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Bengeyfield, Watschke Honored at 1990 GCSAA Conference

William Bengeyfield, USGA Green Section national director, and Dr. Thomas Watschke, Penn State turfgrass researcher and educator, were honored for their dedication and outstanding service to golf course superintendents and the golf community at the opening session of the 61st International Golf Course Conference and Show in Orlando, Fla., Feb. 19-26.

Bengeyfield and Watschke have been selected as recipients of the 1990 Distinguished Service Award. The selection was made by the board of directors of Golf Course Superintendents Association of America (GCSAA), the organization that sponsors the annual conference and show. Under Bengeyfield’s leadership, the USGA/GCSAA Turfgrass Research Committee has seen more than $2.8 million raised and distributed for research to develop turfgrass cultivars that will reduce water usage and maintenance costs.

The USGA Turfgrass Advisory Service, a consulting branch of the Green Section, has been an increasingly valuable resource for superintendents during Bengeyfield’s tenure as national director. Bengeyfield, a long-time GCSAA member, operates and maintains Frankfort Golf Course, in Frankfort, Mich., as his time permits.

For almost 20 of his 35 years with the Green Section, Bengeyfield has also served as editor of the Green Section Record.

Watschke is coordinator for Penn State’s Landscape Management and Water Quality Research Center, synchronizing all field research for the five departments that cooperatively use the facility. He also serves on the Technical Resource/Advisory Committee for Golf Course Management, the technical and professional journal for golf course superintendents.

His research has led to the use of growth regulators to control poa annua, the development of new post-emergent crabgrass control compounds and advancement in broadleaf weed controls and, most recently, to a better understanding of surface runoff on turfgrass. Many of Watschke’s former students are now turfgrass scientists.

New Positions

Rick Fredericksen, Superintendent, Rolling Green CC, Hamel, to Superintendent, Woodhill CC, Wayzata.

Doug Mahal, Superintendent, Interlachen CC, Edina, to Superintendent, Minikahda Club, Minneapolis.

Paul Ekholm, Assistant Superintendent, North Oaks CC, St. Paul, to Superintendent, Grand Forks CC, Grand Forks, N.D.

Soldiers Field GC

To Close in 1992-93

For Flood Control Work

Soldiers Field Golf Course in Rochester is scheduled to close for the 1992-93 seasons while flood control work is done on four holes that cross the Zumbro River. The two-year closing will remove 50,000 rounds a year from Rochester’s golfing capacity.

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<tr>
<th>MEDALIST TURF PRODUCT</th>
<th>MAJOR AREAS OF USE</th>
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<td>School grounds, cemeteries, golf course roughs, home lawns.</td>
<td>Establishes fast. Adapts to broad range of conditions and management levels. Low to moderate fertility needs.</td>
</tr>
<tr>
<td>Overseeder II Mix</td>
<td>Fairways, tees, athletic fields.</td>
<td>Rapid germination and establishment. Withstands heavy traffic and resists diseases. Penetrates compacted soils.</td>
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<tr>
<td>Medalist North Mix</td>
<td>Fairways, tees, cart paths, wear areas.</td>
<td>Quality turf for high traffic areas. Clean mowing and disease resistant.</td>
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<td>Problem solver for heavy traffic areas (athletic fields, golf tees, and fairways).</td>
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—Photos by Dale Wysocki

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Paul Mayes, Brackett's Crossing, strokes a putt on target.

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Thirsty Golf Courses Choking on Water-Usage Bills

MGCSA Organizes Economic and Water Use Committee

More and more states are examining their water usage, and some, like Arizona and California, are turning to the legislative process for controls. Golf course superintendents across the country have watched the trend with trepidation, yet many presume the problems to be restricted to the arid, water-deficient Southwest.

Their fears may soon become reality.

**Of all places, Minnesota**, the “land of 10,000 lakes,” is facing the very real possibility of state-regulated water usage restrictions.

Kerry Glader, president of the Minnesota Golf Course Superintendents’ Association (MGCSA) said, “In 1988, the Minnesota Department of Natural Resources (DNR) imposed watering restrictions on a number of golf courses throughout the state. At one time, several courses in Minneapolis and out-state Minnesota were totally cut off and other courses, including several in St. Paul, were under severe water usage restrictions.”

The Golf Course Superintendents’ Association acknowledges that conservation measures may be required during drought-caused water shortages like those experienced in 1988, but they feel restrictions need to be fair and consistent and imposed even-handedly throughout the state,” he said.

As a result of last summer’s drought and subsequent restrictions on water usage by Minnesota golf courses, the MGCSA formed the Minnesota Golf Course Economic and Water Use Committee, hereinafter referred to as MGCEWU. Scott Hoffman, past president of the Minnesota Golf Course Superintendents’ Association, was elected to chair the committee.

The committee immediately authorized a survey to assess current water usage and sources and to clarify the golf industry’s impact on the overall economy and quality of life of the state of Minnesota. In addition to Hoffman, the committee consists of Stephen Gladen, Keith Scott and James R. Watson.

Speaking for the MGCSA, Scott said, “We understood the prevailing attitude towards our industry, and we knew we didn’t have a case without some hard facts and figures about our industry and its contributions to the communities and the state as a whole. When farmers are losing their crops, there can’t be a lot of sympathy towards a dried-out or even burned-out golf course.”

The survey included 150 private and public golf courses in Minnesota. Here are some of the findings:

- Rounds of golf played in Minnesota in 1988, the year of the most severe drought on record, was estimated in excess of 8.5 million, generating approximately $255 million in revenues.
- Of these 8.5+ million rounds, 1.7 million were estimated to have been played by tourists and out-of-town visitors, corroborating the significant correlation between golf and tourism.
- Golf courses employ more than 16,000 Minnesotans on a permanent year-round basis and hundreds, mainly students, on a part-time basis.

According to Hoffman, this is the first time that this kind of information on the golf course industry in Minnesota as a whole has been compiled. He said it will be shared with the MGCSA, state agencies, community leaders and golf related businesses who share in the concern for Minnesota’s economy, water resources and quality of life.

He said the survey showed golf courses are an integral part of the community and play an important role both in terms of economics and quality of life. He pointed out that:

1. **75 percent of the courses** surveyed sponsored charitable tournaments and other outside, community-based events;
2. **In 1988, those courses hosted** more than 62 events for junior high school through college level golfers and raised thousands of dollars for charities;
3. **In 1991, Hazeltine National Golf Club in Chaska** will be host to the U.S. Open tournament, projected to bring more than $20 million dollars into the state, and
4. **The golf course business** is the livelihood of some 16,000 Minnesotan families. (The latter does not take into account hundreds of others in related businesses whose job security depends upon healthy golf courses). Hardly figures to be taken lightly.

“We’re not ignoring water shortage problems,” Glader said.

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(Continued on Page 26)
When the Board of Directors at Mankato Golf Club decided to invest in a new automatic water system, most of us here breathed a huge sigh of relief, especially the golf course superintendent. We have been waiting for a new water system for a long time. The first request for a new system was made several years ago. We originally talked about it in 1975 and 1976, but little beyond lip service was even considered. Only when our present manual system was placed under a great deal of stress these past three summers, was the seriousness of a new system given top consideration.

Watering with our old manual system really brings back some hard memories, two in particular.

When I came here in 1975 as superintendent, we were still stringing hoses and sprinklers on 13 greens, 15 tees, the nurseries, the club house lawn area, practice area and the practice putting green. We hired extra help to do the watering at night, and when these people wanted a night or a weekend off, guess who was elected to cover the watering those times?

It got to be kind of rough working 8-10 hours during the day, then coming back at night for anywhere from three to six more hours to get the watering finished.

The other horror story I recall most vividly was the continual installation of quick couplers and "pop-ups" on the greens and tees. Finally, by 1984, we had pretty well completed the "up-dating" to a total manual system on greens and tees. What an improvement. Wow!!! Now the only places we had to water with hoses and sprinklers were the nurseries and the club house lawn.

After the 1984 summer, we began training several people in the operation of our “new” manual system. In spite of that, Fred Taylor, assistant superintendent at Mankato, and I still got caught doing a lot of the watering, especially in the spring and fall when the college students we hired couldn’t always be here.

Needless to say, the desire to change to an automatic system picked up momentum. When we experienced the dry summers over the past three years, plus an unusually high cost of keeping an outdated and obsolete system in decent repair, the move for a new system really picked up steam in the early summer of 1989.

The time was right.

A committee was formed and included interested members, the general manager, Fred and myself. As the wheels were put into motion, I don’t think anyone really had a total grasp on all the little things that were to become involved. Several key decisions were made concerning how to get water from our two existing wells, whose total pumping capacity was about 550 gallons per minute onto a golf course watering system that was proposed to pump about 800 gallons per minute. To stiffen the problem, most of the water from one of those two wells was needed to satisfy demands at the club house.

We decided to build a 2.5 million gallon pond, covering about 1.5 surface acres. Water would come from one of the existing wells and the old pipeline would be used to fill the pond. The other well, which served the club house, also would have a line going into the pond, but would only be used in an emergency. We also used the old pipeline for the project.

Once a contractor was hired to install the system, and another contractor was hired to build the pond, we were ready to go.

First, a new service road had to be built because the old road was where the pond was going to be. Next, we had to move 58 trees from the proposed pond area to different places on the course. We then started construction on three new elevated tees for the 12th hole. These were designed and built by Fred and myself.

(Continued on Page 27)
Thirsty Golf Courses—
(Continued From Page 24)

“We’re keenly aware of how precious Minnesota’s water supply is and that was substantiated in the survey which showed 80 percent of our golf courses are using some kind of water conservation practices including computerized irrigation controls for greater efficiency, wetting agents and the use of less water-demanding strains of grass.”

“Lest we should become complacent in the years with normal rainfalls, the MGSCA continues to urge our members to hold their water usage to an absolute minimum, and we’re working closely with irrigation industry leaders to develop efficient watering systems,” Hoffman said.

He said they plan to share tips with the public on how to conserve water from what they have learned about good watering practices, height of cut, cultivation (aeration), fertilization and the use of drought-resistant strains of grass.

“Without water, we’re out of business. It’s important that regulatory agencies and the public understand this. It’s equally important that they understand what will be the implications and economic impact on the economic health, vitality and quality of life in Minnesota if golf courses fall short of their fair allocations.”

Dr. James R. Watson, Toro’s chief agronomist and an acknowledged expert in the field of turf management worldwide, is deeply involved with the MGCSA and other groups around the world in developing and improving water conservation methods for turf maintenance. He cites technological advancements including low-pressure sprinkler heads and computerized irrigation controllers and soil moisture sensor devices as examples of how manufacturers are responding to the unquestioned need to conserve water, the nation’s most precious commodity.

Dr. Watson said, “The concept of low-pressure sprinkling and total control of water distribution means that golf courses will be able to manage their water and maintenance costs more accurately.”

According to Watson, low-pressure sprinkler heads spread water more evenly than traditional heads and use less water to accomplish their task. Computerized irrigation controllers permit precise water application by taking into account a variety of factors (daily weather changes, evaporation rates, soil and turf types) before computing the amount of water necessary to sustain turf health and growth.

“Water conservation is a worldwide concern,” Dr. Watson said. Everyone involved in any way with the golf industry in Minnesota is pleased to see that advancements being made on golf courses, both through improved equipment and better management practices, are setting the standards for the way we regard and use our precious water resources.”

The Minnesota Golf Course Economic and Water Usage Committee and government officials are holding discussions on this crucial issue, and it appears there is support for the case being made by the committee.

Hoffman sums it up like this: “If it can happen in Minnesota, it can happen anywhere! If you’re in the golf business, I would advise you to invest in the latest state-of-the-art irrigation system, start planting hardy species of grass, trees and shrubs, and prepare for the time when all water usage will be legislatively controlled and restricted. As I see it, if you’re not monitoring your water supply carefully, someone else probably will with results that very likely will be untenable to all of us.”
A new cart path was constructed around the 11th green to get traffic from the 11th hole over to the 12th tee. Northern States Power Company was hired to bring in a whole new underground electrical service to the new water system. The old pump house was remolded to accommodate the changes necessary to fill the pond.

Another contractor was hired to construct the new pump house station. All these projects were started the second week of September, 1989. Six super weeks of weather enabled all the projects to proceed with great speed, resulting in much work being done.

The pond was completed and we filled it during the second week of November. About 80% of the work on the new elevated tees at No. 12 is complete. Approximately 85% of the pipe installation was completed. The new pump house stands, and NSP has completed the installation of power to the site. In addition, most of the work on the new cart path around the 11th green is completed.

Much work needs to be done this spring, and every time I go out on the course, I get the “willies” just thinking about it. Pipe installation needs to be completed on the first and 18th holes, as well as the club house lawn area. All the controllers and the central have to be installed. Some fine grading, sodding and seeding need to be finished on the new tees at the 12th hole. A ton of fine grading, seeding and sodding must be done around the 11th green, 12th tee and pond areas.

Additional grading and seeding must be finished at three new berms, which were constructed along the eighth and 10th holes. Lots of restoration will be required to repair turf damage caused by various construction projects on the course.

All in all, the progress has been phenomenal. We are hoping for a good spring, because our old water system no longer exists, and we’ll be running a race with the weatherman to get water to the course.

It would be nice if that would mean that we’d get some rain in the evening hours to water the seed and sod we put in during the day. I don’t think I’m going to count on that happening, however.

We must exercise some practicality and restraint. But if the dry conditions continue to exist, we could have lots of problems this spring. We’ll keep our fingers crossed and hope for the best. Maybe it’ll help if you do that for us, too. I guess, in the final analysis, that’s what we probably have to do in most cases anyway.

—Boots Fuller
Mankato Golf Club
Mankato, Minnesota
THE EXTENSION LINE
By Bob Mugaas
Minnesota Extension Service

Black knot is a fungal disease which attacks cherries, chokecherries, plums, peaches and apricots. It takes its name from the growths the fungus produces on the infected wood. Hard, black, elongate swellings appear two years after infection (Fig.1). These infected areas may increase in size yearly and eventually girdle the branch.

Initial infection by the black knot fungus occurs in the spring during wet periods. Previously formed knots produce spores which are wind blown or splashed over to the current season's growth or a wound and cause infection. The fungus grows internally in the twig and a slight swelling or cracking of the outer bark may be evident by fall. The fungus overwinters in this area and the next spring the bark ruptures and a light yellowish growth fills the crevices of the swollen area. By late spring the knots are covered by a velvety olive green layer of spores. During their second summer they expand rapidly, and in late summer or early fall the growth has reached its full size and is hard and black.

In landscape plantings control of black knot is easily accomplished with spring pruning and a dormant season application of lime sulphur or bordeaux mixture. First, remove all branches showing any swelling or bark cracking as well as those with the typical black knots in late winter before new growth begins. Prune at least 3 to 4 inches beyond the swollen or knotted areas as the fungus may be further into the tissues than it appears. Second, watch for the development of new galls or swollen areas during the growing season and remove these during dry weather.

The application of a fungicide during the dormant season helps to reduce the inoculum (spores) available for infection of the new growth in the spring. Apply lime sulphur or bordeaux as a dormant application (see label for directions) to the plants in early spring before new growth begins. It is a good idea to spray after pruning.

Wild plums and cherries may also be infected and can serve as a source of inoculum for properties adjacent to natural areas. Where possible these infections should be removed.

MEMBERSHIP REPORT

NEW MEMBERS—MARCH 14
David Bester Class BII
Michael Daly Class F
Blair Hawkins, Jr. Class D

NEW MEMBERS—MARCH 21
Beth Greeninger Class D
Kurt Haugen Class D
Jeffrey Larsen Class C
Kevin Nieman Class BII
Mike Romundstad Class D
Stephen Williams Class BII

RECLASSIFICATION
Joseph Baker Class C to B
Brooks Ellington Class A-B
Thomas Feriancek Class BII to B
William Larson Class B to A
Robert McKinney Class Bill to B
Ed Peterson Class D to Bill
Kevin Schockman Class B to A
Gregory Spencer Class Bill to A
Francis Reiter Class A to AA

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Located on the grounds of the Professional Golfers' Association World Golf Hall of Fame in Pinehurst, N.C., the Shrine Gardens were created to recognize golf course superintendents' service and contributions to the game of golf.

Beautifully landscaped, they are situated near the entrance to the Shrine building and include a plaque that dedicates the gardens to golf course superintendents around the world. Begun in 1988 and completed last August, the Gardens were publicly dedicated on November 2. They replace a moat that previously encircled the Shrine area.

According to Mike Hoffman, director of marketing for commercial products for The Toro Company, founding sponsor of the gardens, the project is an effort to provide golf course superintendents with much deserved recognition.

"Golf course superintendents are key members of the golfing industry," he said. "They have made and continue to make major contributions to the game. It is our hope that they will receive the recognition in this special hall of fame that they have earned through hard work, expertise and dedication to golf."

The majority of the golf course superintendents in the United States are members of the Golf Course Superintendents Association of America (GCSAA), an organization of golf course superintendents serving more than 9,000 members worldwide.

The Professional Golfers' Association (PGA) of America, the world's largest sports organization, is made up of 16,000 members and apprentices and is represented at more than half of the nation's 12,000 golf courses. Formed in 1916, the association strives to elevate the standards and to promote interest in the game of golf.
The annual International Golf Course Conference and Trade Show held February 19-26 in Orlando, Fla. set record highs. Where does it all end?

There were more than 17,400 registered conference participants.

Obviously, the attractions of the area prompted many superintendents to bring along their family members for an extended stay. As I eased my rental car through the boulevard of International Drive, I couldn't help but think of how many superintendents were considering the wiser choice of the hotel shuttles.

_The concurrent sessions centered_ around water use, pesticides and the legislation monitoring both. I took particular interest in the GCSAA/Hall-Kimbrell Self-Audit. This program looks to be of some use and certainly is of interest to all superintendents.

As the popularity of golf continues to grow, and public scrutiny of golf course operations heightens, a tool is needed to be certain that our houses are in order. It also shows that the GCSAA and its chapter associations are moving towards the forefront of these issues.

The trade show continues to supply us with new technologies to improve our maintenance practices. _By the way, what's a W.I.C.?_

Associate members and their companies continue to come up with products to meet the demands of golfers and superintendents. My congratulations to all of the companies who participated in the trade show, and I bid you the best of luck in your endeavors.

As I sat three miles away from Shuttle Atlantis, this thought crossed my mind: How far can we go? What will the 21st Century bring us? Will technology and all its innovations bring us the desired result, or will unforeseen disasters arise and send people to their respective drawing boards?

—John Harris
Co-Editor

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