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The Midwest Association of Golf Course Superintendents is a professional organization founded in 1927 whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance.

We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS (Midwest Association of Golf Course Superintendents) member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.



Don Cross
President, MAGCS

I had planned on avoiding any weather-related comments; but as I write this (the week of July 1), we are experiencing a rather unusual occurrence in weather conditions, for this time of year. Temperatures and humidity levels are actually mild! In fact, the low temperatures are forecast to be at or below 60° this week. The weather doesn't get much better than this for July 4, and it is likely that conditions will all too soon change. However, it sure is nice to be able to enjoy a few days of "normal" weather.

As you read this, August is upon us. It is typically a very busy and often challenging month. Heavy tournament and outing schedules, high disease pressures, budget planning, fatigued staff, and stressed turf prevail. Tempers can quickly and easily flare. Remember to stay cool and calm, and exercise patience. Look at the positives. Before long, the days will be shorter, the magic date of August 15 or 20 (the date when *Pythium* worries generally subside) will pass, GCSAA's Early Bird registration packet will be out (begin to plan for some well-deserved R&R), and the kids will soon be heading back to school (relieving the stress on their mothers!). Don't forget though, before the kids and family get

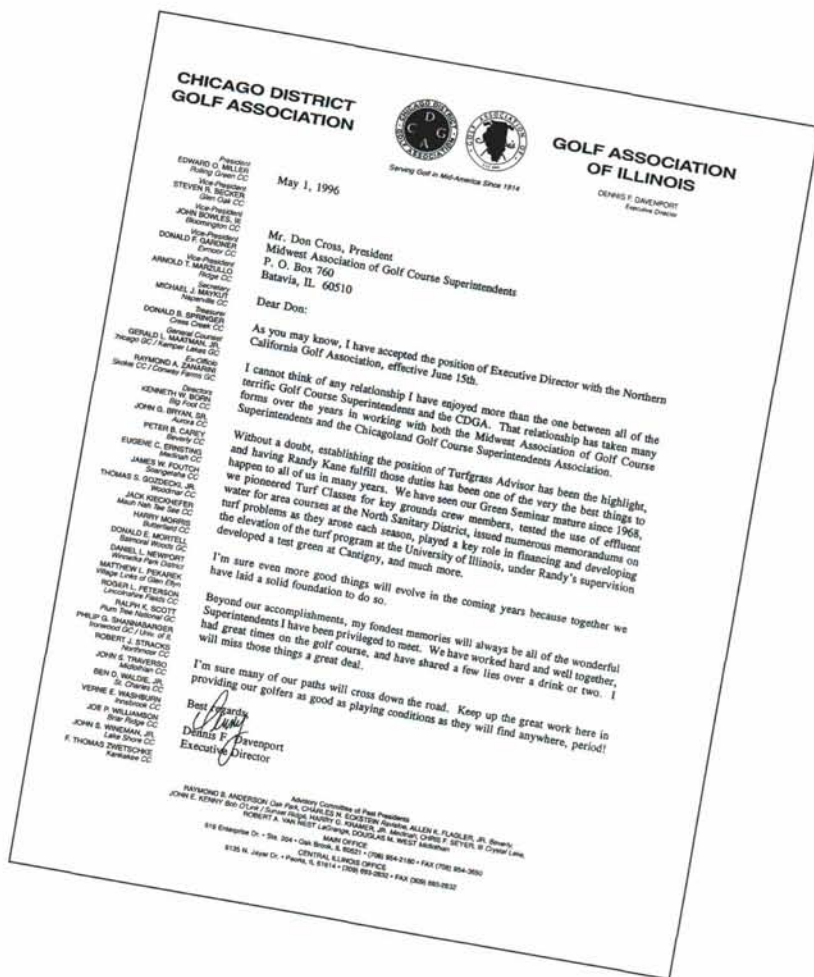
busy with school schedules and other activities, to bring them along with you to the MAGCS Family Picnic and Kane County Cougars game on August 23. It is always an enjoyable time for all!

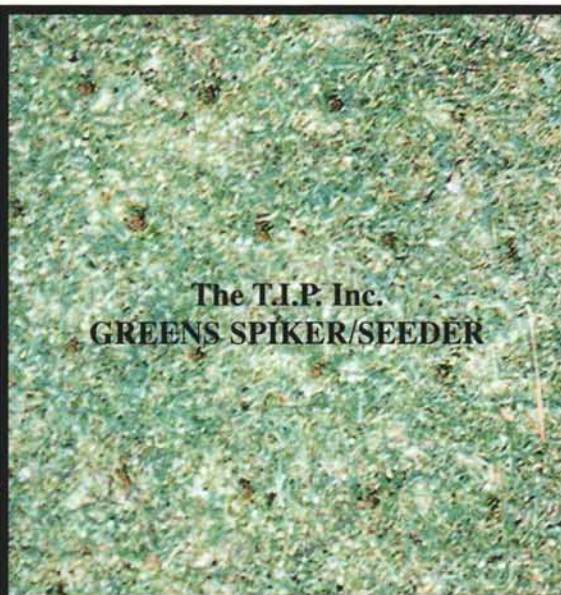
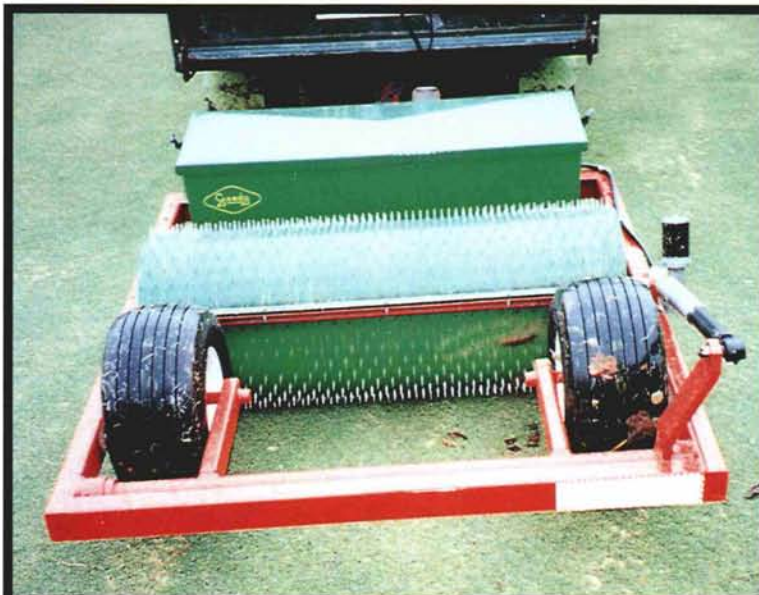
For those who may have missed the June meeting (you missed a great day), I want to reiterate an item in my report; and that is that Phil Taylor, having accepted a new position in the industry, has relinquished his chairmanship of the Commercial Members Advisory Committee. Phil has been active on this committee for many years, and his involvement will be missed. We will still see him around, but his new management position will require his undivided attention. We all wish him well in his new endeavor. To carry on the

chairman role, John Meyer has accepted this position. John has been active on the same committee, as well as on the Editorial Committee and has assisted Ray Schmitz with photography. He is interested and energetic and has a number of great ideas to explore. We look forward to having his input!

Hope all is well with you and your course or business. I look forward to seeing you at the August 12 MAGCS meeting at Fox Run Golf Club!

Donald A. Cross, CGCS
President, MAGCS





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Greg Thalmann -N- Fox Run Golf Links


John Gurke, CGCS
Aurora C.C.

Our host for the August 12 MAGCS meeting will be Greg Thalmann, whose Fox Run Golf Links will challenge our golfing prowess and abilities. Greg graduated from Western Illinois University in 1973 with a B.A. in Fine Arts. From there, he went to work with his father's landscape company until 1979 when he became Ken Goodman's assistant at Mt. Prospect C.C. Greg followed Kenny to Green Acres and remained until 1983 when he was hired by the Elk Grove Park District to assist in the construction of Fox Run. When then Superintendent Ed Braunsky, Sr., passed away in the fall of '83, Greg was offered the job and has been there ever since.




The course is public and averages 45,000 to 47,000 rounds annually. With greens averaging 6,200 square feet and ample teeing space, he finds himself in a fine position to handle the amount of play. Greg's main problem is location—the course is on a flood plain which forces closure for a day or two after each rain of over three-quarters to one inch.

On the personal front, Greg has been married to Trudi for 23 years, and they have three children: Sarah, 18, and a recent high school graduate; Nathan, 16; and Abby, 14. We all owe Greg Thalmann a pat on the back for hosting this meeting in the toughest month of the season. I hope to see a big turnout! ■

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Biological Disease Control... Walking the Walk ...at North Shore Country Club

Peter L. McCormick
TurfNet Associates, Inc.

While some may “talk the talk” or simply take a “wait and see” position toward biological disease control, Dan Dinelli has forged ahead with a comprehensive integrated turf disease control program in place now at North Shore Country Club in Glenview, IL.

Dinelli is taking advantage of two new products on the market as the cornerstones of his biological disease control strategy: the BioJect® system for culturing and applying *Pseudomonas aureofaceans* bacteria through his irrigation system, and Bio-Trek 22G, a newly-registered biological fungicide that incorporates a dormant beneficial fungus (*Trichoderma harzianum*) in granular form. Dinelli’s goal is broad spectrum natural disease suppression, thereby reducing his reliance on synthetic fungicide applications to keep turf diseases in check. His target is a 40 percent reduction in fungicide usage on the tees and fairways at North Shore.

The BioJect system (from EcoSoil Systems, Inc. of San Diego, CA) was installed at North Shore Country Club early in 1995. It includes a 175 gallon bioreactor, which is a fermentation tank in which a special strain of *Pseudomonas aureofaceans* bacteria (developed by Dr. Joe Vargas at Michigan State University) is fed with simple sugars under controlled conditions so it multiplies rapidly. The bacteria slurry is then injected into the irrigation system while watering at night. When depleted,

new food source material is injected into the bioreactor as it refills with water, and the *Pseudomonas* culture replenishes itself in time for the next night’s scheduled irrigation.

Mode of action

Members of the genus *Pseudomonas* occur naturally in great numbers in soils and aquatic systems, particularly around the root systems of plants. Their primary food source is carbohydrates (glucose and other simple sugars) obtained from dead plant material

*As the pathogenic fungal
populations decline,
the bacteria gain access
to the nutrient sources
once controlled by the fungi,
further strengthening their
position as fungal
antagonists.*

and root secretions. These organic exudates foster microbial activity in general, including disease organisms. *Pseudomonas* can remain viable over a wide range of conditions in the soil environment, but must compete with billions of other microbes to establish themselves in sufficient quantities to become an effective turf disease control agent.

Various species of *Pseudomonas* have been shown to

produce anti-fungal antibiotics, which are one method by which bacteria can suppress turfgrass pathogens. Antibiotics may be loosely defined as any material produced by one organism which inhibits or kills another organism. *Pseudomonas aureofaceans*, the organism utilized in the BioJect system, secretes a material (phenoxazine carbolic acid) which inhibits fungal protein synthesis in pathogenic fungi. Given sufficient concentration of *P. aureofaceans* in the soil environment, pathogenic fungi are held in check due to their inability to synthesize necessary proteins.

Bacteria can also inhibit growth of pathogenic fungi by competing with the fungi for essential nutrients or growing space in the favored growth environment of the pathogen. By restricting the availability of nutrients, the bacteria may make the fungal pathogens more susceptible to the antibiotic substances they secrete. As the pathogenic fungal populations decline, the bacteria gain access to the nutrient sources once controlled by the fungi, further strengthening their position as fungal antagonists. A double-whammy, so to speak.

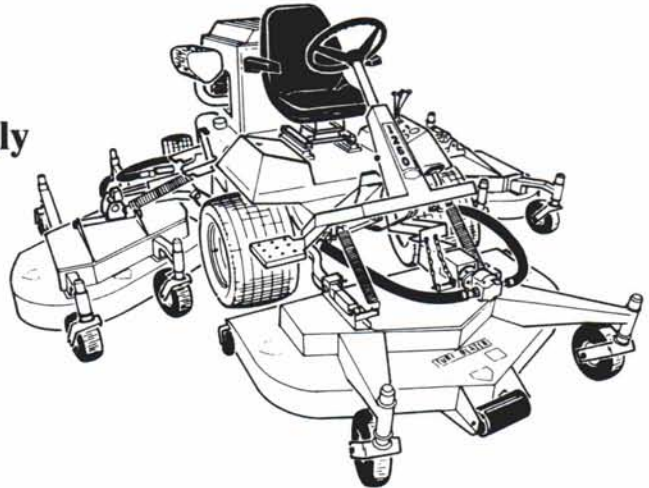
The caveat

While all this sounds great, the challenge has been to establish populations of these bacteria in a highly-competitive soil environment sufficient enough to achieve the desired level of disease suppression. According to Dinelli, that’s where the new BioJect technology comes into play.

(continued on page 16)

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*Gregory Thalmann
Fox Run Golf Links*

I have heard a lot of superintendents grumbling about the terrible season they are having. It is nice to know that I am not the only one in this situation. I am asked to keep the course in playable condition but also told to keep an eye on expenses because revenues will be down.

I am also about halfway through my first year as arrangements chairman; I hope I have not messed up too many things. Ed Braunsky usually lets me know when I do. (Thanks for your support, Ed.) Luke Stroyny, golf chairman, and I are experiencing difficulty making the arrangements with the host clubs when we receive most of the forms only five or six days prior to the event. It would help if everyone could mail their response as soon as possible. This will allow us proper lead time to notify the host clubs of the number for dinner or how

many carts will be needed, etc. I know I always wait until the last minute to send things in; but with a little planning ahead and sending the response card in early, it would save us from making last-minute phone calls. Thanks for your help.

We are looking for host clubs for the 1997 season. If you are thinking about hosting a meeting in 1997 or anytime in the future, please call me at 847-228-3541 or talk to me at any of the upcoming meetings. ■



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