

Green Construction—

(Continued from Page 12)

to the turf by the supplier. The final organic matter content of the mix must be between 1-5% by weight (ideally 2-4%).

If soil is used in the mix, it must have a minimum sand content of 60% and a clay content between 5% and 20%. The final mix must still conform to the revised guidelines for particle size distribution.

Several root zone physical properties have been modified:

Total porosity: 35-55% (previously 35-50%)
Air-filled porosity: 20-30% (previously 15-25%)

Saturated Conductivity (percolation rate)

Normal range: 6-11 in/hr (15/30 cm/hr)
Accelerated range: 12-24 in/hr (30-60 cm/hr)

SOIL FUMIGATION: Sterilization required prior to establishment of turf only 1) in areas prone to severe nematode problems 2) in areas prone to grassy weed or nutsedge problems, or 3) when the root zone contains unsterilized soil—otherwise optional.

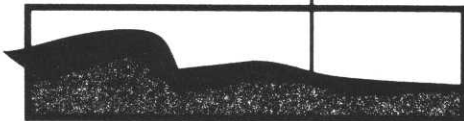
The complete recommendations became available in January 1993. For a copy, contact the USGA Green Section, Great Lakes Region, 11431 N. Port Washington, Rd., Suite 203, Mequon, Wisconsin, 53092, or call 414-241-8742.

Superintendents' 'Bull' Session To Be Held March 23 in Alexandria

A group of Central Minnesota Superintendents is getting together on Tuesday, March 23, 1993, at the Alexandria Golf Club at 10:00 a.m. to discuss course maintenance topics. Round table discussions of any topic will be fielded. Should you be able to attend, please call Steve Hamelau at 612-762-2004. All superintendents in the tri-state region are welcomed. Our past couple of meetings have lasted about five hours, with several people in and out between this time.

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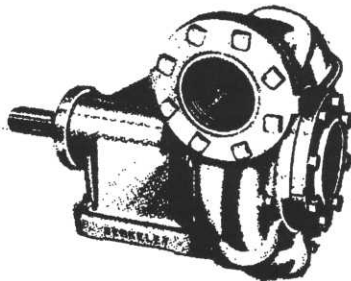


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S & R Program—

(Continued from Page 20)

for the first four months of the program.

"We believe that 'participatory' programs will become an important part of the funding for the GCSAA S&R foundation," said GCSAA President William R. Roberts, CGCS. "We're encouraging companies to think creatively and find ways to reinvest in the golf course industry."

In addition to partnership programs, GCSAA S&R also receives unrestricted support from a number of leading turf industry companies through its Platinum Tee Club. The Platinum Tee Club is composed of organizations that annually donate \$5,000 or more to GCSAA S&R. Besides companies previously listed, other corporate Platinum Tee members include American Golf Corp., DowElanco Products Co., E-Z-GO Division of Textron, Inc., Jacobsen Division of Textron, Inc., Monsanto Agriculture Group, Rhone-Poulenc Ag Co., Scott's Pro-Turf Division and The Toro Co.

Corporate support also comes through GCSAA's Golden Tee Club, composed of organizations that annually donate between \$1,000 and \$5,000 to GCSAA S&R. Corporate members of the Golden Tee Club currently include Hunter Industries and National Mower Co.

GCSAA S&R is a 36-year-old foundation dedicated to providing educational and scientific advancement for the golf course industry.

Irrigation Expansion – Pebble Creek Rough

By **CARY FEMRITE**

Pebble Creek Head Superintendent

It was Fall of 1989. After enduring two years of severe drought, reseeding 75 acres of rough, losing our primary water source and drilling a new well, we finally decided to expand our irrigation system. With concerns of future water restrictions, limited well drilling and added costs in the future, the city council was convinced the expansion was justified. If you are presently considering expansion or are under new construction, hopefully this article will answer some questions or help you determine your needs.

Since the original system was Toro, it was agreed upon to expand with similar equipment. I conferred with our Toro representative and reviewed the existing system to arrive at expansion cost estimates for budgeting purposes.

Pipesizing coming out of the pumphouse was substantial enough to adequately increase pumping capacity without repiping the mainlines. A 40 h.p. centrifugal pump was added to the present 40 h.p. and 20 h.p. system. This brought total pumping gallonage to 850 g.p.m. We added another wet well to reduce the change of a vortex through increased drawdown from pumping.

From this point we proceeded to determine coverage on all non-irrigated areas. Footages were measured from perimeters to existing lines to determine tie-ins, isolation valves and accurate head location.

Existing utilities were noted and sleeving locations under cart paths were highlighted. Sleeving is an added convenience during installation which aids future repairs. Consideration must be made to provide a slight bend creating side pressure in the sleeve because piping tends to vibrate inside the sleeve. Pipe sizing was laid out and double checked for correct pressure at perimeter locations. When the design was finalized and approved, the bidding process commenced.

The specification process is detailed and all areas of concern must be noted. Areas for concern are as follows:

- Previous contractor projects and references.
- Insurance and bonding.

- Crew size and foreman names.
- Starting and finishing dates.
- Penalty clause.
- Unit prices on materials list.
- Determine single or double head control.
- Approval of head locations.
- Power sources access.
- Change order process.
- As built design.
- Contractor warranties.
- Trench compaction.
- Pressure testing.
- Pump operation.

There are many additions to this list that can be specific to your needs. If you have additional projects like trenching or fountain wiring, you get prices on these also at bidding time.

After it was all done, 27,000 lin. ft. and 345 heads were installed. There were 20 areas where additions or deletions were determined. Gate valves were added, heads were relocated and piping was added. Total cost of the project was approximately \$170,000 or \$290.00/head for materials and \$158.00/head for labor. The project lasted approximately 4 weeks.

Areas of concern that needed to be communicated are glueing of tie-ins so as not to hinder watering cycles. The majority of glueing was done in the a.m., so glue would set up throughout the day.

The golf course enjoyed the benefits and versatility of the expansion immediately as we were able to water in newly fertilized rough areas and speed the grow-in. We even expanded our injectables such as wetting agents and liquid fertilizers. The benefits far out-weigh the costs. Our concerns include planning, budgeting and day-to-day monitoring during installation, plus becoming comfortable with the increased maintenance and operation.

Handling Pesticides—

(Continued from Page 11)

Try to contain spills by using a chemical spill absorbent. Keep people away from the area.

Chemtrec (Chemical Transportation Emergency Center) has a toll-free number (800-424-9300) that you can call day or night for help in chemical emergencies involving spills, leaks, fires or explosions.

The responsibility you and your employees show helping to prevent accidents and handling any problems that do arise will have a direct effect on how you are perceived in the community. A well-prepared staff will reflect well on you and the pesticide application industry.

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SUPERINTENDENTS

* * * *

Offensive Linemen of Golf

Have you ever felt that the only time you ever got noticed, as a golf course superintendent, is when something goes wrong on the golf course?

It kind of makes you feel like an offensive lineman in football. After all, when they're executing correctly, offensive linemen go unnoticed by the average fan. In fact, the only time you will hear an offensive lineman singled out in the NFL is after he has committed a penalty and the referee announces his number.

Recognition and fame on offense usually starts with the quarterback, then goes to the running backs, wide receivers and tight ends. Then come the offensive linemen.

But the truth of the matter is that the others would have little success if the offensive linemen weren't doing their jobs.

This anonymity is one of the reasons that good offensive linemen must have an enormous amount of self-esteem and

self-confidence. They must believe they are good performers, capable of blocking anyone they may face.

Without this inner confidence, an offensive lineman always will be thinking about being defeated and not focusing on what he must do on each and every play.

Go ask the golf pro at your club which football position he thinks he can relate to. The answer will undoubtedly be the quarterback. After all, it's the most glamorous big money position on the team.

When the offense is successful, the praise is directed toward the quarterback. When the offense fails, offensive linemen are usually at fault for lack of blocking.

Can you still relate? You bet!

Offensive linemen are the foundation for the whole team. They have to be solid. And they are.

In order to be successful, every position on a football team from the quarterback to the offensive lineman must work together to form a cohesive unit. Likewise, a partnership of mutual respect and understanding between the golf pro and the superintendent is invaluable to both. A true partnership is one in which the best interests of the club are promoted and maintained.

Have you ever wondered why we don't have a "Superintendent of the Year" award?

It's because of the same reason an offensive lineman doesn't win the NFL MVP award. There's nothing to base recognition upon. The only stat kept on an offensive lineman is his number of penalties.

Should the most valuable golf course superintendent be the one who has the fewest things go wrong in a year? Forget it! Recognition has to be a personal thing.

Use our friend, the good old offensive lineman, as an example. Mental toughness allows him to take the field on series after series, year after year. He knows each time that he is winning little battles that he ultimately will be rewarded with a team victory.

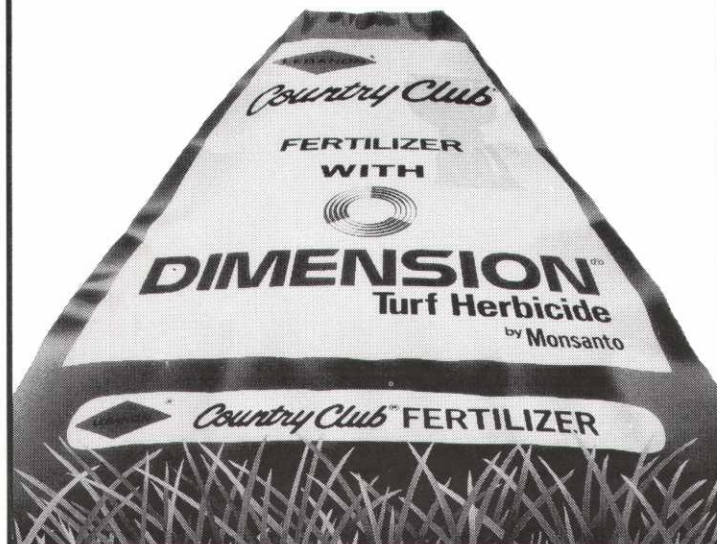
With mental toughness comes a willingness and stubbornness to keep on trying, plus an enormous pride in individual performance on each and every down.

A good offensive lineman hangs in there and takes the shot, then lines up and does it again. His durability is impressive. They never miss a game or practice during the season. They can't. There cannot be any surprises.

Sounds very familiar, doesn't it?

—Monroe Miller
The Grass Roots
Wisconsin GCSA

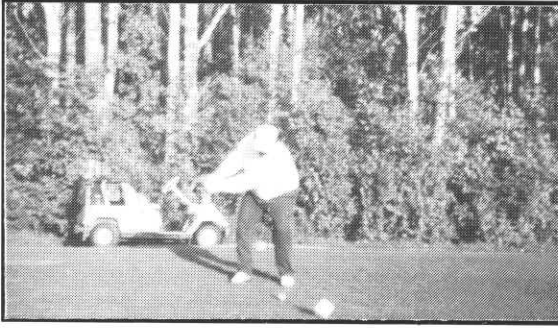
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1



Butch Greeninger begins his backswing with such speed that the clubhead is nearly invisible.

2



Weighted right foot is causing severe compaction while left toe is creating a "smear" divot.

3



A slight pause at the top of the swing while Butch decides which sod cutter he should represent.

4



With the decision made and eyes closed, full body weight is shifted and the end result? Ask Butch.

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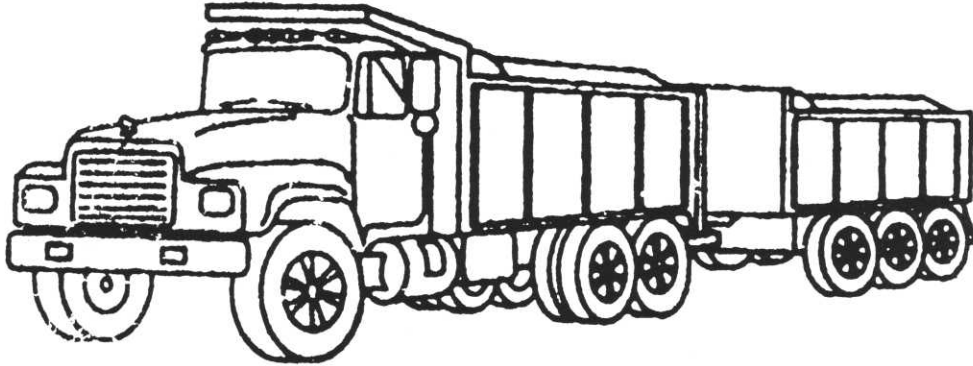
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NATURAL
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MEMBERSHIP REPORT

FEBRUARY 8, 1993
NORTHLAND INN

NEW MEMBERS—FEBRUARY 8, 1993

| | | | |
|---------------|--------------------------|-------|---|
| Bret Anderson | Central Power Dist. Inc. | Class | F |
| Art Casello | Lost Spur Country Club | | B |
| James Swart | Par 4 Shaping, Inc. | | F |
| Bob Steele | Mill Run Golf Course | | A |
| David Carlson | Prinsco Inc. | | F |

RECLASSIFICATIONS—FEBRUARY 8, 1993

| | | |
|-------------------|-------------------------|----------|
| Jay Gustafson | Swan Lake Country Club | BII to B |
| Wayde West | Rich Acres Golf Course | BII to B |
| Chuck Tuthill | Elk River Country Club | D to BII |
| Duane Slaughter | Stonebrook Golf Club | B to A |
| Jeffrey Backstrom | Cannon Golf Club | B to A |
| Blair Hawkins | Majestic Oaks | C to BII |
| Bill Goettl | Terrace View | BII to B |
| Richard Traver | Monticello Country Club | B to A |

John Granholt, Membership Chairman

North Star Turf Goes "National"

North Star Turf recently announced the addition of National Mowers to its product line. On January 1, 1993, North Star Turf will assume the distributorship of all National products previously distributed by Cushman Motor Company of St. Paul.

"We're extremely excited about the opportunity to offer the complete National line to our many customers," said Dan Miller, president of North Star. "National's reputation for manufacturing quality mowers for almost 75 years is something that we look forward to talking about."

North Star is currently stocking machines and parts and will begin servicing and sharpening all National products in its St. Paul service facility.

THE FUTURE IS HERE NOW!!

Banner - 15 gallon Turf Pak

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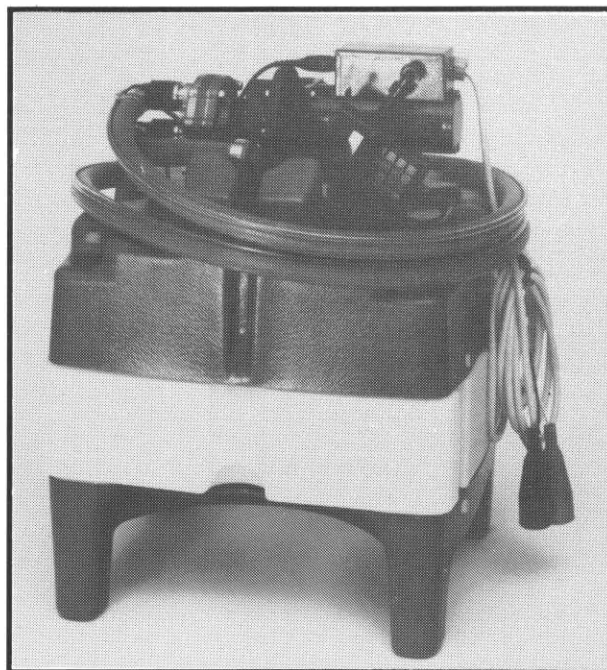
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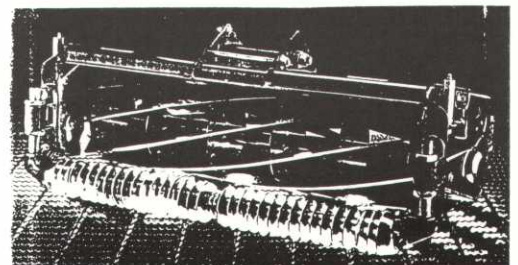
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EDITOR'S CORNER

By John Harris
Lafayette Club



So much has happened in the past few months that I have taken the liberty of writing an additional article surrounding the events and challenges that face us. It appears in this issue.

I know that you have exciting challenges and/or experiences, and are anxious to get them on paper and rush them (next day air) to our publication office. It's important that we hear from our members, who can add considerably to the reality of maintaining golf courses in Minnesota by submitting articles for our publication.

It is that time of year again, and I am sure most of you are making final preparations for the upcoming season. I anticipate that you all will be as successful as last year's *Hole Notes*. This publication was runner-up in its division at the national GCSAA competition of Chapter Newsletters.

I have never seen anyone attack this newsletter with the vigor that Dale Wysocki showed. We all owe him our gratitude.

* * * *

The Board of Directors has made a flyer available for those of you who wish to purchase a season pass to our regular monthly meetings. Some of you have expressed an interest in this procedure because of the nature of your billing practices. It now is available to you.

* * * *

The January meeting at Izaty's was low on attendance but apparently high on spirit. I personally did not attend, but my understanding is that we all missed out. Judging from the photos that Tom Kientzle took, the fishing wasn't too bad.

Our President also held a caucus at the lodge and at the Candy Cane Inn in Anaheim to "feel out" the membership on the now-defunct bylaws changes proposed by the GCSAA Board of Directors.

* * * *

I would like to thank Bill Larson and Mike Leitner for organizing an impromptu outing at Lutsen Lodge. A group of 20 sledders and downhill skiers enjoy a two-or-more-nights stay at the Village Inn. The snow conditions were very good, and the only casualty was Grant Wenkster, who had a close encounter with a tree. The outing as a whole was very successful, and it is hoped that it will become an annual event.

* * * *

March is Spring tune-up time for the mind. You should have received notice of the Pesticide Seminar to be held on March 10 at the Northland Inn. Those of you with current pesticide application licenses will be eligible for recertification at this time.

In addition, GCSAA will offer its Golf Course Design Principles Seminar on March 15-16 at the Northland Inn. At the time of this writing, there were still a few seats left.

Last but not least, the Spring Technician Seminar will be hosted by Midland Hills Country Club on March 30. This is an excellent opportunity for a member of your staff to receive first-rate training on pesticide application techniques.



Superintendents "schüss" downhill at Lutsen.

USGA Green Section Great Lakes Region 1993 Regional Conferences

March 11, 1993

WESTMOOR COUNTRY CLUB
MILWAUKEE, WISCONSIN

March 18, 1993

TOWN AND COUNTRY CLUB
ST. PAUL, MINNESOTA

REGISTRATION: 8:00 a.m. **PROGRAM:** 8:45 - 4:30
(A complete program will be mailed to MGCSA Members)

Tentative List of Subjects

Life After Mercury

A golf course superintendent's report from New York

Research Reports from the USGA Projects
on Turfgrass and the Environment

Issues Affecting Women's Golf

The Americans With Disabilities Act

New USGA Recommendations for Green Construction
Risks and Prevention of Skin Cancer

Evaluating and Regulating Golf Equipment by the USGA

Misconceptions Regarding the Rules of Golf

Vavrek's Great Lakes Year in Review

**For information contact USGA Green Section,
Great Lakes Region 414/241-8742 or
USGA Regional Affairs 606/331-4001.**