



Walk tall. Carry a big stick. Drive This.

Sometimes you just have to get tough. And when you do, get the E-Z-GO Workhorse™. With standard features like an 11 hp 350cc engine, a 1200 lb. payload capacity and an exclusive heavy-duty bed liner, it has everything you need to handle the big jobs. It carries sand, gravel, bales of straw, building materials, and all your tools and equipment. Optional extras include an oversized cargo bed and power dump. So, when the going gets tough, get to your E-Z-GO Workhorse dealer.



**THE FINEST UTILITY VEHICLES
IN THE WORLD.™**



CUSHMAN

E-Z-GO

RANSOMES

RYAN

CUSHMAN

CUSHMAN MOTOR CO., INC.

2909 E. FRANKLIN AVE., MINNEAPOLIS, MN 55406 • (612) 333-3487 • TOLL FREE: 1-800-759-5343 • FAX: (612) 333-5903

TEXTRON
TURF CARE AND SPECIALTY PRODUCTS

HOLE NOTES

Official Publication
of the
Minnesota Golf Course
Superintendents' Association

1999 MGCSA BOARD OF DIRECTORS

Officers

President Tom Fischer, CGCS
Edinburgh USA
612/315-8582 • Fax: 612/315-8585
Vice-President E. Paul Eckholm, CGCS
Heritage Links CC
612/440-6494 • Fax: 612/440-6496
Secretary Mike Brower
Hillcrest CC
651/777-5186 • Fax: 651/777-7463
Treasurer Rob Panuska
Waseca Lakeside CC
507/835-2574 • Fax: 507/835-3472
Ex-Officio Jim Nicol, CGCS
Hazeltine National GC
612/448-3626 • Fax: 612/448-1726

Directors

Jeff Churchill North Star Turf Supply
800/592-9513 • Fax: 612/484-8257
Rick Fredericksen, CGCS Woodhill CC
612/473-5811 • Fax: 612/473-0113
Jim Johnson, CGCS Rich Spring GC
612/685-4322 • Fax: 320/685-3461
Mike Klatte, CGCS Elm Creek GL
612/478-8592
Tom Meier Worthington CC
507/376-9250 • Fax: 507/372-2597
John Queensland Cedar River CC
507/582-3595 • Fax: 507/582-3133
Steve Shumansky . . . Perham Lakeside CC
218/346-6071
Bob Simondet LESCO, Inc.
320/327-2929 • Fax: 320/327-2929

* * * *

EDITOR

Steve Shumansky
E-mail: plcc@eot.com

* * * *

Editorial and Business Office

Scott Turtinen, Executive Director
Minnesota Golf Course
Superintendents' Association
240 Minnetonka Avenue South/P.O. Box 617
Wayzata, Minnesota 55391-1617
Tel: 612/473-0557 • Fax: 612/473-0576
Toll Free: 800-642-7227



FROM YOUR PRESIDENT'S DESK

It's Been a Difficult Year To Keep Turf Alive



Just when you thought summer was going to be one of the best growing years of the last five, Mother Nature decided to throw a curve and make this summer one of the more difficult for keeping turf alive. The third week in July where nighttime temperatures stayed in the mid to upper 70s with daytime highs in the upper 90s was the start of the turf distress. The turf looked fine on Friday, but by Monday morning some of the turf had stressed out due to the heat and disease, most likely pythium.

The second week became worse when some mornings the temperature began in the 80s and the dewpoint was in the mid-70s, creating excellent weather for an epidemic of several diseases. Superintendents had a difficult time controlling the turf losses, trying to grow cool season grasses in weather similar to that of Florida where bentgrass and Poa annua is almost unheard of. We were fortunate to have applied plant protection products before the weather turned bad but still lost some turf on three different fairways.

This golf season was the first time in my career that I had to send the crew home by lunchtime due to the fact the heat index was over 110. The temperature was 100+ and the dew point was around 75 or higher. The weather has now changed and things are back to normal. This would be a great time to take a weekend off and recover from a very stressful two weeks.

* * * *

September is our Research Scramble. This year's scramble will be held at The Legacy Courses at Cragun's, one of Minnesota's great new resort golf courses. Bring a team and enjoy a challenging day with friends.

— Thomas Fischer, CGCS
MGCSA President



Wade Tollison, Club Car, hits his wedge towards the 15th hole. Wade shot 75 to finish one shot back of winner Jeff Pint.

HOLE NOTES (ISSN 108-27994) is published monthly except bi-monthly December/January, February/March for \$2 an issue or \$20 per year by the Minnesota Golf Course Superintendents Association, 240 Minnetonka Avenue South, Wayzata, MN 55391-1617. Scott Turtinen, Publisher. Periodicals postage paid at Wayzata, MN. POSTMASTER: Send address changes to HOLE NOTES, 240 Minnetonka Avenue South, Wayzata, MN 55391-1617.

Inside This Issue of Hole Notes

- 1 Jeff Pint Wins 1999 MGCSA Championship**
By Scott Turtinen
- 5 Reality Check**
By Bob Vavrek
- 7 Punching Holes in Greens Now?** By James Snow
- 9 You Don't Always Have To Raise the Bar!**
By Larry Gilhuly
- 13 Plan Now To Attend The MTGF Conference**
By Bob Mugaas
- 15 MGCSA Announces Four Legacy Scholarship Awards**
- 17 Bentgrass Putting Green Establishment** By Bob Vavrek
- 31 Educational Opportunities For the New Millenium**
By Mike Klatté, CGCS
- 32 Kientzle's Legacy Team Advance to Olds Finals**
By Ralph Turtinen
- 33 MGCSA Board Minutes**
By Mike Brower
- 34 GCSAA Online Report**

Advertisers

Century Rain Aid	8
Century Rain Aid	Insert
Classified Ads	30
Country Club Turf	BC
Cushman Motor Co.	IFC
Double Eagle Golf Construction	11
Glenn Rehbein Companies	16
Hartman	4
Hedberg	17
Herfort-Norby	27
Howrey Construction	22
Leitner Company	29
LESCO	7
Minnesota Golf Cars	11
MTI Distributing Co.	14
MTI Distributing Co.	16
MTI Distributing Co.	20
MTI Distributing Co.	21
North Star Turf Supply	23
North Star Turf Supply	24
North Star Turf Supply	IBC
Par Aide Products Co.	31
Paskvan Consulting	34
P&H Warehouse	12
P&H Warehouse	18
Peterson Seed	9
Plaisted Companies	37
Polfus Implement	19
Precision Turf & Chemical, Inc.	29
Prinsco	28
Rhone-Poulenc	25
Scotts Company	6
Superior Turf Services	15
Tee Shot Marketing	32
Tessman Company	35
Turf Partners	10
Twin City Seed	38
Williams & Gill	5



TAKING TIME OUT AFTER THE CHAMPIONSHIP are, from left, Doug Mahal, The Minikahda Club, Scott Paquette, Heritage Links and Daryl Scheerhoorn, PBI Gordon.

Departments

- 3 From Your President's Desk** By Tom Fischer, CGCS
- 13 Membership Report**
By Tom Meier
- 38 Editor's Corner**
By Steve Shumansky

HARTMAN

Est. 1972

****Sports Turf Specialists****

- High Tech Drainage Techniques & Design
- Renovation & Landscaping
- Excavating & Grading

Jeffrey L. Hartman
President

8011 Bavaria Rd., Victoria, MN 55386 • 612-443-2958 • Fax: (612) 443-3452

Reality Check

By **BOB VAVREK**

USGA Agronomist

North-Central Region Green Section

Relatively little midsummer stress to *Poa annua* playing surfaces occurred over the past few seasons on golf courses across the north-central tier of states. In fact, the summer of 1995 was the last time intense heat stress and disease activity caused extensive injury to turf throughout the North-Central Region. It seems that every three or four years, Mother Nature feels the need to teach a refresher course in Latin. *Poa annua* is Latin for annual bluegrass. Annual bluegrass, an annual plant that (1) germinates from seed during fall, (2) may or may not survive the winter in the North-Central Region, (3) produces a flower (seedhead) during the spring, and (4) dies during the summer.

True, this life cycle is somewhat oversimplified because some plants will produce seed during summer through fall and seed germination can often occur all season long. Furthermore, some of the *Poa* plants in the playing surfaces dominated by *Poa annua* are perennial biotypes and a percentage of the stronger, annual biotypes might survive longer than one season under ideal weather conditions. The fact remains that many of the plants on greens, tees and fairways at older golf courses are true annuals and weather conditions during the summer are not always ideal. When the annual types of *Poa* begin to die off during midsummer, the best we can hope for is that they don't all die at once. Unfortunately, a considerable amount of *Poa annua* died on many golf courses within the span of several days during late July after an extended period of heat, high humidity and sporadic heavy rainfall events.

Observations made at Turf Advisory Service visits indicate that the *Poa annua* in the collars, the immediate surrounds to greens, and in the intermediate roughs appeared to have suffered the most during late July. *Pythium* and anthracnose were partly to blame, but direct, high temperature injury, *wet-wilt*, and concentrated wear from carts and mowing equipment seemed to be equally responsible for the severe losses of turf on many golf courses.

Bentgrass greens on a number of relatively new golf courses were affected by the stressful weather as well. It was no surprise that the smallest greens and greens built in shaded sites where air circulation is limited were the first to experience problems. Furthermore, playing sur-

faces that were sodded last fall or this spring seemed to melt in the hot sun during July — in spite of frequent aeration operations.

I often tell owners, Green Committees, and the like that *the greens never putt so good the day before they die*. This year it actually happened at one golf course when the superintendent was instructed to push the greens to increase speed for the Club Championship during the hot weather.

Superintendents in the northern states tend to forget what superintendents in southern states simply accept as a fact of life. Namely, fungicide applications do not guarantee disease free turf when environmental conditions for growth and development of a particular fungal pathogen are ideal. Thousands of dollars were spent this summer for fairway applications of various fungicides that, at best, protected the turf for only three to seven days.

The fallout after the devastation to turf that occurred this summer is not all bad. The smart superintendents have already come to the realization that they may have been putting a little too much faith in the power of pathogen prevention. Many more fairways, tees and greens will be aerated this fall. More cart paths will be constructed on high play golf courses. Antiquated irrigation systems will be replaced. Believe it or not, a few superintendents will be allowed to maintain greens at a higher height of cut next season.

Reality Check 1999 — Timely fungicide applications are only one of the many important components of a sound golf course maintenance program. When the natural, organic fertilizer hits the fan during an exceptionally stressful summer, fungicides will not magically transform weak, annual biotypes of *Poa annua* into Kentucky bluegrass or creeping bentgrass.

	
Williams-Gill	Office (715) 425-9511 Facsimile (715) 425-2962 E-mail golfwga@presscenter.com
& Associates	Golf Course Architects
Garrett Gill, Principal	Williams, Gill of Wisconsin 122 N. 2nd St. River Falls, WI 54022
• Services •	
<ul style="list-style-type: none">• New Course Design• Master Plans• Golf Practice Center Design• Environmental Planning• Irrigation Design• Renovation & Restoration• Site Planning	

Preseason Sale On Scotts Turf Products Is Here Again!

**TURF
PARTNERS**



Leading the industry in
turf and ornamental management



Receive the Best Pricing Of The Year on all Scotts' turf products - fertilizers, fungicides, herbicides, insecticides, growth regulators, spreaders and more...by ordering now through September.

Scotts and Turf Partners. The winning combination for all your turf care product needs!

Call today and save! Turf Partners Companies.

Turf Partners Turf Specialists

Cary Femrite
West Metro &
Northwestern MN
877-242-3100

Cris Qunlin
East Metro &
Northeastern MN
612-920-6114

Leif Erickson
South Metro
& Southern MN
800-728-0345

The Scotts Company Territory Managers

Mike Redmond
North Dakota,
Minnesota
& Wisconsin
877-632-6108

Punching Holes In The Greens Now?

By **JAMES SNOW**
National Director
USGA Green Section

Countless things we do in our lives can be considered preventative maintenance. From exercising a few hours a week to regularly changing the oil in the car, we're constantly doing something that reduces or eliminates future problems.

Preventative maintenance also is an integral part of successful golf course management. One essential practice, despised by golfers when applied to putting greens, is called aerification. Golfers view it as an inconvenient exercise that takes the greens out of play for a day, pulling cores from the greens and leaving holes that can affect putting for many days before healing. To add insult to injury, aerification is best done in many parts of the country during mid-summer, at the height of the playing season and when most greens are in prime condition.

A conspiracy, you say? Of course not, but unless you understand how important aerification is to producing healthy turf, such thoughts can be excused.

Aerification achieves three important objectives. It relieves soil compaction, it provides a method to improve the soil mixture around the highest part of a green's roots, and it reduces or prevents the accumulation of excess thatch.

When golfers by the thousand walk upon a green every month, the traffic causes the soil near the surface to become hard and compacted. The soil particles are pushed closer together until water and air have a difficult time moving to the miles and miles of small root hairs on every grass plant. When this happens the roots decline, the turf becomes weaker and diseases and other problems appear. Aerification pulls plugs from this compacted soil, allowing for an infusion of air and water that brings a resurgence of growth.

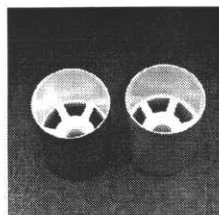
Older greens often are composed of soils with lots of silt, clay and fine organic particles and are prone to compaction. When greens are aerified with hollow tines and the cores are removed, it also allows filling these holes with sandy topdressing material that drains well and resists compaction. The periodic introduction of sand can improve a green's top layer' over time, a course might avoid or postpone the expensive rebuilding or renovation of its greens.

Finally, the growth of turf adds to the production of a layer of organic matter on the surface. This layer, called

thatch, is an accumulation of dead stems, leaves and roots. A little organic matter makes for a resilient green, but too much thatch invites diseases and insects. Topdressing with sand can prevent thatch buildup, and aerification is one of the best ways to reduce an existing layer and prevent an excess of thatch from becoming established.

There are many types of aerifying machines with different attachments that address different problems in the various stages of the life of a green. So the next time you're ready to scream when the aerifiers are brought on the course, remember that a little preventative maintenance produces the best greens over the long haul.

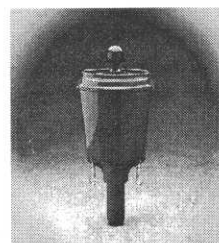
TournamentTM Golf Course Accessories



Featuring Quality Custom Embroidered Flags, Poles, Cups, Bunker Rakes, Ball Washers & More.



LESCO is the exclusive distributor for



Contact your LESCO Professional Golf Representative or call (800) 321-5325.

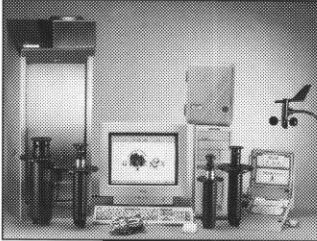
LESCO[®]

LESCO is a registered trademark of LESCO, Inc. Tournament and Grow With Us are trademarks of LESCO, Inc. Southern is a trademark of Southern Golf Products, Inc.

A Successful Season... Starts with Century Golf Course Services



Century offers the complete line of Legacy Golf products to help you control water, labor and energy costs. Featuring Legacy rotors, valves, Genesis central satellite and Viking decoder control systems.

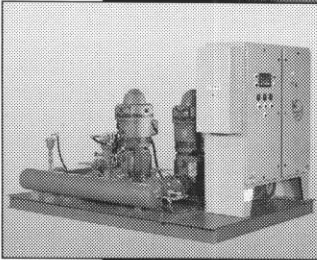


Legacy Golf System



SyncroFlo, Inc.

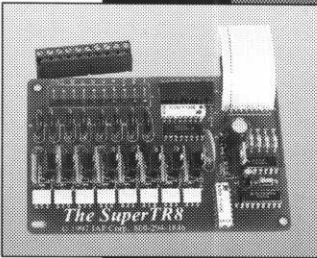
Efficient and economical, SyncroFlo pumping stations are the solution to many golf course irrigation problems.



SyncroFlo Eagle Pumps

BoardTronics™

Repair or upgrade your Rain Bird or Toro golf controllers. Replacement boards can be shipped from the Century National Service Center within 24 hours. Call 888-855-9132.



Controller Board Repairs



Improve water quality with an aerating fountain, or create water features from existing golf course streams and ponds.



Aqua Master Fountains



CENTURY RAIN AID

Sprinklers • Valves • Controllers • Pump Stations Controller Board Repairs • Fountains

An inviting, well-maintained course means challenging play...and a profitable season. As a golf superintendent, you can achieve this success with Century Golf Course Services. Century's team of professionals can help you solve irrigation or drainage problems and show you what's new in clubhouse lighting, water features and more. Call today for a free catalog and on-site consultation.

800-347-4272

www.rainaid.com

CENTURY GOLF PROFESSIONALS ♦ MINNESOTA

> DON CHELMO ☎ 612-509-9290

> JOHN MARKESTAD ☎ 608-742-0377

You Don't Always Have To Raise the Bar!

When Unrealistic Expectations and Environmental Alternatives Meet at a Crossroads, Choose the Environmental Approach.

By LARRY GILHULY
USGA

In March 1982 the USGA Turfgrass Research Committee was formed to guide the USGA's long-range multi-million-dollar turfgrass research plans for the coming decade. "The purpose is to develop Minimal Maintenance Turfgrasses for Golf with particular emphasis on a 50% reduction in water use requirements and 50% lower maintenance costs overall." — 1985 USGA Annual Turfgrass Research Report.

"It is the intent of the United States Golf Association (USGA) Executive Committee, through the USGA Foundation, to collect and disseminate substantial amounts of money for support of research to: 1) "produce improved turfgrasses which substantially reduce water use, pesticide use and maintenance costs..." —1995 USGA Turfgrass and Environmental Research Summary.

"Furthermore, the cost of working with their aggressive growth habits (new bents and hybrid bermudagrasses) and inherent problems, such as excessive thatch buildup, can be substantial in terms of increased maintenance labor and equipment" — May 1999 Golf Course Management magazine, page 22.

Wait a minute! The turf industry has been funding meaningful research for nearly two decades to reduce overall costs and impacts on the environment, and what we get are vastly superior putting surfaces that cost substantially more! Is there something wrong with this picture? Yo bet there is, and it is called a lack of understanding and expectation levels that are out of control. Let's look at one example.

Several decades ago, seashore paspalum was introduced into Hawaii due to its ability to withstand poor water quality. The grass was spread from site to site over a 20- to 25-year period and became a highly adapted grass for oceanfront hotel complexes due to the combination of excellent color, the ability to withstand salts, less water inputs, a natural capacity to compete with weeds and a significantly reduced requirement for fertilizer, specifically nitrogen! Let's see — a grass that uses poor quality water or seawater, requires 1/3 to 1/2 the amount of nitrogen, naturally competes with weeds where seawater is used as a herbicide, apparently has no major disease or insect concerns and maintains a consistent green color. Doesn't this sound exactly like the original goals of the USGA Research and

Environmental Program? Wouldn't you think that golfers and golf course superintendents would be all over this grass as the answer for the greens, tees, fairways and roughs in areas where it is adapted, to counter the environmental claims being made against golf courses in Hawaii? The answer should be an obvious yes; however, the reality has been less than enthusiastic, with some notable exceptions.

Why would a grass that obviously can address all of the worthwhile goals stated earlier not become the dominant and most desired grass? In Hawaii, it is called the Mauna Lani experience. On the mainland, you can relate to it as the *Poa annua* experience. When seashore paspalum is introduced into hybrid bermudagrass putting surfaces, the grass grows at a different rate than the bermudagrass because it is being overfertilized. The resulting playing surface is extremely bumpy, inconsistent and definitely not fun to play. This occurred at Mauna Lani through the late '80s

(Continued on Page 11)

We can tell you
what to plant,
where to plant,
when to plant.

Guess that makes us
plant managers.

Whatever your needs for your golf course, Peterson Seed can help. They can supply grass seed for everything from tees and greens to fairways and roughs. Whether you're building a new course or renovating an existing one, Peterson Seed offers expert advice and dependable products.

© 1999 Peterson Seed Company, Inc.

TURF SEED



PETERSON SEED CO.
Helping your seed business grow.

1-800-328-5898

**TURF
PARTNERS**



*Leading the industry in turf
and ornamental management*

2001 WEST CTY. RD. C2
ROSEVILLE, MN 55113

NEW WAREHOUSE NOW OPEN

STOCKING

**SCOTTS
TURF PARTNERS**

OTHER PRODUCTS STOCKED

**AgroEvo
Bayer
W.A. Cleary
Dow Elanco**

**Riverdale Chemical Co.
Rohm and Haas
Zeneca Professional Products**

**Monsanto
Novartis
Rhone-Poulenc
Uniroyal**

CHRIS HOFF
TURF PARTNERS
OPERATIONS MANAGER

Toll Free: 1-888-828-5354 • Office: (651) 633-6251 • Fax: (651) 633-6779