

# Topdressing Results—

(Continued from Page 9)

**Table 1**

## COLOR RATINGS and SURFACE TEMPERATURES

March 28, 1998

**River Falls Golf Club**

*Temperatures were taken approximately 4:00 p.m.*

Treatment	Color Rating*	Surface Temperature (°F)
Control — no topdressing .....	5.0a **	48.6a
Silica sand at 0.09-inch depth .....	6.0b	49.9a
Silica sand at 0.18-inch depth .....	6.0b	49.8a
Silica sand/peat at 0.09-inch depth ...	6.0b	50.2a
Silica sand/peat at 0.18-inch depth ...	7.0c	49.9a
Mortar sand at 0.09-inch depth .....	6.0b	48.9a
Mortar sand at 0.18-inch .....	7.0c	50.1a
Mortar sand/peat at 0.09-inch depth.	6.5bc	50.0a
Mortar sand/peat at 0.18-inch depth.	7.0c	49.6a

**Table 2**

## COLOR RATINGS and SURFACE TEMPERATURES

March 28, 1998

**St. Croix National Golf Club**

*Temperatures were taken approximately 2:30 p.m.*

Treatment	Color Rating*	Surface Temperature (°F)
Control — no topdressing .....	6.0a **	59.8b
Silica sand at 0.09-inch depth .....	6.0a	57.5b
Silica sand at 0.18-inch depth .....	6.0a	52.4a
Silica sand/peat at 0.09-inch depth ...	6.5ab	59.1a
Silica sand/peat at 0.18-inch depth ...	7.0abc	57.2b
Mortar sand at 0.09-inch depth .....	7.5bc	58.8b
Mortar sand at 0.18-inch depth .....	8.0c	58.4b
Mortar sand/peat at 0.09-inch depth.	8.0c	58.4b
Mortar sand/peat at 0.18-inch depth.	8.0c	60.0b

**Table 3**

## COLOR RATINGS and SURFACE TEMPERATURES

March 28, 1998

**Indian Hills Golf Club**

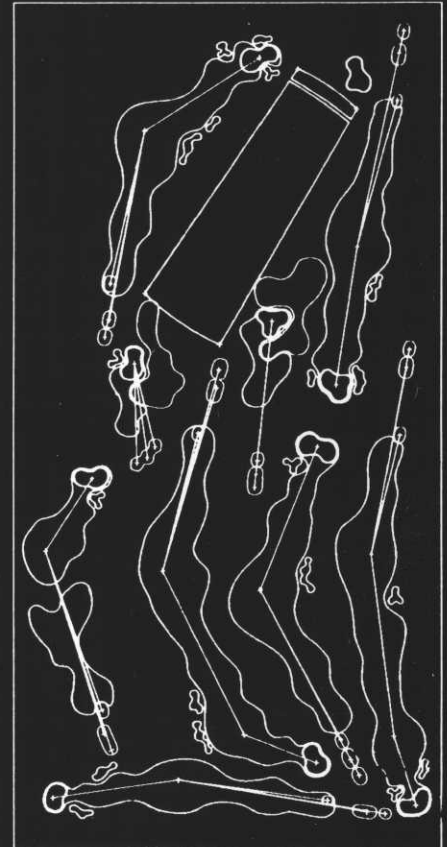
*Temperatures were taken approximately 1:00 p.m. Color readings were difficult to determine due to limited growth of grass through the topdressing sand.*

Treatment	Color Rating*	Surface Temperature (°F)
Control — no topdressing .....	5.0a **	61.4ab
Silica sand at 0.09-inch depth .....	6.0ab	59.6ab
Silica sand at 0.18-inch depth .....	6.0ab	56.7a
Silica sand/peat at 0.09-inch depth ...	7.0b	60.6ab
Silica sand/peat at 0.18-inch depth ...	6.0ab	58.4ab
Mortar sand at 0.09-inch depth .....	5.0a	61.0ab
Mortar sand at 0.18-inch depth .....	6.0ab	63.2b
Mortar sand/peat at 0.09-inch depth.	6.5c	62.2ab
Mortar sand/peat at 0.18-inch depth.	6.5c	63.4b

\*Color rating scale 1-9: 1-brown, 4-light, yellowish green, 7-moderately dark green, 9-very dark green.

\*\*Numbers within columns followed by the same letter are not significantly different using Tukey's HSD test at 5% probability for separation of means.

HERFORD · NORBY



GOLF COURSE  
ARCHITECTURE



(612) 938-0020 (612) 944-5888



WILBUR-ELLIS

IDEAS TO GROW WITH®

# NATURE SAFE®

## A Primary Nutrition Source

Product	Turfgrass Use	Rate N/1000 sq. ft.	Product Ratios	Nature Safe Ingredients	Nitrogen Breakdown	Minor Elements
<b>5-6-6 Starter Fertilizer</b>	Development of deep healthy roots	.5 - 1.0	Homogenized 1:1:1 N:P:K	Meat, bone, poultry and fish meals, langbeinite, yeast, sugars, carbohydrates and humus.	Ammoniacal .30% W.S.N. .45% W.I.N. 4.25%	Magnesium 3.0% Sulfur 6.0% Calcium 5.0%
<b>7-1-14 High Potassium Fertilizer</b>	Increases turf tolerance to winter and summer stress conditions and increases color and density	.5 - 1.0	Homogenized 1:2 N:K	Feather, meat, bone and blood meals, sulfate of potash, yeast, sugars, carbohydrates and humus.	Ammoniacal .40% W.S.N. .60% W.I.N. 6.00%	Sulfur 5.0% Calcium 2.0%
<b>8-3-5 Stress Guard Fertilizer</b>	Stressed areas such as closely mowed turf and high sandy soils	.5 - 1.0	Homogenized 3:1:2 N:P:K	Feather, meat, bone, poultry, blood and fish meals, langbeinite, yeast, sugars, carbohydrates and humus.	Ammoniacal .50% W.S.N. .70% W.I.N. 6.80%	Magnesium 3.0% Sulfur 4.0% Iron 0.1% Calcium 3.0%
<b>10-2-8 All Season Fertilizer</b>	Foundation for disease management programs	.5 - 1.0	Homogenized 1:1 N:K	Feather, meat, bone and blood meals, langbeinite, sulfate of potash, yeast, sugars, carbohydrates and humus.	Ammoniacal .60% W.S.N. .90% W.I.N. 8.50%	Magnesium 0.5% Sulfur 4.5% Calcium 1.8%
<b>10-3-3 Biostimulant Fertilizer</b>	High traffic areas as well as athletic fields	.5 - 1.0	Homogenized 3:1:1 N:P:K	Feather, meat, bone, poultry, blood and fish meals, langbeinite, yeast, sugars, carbohydrates and humus.	Ammoniacal .60% W.S.N. .90% W.I.N. 8.50%	Magnesium 1.0% Sulfur 2.0% Iron 0.1% Calcium 3.0%
<b>12-2-6 Ammonium Sulfate Fortified Fertilizer</b>	For higher pH and patch disease management	.5 - 1.0	Homogenized 6:1:3 N:P:K	Feather, meat, bone and blood meals, sulfate of potash, ammonium sulfate, yeast, sugars, carbohydrates and humus.	Ammoniacal 6.00% W.S.N. .50% W.I.N. 5.50%	Sulfur 9.0% Calcium 2.0%
<b>14-3-6 Quick-Start Urea Fortified Fertilizer</b>	Use for immediate color and growth	.5 - 1.0	Homogenized 3:1:2 N:P:K	Feather, meat, bone and blood meals, sulfate of potash, langbeinite, yeast, sugars, carbohydrates, urea and humus.	Ammoniacal .44% W.S.N. .66% W.I.N. 8.40% Urea 4.50%	Sulfur 2.0% Calcium 3.0%

### GENERAL INFORMATION

The 15% Water-Soluble Nitrogen of **Nature Safe® Natural and Organic Fertilizers** will begin to release quickly resulting in greenup in 7-10 days. The 85% Water-Insoluble Nitrogen will slowly release Nitrogen for 8 to 12 weeks.

**Nature Safe® Natural and Organic Fertilizers** contain at least 5 million microorganisms per gram. This aids in the decomposition of residues making nutrients more available for plant use.

# Tartan Park Golf Course

## *The 3M Club of St. Paul Makes Environmental Stewardship Its First Priority*

*Reprinted with permission from the Audubon Cooperative Sanctuary System's Stewardship News*

Acorn gathering, bluebird fledging, rescuing wildlife and nest box building...just everyday occurrences at the Tartan Park Golf Course in Lake Elmo, Minn. Tartan Park is a private club for employees, guests and retirees of the 3M Corporation. While maintaining a 27-hole championship golf course and recreational park, Tartan Park's cooperators



Great Horned Owl

are making the long-standing commitment to environmental stewardship and wildlife habitat conservation.

Joining the *ACSP for Golf Courses* in 1995, Tartan Park cooperators have been involved in a multitude of projects and have cooperated with many state and community environmental organizations and agencies. One

example of Tartan Park's willingness to "give back" to the community was its involvement in an "acorn gathering" project in cooperation with the Forestry Division of the Minnesota Department of Natural Resources.

**Facilities superintendent Joe Moris**, along with an enthusiastic group of volunteers from the Tartan Park Audubon Committee, spent one Saturday collecting over 24 bushels of acorns that will be used in a Minnesota reforestation project. The acorns from Tartan Park will become burr and white oak seedlings that will be planted in Minnesota state forests and sold to forest landowners and managers.

On a busy summer day last year, Tartan Park members spotted a great horned owl that appeared to be injured near one of their tes. They became suspicious when the owl did not leave when approached by humans, and immediately called the Raptor Center at the University of Minnesota at St. Paul. A representative from the Raptor Center captured the ailing owl and took it back to the center for observation and care. The owl was, indeed, very ill. It had an injured wing, a number of blood parasites and was nearly starving. The experts at the Raptor Center nursed the owl back to health and then the owl was released at Tartan Park to its natural habitat.

ACSP committee members have also been involved in a vigorous bluebird nest box program and have fledged over 850 bluebirds in the last 12 years! They have erected

an osprey platform and have organized Saturday bird box building days. Just in February, committee members put together many American kestrel and warbler houses with the help of the maintenance personnel.

All of the hard work and dedication of the Audubon Committee and the staff at Tartan Park has paid off, according to Facilities Superintendent Joe Moris. "At Tartan Park, we are continually amazed at people's interest and commitment for the Audubon program. Whether from a news article or an Audubon presentation, interest is sparked, and more people want to 'become part of this Audubon thing.'" He continues, "We can honestly say it's been a learning experience and fun at the same time, and we look forward to the road ahead and the people we will meet as we proceed in the Audubon certification process."

# HEDBERG

## AGGREGATES

"Built on Service"

### For All Your Landscape Hardgoods

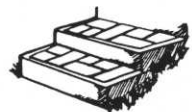
Washed Sand & Gravel, Rip-Rap,  
Boulders, Decorative Rock, Mulches



### Free Installation Training

- Complete line of NDS Drainage Products
- Concrete Retaining Walls
- Concrete Pavers
- Landscape Site Furnishings
- Water Gardening Supplies
- Largest Natural Stone Inventory in Minnesota

**INTERLOCK**  
CONCRETE PRODUCTS INC.



### 2 Convenient Locations

**Plymouth**  
1205 Nathan Lane N.  
545-4400

**Rosemount**  
4375-170th St. W.  
423-5320

Same Day Delivery

4 fl. oz./1000<sup>2</sup> ft

+

4 oz./1000<sup>2</sup> ft



Outstanding control of dollar spot,  
brown patch and pythium. Your best  
manager of summer stress complex.

North Star  
Turf Supply

St. Paul, MN 55117  
612-484-8411  
800-592-9513

Eagan, MN 55121  
612-454-3106  
800-551-4857



# “The Little Course With the Big Name”

## Elm Creek Hosts MGCSA Scholarship Scramble

By MICHAEL KLATTE, CGCS  
*Elm Creek Golf Links of Plymouth*

July 20th is the date set for Elm Creek Golf Links of Plymouth to host the 1998 MGCSA Scholarship Scramble with morning and afternoon shotguns.

I thought you might like to learn a little more about the course before you come to play.

In our early years our course had a reputation of a short course with hilly, tree-lined holes. It was designed to challenge the golfer to carry shots over ravines and creek beds. In its 38-year history a number of changes have taken place.

In 1991 we expanded the golf course by adding 23 additional acres. This would give us the flexibility to stretch out holes and eliminate most of the par 3s. We planned to use as many of the old greens as possible and to build ten new holes with 2,000 yards of distance. We modified four greens and built four new greens. The natural surrounding hills allowed for elevated tee and scenic views of the golf course.

**Our name changed, too.** A rather long name, Elm Creek Golf Links of Plymouth was created to distinguish our location from others in the area that use elm creek for identification, such as Elm Creek Park Reserve. Elm Creek begins in the Hamel/Plymouth area and meanders throughout the northwest suburbs until it finally joins the Mississippi River near Champlin.

The golf course plays to a par 70 at 6,115 yards, a course rating of 70.4 and a slope of 132 from the championship tees. All of the ten new holes are strong and place a premium on shot making. The signature hole has always been the par 3 ninth.

Elm Creek's PGA professional David Kirkbride gives this hole-by-

hole description.

**1 Par 4  
375 Yards**

This is a straight away hole with slight elevation toward a large green sloping towards the front.

**2 Par 4  
367 Yards**

Dogleg to the right places a premium on your drive, because of a ditch along right side of landing area. Second shot looks down at a green that hugs a pond on the right. Bunker behind green.

**3 Par 4  
300 Yards**

Don't let this yardage fool you! MGA rating team felt it was the toughest hole on the course because of the slope of the green. Second shot is to a hilltop green with bunker on the right side.

**4 Par 4  
385 Yards**

Straight away hole with slight dogleg to the left. Blind shot to the green with steep bank on the right side. Ravine follows right side of green area.

**5 Par 5  
445 Yards**

Easiest hole on the course. Slight dogleg to the right.

**6 Par 3  
150 Yards**

Tricky par 3 with small narrow green that slopes to the right cut into a hill which has a banked green with steep slopes.

**7 Par 4  
322 Yards**

Another easy hole that has a gradual climb toward the green from the tee area.

**8 Par 4  
350 Yards**

Narrow driving hole with small, elevated green with bunkers on left and right. Out of bounds on right side of fairway and marsh area on left side.

**9 Par 3  
162 Yards**

This signature hole is the toughest par 3. A beautiful setting with the green perched and the creek wrapping around the entire area. The tee is elevated high above looking over a spectacular sight.

**10 Par 4  
350 Yards**

Another challenging hole with OB right of the fairway. You must keep your drive well left to avoid the out of bounds. Level putting surface on this dogleg hole.

**11 Par 4  
340 Yards**

Sharp dogleg right, 175 yard, lay-up shot, one can gamble with a drive over a deep ravine on the right side of fairway. Second half of hole drops below landing area setting up second shot. Bunkers and pond are left of green.

**12 Par 3  
161 Yards**

Good par 3 with great views of the golf course. Out of bounds right of hole with sharp drop on the left toward the creek. Level putting surface.

**13 Par 5  
560 Yards**

The number one handicap hole. A tough driving hole because of a 200 yard carry over creek. Blind second shot to top of hill with third

*(Continued on Page 18)*

**SUMMER HOURS**

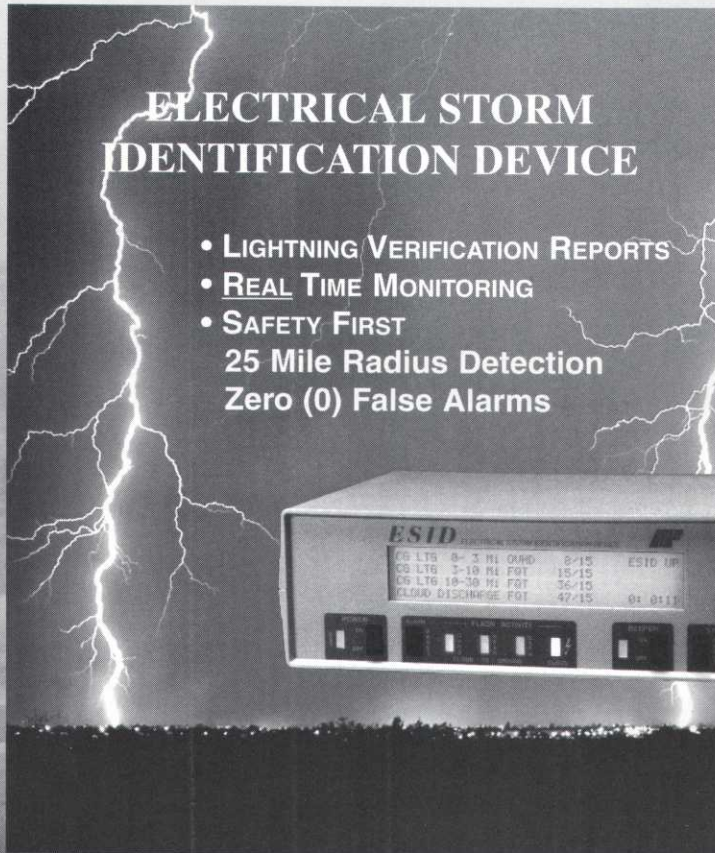
7:00 am – 5:00pm, Monday – Friday  
(Plymouth, Fridley, Burnsville, and Fargo Locations)

8:00 am – 12 Noon, Saturday  
(Plymouth Location ONLY)

With the exception of July 4, and September 5  
when we will be closed for the long holiday weekends

These extended hours will continue  
through mid September.

# Covering New

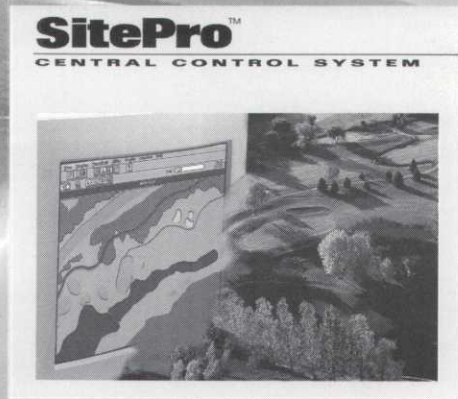


**ELECTRICAL STORM IDENTIFICATION DEVICE**



- LIGHTNING VERIFICATION REPORTS
- REAL TIME MONITORING
- SAFETY FIRST

25 Mile Radius Detection  
Zero (0) False Alarms

ESID	ELECTRICAL STORM IDENTIFICATION DEVICE		ESID UP
ES LTR	8-3 HI OMD	8-15	
CS LTR	3-10 HI FGT	15-15	
CS LTR	10-20 HI FGT	36-15	
CLOUD DISCHARGE FGT		42-15	01 0115



**SitePro™**  
CENTRAL CONTROL SYSTEM



**PICTURE-PERFECT IRRIGATION CONTROL**

*SitePro is irrigation management for the 21st century.*

- Incredibly flexible
- Incredibly accurate
- Incredibly powerful

**PREDICTABLY TORO**

**FIELD SERVICE**

**TWIN CITY METRO AREA**

2 Commercial Products Technicians  
2 Irrigation Pump Station/Controller Technicians

**FARGO AREA**

1 Commercial Products Technician

# Ground Everyday

**EMERGENCY AFTER HOURS  
IRRIGATION SERVICE**

Call 612-475-2200, Ext. 302 or  
1-800-362-3665, Ext. 302

(For service during regular business hours,  
8:00 am – 4:30 pm, Monday – Friday,  
call John Artus at the above numbers,  
but use ext. 205)

**TORO**

## GROUNDSMASTER 3000-D

- 33HP Diesel Engine
- 82" Contour Deck
- 4-Wheel Drive
- Deluxe Seat



**MTI** DISTRIBUTING CO.

**TORO**

14900 21st Avenue North • Plymouth, MN 55447  
612-475-2200 • 800-362-3665

4310 Main Avenue • Fargo, ND 58103  
701-281-0775 • 800-782-1031

## Elm Creek—

(Continued from Page 15)

shot looking down a small green. Bunkers along left side of fairway for drive and second shots. The kidney-shaped green has a front bunker and small pond behind the back bank. Out of bounds on right side for second shot.

### 14 Par 4 380 Yards

Another tough driving hole! This time you have a 200-yard carry over a five acre pond with your drive. You have a bail out on the right but this makes a long second shot to the green. A medium-sized green with a deep yawning bunker in the front left with bunkers right and back.

### 15 Par 4 360 Yards

High elevated tee looks down towards a straightaway hole. The large pond defines the left side of fairway. Green hugs the pond on the right side with bunkers on right side of green.



**Mel Strand, CEO**  
35 years experience

## Double Eagle Golf Construction

*Redesign the Old  
...Construct the New*

17555 Madison St. • Ham Lake, MN 55304 • **(612) 434-0054**

### 16 Par 4 390 Yards

Some say this is the strongest hole on the course! Long, narrow fairway with OB on right side with long narrow bunker left of landing area. Tight second shot to a large, elevated sloping green. Large evergreens define back of green with a deep bunker below to the left front of green.

### 17 Par 3 138 Yards

Beautiful little hole that plays longer than its yardage. All

carry from tee to green over a deep ravine and creek. Smallest green on the course with steep drop off on right side.

### 18 Par 4 160 Yards

Great finishing hole with narrow landing area and small, elevated green. Elm Creek comes into play from tee with direct and lateral water hazards.

## QUALITY SUPPLIER OF TURF

- **Washed** and Regular Turf (Sod) in 1<sup>1/2</sup> yd. or up to 55 yd. Big Roll Size (42" Wide)

### TURF TYPES:

- ELITE KENTUCKY BLUEGRASS BLEND
- SPORTS TURF  
BLUEGRASS/P. RYEGRASS BLEND  
BENTGRASS



#### MEMBER

NCTGA	MGCSA
MSTMA	WTA
SDGSA	ISTMA
MTGF	TPI

8651 Naples St. N.E.  
Blaine, MN 55449

For Quality Turf Contact:  
**(612) 674-7937 • FAX: (612) 674-7044**

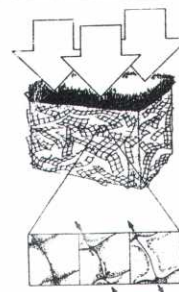
## QUALITY CONSTRUCTION & RECONSTRUCTION

- *Golf Courses*
- *Sports Fields*



### NETLON<sup>®</sup> ADVANCED TURF SYSTEMS

Self-Cultivating means healthier turf and better drainage.



### NETLON<sup>®</sup> MESH ELEMENTS AND MIXES

For Compaction Resistance on cart paths, sports fields and other high use areas.

For Quality Construction & Nelton<sup>®</sup> Products Contact:  
**(612) 784-0657 • FAX: (612) 784-6001**



# GCSAA Student Chapter at U of M Wraps Up Its First Year

By **MIKE HARRINGTON**  
*1998-99 Chapter President*

On Thursday, April 16, the Turf Club at the University of Minnesota held its new officer elections, thus bringing its year to a close. The first year saw the Chapter being named a Charter member as we completed the application process before the deadline, thanks to all that helped in the application process and especially those who had the idea to start this club.

The first year saw a lot of different activities, from golf course visits to Fox Hollow, Woodhill, Town and Country, Somerset, Willinger's, Edinburgh, The Wilds and Spring Hill. We had a special visit with Jim Nicol, CGCS at Hazeltine, where 10-12 of our members helped hand sweep the sand off of the greens after aeration and topdressing, in exchange for \$1,500. That money will be used to send as many of our members as possible to Orlando in February for the GCSAA National Convention and Trade Show.

We also invited a variety of speakers to come and talk about their respective roles in the turf management industry. A representative from Century Rain Aid visited with us and showed us some of the important aspects of irrigation. Another representative from North Star Turf Supply spoke with us about Heritage and other fungicides and diseases. Sue Galatowitsch, a professor at the University of Minnesota, spoke with us about wetland restoration and its interaction with golf courses. Van Cline, a graduate student at the University, showed us some of the research he has done for Toro and also for his Ph.D.

There were also some fundraising activities, such as the Easter Basket Sale, where we grew perennial ryegrass in 4-inch baskets and added some Easter candy and wonderful pastel ribbon. We sold them for \$5

each on campus the Thursday and Friday before Easter. Unfortunately, the pink bunny suit was not available; otherwise sales would have been much higher. We also made up some hats through a local business that say Minnesota Turf and have a golf green de-

sign on them. These were sold to our members and others who were interested. New hats have been made up that say Minnesota golf and are being distributed to local pro shops in hopes of making some more money. The other

*(Continued on Page 20)*

## BUSINESS OFFICE UPDATE

By *Scott Turtinen*  
*Executive Director*

Time and space are running out for the 1998 Scholarship Scramble at Elm Creek Golf Links of Plymouth on Monday, July 20. Teams must be registered by July 13.

\* \* \* \*

**MGCSA membership dues are now past due.** To assure yourself of being in the 1998-99 Directory please send your dues in now (if you haven't already). If you need a new dues form, call the office at 612/473-0557 or toll free at 800-642-7227.

\* \* \* \*

**The MTGF has hired Bob Mugaas as its executive director.** More information on this hiring is in the Spring/Summer 1998 issue of *Clippings*. MTGF Golf Tournament and MTGF Expo information is also available in the most recent issue of *Clippings*. If you need golf tournament or Expo information, please call 612/473-8169 or 888-473-8873.

\* \* \* \*

**The MGCSA Golf Championship is August 17 at North Links GC in North Mankato.** Pre-tournament favorite is New Prague's Jeff Pint who has already carded a 74 and a 69 at two MGCSA mixers this year.

\* \* \* \*

**The MGCSA Directory** is scheduled to be printed in July. If you have any changes to your address or phone numbers, please call or fax the business office as soon as possible.

\* \* \* \*

**DID YOUR AREA CODE CHANGE?** In early July, St. Paul and surrounding communities will be changing its area code from 612 to 651. If this affects your phone number, please notify the MGCSA office at 612/473-0557 or toll free at 800-642-7227.

## Student Chapter—

(Continued from Page 19)

big fundraiser was soliciting the Affiliate members of the MGCSA. We received donations from a lot of the people we sent solicitations to and raised approximately \$800. That was used to pay for as much as possible to send six members to Anaheim.

There was also some fun. Occasionally a few of us would head out to the links to play some golf. After all, those of us that went to Anaheim heard that playing golf is a major part of our jobs. Some of us must be really good employees then. Thanks to those that allowed us to play for free, it is a privilege that is not expected but greatly appreciated.

Six of our members went to the GCSAA Conference in Anaheim. It was the first time for all of us. Now our goal is to get everyone to go next year because we all felt it was a very valuable experience. The Turf Bowl was a fun experience. It really humbled all of its competitors as the winners got only 110 out of 160 total points. Next year, we will be better prepared. Not only were these things valuable but the other student activities were also a large part of our experience. We learned a little bit about the career to be coupled with our knowledge of turf.

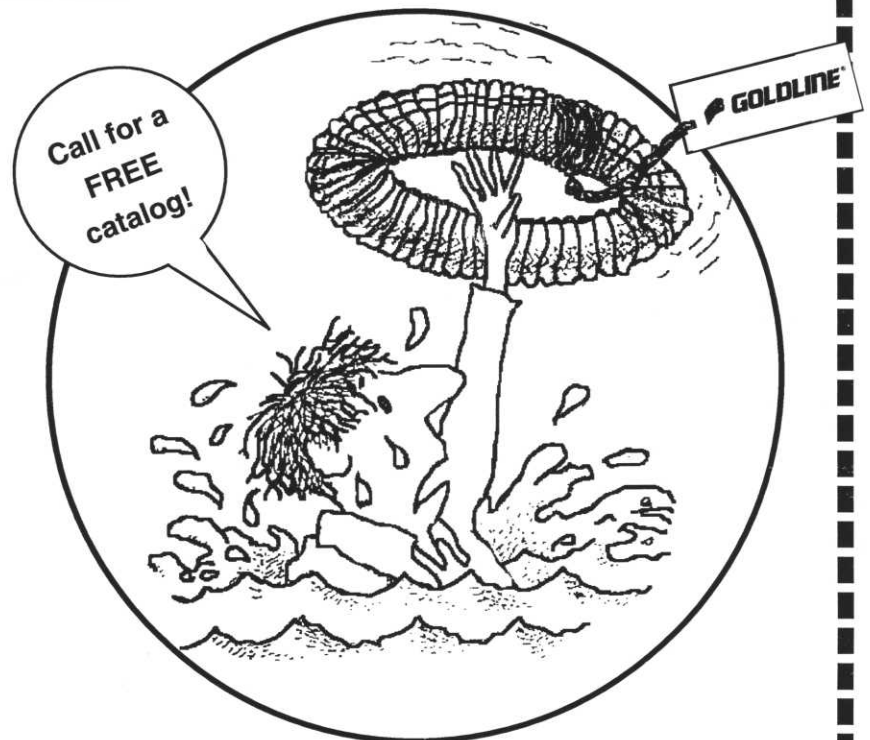
The only disappointment was the golf tournament that never worked out. We would like to work on it ahead of time in the future to get as many people as we can to come play golf with us. All MGCSA members would be welcome. So as we move from year one into year two we have set the goal of establishing a more tight affiliation with the MGCSA, now that we have our feet on the ground as a GCSAA chapter. We would like to better interact with the MGCSA members both socially and professionally through the MTGF show and other monthly meetings.

Now that you know we have a chapter of students who are willing to learn and be devoted to their future careers, we could work with the association on future experiences. Our other main goal is to send as many of our members to Orlando as possible. Those that went this past year feel it would be a great experience for the younger students to see well before they graduate. Four of the six of us who went

out there landed jobs, one internship and three full-time jobs. That alone is worth the trip.

Since we are saying goodbye to seven graduating seniors our group will be smaller until we can recruit incoming freshman. We thank those seniors for their time and efforts in making this club a success. We look to the future to move farther than we did this past year to give a better opportunity to those students who are devoted to their education and future careers. We also look to all of the other members out there for your help in allowing us to do this. Our club needs your help to move ahead; however, you will be getting better employees and interns from our club. The time and money is well worth the investment.

Not every hole has to have a  
**WATER HAZARD!**



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



**PRINSCO**

Manufacturers of GOLDFLO Dual-Wall and  
GOLDLINE Corrugated Polyethylene Pipe

**800-992-1725**