
By EPA Office of Water
- 12 Turfgrass Nitrogen Sources**
By Donald V. Waddington
- 18 If It Isn't Green!**
By Dick Morey
- 20 Can We Talk? Is Productive Communication Possible?**
By Pat Kriksceonaltis
- 25 Baker National Recognized For Environmental Excellence**
By Keith Greeninger
- 29 Cushman Motor Co., Inc. Increases Sales Force**
- 35 Training Investment Returns Long-Term Dividends**
By Patty Knaggs and Steven M. Hamelau
- 36 Equipment Wash-Water Disposal Options**
By Scot Ender

Departments

- 3 From Your President's Desk**
By Kevin Clunis
- 16 U of M Update**
By Phil Larsen
- 27 New Products**
By Associate Members
- 29 Membership Report**
By David Sime

- 31 National News**
By GCSAA
- 38 Editor's Corner**
By Tom Johnson

Advertisers

Aerway	16
American Irrigation	22
Bio Pro	37
Classifieds	37
Country Club Turf	15
Cushman Motor Co.	21
Duininck Bros.	Back Cover
ECHO	27
Glenn Rehbein Companies	30
Leitner Company	19
LESCO	16
Minnesota Golf Cars	Inside Back Cover
MTI Distributing Co.	Inside Front Cover
MTI Distributing Co.	7
MTI Distributing Co.	34
North Star Turf	24
North Star Turf	32
Par Ex	20
Paskvan Consulting	4
P&H Warehouse	30
Plaisted Companies	26
Polfus Implement	11
Precision Turf & Chemical, Inc.	28
Prinsco	9
Rohling Green Corp.	27
Superior Tech Products	17
Turf Supply	23
Twin City Seed	29
Twin City Swinger, Inc.	35
Williams & Gill	14



Paskvan Consulting

Route 1 Box 77A
Akeley, MN 56433
218-652-3542
Fax 218-652-2949

Where Success is Never an Accident

Specialists in Soil and Plant Nutrition
Tailored to Golf Courses and Sports Turf

Services Provided:

Complete inventory of the soils on the course or job site
Sampling, analyzing, delivery and interpretation of the results to eliminate guesswork
Help find corrective fertilizer materials to save money
Physical analysis on sand-soil-peat to determine proper mixing for greens and topdressing
Fast turn around time, yet quality is never compromised

Sunny Skies Shine For 11th Stodola Research Scramble

Sunny skies and warm weather were on tap for the 11th Annual Harold Stodola Research Scramble held September 11. Town & Country Club and The Minikahda Club were wonderful hosts to 168 players who help raise money for turf research. Both golf courses were in great shape, thanks to Bill Larson, Doug Mahal and their crews.

At Town & Country, the team of Cliff Reynolds, Jim Huettl, Jr., Andy Huettl and Robert Cliff of Lake City CC captured low gross honors with a 59. Runner-up and four strokes back was the Glencoe CC team of Bryan Koepf, Merrill Nelson, Randy Eggergluess and Benny Menton.



BILL LARSON
Host Superintendent
Town & Country Club



DOUG MAHAL
Host Superintendent
The Minikahda Club

Low Net honors went to the team of Jay Gustafson, Bob Dubovich, Steve Dewar and Ron Smith of Swan Lake CC. They shot 59. Second place in the Net Division went to Charlie Pooch, Russ Adams, Jim Peloquin and Chris Korbol representing the Les Bolstad University of Minnesota GC.

At The Minikahda Club, the team of Richard Kolter, Brian Paulsen, Mike Gustomski and Dennis Cleveland of Westfield GC won low gross with a 59. A mixed team of Don Egeberg, Chuck Egeberg, Paul Diegnau and Dale Parske were second at 62.

The home course team of Doug Mahal, Mike Brower, Bill Jenkins and Hank Wilkinson shot a net 58 to win the Net Division at Minikahda. Second place went to the Grand View Lodge team of Tom Kientzle, Mark Neva, Mark Ronnei and Fred Boos by shooting a 58½. These Pines people must know how to shoot a half a stroke!

TOWN & COUNTRY RESULTS

Gross Division

Cliff Reynolds, Jim Huettl, Jr.
Andy Huettl and Robert Cliff
Lake City CC 59

Bryan Koepf, Merrill Nelson,
Randy Eggergluess and Benny Menton
Glencoe CC 63

Net Division

Jay Gustafson, Bob Dubovich,
Steve Dewar and Ron Smith
Swan Lake CC 59

Charlie Pooch, Russ Adams,
Jim Peloquin and Chris Korbol
Les Bolstad University of Minnesota GC 60

THE MINIKAHDA CLUB

Gross Division

Richard Kolter, Brian Paulson,
Mike Gustomski and Dennis Cleveland
Westfield GC 59

Donald Egeberg, Paul Diegnau,
Chuck Egeberg and Dale Parske
Clifton Hollow GC 62

John Beyer, Mark Johnson,
David Mooty and Charlie Lepper
Pine Meadows 63

Mike Olson, Bill Coggins,
Chris Ostrom and Don Fink
Golden Valley CC 64

Jim Nicol, Rick Littlejohn,
Peter Krause and Jack Dellis
Bunker Hills GC 65

Cary Femrite, Jeff Larsen,
Joe Beuge and Jeff Backstrom
Pebble Creek CC 65

Net Division

Doug Mahal, Mike Brower,
Bill Jenkins and Hank Wilkinson
The Minikahda Club 58

Tom Kientzle, Mark Neva,
Mark Ronnei & Fred Boos
The Pines at Grand View Lodge 58½

Steve Schumacher, Steve Willock,
Chip Glaser and Joe Dinnebieer
Izaty's Golf & Yacht Club 59½

Tom Feriancek, Bernie Bartholomew,
Rick Sewald & John O'Connor
Hastings CC 60

Tom Fischer, Linda St. John,
Craig Kapitan & Bob Woolman
Edinburgh USA 61

Pat Walton, Robert Thaemert,
Larry Olson and Billy Soule
Rolling Green CC 61

Experience a Big Factor in Preparing Course for Winter

Winter is a fact of life for golf courses in Canada. The effects of ice damage and snow mold may be relative strangers to the lower mainland of British Columbia, but everywhere else across the country, the annual battle to prepare greens and fairways to survive from November through April is a critical aspect of a superintendent's life.

"Basically, you're preparing for the winter from the word go," says Ted Tom, Superintendent of Uplands Golf Club in Thornhill, Ont. "You are trying to keep the grass healthy to survive the winter by your efforts year-round."

But fall has its specific cycle of activities for a maintenance crew, and every green on every course needs some attention. Local conditions produce local philosophies and tactics, but there are a number of constants.

Most courses see their fall work cycle beginning in August. Parker Sutherland, of Selkirk Golf & Country Club in Manitoba, says, at this time, he reduces or eliminates nitrogen-rich fertilizer, and starts applying potash. This enables the grass to store carbohydrates for the winter, but doesn't prompt the grass to start fresh, lush growth which could invite disease in the winter months.

Aeration is a standard procedure on many courses, combined with removal of the cores the process produces. For Franz Hasenhundl, of Hillsdale Golf & Country Club in Ste-Therese, Que., this is an important step to prevent compaction of the ground after the playing season, when its tramping golfers and its golf carts, have done their worst. With this loosening process, the turf is better able to absorb moisture, so it doesn't collect around the crowns of the grass plants.

Ice Damage

"We do this in fall and in spring, and if possible in mid-season too,"

Canada's wide range of climatic conditions calls for a variety of responses by superintendents to the challenges of the Canadian winter period.

By Edward Mason

Hasenhundl says. "Our biggest problem here is ice-damage, so we have to deal with it by a variety of means."

Aeration also gives better rooting, and removes some of the thatch of dead grass-roots that can be a harbor for disease. It's not a universal fall practice; Saskatchewan's low winter snowfall, for example, makes it of dubious value for drainage purposes, but even there aeration is usually practiced through the playing season.

A favorite protection in prairie areas is using flax straw, from a crop grown by local farmers.

Most courses in Canada will raise their mowing height about a month before the playing season ends. This allows the grass a chance to strengthen itself for the cold weather.

And, of course, there's the necessity of blowing out the irrigation system with compressed air once there's a serious threat of frost. In some areas, even this doesn't prevent damage to the pipes. Ken Creighton, of Mactaquac Provincial Park Golf Club in New

Brunswick says the frost level in his area goes down as much as five or six feet, so that the shifting that results often causes springtime problems, especially when water is forced back into the system.

"Some years, it's May before the ground thaws completely," he says. "That also means we have a shortened growing season to cope with."

Dealing With Mold

Pink Snow Mold belies its name by appearing in some areas as early as October, when heavy rains and cold nights give it an opportunity to get a foothold, and make conditions more favorable for the grey snow mold that grows beneath the snow-cap. Many superintendents still make an educated guess about fungicide spraying and apply their first dose just before the snow arrives.

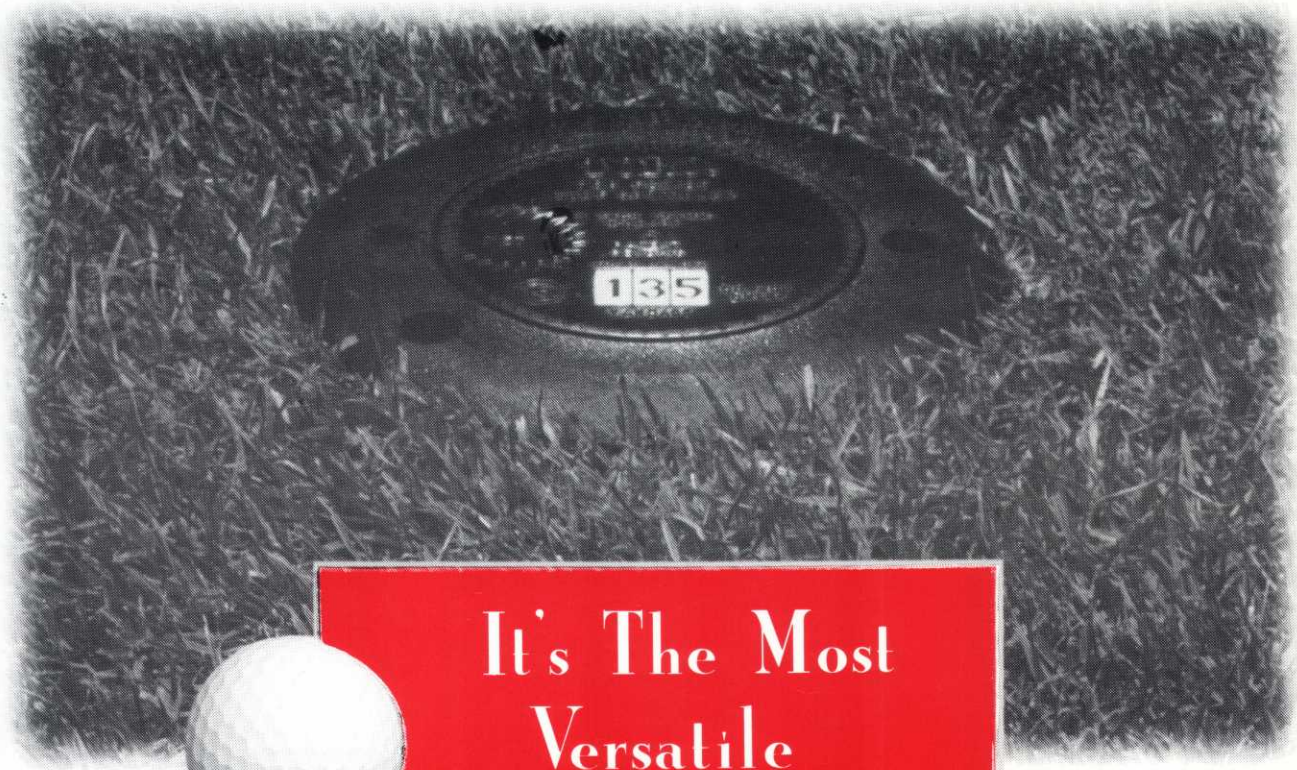
"The old school of thinking was to spray just before the first snowfall," says Tom. "But sometimes that means you have to put it down on top of the snow, because you got caught."

There's also the problem that Pink Snow Mold often crops up early as a result of damp, cool conditions. Once it has a hold, it weakens the grass on the greens for the attacks of Grey Snow Mold once the snow does come down.

Sutherland prefers to make a first application of fungicide in September, a second in October, and a last one at some point before snow is predicted. This keeps the grass in optimum shape and offsets the possibility of fall rains washing fungicide away. Some broad spectrum treatments are known to wash off quite easily, while mold-specific types are less prone to do so.

The problem facing Canadian superintendents is greater than that for their United States counterparts. There is an adequate range of pesti-

(Continued on Page 8)



It's The Most Versatile Yardage Marker You Can Get.

135

At Toro, we want you to get your money's worth. That's why our yardage markers can do so much.

Take versatility. Whether your system is block, electric or hydraulic (normally open or normally closed), there's a Toro model that's just right.



Take water efficiency. With precision-engineered nozzles, water distribution is more uniform, which translates to healthier turf.

As for energy savings, their unique body/riser design limits friction loss as water flows through the head, requiring much less energy.

So they're efficient even with smaller pump stations.

A great sprinkler and a yardage marker, too. Toro gives you both for the price of one.



The Toro 760, 730, 780 & 750.

TORO

MTI DISTRIBUTING CO.

TORO

14900 - 21ST AVENUE NORTH • PLYMOUTH, MINNESOTA 55447
PHONE (612) 475-2200 • FAX (612) 475-0351

Preparing For Winter—

(Continued from Page 6)

cides available, but increasingly, the best new US or European products are not seen in Canada.

"I wish we could have a broader range of fungicides," says Wayne Brown, superintendent of the Red Deer Golf & Country Club in Alberta. "We have a fairly short list because the approvals process is so long and expensive. Who's going to pay hundreds of thousands to get Canadian approval, when they'll only sell a couple of hundred bags every year?"

At present, there is no sign of any shortening of the Canadian approvals process by admitting United States research data as valid.

Covering Greens

Once the greens—or sometimes the fairways and tees, at wealthier courses—are treated, there's the question of covering greens against ice. There's still debate over exactly what ice does to grass. Some experts hold that the ice traps the plant's carbon-dioxide, slowly poisoning it, while others think standing water seeps into the plants' crowns, raising their freezing point and destroying the cell structure. But it's indisputable that if too much ice sits for too long on top of grass, or worse still if a pattern of thawing and freezing happens, it spells trouble.

"We often have a January thaw in this part of New Brunswick," says Creighton. "Around March, that refrozen water is causing your problems. Sometimes I'll take a chain-saw and make cuts 10 feet apart, and two inches wide, so that melting water from the snow and ice on the green drains off onto the fairways."

An alternative approach he uses is to sprinkle a black fertilizer on the ice, which absorbs sunlight to create melting and air-pockets in the ice. It's then much easier to push or shovel the ice off the green without damaging the surface.

Ashley LeGeyt, of Gallaghers Canyon Golf Resort in Kelowna, B.C.,

says with his short winter season (mid-November to mid-March), he likes to plough what snow he has from the greens in late February, and put down a blanket to encourage spring growth. This also protects against the spring cycle of freeze-thaw damaging the crowns of the plants.

"This is classified as a semi-arid region," he says, "and we normally see only 12 inches of snow and rain a year. This particular course is carved out of the forest above the town of Kelowna, which means it gets more snow than the valley bottom 600 feet below us, but I haven't had a need for blankets and straw through the winter."

Kelowna also has the advantage that the ground only freezes down to a few inches. This means spring growth can start much earlier.

Variety of Methods

Just as every superintendent has his preferred fungicides, so too there's a wide variety of covering methods.

Regular straw, once a favorite, is out of favor in most places these days, unless it's combined with something else. Tom echoes a widely held opinion when he says he feels it can kill the green.

"On its own," he says, "straw can create heat, which you don't want. If you have a cover between the straw and the green, then it's probably okay."

Franz Hasenhundl in Ste-Therese, like Creighton in Mactaquac, uses straw with a permeable blanket underneath on his problem greens and an impermeable blanket on top. The blankets, Hasenhundl says, are costly, but they last four to five seasons.

"Straw itself is little cost," he says, "it's just the labor factor in putting it down." The sandwich approach of this system allows for venting at the lowest level, but also keeps snow and ice off the green surface.

The impermeable plastic-sheet blankets are relatively new in Canada, having been widely available since only 1990-91. Although some superintendents have worried they don't allow carbon-dioxide to escape, none of the superintendents contacted for this article reported any

difficulties from CO2 poisoning of grass.

There's still debate over exactly what ice does to grass. Some experts hold that ice traps the plant's carbon-dioxide, slowly poisoning it, while others think standing water seeps into the plants' crowns, raising their freezing point and destroying the cell structure.

Peat-moss and sand top dressing, used exclusively in some areas as winter protection, are used in others as an additional covering for the crowns of the grass. Brown in Red Deer uses such a dressing, usually without covers, except on greens where exposure to winds means the snow itself can be blown off, exposing the top dressing. Last winter, he says, his course experienced ice damage, so he is considering using blankets on some greens this year.

Flax Straw Useful

A favorite protection in prairie areas is using flax straw from a crop grown by local farmers. Glen Trentini, of Emerald Park Golf and Country Club near Regina, says this has the ability to bind like wire, and does not blow off the way normal straw does.

"Our problem here is wind," he says, "and most of our 90 sand traps get blown out in the winter. I spend up to \$20,000 a year on replacing the silica sand we use, and nothing else I've tried has worked any better.

"So, tarpaulins are too hard to hold down on top of greens through the winter, but the flax straw stays." He estimates he uses 200 bales of it annually.

Sutherland in Selkirk also favors flax straw, applying it to greens at between 12 and 18 inches deep, which amounts to three round bales per

(Continued on Page 9)

Preparing For Winter—

(Continued from Page 8)

5,000 sq. ft.

"There are two problems with flax," he says. "First, it's very labor intensive to apply, and second, you have to be choosy about your flax. It has to be good clean straw, with no other plant material in it."

Flax straw does hold water, and this can be a problem in very low-lying areas. However, Sutherland says it seems to keep the moisture in most cases above green level. His part of Manitoba is not prone to freeze-thaw spring conditions, although they were a problem two years ago, so ice damage is not a major threat for him.

While it's the greens that command any superintendent's attention, there are other parts of course maintenance that call for attention in fall. While Trentini's course was designed to have few trees, Hasenhundl's in Ste-Therese is much more wooded. Once the leaves are off the branches, he has his crew trimming dead or hazardous branches.

Pink Snow Mold belies its name by appearing in some areas as early as October, when heavy rains and cold nights give it an opportunity to get a foothold, and make conditions more favorable for the grey snow mold that grows beneath the snow-cap.

"Essentially, we're under snow here all winter," he says, "so everything comes to a halt. But if we wanted to build a lake, late fall or winter is maybe a good time to do the work on that."

Tom cautions that while labor has to be a consideration, planning with good ergonomics in mind is the crucial thing. A superintendent needs to

develop a grasp of how his course's micro-climate operates, and how to moderate nature's harshness.

Creighton, for example, has a course with greens designed to drain in one direction. He is now re-engineering the drainage on them over a 10-year period, so that frost water and water from melting snow can drain in more than one direction. This will help when the deep frost-line thaws in spring.

"You have to keep up to date with new knowledge," Tom says. "Seminars are important, because as we find out more about the response of grass to winter, so we can plan to protect it better."

Edward Mason is a professional business writer and editor with detailed experience in technical and management topics.

CORRUGATED POLYETHYLENE PIPE

Prinsco pipe
will keep your greens
and fairways dry...
and always
ready to play.



PRINSCO INC

Manufacturer of GOLDFLO Dual-Wall and
GOLDLINE Corrugated Polyethylene Pipe

800-992-1725

**CALL FOR A FREE CATALOG
and the distributor nearest you.**

Protect Your Most Valuable Asset

By Kalani Voeller
Golf Course Superintendent
Waialeale Golf Club, Hawaii

From planning to day-to-day operations to long-term management, GCSAA superintendents will help protect your golf course investment.

Especially during planning and construction, superintendents provide a wealth of information and ideas that prevent future maintenance problems. Services they may provide include:

- Assist in selecting and installing the irrigation system best suited to the course.
- Change drainage patterns to avoid seed loss and future problems.
- Offer design ideas that lead to reasonable maintenance costs, such as grading of mounds/berms, fairway outlines and bunker shapes.
- Offer design ideas to achieve top playing conditions with available budget.
- Coordinate contractors to insure correct timing of events (i.e., large trees moved or planted before installing irrigation system).
- Guide staffing and equipment needs.
- Implement maintenance for trees that aren't being moved or eliminated.

- Develop adequate area for greens and fairway grass nurseries.
- Recommend tree placement to limit liability of errant shots off the tee, especially if course is bordered by residential areas.
- Begin a nursery for trees and plantings to keep landscaping costs in line.
- Call on resources to conduct research on the grasses suited to conditions.
- Begin early fertilizer and plant protectant programs as areas are developed.
- Provide efficient and early design criteria for maintenance facility.
- Ensure course is constructed of tested materials placed at consistent depths.

Impacts of Congressional Action Regarding EPA's Appropriations

The following is an excerpt from a Summary of Impacts of Congressional Action Regarding EPA's Appropriations issued by the EPA Office of Water:

Summary

Beginning Oct. 1, 1996 and until the Clean Water Act (CWA) is reauthorized, the appropriations bill prohibits funding for:

- Implementations or enforcement of stormwater permitting programs.
- Enforcement of permit limits or compliance schedules for combined sewer overflows or sanitary sewer overflows.
- Implementation or enforcement of CWA section 404 (wetlands provisions).
- Development or implementation of new or revised effluent limitation guidelines, pretreatment standards and new source performance standards.
- Development or implementation of new or revised water quality standards
- Nonpoint source grants (\$100 million)
- State Revolving Funds

(Continued on Page 29)

Less than Half the Cost

* Statistical Averages:

Average Rounds of Golf Per Year 40,900
x Average Cost per Round \$20

Average Green Fee Revenues \$818,000
Average Golf Course Maintenance Budget. \$386,462

Statistic: Golf course maintenance expenses represent approximately 47 percent of revenue generated from average green fees.

For more specific information, request both 1994 Golf Course Operations Reports: *Cost of Doing Business/Profitability* and *Maintenance Budgets and Equipment Inventories*. Price: \$75 each for GCSAA members and \$110 each for non-members. Call 800/97-GCSAA to order.

—GCSAA Research Report:
*Golf Course Operations
Cost of Doing Business.*

* based on all courses in U.S.