

SEASON'S  
GREETINGS  
TO ALL



LAWN GARDEN AND TURF  
**GOULD'S**  
SUPPLIES AND EQUIPMENT

# HOLE NOTES

OFFICIAL PUBLICATION OF THE MINNESOTA  
GOLF COURSE SUPERINTENDENTS' ASSOCIATION

EDITOR: WARREN J. REBHOLZ  
6550 YORK AVENUE SOUTH  
SUITE 402  
EDINA, MINNESOTA 55435-2383  
PHONE: 612/927-4643

ASSOCIATE EDITOR: GUY R. GREEN

EDITORIAL COMMITTEE CHAIRMAN:  
FRED R. ANDERSON

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## FROM THE PRESIDENT'S DESK

DALE CALDWELL

Here it is, December already. Time for the traditional farewell from the President address. This is standard procedure in this spot. Primarily because after twelve months of writing articles you tend to run out of pertinent information to use in these articles. In my case, I ran out of pertinent information in May, including the spellbinding story of the largest Mille Lac walleye ever seen. But then you really don't need to know that.

Seriously, it has been a very rewarding year for me. Hopefully, it has been mutually rewarding. It has also been a real education. I have really enjoyed this past year as President of MGCS. I had the pleasure of working with a very dedicated and hardworking board of directors. These gentlemen, including Fred Anderson, Jr., are true representatives of the total membership of MGCSA. They have served your best interests while keeping in tune with the goals and previous standards set for this association.

As usual, Warren Rebholz and the staff at the MGA office have kept everything operating smoothly. Without their advice and help, this organization would all but cease to exist. I can't thank them enough.

I look forward to seeing all of you at future MGCSA meetings and events and I wish all of you a MERRY CHRISTMAS and a HAPPY AND PROSPEROUS NEW YEAR.



# RESEARCH REPORT

## Poa annua-Bentgrass Competition

by A. D. BREDE  
Assistant Professor  
Turfgrass Management  
Oklahoma State University

Over the past few months since the beginning of the Poa annua - Bentgrass project with the Minnesota GCSA, we have made significant progress in the establishment of experiments that will give us an insight on the nature of the competition between these two species. Our aim in this experimentation has been to examine the competition between Poa annua and bentgrass, with hopes of providing information to the golf course superintendent of how to better maintain their putting greens.

In June 1985 we finished preparation of a large field experiment designed to determine if mature Poa annua gives off any type of toxins that may be affecting bent growth. In 1984 we established a source green, with plastic underlying a traditional sand-based putting green area. A 3300 sq. ft. area of Penncross was established next to an equal sized Poa annua area. Three strains of Poa annua were examined: two strains were obtained as sprigs from two older Oklahoma golf courses, and a third strain was obtained as an annual, seeded form from the seed fields of Oregon.

Water from these two sources flow into holding tanks, and from there the fluids are pumped to individual plots in a test green where the effects of the fluids are examined. There are actually 16 test greens, all built in a Purr-wick fashion to allow for the buildup of toxins. We have a total of four treatments under test in the test greens: 1) water from the Poa annua, 2) water from the Poa annua that has been filtered through chemical-removing activated charcoal, 3) water from the Penncross bent area; and 4) water directly from our irrigation system as a check.

The experiment has been in operation for four months now. An electronic controller, which monitors soil moistures in the test greens and orders the

appropriate fluid, has been functioning flawlessly since that time. Although we have been taking data regularly off this area, there have been no striking observations to date. Perhaps the effects of the Poa annua will accumulate and increase over time. We'll keep you informed on the progress.

We have also begun and completed a series of experiments with Poa annua seedling germination in the growth chamber. In this series of tests we used one basic technique: We planted 100 Poa annua seeds on a moistened blotter, allowed the seeds to germinate, flipped the blotter over, and then germinated 100 bentgrass seeds on it. In doing this, we were trying to assess the impact of germinating Poa annua on germinating bent.

Our results to date have been quite fascinating. We have found that Poa annua does indeed excrete some type of chemical compound during germination that can stunt bent germination. In fact, the effect of one single Poa annua seed on 100 bent seedlings could be detected. The stunting is usually in the vicinity of 10 to 50% reduction in initial growth of the bentgrass seedling. Sometimes the reduction is too small to be readily noticed by the human eye, but by carefully measuring hundreds of bent seedlings, the trend was confirmed. The stunting was not present when we heat killed the Poa annua seed or when we applied activated charcoal around the germinating Poa annua. This suggests the presence of a metabolic chemical given off during the germination process. Our next series of growth chamber tests is slated for December and will examine the effects of germinating Poa annua on mature bentgrass tissue.

In September we began another field experiment to follow up on some of the work we performed last fall on overseeding bent into Poa annua, and vice versa. This technique is similar to one described in the next issue of Grounds Maintenance magazine by this author.

As you can see from the above information, we are zeroing in on the effects of Poa annua on bentgrass. We plan to continue these tests for at least another year and then begin a series of studies to try to find the causal agent involved in Poa annua - bentgrass competition.



**Happy  
Holidays**  
*to our  
friends &  
neighbors*

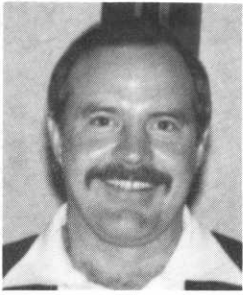
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## EDITOR,S CORNER

FRED ANDERSON, JR.

I would first like to say how enjoyable this past year has been for me as Editorial Chairman. It has brought me in contact with a greater number of members which has in turn benefitted all of us through their articles. I was able to contact many superintendents for articles during the winter when time was not as precious. This worked well for most of the year. However, some had to be contacted during the season. I would personally like to thank all superintendents, associates and others that did take time to write an article for the HOLE NOTES. The people that really make the HOLE NOTES work are the M.G.A. staff. A special thanks to Anita, Warren, Guy and Ross for all your help given me this past year. Thanks go to Paul Mayes,

Midland Hills C.C. and Kevin Clunis, Stillwater C.C. for last month's HOLE NOTES articles; to Jim Nicol, Host Bunker Hills Golf Course, for providing such a nice day for our last golf outing, and your clubhouse staff for taking care of our group. And as tradition holds for November meeting was the "Attitude Adjustment Hour" provided Bud and Greg Shaughnessy from Long Lake Ford. It's always a nice way to finish off the season. Thanks guys.

Randall Nelson, Arrangements Chairman, has been busy with arranging meetings for 1986. The following is a tentative schedule for 1986. Remember that the list is tentative. January, Izaty's; February, GCSAA meeting; March, USGA Regional Seminar, Town and Country Club; April, Faribault Country Club; May, Hastings Country Club; June, Detroit Lakes Country Club; also the picnic will be held at 1984's site; July, Purple Hawk; August, open; September, Midland Hills Country Club; October, Wedgewood Valley Country Club; November, Edinburgh U.S.A.

If anyone is interested in hosting a monthly meeting, please contact the arrangements chairman. Keep in mind that many arrangements must be made a year in advance and meeting sites are needed for 1987. Please think about it and present the idea to your appropriate committee for approval. Where else could you get 80+ turf specialists at your golf course for a day?

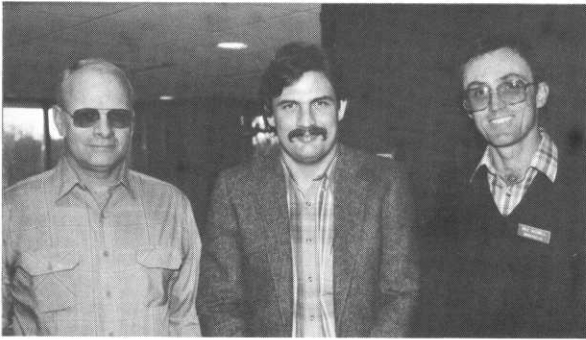
I hope everyone had a good and safe Thanksgiving and you were able to spend this time with family. As mentioned previously, we sometimes get so involved in work at our courses during the summer that we inadvertently forget how important our families really are. After all, that's the important aspect of Thanksgiving.

I hope everyone has a safe and happy Holiday Season.

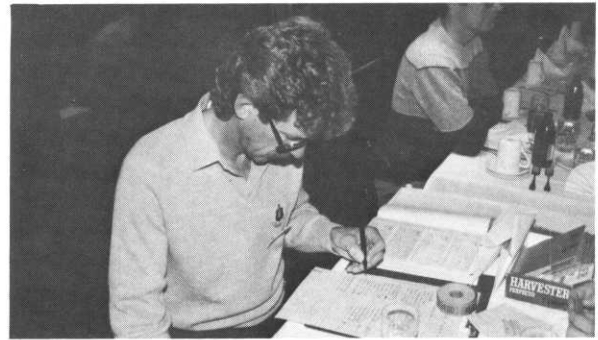
**TURF CONFERENCE  
PRAYER BREAKFAST  
THURSDAY, DECEMBER 5th  
FEATURING KARL KASSULKE  
FORMER VIKING GREAT**



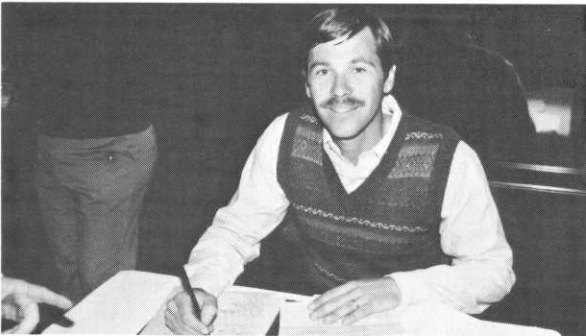
## NOVEMBER MEETING HIGHLIGHTS



Prez Caldwell thanks Long Lake Ford's Wayne Norton and Greg Shaughnessy.



Those monthly meeting details are a piece of cake to Randy Nelson.



Tom Fischer checks Hague's & Olson's schedule for upcoming turf conference.



Ecstatic Host Jim Nicols just learned he passed the CGCS tests. Congratulations!

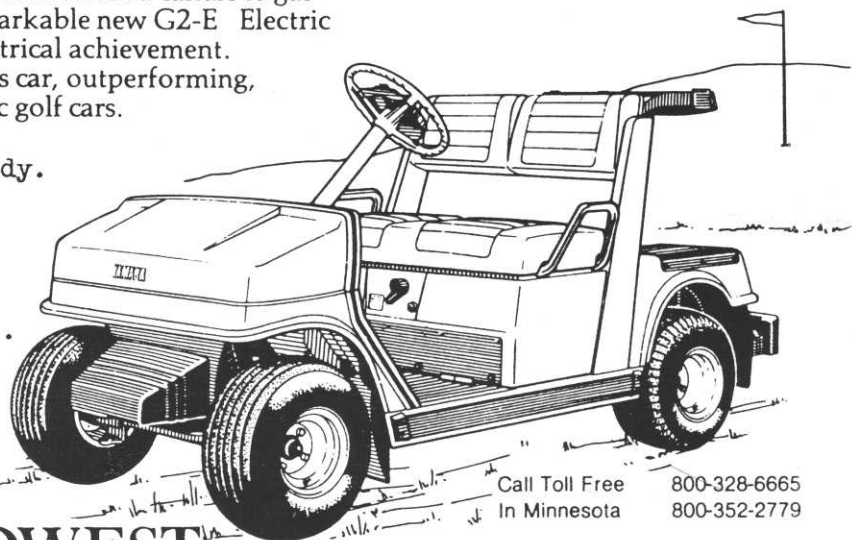
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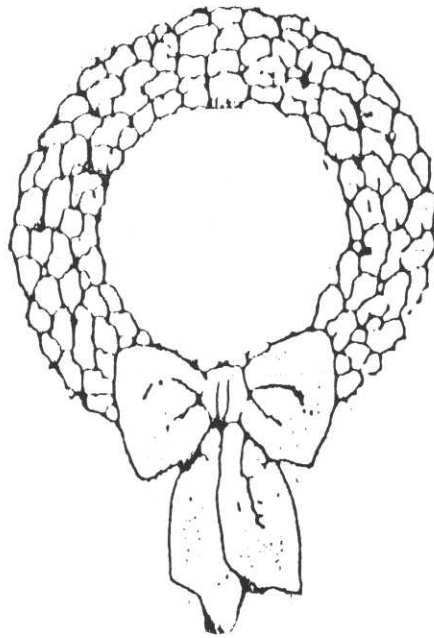


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## OLD TOM MORRIS AWARD TO PATTY BERG

LPGA Hall of Fame member Patty Berg who was born and learned to play golf in Minnesota will receive the Golf Course Superintendents of America's prestigious Old Tom Morris Award at GCSAA's 57th annual International Golf Course Conference and Show this coming winter in San Francisco.

Identified throughout the golfing world with the true heritage and tradition of the game, the award will be presented February 3 during banquet ceremonies at the San Francisco Hilton and Tower Hotel.

The Old Tom Award is presented to an individual who, through a continuing, selfless commitment to the game of golf, has helped to further the game with the same dedication and inspiration demonstrated by Old Tom Morris.

A founder, charter member and first president of the Ladies Professional Golf

Association (LPGA), Berg is a leading ambassador for women's golf. Although 1980 was her last year of professional competition, Berg continues to be active promoting the game, as did Old Tom. As an amateur, Berg won 29 championships and then amassed 55 victories as a professional. Among her professional victories are 42 LPGA events, bettered only by five players in the Tour's 35-year history.

One of golf's first greats, Old Tom Morris was a greenkeeper, golf professional, club and ball maker, golf course architect and accomplished player who won four British Open Championships between 1861 and 1867.

Golfing great Arnold Palmer, entertainer Bob Hope and former President Gerald Ford are previous recipients of the Old Tom Morris Award.

## TURF EQUIPMENT STORAGE TIPS

by KIRBY BURMEISTER  
R. L. Gould & Company

To protect equipment that will be out-of-service for the winter months, a few service tips are as follows:

- 1) Wash, clean and completely lubricate the equipment.
- 2) Run the engine until it reaches operating temperature.
- 3) Turn off the fuel supply and run the engine until it stops.
- 4) Drain the oil while the engine is still warm and refill with fresh oil.
- 5) Remove the spark plug and pour one (1) ounce of engine oil into the cylinder. Turn the engine over a few times with the starter and reinstall the spark plug.
- 6) Service the air filter.
- 7) Clean the cooling fins around the head and cylinder with compressed air. Also check the air intake screen on the flywheel to be sure it is free of dirt and chaff.

CONTINUED ON PAGE 9



Best Wishes For  
A  
Happy Holiday Season

FROM

LANDSCAPE and TURF

Milt, Catherine and John Wiley



8) Disconnect the battery and follow standard battery storage procedures.

Hydraulic systems should also be serviced at least once every year.

During normal use condensation forms in the tank and settles to the bottom. This is caused by the change of temperatures that the oil goes through during normal use.

The hydraulic oil should be changed each year to remove any contaminants that may be in the oil.

The hydraulic filter should be changed at this time and at specified times during the year.

Check all hydraulic lines, hoses and fittings for leaks or any damaged parts at this time.

A few hours of preventative maintenance in the late fall can prevent costly breakdowns, and help prolong the life of your equipment.



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## **POSITION WANTED**

College senior majoring in Horticulture at the University of Wisconsin, River Falls seeking position of assistant superintendent on 18-hole golf course. Eight years previous golf course experience with one year supervisory experience. Duties consisted of irrigation systems repair, pesticide applications, fertilizing, greens repair, and equipment maintenance. Pertinent coursework includes various horticulture courses, pesticides, plant pathology, weed control, several soils courses, as well as microcomputer applications.

Contact: Craig Jerome, 252 1/2 Union Street, River Falls, WI 54022. Telephone: 715/425-2271.

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