Thirty-four foursomes played 18 holes of golf at 12 Minnesota golf clubs during MGCSA’s 15th Annual Turf Research Benefit Week from June 4-7. The tournament raised $10,880 for the MGCSA Research Fund.

Money generated from this event goes into the MGCSA Research Fund. Over the years this money has funded many timely research projects which directly benefits all golf courses. This Research Fund also insures that State specific problems are researched and the Research Trust Fund that continues to grow will guarantee continued dollars into the future.

The MGCSA would like to thank the following clubs for participating in this year’s event:

+ Dellwood Hills Country Club
+ Izaty’s Golf & Yacht Club
+ Minnesota Valley Country Club
+ North Oaks Golf Club
+ Oak Ridge Country Club
+ Olympic Hills Country Club
+ Rolling Green Country Club
+ Stillwater Country Club
+ The Minikahda Club
+ Town & Country Club
+ Wayzata Country Club
+ Woodhill Country Club

IF YOU ARE INTERESTED IN RUNNING FOR THE MGCSA BOARD, CONTACT:

TOM FISCHER, CGCS
763/315-8575
Centralized Control For Superior Irrigation Management

Cirrus  
Nimbus II  
Stratus II

The demands on golf course superintendents have never been greater. Fewer resources and additional regulations have made managing a golf course difficult under the best of circumstances. To stay on top of the game, superintendents are asked to work harder and smarter. When it comes to irrigation, a central control system by Rain Bird® is one of the most intelligent choices around.

Virtually no other buying decision you make this year can affect your productivity more than a central control system. With a Rain Bird Cirrus™, Nimbus™ II or Stratus™ II you can simply and easily automate your entire irrigation system. By carefully measuring the distribution of water, Rain Bird's innovative central control systems are able to promote the growth of healthy, stress-free turf while reducing labor, energy and water costs.

Contact Information:
Ted Schirck, Todd Folie
or
Tom Bjornberg
Representatives
9835 10th Avenue North
Plymouth, MN 55441
763-542-1188
800-422-1487
Kentucky bluegrass is a species that exhibits a great range of genetic diversity. Kentucky bluegrass reproduces asexually, therefore the seed from a mother plant is essentially identical to the parent plant. Genetic diversity in Kentucky bluegrass for the end user is critical. Blends and mixtures containing genetically different Kentucky bluegrass varieties reduce the opportunity for an individual strength or weakness of a Kentucky bluegrass cultivar to express itself over time. Therefore, single varieties of Kentucky bluegrass may not provide enough genetic elasticity against abiotic and biotic stresses during the growing season. Many distinct types of Kentucky bluegrass have been released, and these varieties have been classified into 14 groups based upon growth and performance.

Blends and mixtures containing Kentucky bluegrass should include complimentary and compatible but different varieties for optimal long-term turf performance. For example, a mixture of "Other" type (Allure), "Aggressive" type (Julius) and "Midnight" type (Midnight) Kentucky bluegrasses will provide broad genetic diversity for improved disease resistance and agronomic performance.

**Seeding**

**Dates:** Spring and fall when soil temperatures are above 60 degrees F.

**Rates:** 2-3 lbs./1000 sq. ft. on new seedlings. 1-2 lbs./1000 sq. ft. on established turf.

**Depth:** sow at 1/4 to 1/2 inch. Generally, Kentucky bluegrass is slower in germination than other cool-season grasses.

**Cultural Practices**

**Soil preparation:** Prepare a firm seed bed, free of clods, sticks and vegetative debris. Seed should be in contact with soil.

**Soil pH:** soil is best maintained at a neutral pH of 7.0. Of the cool-season turfgrass, Kentucky bluegrass is the most susceptible to variation in soil pH conditions.

**NPK requirement:** In the northern regions, 4-6 lbs. N/year.

**Water use:** an ET rate of 7-8 mm per day places Kentucky bluegrass into the medium water use category for cool-season turfgrass.

**Mowing height:** Most Kentucky bluegrasses should be mowed at 0.75 to 2.0 inches, though some tolerate 0.5 inch mowing height under optimal growing conditions.

---

**A Thought to Ponder**

On a recent visit to St. Andrews, Scotland, I picked up this little bit of history. In March 1897, the idea of a third course to relieve the pressure on the other courses came to fruition. Within a month the Town Council had an estimate from Mr. John Angus Jr. who undertook to lay out the course and have it ready for play in the current season. On 22nd June 1897 the 12 hole course was opened for play, coinciding with the day the town was celebrating Queen Victoria’s Diamond Jubilee, after which the course was named. – Steven A. Mann
MAXIMUM PROTECTION FROM STRESS WITH AMINO ACID BIOFERTILIZERS

- Use MACRO-SORB® *radicular* throughout the growing season to increase nutrient absorption and enhance root growth and development.

- Use MACRO-SORB® *foliar* to increase photosynthetic activity, especially during periods of stress, and throughout the year to enhance your foliar spray program.

- Use QUELANT®-Ca to correct a calcium deficiency within the plant or once a month to keep calcium levels sufficient throughout the year.

- Use QUELANT®-K to enhance synthesis of carbohydrates and increase turfgrass tolerance to heat, drought, cold, traffic, disease, and other adverse conditions.
Who Are BIGGA?

The British & International Golf Greenkeepers Association was formally created on January 1, 1987 from an amalgamation of the British Golf Greenkeepers Association, The English and International Golf Greenkeepers Association and The Scottish and International Golf Greenkeepers Association, forming a membership of 1,200. Today BIGGA boasts over 7,000 members which not only include Greenkeepers but also Associate Members and Student Members.

Eleven years later, in October 1998, BIGGA was proud to welcome His Royal Highness The Duke of York to officially open BIGGA HOUSE, the Associations’ new headquarters. Housing 17 members of staff and with a state-of-the-art training room, the Association has the facilities to enhance further its services to its members and the greenkeeping profession.

Mission Statement

BIGGA is dedicated to the continuing professional development of its members and in serving their needs will strive through education and training for standards of excellence in golf course management throughout the greenkeeping profession.

Organizational Structure

The Association has a three-tiered structure, ensuring that there is a steady flow of information between grass roots level and the administrative headquarters. The major policy making body is the Board of Management comprising of a Chairman, Vice Chairman and Past Chairman together with one representative from each of the five Regions and two Guardians.

BIGGA’s five Regions covering Scotland, Northern England, the Midlands, the South East, the South West and South Wales together with a section in Northern Ireland form the second tier. Each region has its own Board consisting of a representative from each of the Sections and is serviced by a Regional Administrator.

The Sections constitute the third and final tier. There are currently 27 Sections each with its own committee responsible for organizing events for Section members and administering Section matters on behalf of the Association.
Drive for the “U” Program

The Drive for the U is a program designed for in-kind donations to the University of Minnesota Turfgrass Research Center. All donations are tax deductible and will help to build the research center into a top-notch facility.

Paul Eckholm, CGCS, Heritage Links Golf Club. epeckholm@msn.com

<table>
<thead>
<tr>
<th>Company</th>
<th>Commitment</th>
<th>Value</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Century Rain Aid</td>
<td>6 Irrigation Heads</td>
<td>$950</td>
<td>On-going</td>
</tr>
<tr>
<td>Miltona Turf Products</td>
<td>Turf Maintenance Tools</td>
<td>$325</td>
<td>On-going</td>
</tr>
<tr>
<td>Paul Eckholm, CGCS</td>
<td>Reel Maintenance</td>
<td>OPEN</td>
<td>On-going</td>
</tr>
<tr>
<td>Hydrologic</td>
<td>Irrigation Materials</td>
<td>$2,000</td>
<td></td>
</tr>
<tr>
<td>Gill Miller Inc.</td>
<td>Design Services</td>
<td>$3,500</td>
<td></td>
</tr>
<tr>
<td>E-Z-Go Golf Cars</td>
<td>Workhorse</td>
<td>$5,000</td>
<td></td>
</tr>
<tr>
<td>Bonestroo &amp; Assoc.</td>
<td>Workhorse</td>
<td>$3,500</td>
<td></td>
</tr>
<tr>
<td>Twin City Seed</td>
<td>Design, Construction,</td>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>Simplot Partners</td>
<td>Services</td>
<td></td>
<td>1 Season</td>
</tr>
<tr>
<td>North Star Turf</td>
<td>Bentgrass Seed</td>
<td>$400</td>
<td>On-Going</td>
</tr>
<tr>
<td></td>
<td>Fertilizer Products</td>
<td>$5,000</td>
<td>On-Going</td>
</tr>
<tr>
<td></td>
<td>Two Mowing Units</td>
<td>$33,819</td>
<td>On-Going</td>
</tr>
<tr>
<td></td>
<td>Top Dresser</td>
<td>$7,495</td>
<td>On-Going</td>
</tr>
<tr>
<td>MTI Distributing, Inc.</td>
<td>Three Mowing Units</td>
<td>$48,423</td>
<td>On-Going</td>
</tr>
</tbody>
</table>

CONCRETE CART PATHS

6’ - 7’ - 8’ - 10’ wide
30% inclines are possible
Reference list available

HOWREY CONSTRUCTION

For more information, contact
David Howrey • Rockwell City, Iowa 50579
712-297-8182
With the Grain--
(Continued from Page 23)

Superintendents face continual battles with sand. Each bunker takes on individual characteristics, just as a green that is in shade most of the day will play differently from one in direct sunlight. Cost and logistics make it practically impossible to renovate all bunkers at once, so many courses juggle their programs, replacing the worst bunkers as the need arises. The largest cost of a renovation program is not the sand, but trucking it to the site.

A successful sand-maintenance program is built on selecting quality sand grains, adjusting maintenance practices according to the inherent properties of the sand and weather, and gaining the understanding of those who play the course. Many times that takes just a simple reminder to a golfer that a bunker, after all, is a hazard meant to impede the player from reaching the hole.
Editor's Corner

By Richard Traver, Jr., CGCS
Monticello Country Club

Whoa, Who Left the Faucet On?

My heart goes out to all of you who have or had to deal
with all the excess water this spring. I heard some real hor-
ror stories about flooding this spring and I hope all of you
had good luck with your turf after the waters receded. The
course I'm at was pretty much built on a gravel pit, so we're
already pumping all the gallons we can try and keep the
turf alive. I don't remember which professor told me this,
but in college we were told that 60-75% of all golf courses
built, were built on land no one else could do anything
with. With all the golf course construction that has taken
place in the last 10 years, I don't know if that data is still
accurate. However, keep in mind, you are not alone, and
we are all pulling for you.

Brackett's Crossing

It was nice to see so many members show up at our
spring outing at Brackett's Crossing. Thanks to Tom
Proshek, his staff, and coworkers for helping to make the
outing a success. While I personally wasn't able to get out
and play, I understand the course was in great shape.

Thanks also go out to Dr. Powell for filling us in on his
greens cover study. He now has a couple of years into this
study and is able to start drawing some conclusions from
his data. If you were unable to attend his presentation, he
will have the information available on our website this
summer. Also he would like input for future variations to
this experiment. This is the kind of information we are
looking for with our "Drive for the U" program.

GCSAA Logo Balls

As part of the 75th anniversary for the GCSAA, a display
is being built to host as many member course logo balls as
can be assembled. The GCSAA would like you to mail three
logo balls from your club, one for the a display at the next
GCSAA turf conference, and the other two to be auctioned
off with the proceeds going to the GCSAA Foundation.

Mail the balls to: GCSAA, 1421 Research Park Dr.,
Lawrence, KS 66049-3859.

If you have any questions about the logo ball display or
any 75th anniversary programs contact: Judy Ventsa, 1-800-
472-7878, ext. 419.

GCSAA E-Commerce

At our last MGCSA board of directors meeting, we spent
some time talking about the GCSAA and their involvement
into E-Commerce. While I am not sure that this is the direc-
tion our organization should be pointing, one issue became
boldly obvious. That is, that our local chapter relies heavi-
ly on local vendors. Our local vendors spend a large
amount of time and money within our association and this
type of spending might get cut if sales start to diminish due
to internet competition. While we all have to deal with
budgets and part of our job is to be fiscally responsible,
please keep in mind that there is a cost to customer service,
and whenever possible support our local vendors.

Retraction

While we still want to congratulate Steve Shumansky on
his new son, I incorrectly stated his name in last months
Hole Notes. His name is Nicolas, (hopefully spelled right),
not Nathan. Sorry Steve.

Keep 'em Coming

Thanks to Norma O'Leary for her article on volunteer
labor and Jack Kolb for his article on Mark Smith. Members
submitting articles to the Hole Notes, helps give our publi-
cation a local flavor. Keep it up.

Until Next Month

Good luck to those of you who will be participating in
the Scholarship Scramble at Dakota Ridge. Jeff Johnson and
his committee have done a great job of putting this tourney
together and it should be a lot of fun. Hopefully, I'll see you
there, if not I'll see you in the next issue have a great month.
“healthier roots and healthier grass than the college has ever seen”

Jim Fisher, Grounds Manager, St. Olaf College, Northfield, MN

Sustâne is a hit with St. Olaf College in Northfield and favored by golf course and other large-scale turf-tenders around the globe because it creates rich humus with high quantities of beneficial bacteria. As Grounds Manager Jim Fisher learned, its high level of composted organic matter improves the disease-resistance of grass, and its high humus content increases the nutrient-holding capacity of soil. It does not scorch grass, and it’s odorless.

The turf management program also saves money by reducing the need for herbicide. Because the organic fertilizer and aeration keep the grass’ roots and blades robust, crews apply only on-eighth of the herbicide that most institutions use.

“Our soil has become extremely friable, thanks to the organic products in the fertilizer,” Fisher says.

Call us today at 800-352-9245 and visit our website at www.sustane.com