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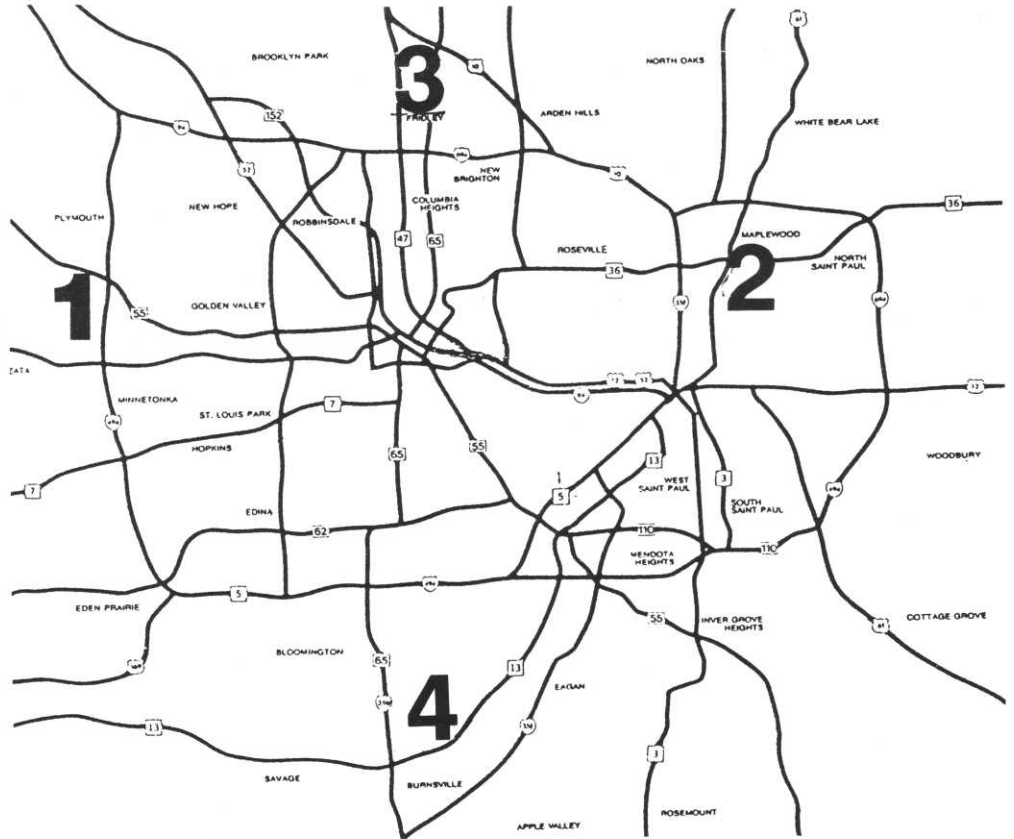
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# HOLE NOTES

OFFICIAL PUBLICATION OF THE MINNESOTA GOLF COURSE SUPERINTENDENTS' ASSOCIATION

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by KEITH SCOTT, CGCS  
MGCSA PRESIDENT

## SUCCESS COUNTINUES ON

Our annual MGCSA Harold Stodola Research Scramble, held at the Edinburgh U.S.A. course was a tremendous success. Thanks to host Superintendent Tom Fischer and the entire Edinburgh U.S.A. staff for hosting this event.

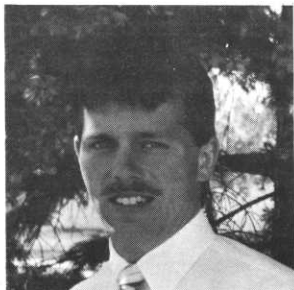
As a member of the GCSAA Membership Committee, I recently had the opportunity to travel to our national headquarters in Lawrence, Kansas for a two day meeting. Along with an update of the proposed new headquarters facility, a variety of subjects were discussed. After touring the present headquarters, which covers 12,000 sure feet, it was evident a new building is a must. GCSAA's membership has exceeded 9000 and with all the new programs, the staff will have to be expanded from 40 to approximately 60 people over the next few years. The proposed four story building would be situated on 6.5 acres, border a golf course, and would have over 40,000square feet of space. Along with the expanded of- fice space, the facility would have two classrooms, a library and meeting rooms.

Recently, we were advised by the M.G.A. office that because of their expanded work load, they would be unable to handle the production of our **HOLE NOTES** magazine. A committee was set up to seek out a new publisher and I'm pleased to report that we obtained the services of the Turtinen Communications Company located in Wayzata. Ralph Turtinen has been involved in golf for many years and we feel his company would be a fine asset to our organization. We owe the M.G.A. much gratitude for handling this difficult task over the years.

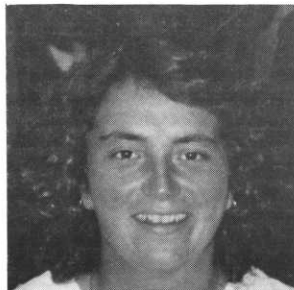
Within the next few weeks you'll receive information concerning our Annual Conference held November 29, 30 and December 1 at the Sheraton Inn Northwest. The list of speakers looks great so plan on attending.

## HAROLD STODOLA SCHOLARSHIPS AWARDED

by Rick Fredericksen, CGCS  
Scholarship Committee Chairman



*Michael Mohnenstingl*



*Nancy O'Connor*

The Harold Stodola Memorial Scholarship Committee announced this year's recipients of its annual grant. Michael Bohnenstingl at the Anoka Technical College and Nancy O'Connor at the Horry-Georgetown Technical College in South Carolina are this year's recipients.

Mike, the assistant at Maddens Resort in Brainerd had listed in his application that his interest in the profession developed as his interest in the game grew. Nancy, greens employee at Brookview Golf Club had listed her superintendent as the major force behind her decision to pursue golf course management as a career.

Scholarship grants are awarded to turfgrass students who have displayed high scholastic achievement and a strong desire to become a golf course superintendent. The two winners were selected by a committee whose membership included Dan Hanson, CGCS; Doug Mahal, CGCS; Dale Caldwell, CGCS; Dave Krupp and Mike Leitner.

The scholarship grant is dedicated to the memory of Harold Stodola who committed his entire life to "the propagation and enhancement of the finest quality turf on earth so the masses could enjoy this game called golf in the most relaxing atmosphere on the most beautiful and tranquil spots in the world".

### EDITOR'S NOTE-

*Harold Stodola, a Minnesota native, was President of the National Greenskeeper Association, predecessor to GCSAA, during the war years, 1941-1945. He single handedly held the national association together during this very trying period. He held head superintendent's positions at Keller Golf Course and Mendakota Country Club in Minnesota, Firestone Country Club in Ohio, and Paradise Valley and Tucson Country Clubs in Arizona. Besides many other honors, Harold was the recipient of the Distinguished Service Award from GCSAA in 1977.*

## PUMP STATION TECHNOLOGY ON THE MOVE

by Lee Krmpotich, Watertronics, Elm Grove, WI  
Tom Emmerich, Certified Irrigation Designer

As energy and labor costs continue to rise, Golf Course Greens Committees, owners and superintendents are demanding more efficient, flexible and reliable pump stations. Pump station manufacturers have responded to their call through the innovative use of computer circuitry and solid state measuring devices. This technology provides precise control of pump selection corresponding to flow, pressure and safety controls while increasing efficiency and reducing maintenance.

Current technology in solid state circuitry has allowed pump station manufacturers to move beyond hydraulic regulating valves and limit switches, which have been the mainstay for pressure regulation and pump sequencing over the last quarter of a century.

Pressure regulations has become more accurate and trouble free with the increased use of electronic flow and pressure sensors, variable frequency drives (VFD) or electrically actuated butterfly valves.

VFDs regulate pressure by varying the rotation speed of the pump in response to changes in the irrigation cycle. Electrically actuated butterfly valves maintain constant pressure by modulating the performance of each pump, again in response to changes in the irrigation cycle.

Butterfly valves reduce the high friction loss inherent to hydraulic regulating valves. They are virtually maintenance free and dirty water tolerant. There are no pilots or screens to plug or clean. The discharge pressure of each pump is individually controlled which allows extremely accurate regulation of the irrigation system pressure.

Another advantage to VFDs and electrically actuated butterfly valves is that surge pressure created from pump starts are completely eliminated from the irrigation system. With a butterfly valve, this is accomplished by closing the valve as a pump is turned off. When the pump is reactivated the valve remains closed. As the pump reaches full speed the valve is slowly opened to allow the water down stream. This slow opening is what eliminates the pump start surge. Variable frequency drives eliminate surge pressure by starting slowly and ramping the pump speed up to achieve the desired operating pressure.

Prompting the move toward VFDs is the potential for energy savings and the subsequent reduction in utility bills. Prime candidates for VFD pumps stations would include courses with any of the following:

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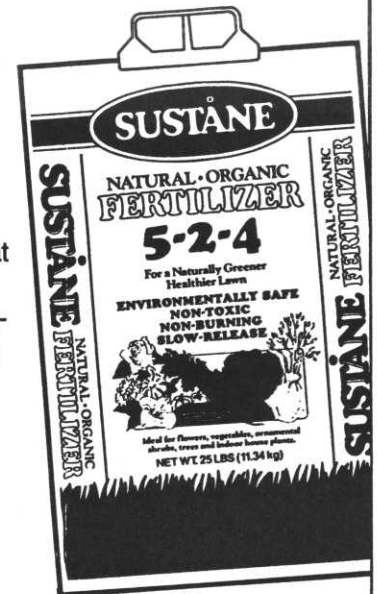
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- 1) Variations in suction pressures supplying the pumps.
- 2) Unpredictable and changing flow rates.
- 3) Varying discharge pressures. (*Possibly due to elevation changes*).
- 4) High electrical demand charges.

As pump stations age the valves and pressure regulating components become more maintenance prone. Retrofitting existing pump controls becomes an economical alternative to replacing the entire station. With today's programmable logic controllers and new methods of pressure regulation, the performance of an existing pump station can be greatly enhanced through retrofit. The replacement components are typically preassembled at the manufacturer's facility and often installed with only a one or two day interruption to the irrigation cycle.

Some irrigation applications call for a small amount of water or simply a pressure boost from a main supply line. In these cases a single pump booster station is a suitable choice. The landscape or sports turf packages as they are called feature automatic actuation through pressure sensor, flow sensor, or irrigation controller pump start circuitry. Various means of pressure regulation include electrically actuated butterfly valves or diaphragm operated hydraulic valves. All the components are preassembled by the manufacturer and contained in a lockable steel enclosure making the pump station tamper resistant

while eliminating the need for a pump house.

When considering a pump station change, a golf course should be evaluated with respect to its unique requirements. Evaluation parameters should include current irrigation system demands for pressure and flow, plans for future expansion, horsepower requirements, pump preference (vertical turbine or horizontal centrifugal), type of pressure regulation desired, geographic location, utility rates (including off peak), and budget.

Today, prefabricated pump stations are available in a greater variety and with more features than just a few years ago. There is little doubt that innovative pump station manufacturers will continue to use improving technology to provide the Turf grass Industry with more efficient and reliable pump stations.



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## MAGIC KINGDOM CLUB

The Golf Course Superintendents Association of America has recently entered into an agreement with the Disney Magic Kingdom Club to provide membership to individuals in GCSAA.

The Disney Magic Kingdom Club is an exclusive program designed to offer a variety of money-saving benefits that are not offered to the general public. These include various discounts on such items as Disneyland/Disney World passports, vacation packages, and Disney merchandise purchases.

There is no fee for GCSAA members to join the Disney Magic Kingdom Club, however, club membership cards will be issued upon **request only**. Club memberships are valid for two years and may be used by anyone in the club member's family. Call the Membership Department today at 800/472-7878 or 913/841-2240 to become a Disney Magic Kingdom Club member.

If we can be of any further assistance or provide any additional information, please do not hesitate to give the Golf Course Superintendents Association of America a call.

## PESTICIDE USAGE AT BROOKVIEW GOLF COURSE

by **Andy Lindquist, CGCS  
Superintendent**

Recent articles in golfing magazines and local papers have presented an unfair perspective of pesticide usage at golf courses. However, this does give us a good chance to review our pest control program at Brookview Golf Course.

Basically there are three types of pest management programs" preventative, curative and integrated. Preventative pest management concerns using various broad spectrum pesticides applied on a regular basis at predetermined times when it is expected that a particular pest may become a problem. The preventative program is designed to eliminate any sign of th pest (spots/marks/holes/etc.) one hundred percent during the golfing year. The preventative program is expensive budget-wise and is a "low-risk" program for the golf course as far as having to be concerned with disease infestations.

Curative pesticide programs operate on the basis that

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you apply a specific pesticide which generally acts on a specific pest only when the damage caused by the pest reaches a predetermined "damage" level, (i.e., 5% of turf infected; number of pests per sq. ft., etc.) Curative programs are lower cost (chemically) than preventative programs, but puts the course into a "high risk" situation if pest problem is not recognized quickly.

Integrated programs (the system used at Brookview) combines the best of both previous programs. Certain pests (listed in Table I) are problems we traditionally have at Brookview due to specific course conditions (i.e., wet, tight soil; grass species; expectations of customer, etc.) The pests listed in Table I are controlled on a preventative schedule. Table II lists pest problems at Brookview which are controlled on a curative basis at predetermined "damage" levels. The integrated program provides a low risk to the overuse of pesticides and moderate risk to the course as to loss of turf from pest infestation.

Application of control products generally is by using sprayers during calm wind times (6:00 to 9:00 am) and low play days (Monday). However, it must be noted that not every Monday is an ideal spraying day (weather or pestwise), so we may apply products at other times.

I and my assistant are licensed by the State and are recertified yearly. Nearly all of the products applied are also available to the homeowner from their local hardware store and are classified as "general use pesticides".

To summarize, control of pest causing organisms is a necessary part of any fine turf maintenance program, and pesticides are used as infrequently as possible and applied in a manner to have the least effect on the golfer. I hope this clears up any questions that you may have concerning our pest control methods.

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## Food For Thought

According to Einstein's Theory of Relativity, the dimensions of time and space are not absolute, but relative to the observer. For example, for a person traveling at the (theoretically unattainable) speed of light, time appears to progress normally, as it would for an earth-bound individual. Yet a light-speed space traveler returning to earth after a journey of a few days (by spaceship's clock) would find all her friends had aged beyond recognition. For the earth-bound observers, time slows and appears to stand still for the individual traveling at the speed of light.

Unknown

# INDUSTRY NOTES

*News From MGCSA Associate Members*

*Compiled from:*

**LONG LAKE FORD TRACTOR, INC.  
RANSOMES OF MINNESOTA  
CUSHMAN MOTOR MOTOR CO., INC.**

Ransomes PLC of the United Kingdom has bought Cushman for \$150 million in a deal the two companies say will create a partnership offering the most complete product line in the turf-care equipment and industrial and commercial vehicle industry.

The Cushman group, which includes Cushman turf vehicles and mowers, Ryan aerators and sod cutters, and Brouwer mowers, vacuums and sod harvesting equipment, will be run as an independent entity under the Ransomes America umbrella.

"Cushman will operate as before," stated Helmut Adam, president of Ransomes America. "it is a well-run company with a good name. We are not going to change something that runs as well as Cushman." Manufacturing and marketing of Cushman products will continue to operate out of Lincoln, Nebraska. Cushman President Stuart Rafos, who will continue to run Cushman along with his existing leadership, said substantially increased plant capacity is already being planned.

He said the new partnership means Cushman, which has been a division of Outboard Marine Corp of Lincoln, Nebraska, is now aligned with a partner that is close to its core business and has the international marketing expertise and organization to greatly extend Cushman's growing international business as well as enhance its domestic market position.

Officials in the partnership project that both international and domestic sales will double Cushman's current \$100-million annual sales in the near future.

Rafos said Cushman will continue to operate as an independent company, with its management team and dealer network in the United States and Canada unchanged.

Ransomes also recently acquired the Salsco line of turf renovation equipment. The addition of walk-behind, towed and rider-type core aerators, a slicer/seeder, a walk-behind dethacher, tailgate and towed truck loaders, and a walk-behind leaf blower to the product line helped increase the range of products offered by Ransomes.

## LONG LAKE FORD TRACTOR, INC.

Note the enclosure of a piece of literature on the Ransomes 5000 in this month's issue of **HOLE NOTES**. We attended the Ransomes National Sales Meeting at the factory in Johnson Creek, Wisconsin in late August. They had three 5000's with over 1000 hours use that we were able to operate on a local golf course. The light weight mowing performance of the 5000 was superb. The cutting units responded quickly, the field of vision was excellent, and the 23 HP liquid-cooled Mitsubishi diesel powered the unit smoothly and quietly.

## COMMERCIAL TURF

Mr. Bryan Wood, owner of Commercial Turf (Chillicothe, MO), has been appointed the authorized distributor for the Verti-Drain R Deep Aerator in Minnesota.

The Verti-Drain was first introduced in the U.S. in 1984 along the East Coast where Bryan became acquainted with the machine when he was a golf course superintendent and later when he worked as a Turf Division Manager with a company marketing the Verti-Drain.

Bryan returned to his home state of Missouri in the spring

of 1988 to introduce the Verti-Drain to the midwest as authorized distributor for Missouri, Kansas, Iowa, and Nebraska. His company just became responsible for the sales and service of this aerator for Minnesota, North Dakota, South Dakota, and Northwest Illinois as of this spring. Additionally, he offers a contracting service which allows customers to sample Verti-Drain's results prior to buying.

The Verti-Drain is unique in its 0" - 16" penetration capability and patented "pitchforking" action of its tines, making it ideal for use on golf course greens, tees, and fairways, as well as on athletic fields and in parks.

Mr. Charles Otto, agent for the manufacturer (Redexim bv) commented when appointing Bryan's company, "We're pleased to have Commercial Turf join our growing team of authorized distributors."

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Irrigation Supply offers the golf course market the new complete product line of Richdel - Irritrol products. This line of products offers the user a tremendous value for your money and a product that is backed by a lifetime warranty. Products of interest to the golf course market include: Irritrol controllers and valves, Quick terminal dis-



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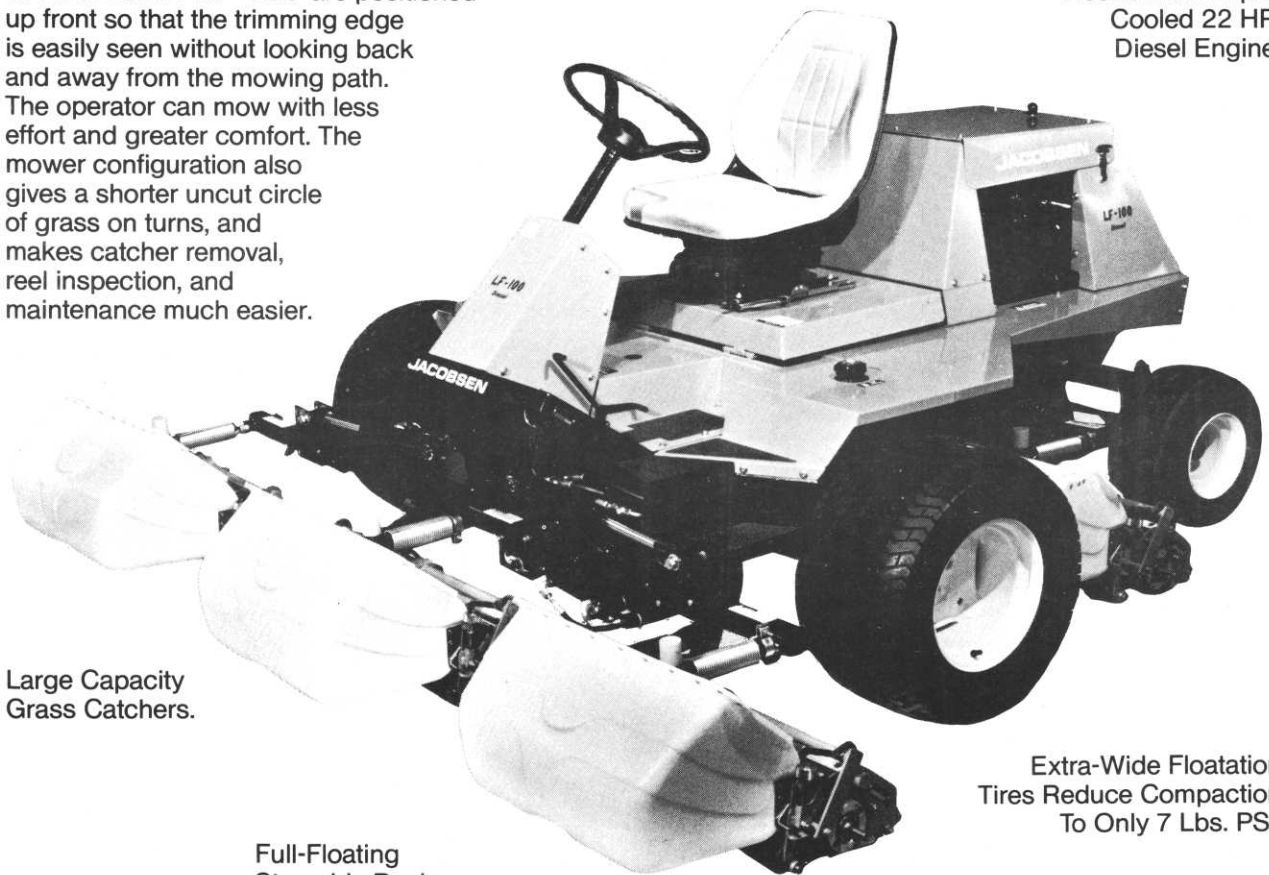
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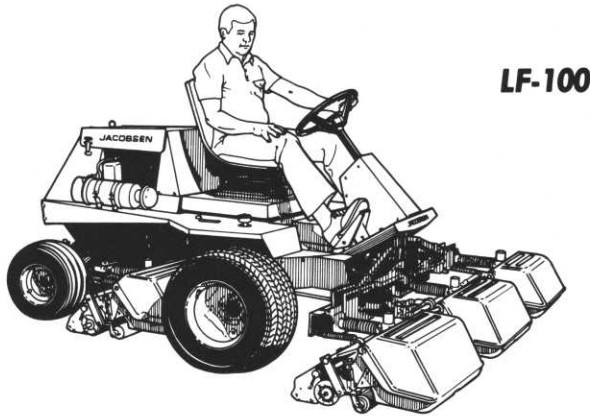
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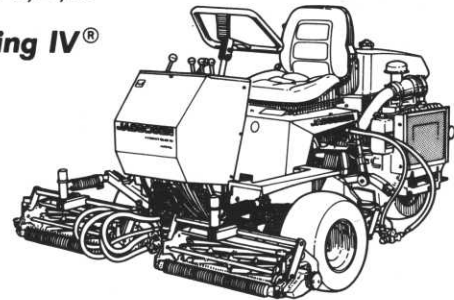


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