

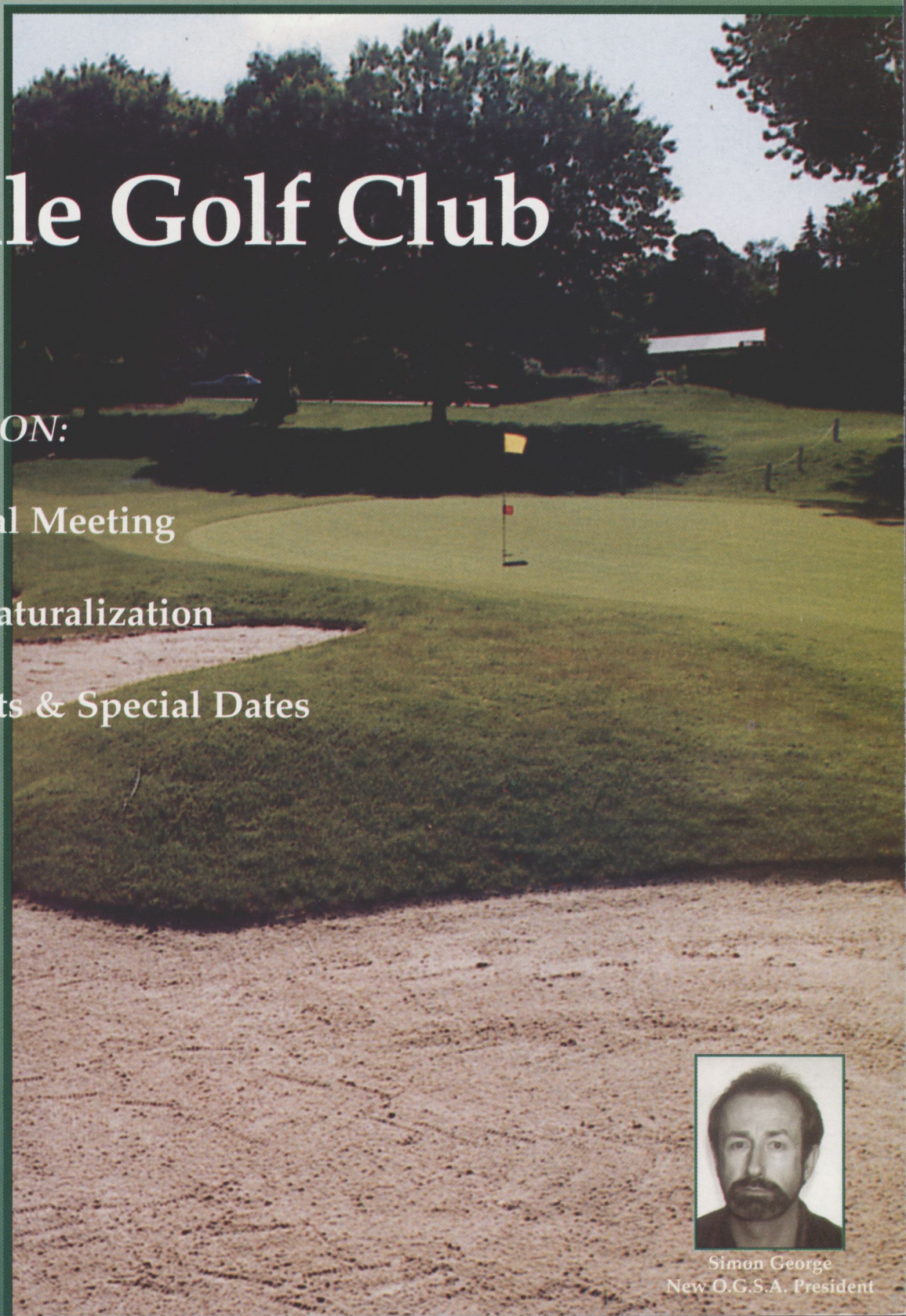
Green is Beautiful

The Official Publication of Ontario Golf Superintendents Association

Oakville Golf Club

INFORMATION ON:

- Annual General Meeting
- Golf Course Naturalization
- Announcements & Special Dates
- Topdressing
- Pumping
- Symposium



Simon George
New O.G.S.A. President



A Sound Investment

The Ransomes® All-Electric E-Plex™ Generates Income From Earlier Tee Times

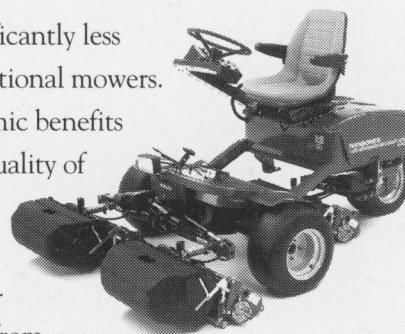
Invest in the electric E-Plex™ greens mower and it will quietly make money for you. Because the E-Plex is virtually noise free, you can mow at the crack of dawn, allowing for earlier tee times. The extra income from additional rounds will pay for the E-Plex in no time. And, for ongoing savings, maintenance and operational costs for the electric

E-Plex are significantly less than for conventional mowers.

Add the economic benefits to the highest quality of cut, superior performance

and the elimination of damage from

hydraulic leaks, and your E-Plex isn't just a greens mower, it's a sound investment.



For a free demonstration or the name of the dealer nearest you, call

1-800-228-4444.

FAX (402) 474-8522.



RANSOMES

Driven to be the best.

E-PLEX PAYBACK

Earlier tee times mean more rounds and more revenue!

Example: 4 tee times x 4 players = 16 additional rounds each day.

# Additional Rounds Per Day	Greens Fees Per Player	Additional Revenue Per Day
16	\$40	\$640
	\$60	\$960
	\$80	\$1,280

Divide the unit cost of the E-Plex by the extra daily revenue to determine the payback period.

© Ransomes America Corporation 1995. All rights reserved.

G.C. Duke
EQUIPMENT LTD.

1184 PLAINS ROAD EAST
BURLINGTON, ONTARIO
L7S 1W6

BURLINGTON AREA: (905)637-5216
TORONTO AREA: (905)338-2404
ALL OTHER ONT. AREAS: 1-800-883-0761

Green is Beautiful

The Official Publication of Ontario Golf Superintendents Association

contents

APRIL EDITION 1997

what's inside

- 2 EDITOR'S COMMENTS
by Mark Piccolo
- 3 PRESIDENT'S MESSAGE
by Simon George
- 3 GOLF HOCKEY CHALLENGE
by John Taylor
- 4 ANNUAL GENERAL MEETING
by Alex La Belle CGCS
- 5 APPLICATIONS
by Rick Ziegel
- 7 GOLF COURSE NATURALIZATION
by Brad Peterson
- 10 TOPDRESSING WITH A TWIST
by Ian Bowen
- 11 ANNOUNCEMENTS
- 12 DORMANT NITROGEN
by Rob Field
- 15 TOPDRESSING
by Jim Moore
- 16 GOLF COURSE PUMPING
by Steve Wilkinson
- 18 1997 TURFGRASS SYMPOSIUM
by Rob Whitherspoon
- 19 GTI UPDATE
by Rob Whitherspoon
- 20 O.G.S.A
by John W. Gravett

advertisers

- 4 VANDEN BUSSCHE
- 6 NU-GROW CORP.
- 7 ONTARIO SEED COMPANY LTD.
- 7 ALBION GOLF CARS
- 8 PUMPS PLUS
- 8 ALMACK
- 9 BRAEMAR BUILDING SYSTEMS LTD.
- 9 TORO-SITEPRO
- 10 VIGRO-PAREX
- 13 DACONIL 2787
- 14 BLACK PHOTO CORPORATION
- 14 THE SCOTTS COMPANY
- 15 FAST FOREST INC.
- 15 NU-GROW CORPORATION
- 17 BURNSIDE GOLF SERVICES
- 19 OTTERBINE TURFCARE
- 20 GREEN HORIZONS

editor's comments



Our first issue of the new year brings along with it a new look. To be successful in anything you do, you need feedback to evaluate your progress. Please let us know how we are doing. We have some practical information for you in this issue, ranging from different topdressing approaches to trends in irrigation and pumping stations. There is even something for those who experienced burning from their dormant nitrogen application of ammonium sulphate last fall. We are always interested in the successes and innovations of golf course maintenance, and encourage our members to submit material and pictures to us for publication. We hope to start a question and answer section for the newsletter. We are asking members to submit questions to us via fax or mail on topics ranging from the issue of contracts, to cultural practices, staff and labour issues, equipment, image etc., to be published in the magazine. The hope is to stimulate ideas from superintendents who may have first hand experience with the question, and comments are to be published in the following issue. The idea is not to create controversy but to help solve problems by using each others experiences, and besides it may be kind of fun.

Have a Great Year.

Mark Piccolo
Editor OGSA Director

Green is Beautiful 1997

Although every effort is made to check material for publication, the association is not responsible for material published on behalf of its contributors.

All rights are reserved by the publisher and any reproduction in whole or part without the written permission of the publisher is prohibited.

*Designed and Printed by
City Graphics Design & Print Inc.*

1997 O.G.S.A. Board of Directors

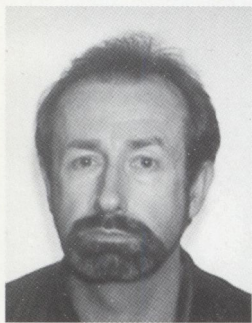
President	Simon George Oakville Golf Club 905-844-5796
Past President	Alex La Belle CGCS Merry-Hill Golf Club 519-648-2304
Vice President & Golf & Meeting Chairman	Ian Bowen Oshawa Golf Club 905-725-9511
Treasurer	Paul Dodson CGCS Lionhead Golf Club 905-455-8400
Secretary & GCSAA Liaison	Bob Heron CGCS Beacon Hall Golf Club 905-841-0252
Director & Bylaws	Lamont Anderson Pointe West Golf Club 519-736-5050
Director & Public Relations	John Gravett Credit Valley Golf Club 905-275-2505 Rob Ackerman Markland Wood Golf Club 905-625-2062
Director & Golf & Meetings	Keith Bartlett Thornhill Country Club 905-889-2735
Membership Director & Newsletter Co-Editor	Jim Flett Muskoka Lakes Golf Course 705-765-3165
Director & Newsletter Editor	Mark Piccolo Galt Country Club 519-650-1503
Director & Scholarship	Jeff Burgess Weston Golf Club 416-241-5551

CINDI CHARTERS: OFFICE MANAGER
ONTARIO GOLF SUPERINTENDENTS' ASSOCIATION
GUELPH TURFGRASS INSTITUTE

328 VICTORIA ROAD, SOUTH
Telephone: (519) 824-OGSA
Fax: (519) 766-1704

president's message

O.G.S.A. President Simon George



Welcome to the 1997 golf season. I am sure that we are all looking at earlier openings this year after a long but relatively good winter. I hope that we have all had the opportunity to attend and enjoy some of the excellent conferences and educational programs over the winter. I attended for the first time, the G.C.S.A.A. event in Las Vegas and found it to be just as great as reported.

There is, it seems, many of us who think that perhaps there are too many shows, conferences and

seminars put on by many different groups who all do a great job of running their own various events. Are all these different programs necessary or can we still afford to attend everything with budget and time being more of a factor these days. At this time the O.G.S.A. is involved in meetings with the C.G.S.A. to discuss the possibility of streamlining and condensing some of these events and to continue work on the task of increasing the image and the role of us as Golf Course Superintendents.

On another note, it is with regret that I must inform you that our office manager Cindi Charters has decided to leave us and retire from the O.G.S.A. after fourteen years. The contribution made by Cindi over the years has been



immense and will be missed by all.

Thank you Cindi from me personally and from all the members of the Board both now and in the past. In closing, I will say that the O.G.S.A. is indeed in very sound financial well being and committed to continued growth and excellence. I wish all of you a successful season as we continue our roll in a still thriving profession.

golf course hockey challenge

By John Taylor

The 3RD Annual Golf Course Hockey Challenge was held on Wednesday, January 22, 1997 at a beautiful new twin pad complex at Niagara University in Niagara Falls, New York.

The tournament was expanded to six teams with the addition of teams from London/Windsor and Michigan joining the original four teams from Western New York, Toronto, Kitchener and Niagara. A round robin format with two divisions was contested and after



strenuous day which tested endurance as much as hockey ability, team Kitchener repeated as champions over team Toronto in the final. The consolation prize was

captured by team London with a victory over Western New York.

After hockey an awards party was held at the Comfort Inn in Niagara Falls, New York at which the players were able to feed the appetite and quench the thirst brought on by the day's activities.

Special thanks to our major sponsors from Club Car, John Deere and Toro and to all our minor sponsors who made this day very enjoyable to all the participants. Thanks also to Scott Dodson from the Park Club in Buffalo for all his organizational efforts. Plans are already underway for the 4TH Annual Challenge to take place in early 1998 with expansion possibly looming on the horizon.

annual general meeting

(AGM) Report

by Alex La Belle CGCS

There have been quite a few changes made as a result of the re-affiliation with the Golf Course Superintendents' Association of America. Some of the changes included minor corrections in text and re-labeling of the classification categories. We owe a huge thank-you to Monte Anderson for spending countless hours ensuring that all of the i's were dotted and the t's crossed. Assistants are now categorized as Class C instead of Class F. Only Class A members of the Association may hold office. This particular change does not apply to nominees approved prior to the AGM. Also, a new criteria for the composition of the Board requires that 50% of the board be GCSAA members. Furthermore, the Officers (i.e. President, Vice President, Treasurer and Secretary) must be GCSAA members. Again, this new bylaw does not apply to members currently serving on the



as an international chapter, we will be exempted from this requirement.

Another change approved at the AGM was the re-establishment of Proxy Voting. This will ensure that all voting members have the opportunity, regardless of geographic location, to exercise

their right to vote.

On the scholarship front, a motion by Jeff Burgess, was approved to increase the availability of scholarships to Ontario students out of Province, who work in Ontario. The school must be a Post secondary institution, such as Penn State, offering a recognized Turfgrass Management Diploma or Degree. Applicants must maintain a grade point average of 3.0 or greater and fulfill the requirements of the application form. The criteria of "financial need" was dropped.

Finally, the turnout was very disappointing (35 members) considering the important topics to be discussed. Next year the AGM will be held in the morning with refreshments available. It is hoped that having the meeting before the educational sessions, instead of after a long day in the lecture halls, will encourage a better attendance.



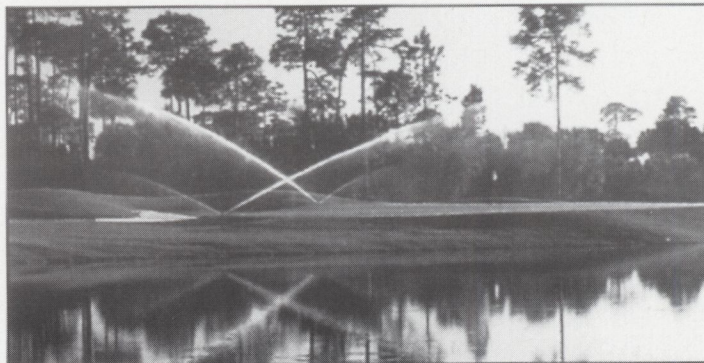
Board. It is felt that the financial burden of belonging to two national Associations (CGSA & GCSAA), the Ontario Association and a local Association, may be overwhelming and discriminatory to some Clubs. A letter is drafted and will be sent to the GCSAA explaining our concerns with the new requirements. It is hoped that,



Vanden Bussche Irrigation & Equipment Limited

GOLF COURSE IRRIGATION SALES AND SERVICE

Ontario Distributor of Rain Bird Golf Products



IRRIGATION SPECIALISTS FOR MORE THAN 40 YEARS

Distributors and designers of sprinkler systems to the
GOLF INDUSTRY



RAIN BIRD
PREFERRED BY PROFESSIONALS WORLDWIDE

MILTON

(905) 875-4545

1-800-263-4112

(905) 878-4501 (fax)

applications

BEAM ME UP SCOTTY!

Golf Course Applications for Radio Communications

Rick Ziegel is Golf Territory Manager for Vanden Bussche Irrigation, the Rain Bird Irrigation Distributor in Ontario.

SPACE - THE FINAL FRONTIER

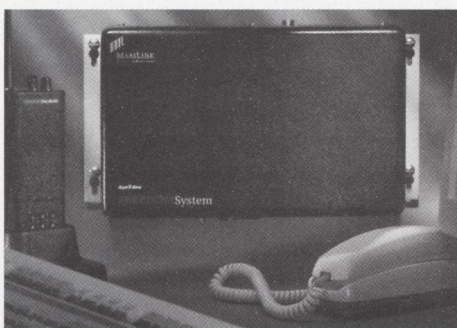
Golf course superintendents around the world are now "exploring a new frontier" - instant communications via radio. The proliferation of radio equipment and the quickly decreasing costs have made radios a viable tool on most golf courses. Radio systems are now available for both voice communications and irrigation system control. The two are closely related and the same principles apply to both. But what are radio waves? How do they work and are they best for your application?

ALL WE WANT IS RADIO GA-GA

As the rock group Queen stated, it seems as though everyone is in love with the idea of radios. Are they really the way of the future? Will they work with your irrigation system? Well - that depends. To understand the applications of radio waves it is necessary to give a brief description of the basics first.

Radio waves are a small segment of the electro-magnetic spectrum, the same spectrum that includes microwaves and visible light. The spectrum is made up of sine waves which have a wavelength and a frequency. The frequency is the number of times a sine wave repeats itself in one second and is measured in Hertz (1 cycle per second is one Hertz). The wavelength is the distance traveled by one sine wave in meters. Say

you are jogging through a hilly area. The wavelength is the distance from the top of one hill to the top of the next. The frequency is the number of hills that you jog over in one second. Since radio waves travel at the speed of light, they can travel a great distance in one second.



FREQUENCY IS MORE IMPORTANT THAN SIZE

The spectrum is divided up by frequencies with radio waves being frequencies between 3 KHz (3000 Hertz) and 300 GHz (300,000,000,000 Hertz). Since radio waves can be assigned in 25 KHz increments, it would seem that there is no shortage of supply!

In reality the radio spectrum is already quite crowded. Technology costs have not yet made higher frequencies commercially viable and the lower frequencies (the ones capable of long distance communications) are reserved for maritime and navigational applications. Industry Canada, the Federal Department responsible for managing the spectrum, has assigned two frequency bands of

the spectrum for the speaking frequencies typically used in our industry. These areas are in the VHF (Very High Frequency) band (150 MHz to 175 MHz) and the UHF (Ultra High Frequency) band (450 MHz to 475 MHz). This considerably narrows the field!

With almost a million private dispatch users across Canada, the VHF and UHF bands are already quite crowded with the VHF band used the most. Therefore, most new applications fall into the UHF band.

The distance that UHF radio waves will propagate (or travel) in the atmosphere is related to its frequency - the higher the frequency the shorter the distance travelled. Reliably, the UHF frequencies will travel a distance equivalent to line-of-sight.

BOLDLY GO WHERE NO MAN HAS GONE BEFORE

This is the first area of concern for the superintendent. Since the frequencies used can only travel short distances, they may not work in your application. Long, narrow golf courses may not be able to communicate from end to end and courses that are very hilly can have trouble with the hills blocking the radio waves. It is usually a good idea to have your site tested prior to purchasing any radio equipment. Special antennas or "repeater" towers can be used in certain applications to improve reception. A "typical" golf course (low to moderate hills) can expect a range of approximately one mile with no special equipment.

PAGING DOCTOR McCOY...

Both paging and regular two-way radio systems are available for use in irrigation today. Two way

continued on page 6

Golf Course Applications for Radio Communications continued...

radio systems employ both a transmitter and receiver at each end of the communication path. Paging systems use the same frequencies and principals as regular two-way radio, but have a one-way flow of information. A signal is sent from a central location with no return signal sent back. Paging was originally developed to allow for fast contact with people at a low cost. So which works better? We asked Jack Holt, Manager of Authorization for the Toronto office of Industry Canada: "Paging systems do not receive an acknowledgement back from the receiver, however the error correction embedded in paging signals make them quite reliable if coverage areas are properly designed. Two-way radios will always be a more reliable link because the transmitter receives an acknowledgement from the receiver."

As two-way and paging radio systems are both susceptible to interference from outside objects such as hills and power lines, the other option is to use a hard-wire path for your irrigation system. A buried wire path would connect your computer central to the satellites. When installed and maintained properly, hard wire systems are a much more reliable communication path than either radio option.

Does this mean that you should never use radio communication for your irrigation system? Of course not, there are applications where radio is preferred. One good example is when only the control system is being upgraded, while maintaining existing pipe and sprinklers. If

your old wire path is not of sufficient quality, then radio communication will permit the upgrade without pulling in new communication wire.

RIDERS ON THE STORM

A common misconception heard in the golf industry is that with radio communication, there will be "no more wire in the ground." Another misconception also suggests that your irrigation system will therefore be less susceptible to lightning damage. If fact, the communication wire used on a golf course irrigation system usually represents less than 10 % of the total wire in the ground. As well, antennas used to send and receive the radio signals can attract lightning, making radio systems susceptible to lightning surges. Regardless of whether you install a radio system or a hard-wire communication path, proper grounding techniques are essential to reduce the potential for damage from lightning strikes. Be sure to include these costs when budgeting.

THE "LOGICAL" CONCLUSION...

Radio communication systems for voice communication and irrigation systems can be an easily installed and cost-effective addition to your management program. Radio can be very reliable if the proper care and planning is used. If an upgrade is planned, look at all the communication options available to you, have your site tested, and make sure that proper grounding and installation costs are included in the budget.

We're growing...



to serve you better!

NU-GRO is Canada's Professional Turf Specialist offering:

- A choice of C-I-L and NU-GRO brands
- Consistent blends utilizing quality raw materials
- Experienced Technical Support Representatives
- A wide range of Specialty Turf Fertilizers formulated with S.C.U.[®] NITROFORM[®] and NUTRALENE[®]



CORPORATION

Woodstock, Ontario N4S 8P6
Laval, Quebec H7S 1G3 Calgary, Alberta T2H 2S1

WOODSTOCK, ONTARIO Telephone : (519) 456-2021
Fax: (519) 456-5002

golf course naturalization

Some whys and wherefore by Brad Peterson

It is a simple enough question: why should golf course superintendents even think about naturalizing their prized lands. The answer however ranges from personal satisfaction to material benefits for everyone. We will talk about native and naturalized landscapes and set aside a discussion of quite different horticultural and parkland landscapes.

FIRST PRINCIPLES

There is no escaping natural law, or what we could call the first law of ecology that: everything is connected to everything else. Like it or not, what we exact on the environment sooner or later is going to affect us, and everything around us, good or bad. The most common concerns are usually water quality followed by water quantity. Water quality refers to nutrient and toxicity loading of surface and ground waters as well as sediment loading through unchecked erosion. Other environmental concerns revolve around the protection of management of ground water recharge areas, cold water sources, forest interior, wetlands, connecting corridors, wildlife habitat, and usually some degree of

public involvement.

As a first principle, reduce the need for chemical and water inputs up front through the use of vegetation that is adapted to the rigors of climate, wear and tear and other site conditions. In some cases native species are particularly well adapted to harsh conditions. Then consider reducing loading on the environment through appropriate selection and timely application of fertilizers and pesticides coupled with use of Best Management Practices such as vegetated buffer strips, storm water ponds, stabilization of stream banks, use of native species, Integrated Pest Management, etc.

Of primary consideration is biodiversity, the total variety of living organisms and the environment that sustains them. We should consider native biodiversity here, and the ability of native ecosystems to manage themselves as complex associations of plants and animals. Granted our landscapes have been altered radically since European settlement. But herein lies a message: variety in native ecosystems means ability to withstand environmental stress. It also means perpetuation of cultural

identity for those live in and value the natural features of a place. Change native ecosystems and we lose not only the look but the function. Would you rather live in a vibrant world or a debilitated and simplified world?

Yes, naturalization means using native species of local provenance from local, reputable sources within reason. It does not mean planting invasive species such as Norway maple, Scots pine and other aggressive vegetation. It means opportunities to restore or protect wildflower meadows, wetlands, woodlands and associated wildlife habitat using recognized techniques appropriate to each habitat type. Traditional engineering methods can be used with or replaced by ecological engineering and bioengineering; the use of living materials for stabilization of steep slopes and water courses. Other considerations include protecting rare and endangered species as well as protecting or linking core natural areas with connecting corridors when appropriate. This approach might also mean removing existing invasive species in exchange for doing nothing or doing less, allowing selected roughs, verges, edges and hedgerows to evolve into aster-goldenrod-grassland meadows. And yes it is ragweed, a European exotic, not native goldenrod that is the main culprit of hay fever.

continued on page 8



ONTARIO
SEED
COMPANY
LTD.

Over 100 Years of Growing Service

Tami J. Packham
David J. Schmelefske
A. Kent McDonald

330 Philip St., P.O. Box 144, Waterloo, Ontario Canada N2J 3Z9
Telephone: (519) 886-0557 Fax: (519) 886-0605
1-800-465-5849

**ALBION
GOLF CARS**
AND TURF EQUIPMENT

TEL: (416) 236-1001
FAX: (416) 236-4654

A DIVISION OF C.J. McDONALD CO. LTD.
29 ADVANCE ROAD
TORONTO, ONTARIO M8Z 2S6

BRUCE McDONALD

**Kawasaki
MULE**

Club Car
Golf's Driving Force.

Golf Course Naturalization

Some whys and wherefore continued...

TO BE NATURAL OR NOT TO BE NATURAL

Still the doubters may ask; why even bother? Philosophically there is the idea of giving something back to nature after it gave us the opportunity to use the land as a business resource. Current ethics lead us to believe that we have a responsibility to pass our world on to the next generation in as good or better shape than what we inherited. This certainly makes intuitive sense.

The aesthetic of naturalized areas may take some people time to get used to. This is the nature of any type of change. For others naturalized areas are down right interesting, attractive and well, natural. Thus the environmentally-friendly golf course may draw on an environmentally-conscious client base, something that is understood by marketers of everything from cleaners to cars.

Audubon International has a program geared to certifying golf courses who achieve recognition in environmental planning, wildlife habitat management, member/public involvement, integrated pest management, water conservation and water quality management. In addition to actually improving the

environment, this program among other environmental programs assist golf courses achieve something very valuable: social recognition.

THE OLD POCKET BOOK

The environmental and social benefits of greening a golf course should stand on principle and their own merit. Maintenance cost savings can enter in but experience suggests that this should not be the only consideration. In the short term it is likely that cost savings will be spent on the environmental retrofit: doing a management plan, initiating water quality and quantity control measures, planting hedgerows, stabilizing slopes, improving wildlife and fish habitat and installing other attractive and useful features. Thus real cost savings are expected to accrue in the medium to long term.

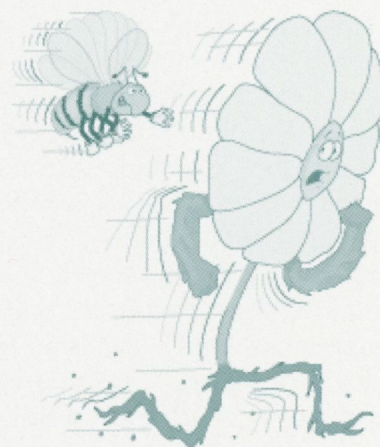
Studies of cost savings to municipalities who naturalize park lands indicate a full range of financial benefits depending on how much land is retired from mowing or spraying, and how much is allowed for replacement management activities. This includes what is spent on upgrading existing areas and fixing persistent problems such as creek

bank erosion.

How to put it all together? An environmental management master plan will increase your efficiency and effectiveness. A good plan will acknowledge the unique character of your land, capitalize on existing government programs, set priorities including cost savings in the near and long term, involve the community and result in positive publicity, and most notably improve the ecological health of your property. When all is said and done, naturalization should be fun and educational for those who get out and get involved. Fun that is, in addition to healthy!

All the best in your endeavors.

C. Brad Peterson is owner of The Land Steward, a firm that specializes in golf course and rural land naturalization, environmental restoration and land management. Mr. Peterson can be reached in London, Ontario at telephone 519 858-0102.



PUMPS
Plus
A Div. of 1134956 Ontario Inc.

PUMP STATION AND IRRIGATION SYSTEM SPECIALISTS

STEVE WILKINSON

123 Baywood Way,
Wasaga Beach, Ont.
L0L 2P0

Tel: (705) 429-3367
Pager: (416) 554-0645
Fax: (705) 429-1463

SPECIALISTS IN TURFGRASS NUTRITION

ALMACK

Corrie Almack, P.Ag.

Almack & Associates
Box 256, Carlisle, Ontario L0R 1H0 905-689-6174

Economical Pole Frame Buildings
For All Your Needs.....



**Building
Systems
Ltd.**

RURAL & COMMERCIAL BUILDINGS

Call collect to Jack or Rick Brenzil for a Free Estimate...

(905) 772-3551 (905) 388-6865

Over 30 Years Experience

It's Here...

The Next Generation of Central Control



SitePro

- Usable Graphics - Not just pretty pictures
- Flexible - User-definable programs
- Modular - Use only what you need
- Accurate and Precise
- Quick and Easy Adjustments
- Optional GPS Accurate Mapping

Contact the Irrigation Department at (905) 836-0988 to learn more about this exciting new product.



TURF CARE

Newmarket • Mississauga • Ottawa • Montreal
Plus our **New** Scarborough Store

topdressing with a twist

by Ian Bowen

Change, To make different. To alter or vary. How those very words hold true, over the past twenty-five years, when applied to golf course maintenance and it's associated practices.

Topdressing, a very common and widely utilized maintenance practice, involves the application of a thin layer (0.40 to 0.77 cubic yards/1000square feet) of a selected or prepared material to the turfgrass cover. Over the years, the application of various topdressing materials has advanced from hand application (i.e. shovels) to the more commonly used, high volume mechanical equipment of today. I am sure everyone is well versed in the associated benefits of topdressing, including: thatch

control, smoothing or levelling surfaces, soil modification, and winter protection. However, the associated negative impacts of this



practice: turfgrass stress, labour intensity, scheduling, and inconvenience to players have influenced me to take a look at this

practice to see if adaptations could be made. In order to bring about change, certain goals must be attained and the negative impacts eliminated.

The series of maintenance practices associated with traditional topdressing methods was the starting point of our critique. Using current mechanical topdressers, we felt, added to the negative impacts. The sand is applied too heavy, at an eighth of an inch thickness on the surface and it usually has a high associated moisture content. This means that the sand must dry on the surface before it can be worked in, adding to player dissatisfaction. Matting or brushing the sand into the surface, despite performing a desirable task, adds to the turfgrass stress through it's abrasive nature. We also felt the labour intensity of topdressing was another factor which could not be overlooked. In our operation, up to four employees at a time could be tied up. Equipment overhead and repair (i.e. grinding reels and

continued on page 14

In WIN comparisons, **par ex** buries the competition.

	par ex 19-3-19 Mid size with IBDU slow release nitrogen	par ex 24-4-12 with IBDU slow release nitrogen	Scotts® 22-0-22 HD Fairway fertilizer	C.I.L.® 25-4-10 Super Fairway fertilizer(80% SCU)
Total N	19.0%	24.0%	22.0%	25.0%
% WIN* from Total N	39.2%	45%	19.1%	0%

® C.I.L. is a trademark of ICI Canada Inc. ® Scotts is a trademark of O.M. Scotts & Sons Co., ® Par Ex is a trademark of IMC Global Corporation ® IBDU is a trademark of IB Chemical

IMC Vigoro and IB Chemical are continually working together to develop and improve Par Ex with IBDU slow release nitrogen. Our recent introduction, new Par Ex with low dust IBDU is one example of our continuous commitment to the industry.

For more information, contact your local distributor, or call IMC Vigoro Canada, Inc.

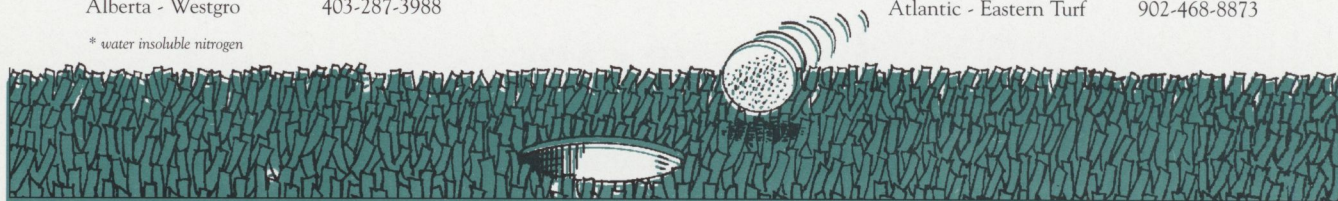
IMC Vigoro Canada Inc. 800-268-2076
British Columbia - Agrico 604-940-0290
Alberta - Westgro 403-287-3988

Saskatchewan - Early's
Manitoba - Evenspray

306-931-7110
204-231-0710

Ontario - Turf Care 905-836-0988
Quebec - Turf Care 514-421-1112
Atlantic - Eastern Turf 902-468-8873

* water insoluble nitrogen



announcements & special dates

Western Ontario Golf Superintendents Association

May 27 Willo-Dell Country Club
Host: Angelo Toto
June 24 Dundee Country Club
Host: Denis Jones
July 28 Brookfield Country Club
Host: Henry Schmitz
August 25 Bridgewater Country Club
Host: Steve Sherwood
Sept. 29 Cherry Hill Club
Host: Cecil Hoekstra

Georgian Bay Superintendents Association

May 27 Springwater Golf Club
Contact: Ed Lange - 705-728-1855
June 17 Perry Sound Golf Country Club
Contact: Jeff Alexander - 705-342-5262
July 22 HawkrIDGE Golf Club
Contact: Bruce Dodson - 705-329-4553
August 19 Bonaire Golf Country Club
Contact: Randy Fielder
Sept. 25 Blue Mountain Golf Country Club
Contact: Jim Malley, Jay Lewis
(11:30 am Crossover) 705-445-3911

Ottawa Valley Turfgrass Association

TBA OVTRF
Camelot Golf Club
July 28 Executive Day
Brockville Golf Country Club
Sept 22 Fall Field Day
Hylands Golf Club

Greater London Area Golf Superintendents

TBA Contact: Mark Hagen 519-641-4718
Green Moves
Mark Brook From: Bear Creek Golf Club
To: Saw Mill Creek

Nothorn Ontario Golf Superintendent Association

August 26 Pro/Super/Directors Day
IDYLWYLDE Golf Country Club
Oct TBA
Jan. TBA

Green Moves

Brent Wickett From: Pine Park Golf Club
To: Spruce Needles Golf Club
Steve Campbell From: North Bay Golf CC
To: Pine Park Golf Club

OGSA Events

Border Cities Tournament
April 28, 1997 - Grosse Ile Golf & Country Club
Detroit, Mich.

Pro/Superintendents Event
May 12, 1997 - Glenn Abbey
Host: Dean Baker

President/Greens Chairman/Director Event
June 16, 1997
Park Country Club, Buffalo N.Y.
Host: Scott Dodson

Summer Field Day
August 25, 1997
Cuttan Club
Host: Richard Creed

ENVIRONMENTAL STEWARD AWARD WINNERS ANNOUNCED

The 1996-97 Environmental Steward Award winners were named in three categories: private, public and resort golf courses. As a tribute to the winners, Novartis (formerly Ciba Turf and Ornamental Products and Sandoz), Rainbird's Golf Division, Jacobsen Division of Textron Inc., and Pursell Industries will donate more than \$23,000.00 to The Golf Course Superintendents' Association of America (GCSAA) Foundation, which supports educational opportunities for future golf course superintendents and scientific advancements in golf course management. The Canadian winners are:

Private Course
Paul Dermott, CGCS
Oakdale Golf & Country Club
Downsview, Ontario

Public Course
Bruce Thrasher
Westwood Plateau Golf Club
Coquitlam, British Columbia

dormant nitrogen

A case study

by Rob Field, Nu-Gro Sales Manager

This past November, a number of Golf course superintendents experienced tip burn following dormant nitrogen applications of ammonium sulfate. To understand why this happened, we will need to review fertilizer materials and soluble salt accumulation.

Soluble Salt Accumulation

Turfgrasses, like other types of plants, are damaged if soluble salts build up in the soil. Virtually all fertilizers contain soluble salts and have an effect on the osmotic pressure of the soil solution. In order to quantify soluble salts originating from fertilizer materials, a fertilizer salt index has been established. The index indicates the potential of a fertilizer to prevent water uptake by the roots compared to that of an equivalent weight of sodium nitrate, which has been assigned a salt index value of 100.

Dormancy

Dormancy is a progressive process which begins when plants respond to lower light levels in late summer. Buds that are just entering dormancy may be stimulated to renew growth rather easily. On the other hand, buds that develop full dormancy may require extensive treatment to break dormancy and renew growth.

Dormant nitrogen is a term used by turf managers to define an application of soluble nitrogen late in the fall which will not stimulate vegetative growth. In late fall, the grass plant undergoes physiological changes such as reduced growth, increased carbohydrate reserves, and reduced tissue hydration, in a process referred to as "hardening off." Carbohydrates are still being produced through photosynthesis and are stored in the root system until the following spring. Dormant nitrogen applications are applied to enhance this process.

In November '97 some regions

experienced high rainfall and saturated soils. The process of "hardening off" was delayed even though soil temperatures were between 46 and 50 F. The high soluble salt concentration in the soil solution was able to pull water out of the hydrated plant tissue resulting in "scorching" or burning of the tissue from the leaf tip downward. The higher the application rate, the more severe the burn. For future timing of ammonium sulfate applications, soil temperatures of 45 F and below should will provide a more reliable guideline.

Good news and Bad news

Plugs of damaged turf were placed inside and exposed to spring simulation. Within a week in this environment, the grass grew over two inches. In some cases, the damage grew out in the field during the last two weeks of November. To my knowledge, there were no incidents of plant damage from applications made after the last week of November in most regions. Superintendents can rest assured that the damage is not permanent and will grow out in the spring. However, the effectiveness of these applications are questionable. We will not know for sure how effective the fertilizer will be until sometime in May.

Salt Index values of common Fertilizers

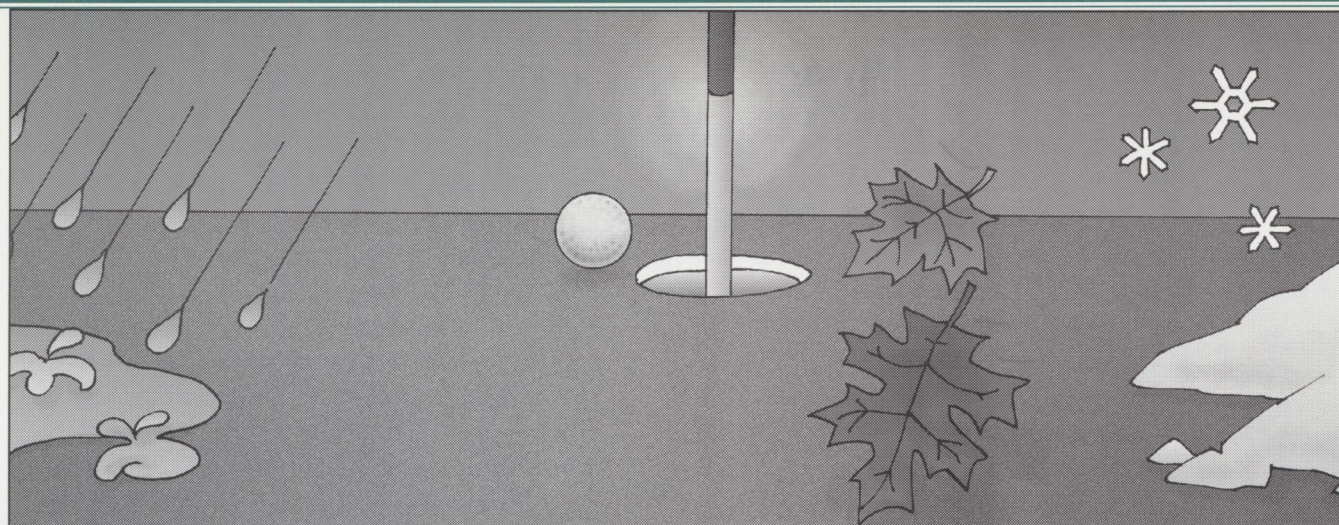
MATERIAL	ANALYSIS	SALT INDEX	INDEX PER UNIT *N
Sodium Nitrate	16-0-0	100	6.3
Ammonium Sulfate	21-0-0	69	3.3
Urea	46-0-0	75	1.7
IBDU	31-0-0	5	0.2
Nitroform	38-0-0	10	0.3
Muriate of Potash	0-0-60	114	1.9
Sulfate of Potash	0-0-50	46	0.9
Organic	5	4	0.8

*N = nutrient

Fertilizers with a high salt index have a greater burn potential than those with a low salt index. The rate of application must also be considered when establishing the burn potential of fertilizers. For example; Although ammonium sulfate(21-0-0) has a lower salt index than urea(46-0-0) the salt effect of applied urea is lower because it contains a higher percentage of nitrogen.

Conclusions

It is not my intention to discourage the use of ammonium sulfate as a source of dormant nitrogen. The information provided, however, should prompt each superintendent to review the sources of fertilizer material in their fertility programs and their burn potential. Consideration should be given to environmental factors such as soluble salt concentration of irrigation water, drainage and weather conditions that can enhance the potential for burn. This information can be provided in combination by your fertilizer supplier, turf grass extension specialist and industry soil consultants. I will make the information used for this article available upon request.



Daconil 2787[®]

The all-season fungicide

Daconil 2787 is the all-season fungicide of choice to use on greens, tees, fairways and ornamentals. Daconil's unique WeatherStik[™] formulation ensures that it Sticks and Stays between sprays to protect your turf in any season.



ISK BIOSCIENCES[™]

ISK Biosciences Limited
148 York Street, Suite 319
London, Ontario N6A 1A9
1-800-668-0956

Disease Management Solutions

Topdressing with a twist continued....

bedknives) plus associated labour also contribute to the overall cost. Scheduling topdressing into busy golfing calendars is another problem. Demand for tee times at most courses is high, coupled with high expectations for course conditioning.

After some brainstorming, we decided that it was possible to brush the greens first, then cut them and apply a dry sand, (less than 5% moisture content), at a lighter rate. If this is done frequently, the same goals can be achieved. Brushing the greens first proved easy enough to do through conversion of a set of triplex reels over to brush reels. Application of a dry sand, however,

took some experimentation. We found that by spreading the material, one quarter inch thick, on our existing concrete pad could dry the sand in thirty minutes. It was then stored in garbage cans and sealed to keep dry. The process may seem labour intensive but we found that one person can dry and store enough sand to topdress greens in about four hours, and perform other tasks during drying. The volume of sand dried was based on applying 0.25 cubic feet of material per thousand square feet. In our case, about 36 cubic feet was required each week. The application of the sand was achieved through the use of a

rotary, broadcast spreader calibrated accordingly.

Our next step was to implement our plan into action and observe the results. Once-a-week we would brush, cut, topdress, and rollour greens. Rolling was added to the process mainly because it was already a part of our weekly program, and we believed it would only help to push the sand down and prevent the mowers from picking it up. The results were amazing! The entire process could be completed by two staff members. First the greens were brushed, followed by the cutting unit, topdressed, and then rolled. the entire process took approximately seven and a half hours and only those who asked even knew what we had done.

Cost Cpmparison of Topdressing Methods

Method A: Traditional

Requirements: 1 utility vehicle and topdresser @ 4hrs x \$10/hr	\$40.00
1 vehicle and person (brush) @ 4hrs x \$10/hr	\$40.00
Equipment repair - Triplex mower - 3 bedknives @\$35	\$105.00
1 Mechanic - Change bedknives/grind, grind reels - @ 6hrs x \$18/hr	\$102.00

\$287.00

Sand costs: 0.25 cubic yards per 1000 square feet requires a total of 30.75 cubic yards of material or approximately 46 tons x \$23/ton

\$1058.00

Method B: Broadcast Rotary

Requirements: 1 person to dry sand @ 4hrs x \$10/hr	\$40.00
1 person to apply sand @ 4hrs x \$10/hr	\$40.00
1 person to brush greens @ 3.5hrs x 10/hr	\$35.00
1 person to rool greens @ 3.5hrs x \$10/hr	\$35.00

\$150.00

Sands costs: 0.25 cubic feet per 1000 square feet requires a total of 36 cubic feet of material or approximately 1 ton of material x \$23/ton

\$23.00



BLACK PHOTO CORPORATION

STONE ROAD
STONE ROAD MALL, 435 STONE ROAD WEST, GUELPH, ONTARIO N1G 2X6
TELEPHONE: (519) 836-4851
STORE #47



The Scotts Company



Dave Dick

Turfgrass Specialist

39 Monte Vista Trail
Brampton, Ont. L6Z 2J7
Fax & Phone 905-846-3319

Jeff McMaster

Turfgrass Specialist

1864 Bowler Drive
Pickering, Ont. L1V 3E4
Fax & Phone 905-839-6526

Scotts Head Office 1-800-543-0006

topdressing/fertilizer blend

Topdressing with a fertilizer blend at Puslinch Lake Country Club By Jim Moore

Puslinch Lake Country Club is located beside the 401 highway west of Cambridge, Ontario. The course is over 25 years old with 14 of the 19 greens the same age.

The idea for this procedure



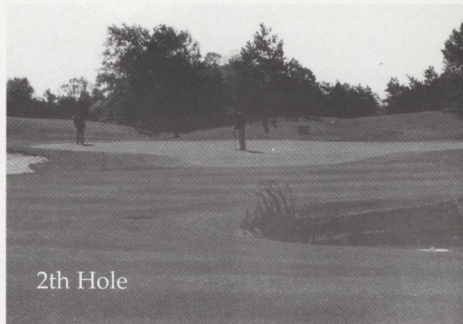
came to me after topdressing with our new Metre-R-Matic 3 Topdresser. We would topdress and then fertilize the greens and water it in before play would start. Why not incorporate the fertilizer in with the topdressing mix?

The first thing I had to find out was whether or not it had ever been done. The next thing I had to find out was the appropriate rates. While in Vancouver at the Canadian Turf Show, I met with Angelo Capannelli of Hutcheson Sand and Mixes. Angelo was talking to Dennis Pellrene of the Capilano Golf Club in Vancouver and was told Capilano had been using a program like this for years. Dennis was surprised that not more clubs are doing this in Ontario

because it is quite common out west. I decided to try it as a heavy topdressing after aerating in the fall of '96. In the past years I have aerated in the third week of September using inch hollow tines. This time I used 5/8 inch tines on nine greens and inch tines on the other nine. Our greens are on the small side so it takes just one hour to aerate a green. Aerating takes three days and four people to complete with cleanup. We have a core pusher mounted on our greensmower to push all the cores off the green; this cuts cleanup time in half. The fertilizer blend was an organic 5-4-7. I wanted to stay away from the hot blends because we would be aggressively brushing in sand on the greens. The blend would be mixed in a 90/10= 90% sand and 10 % peat. I have been using this blend for over eight years. In the early years we were using a straight sand taken from the local gravel pit. Looking at the soil profile I realized we have a solid three inch sand base on top and a very small black layer line before the original clay loam mix. Deep tine aerating helps control the black layer and topdressing follows.

Topdressing would start right after aerating, it would take two hoppers of mix to do a 5,000 square foot green. The fertilizer rate would be 1/4 lb. of N. per 1,000 square feet of green (after putting down a total

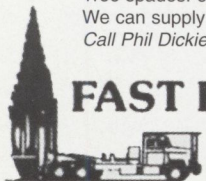
of four hoppers on 5,000 square feet). This would be done in two application about one week apart. The aerated holes would be filled about halfway. The capacity of the hopper is 22 cubic feet. The unit is pulled by a gator 6x6 utility vehicle. The plan was to topdress every three weeks at the lightest rate the machine could put down and then irrigate the mix into the turf.



During the fourth week of October I noticed Fusarium Patch starting on the practise green. I checked the greens that would be likely to get the disease first and found only a couple of spots. Because of the wet, cool weather I sprayed all the greens with Rovral-Daconil mix at 3/4 rate. Two weeks later the Fusarium was back and twice as bad on the practise green. The other greens were clear. The practise green had not received the same treatment as the other greens. The practise green had been topdressed with a regular 90/10 mix without fertilizer in the blend. I did fertilize on top after topdressing with a non- organic granular. By topdressing lightly every three weeks with a composted topdressing mix I hope to reduce pesticide use on the greens.

Fast In. Fast Out.

We move trees - yours or ours.
Tree spades: 60, 84 and 94 inches.
We can supply almost any size and species you require.
Call Phil Dickie



FAST FOREST INC.

270 Shoemaker Street
Kitchener, Ontario N2E 3E1
Tel: (519) 748-6610
Fax: (519) 748-6626



NU-CRO CORPORATION



PROFESSIONAL TURF PRODUCTS

Rob Field

Ontario Sales Manager - PTP

Tel: (905)541-8872 Fax: (905)632-2158

P.O. Box 1148, Hwy. #59 S., Woodstock, Ontario N4S 8P6
Customer Service 1-800-268-2806

golf course pumping

Stations & Service

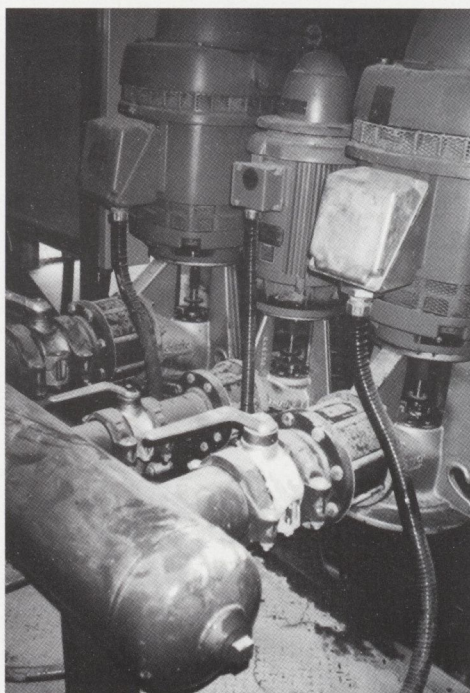
by Steve Wilkinson of PUMPS PLUS

In many ways, the pump station is the heart of the golf course, delivering the proper flow and pressure to the turf as an essential part of its existence. We've all heard of breakdowns or neglect that ultimately causes the superintendent stress until the system is up and pumping again. Regular pump station maintenance can help reduce this stress.

Regular spring and fall maintenance can cost as little as \$300.00 per year and often eliminates the emergency service calls that happen on a 90+ degree day during a tournament. PUMPS PLUS considers its spring start-up service an important aspect of consistent pump operation. Clayton valves, which when working smoothly eliminate any water surges that may cause pipe breaks, are completely cleaned, air is bled from pressure lines, screens are cleaned, electrical connections checked, motor insulation and amperage tested, pressure and flow settings checked, motor oil changed (if applicable), pumps and motors greased properly, pumps and motors are run checking for vibrations and pump packing is checked. The operation of the ventilation fans is also checked to ensure prevention of motor overloads in hot weather. Many superintendents have reduced jockey pump cycling by the installation of a "Electro-valve" kit invented by PUMPS PLUS to reduce bleed down of the pressure tank by the relief valve.

The fall shut-down service provided by PUMPS PLUS prepares your pump station for winter by draining and cleaning

Clayton valves to prevent the castings from freezing, disabling the control panel pump starters to prevent vandals from operating pumps, blowing out lines and switches with compressed air to completely protect the pump station in case of power and heating failures. The main reason for the



heat is to help keep condensation from the winding of the motor when the temperature is below 0 C, prolonging motor and bearing life. If station is not heated, make sure the motors have had time to fully dry out before applying power.

When you have purchased a piece of equipment, worth between \$40,000-\$70,000, it makes sense to keep it maintained in order to maximize its longevity. PUMPS PLUS offers a training course each year at the Turf Care Training Center. We have found it much easier to diagnose problems before we arrive if the superintendent is

comfortable enough to check certain items or explain symptoms. Often, we will advise the superintendent to try certain things before we arrive to save the golf course a service call. If we cannot advise how to fix the problem over the phone, then we usually have a good idea of the right parts that may be required to rectify the problem. If we don't have them in our service truck, then we can pick them up along the way in order to fix the problem on site.

There are three basic types of pumps used in the Canadian golf market. Centrifugal pumps were once very common in the industry because of their low price, simple one impeller design and small space required. The biggest problem with centrifugal pumps was the possibility of loss of prime resulting in their inefficiency. Submersibles are discouraged from use on golf course applications because of several problems (such as lightning, compact less durable motors, exceeding motor designed horsepower, servicing requires removal of pump and motor). The most reliable and efficient pump used is the vertical turbine. The initial price is more, but its longevity and piece of mind will more than pay for the initial expense. The vertical turbine is available in two different shaft speeds, 3600 and 1800. The 1800's costs about \$2500.00 per pump more because of the increased amount of impellers required to reach the same pressure. The 1800's are less susceptible to wear from dirty water and are much quieter than 3600 rpm. It's also a good idea to let your pump station technician or irrigation consultant know if you have dirty water when ordering a new station as there are several bearing and shaft materials available that are more resistant to debris as well as a choice of open or closed impellers.

continued page 16



Golf Course Pumping Stations & Service

by Steve Wilkinson of PUMPS PLUS
continued...

You may even want to discuss the installation of an irrigation filter. PUMPS PLUS has installed filters and self-cleaning intake screens that range from fully manual to fully automatic and range from \$4,000-28,000. Filtration can eliminate clogged pumps and sprinklers that cost you time and money.


One new product that will give you the most control over your pump station is the installation of operator interface control panel modification. This package allows you the user to access the PLC (programmable logic controller) to adjust pressure, timers and settings. A very useful aspect is the section which records your alarms with the time and date of the alarm to help start irrigating again where the alarm stopped it. You can see the number of pump starts for each pump, have three different ways of alternating the lead pump automatically, monitor instant flows, previous day flows and total accumulating flows. No more camping out in the pumphouse after supper or blaming the pump station for the irrigation system fault. The control panel modification is adaptable to any brand of pump station and costs little more than a flow monitor that many golf courses are being forced to install on their pumps by the Ministry. Variable speed pump stations are also becoming very

popular. The variable speed pump station replaces the larger jockey pump with a small 2-5hp maintenance pump, eliminating the pressure tank and the Clayton valve. The system changes the voltage and the frequency to the motor via a variable frequency drive to maintain a desired pressure. The newer frequency drives are using an IGBT switching gate to reproduce a close to perfect sine wave, which is much more reliable and easier on the motor than previous drives. Although mechanical devices have been removed, the software is the key to a reliable VFD—much like comparing computers (286 vs 586). Several major VFD companies are developing the 5th and 6th versions of their software that is specifically developed for the golf pump station. These programs are crucial for they decide how fast or slow to turn the VFD and what to do in the case of a fault. Without these numerous safeties, your pumps will discharge directly into your irrigation system like the old manual systems. Be aware of the control panel operation, standard features and options available as they


will reflect in the price. Quality will be remembered long after the price has been forgotten. We encourage the VFD system as it is definitely a better control with the revised technology, requires less regular maintenance and allows the user an enormous amount of control and information if it is equipped with an operator interface or a modem and software package. The user can change the irrigation system pressure with a single entry which moves all the parameters rather than adjusting all three pilots of the Clayton valve settings. The VFD also provides a softer start to the motors (if installed on both motors or with a soft start) which reduces the inrush of electricity and lowers the maximum amperage that your hydro rate is based on.

continued on page 20

COMPETENCE • SERVICE • INTEGRITY



- Municipal & Environmental Approvals
- Water Supply, Development & Treatment
- Sewage Collection & Treatment
- Environmental Compliance Assessments
- Environmental Impact Assessments
- Pond Design & Construction
- Stormwater Management & Drainage
- Clubhouses, Pumphouses & Equipment Barns
- Bridges, Carpaths & Service Roads
- Sprinkler Head Laser Surveys
- Computer Aided Mapping & Visualization Services



Burnside
GOLF SERVICES
providing quality engineering
& environmental services to
Ontario's Golf Industry.

(T) 1-800-265-9662 • (F) 519-941-8120

The Burnside Group of Companies
BRANCH OFFICES

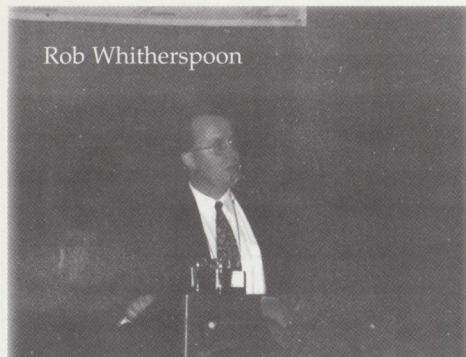
BRAMPTON 905-793-9239	NEWMARKET 905-953-8967	ORANGEVILLE 519-941-5331	OTTAWA 613-563-0378	STRATFORD 519-271-5111
--------------------------	---------------------------	-----------------------------	------------------------	---------------------------

1997 turfgrass symposium

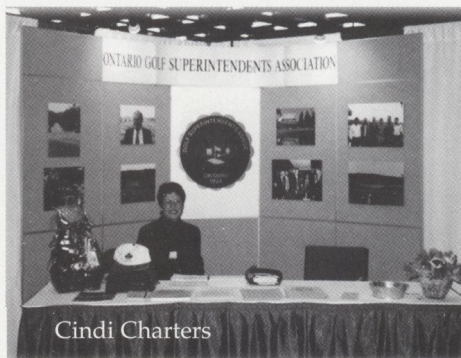
1997 Turfgrass Symposium a hit by Rob Whitherspoon

The tenth annual Ontario Turfgrass Symposium was an unqualified success. Held in Toronto for the second time after an extended run in Guelph, the symposium drew speakers and turf managers from Ontario and around the world. The trade show provided participants with a chance to view the latest products and services from a variety of suppliers. Floor traffic was heavy throughout the show.

The symposium opened on a lighthearted note as CBC Sports personality Ron MacLean entertained a capacity crowd with a look behind the scenes of Coaches Corner. Coming on the heels of Don Cherry's controversial remarks about the Graham James scandal, MacLean held court with stories that only added to the legend of the checker-coated critic.



Superintendents enjoyed a full educational program that featured a diverse group of speakers. On the first afternoon, Dr. Yves Desjardins reported on the protective cover study underway in Quebec. Ken Mrock, head groundskeeper for the Chicago Bears discussed the use of porous ceramic materials in golf greens. Teri Yamada provided an update on the Audubon program and a group of researchers from the



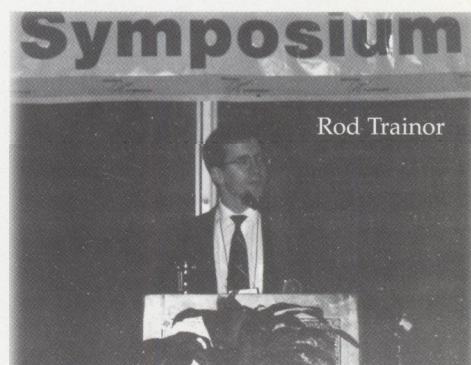
GTI provided an update on their work. Following the sessions, a new OTS social event was held. Although the hotel service had trouble keeping up with the demand, the event was generally well received. Watch for an improved and enhanced social event next year.

The second day opened with concurrent seminars with Dr. Chris Hall's weed control seminar and Gord Witteveen and Michael Bavier's Magic of Greenkeeping attracting most of the interest from superintendents. The afternoon sessions featured Dr. Mike Villani and Dr. Joe Vargas talking about pest and disease control and Dr. Terry Gillespie and Scott Robinson discussing the latest tools for improving sun exposure on greens.

On the final morning, most superintendents flocked to Jack Eggens' workshop where he encouraged the audience to practice their problem solving skills. The afternoon opened with the popular innovative superintendents session with Jerry Richard, Ian Chapman, Alex LaBelle and Paul Scenna, Jr. sharing some of their experiences with fellow superintendents. The first collegiate challenge followed with teams from Penn State, University

of Guelph and Seneca College going head-to-head with Jack Eggens as the quizmaster and Pam Charbonneau doing her best Vanna White impression. Competition was fierce, but when the dust settled, the team from Seneca College claimed victory with a superior exhibition of fertilizer application rate calculation. The teams from Penn State and Guelph were left to scratch their heads and hopefully recalibrate their spreaders before the snow melts.

The \$100 draws were held at the most recent OTS Executive Committee meeting. John Hopkins of JLH Services won the draw among participants who completed their evaluation. Steve Simonato from Blue Mountain Golf & C.C. won the prize for returning his



name badge.

Mark your calendars now for OTS '98, January 6-8, 1998. The continued success of the Symposium is dependent upon input from participants. If you have suggestions for speakers, contact Alex La Belle, OGSA's representative on the OTS Executive Committee.



Have a great summer!

It has been as busy winter at the GTI. We have had a successful "professional development season" with a great Turf Managers Short Course group, new seminar programs and of course, another edition of the Ontario Turfgrass Symposium.

One of the most exciting developments this winter was the coming together of the various associations in the turfgrass industry to develop a display promoting the positive environmental aspects of turf. The OGSA was instrumental in providing support for this effort. It

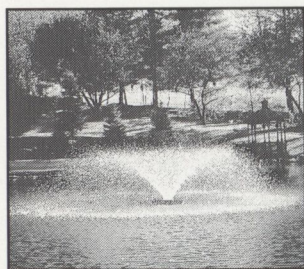
was difficult to compete with colorful displays of clematis and other flowers in full bloom, but our exhibit was well-received by the thousands of visitors to the Canada Blooms Flower & Garden show in early March. Special thanks to the OGSA members who provided many volunteer hours to staff the display throughout the show.

A free-standing information kiosk that was used for this display, is now on permanent display in the lobby of the Frost Centre at the GTI. Each panel of the six-sided kiosk provides information about each of the turfgrass associations in

Ontario as well as the GTI. It will prove invaluable in educating the many members of the general public who attend meetings and seminars in the Frost Centre. The other component of the display featuring interactive demonstrations of turf's ability to cushion shock, absorb heat, prevent erosion and filter water will also be reused for public education purposes.

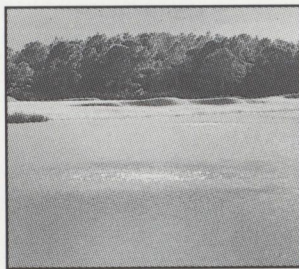
Mark your calendar now for the GTI-OTRF Research Field Day - Thursday, August 21st. We are also tentatively planning to hold a public open house for the following Saturday, August 23rd. Watch your mail for future details. If you are not receiving GTI mailings, please let us know and we will place you on our mailing list.

OTTERBINE®.... Your Water Quality Management Specialists



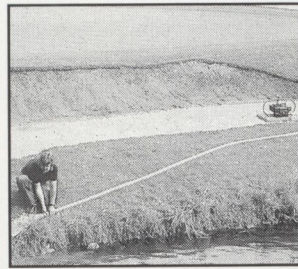
Surface Aerators

- Reduce the problem of *algae*, aquatic weeds and odor.
- Introduce O₂ into the pond.
- Available in a variety of spray patterns and sizes.



Sub-Surface Aerators

- Introduce O₂ into the pond bottom via Sub-Surface or Diffused Air.
- Perfect for shallow ponds.
- No visible spray pattern.



Bunker Pumper

- Removing water from bunkers, excavation sites or swimming pools.
- 280 GPM pumping rate.
- Floating, self priming portable - only 85 lbs!



Ottershield Lake Dye

- Transforms muddy water into *healthy blue water*.
- No stained clothes or hands - you never touch Ottershield.
- Neat, clean, packets.



**Newmarket • Ottawa • Mississauga
plus NEW Scarborough location**

200 Pony Drive, Newmarket, Ontario L3Y 7B6 • Phone: (905) 836-0988 • Fax: (905) 836-0995

O.G.S.A.

"Blooms" in March

by John W. Gravett, Public Relations Director

The OGSA was pleased to recently participate in the Canadian Blooms Show (The Toronto Flower & Garden Show) from March 5-9, 1997 at the Toronto Congress Centre. The show featured 40 fabulous gardens by Canada's top designers, contractors and growers. Interior design competitions, horticultural displays, garden marketplace and educational sessions rounded out this well attended show.

The official attendance figures for the five-day show was over 70,000 people! The OGSA along with other turfgrass visitors and in conjunction with the Guelph Turfgrass Institute, were involved in a trade show booth, featuring interactive displays on the benefits of turfgrass to humans and the environment. Various OGSA award members were on hand in the booth to answer a wide range of questions from the general public. Questions were of a wide variety, not limited to, but included inquiries on home lawn management pesticide use, golf courses and the environment, as well as questions on the golf superintendents profession. This show proved to be an excellent forum for the OGSA to promote our image as golf superintendents and to lay a foundation for good public relations between golf superintendents and the general public.

Special thanks to Paul Scenna Jr. of the Donalda Club for volunteering his time at the show. The OGSA is looking forward to attending next years show and "stepping up" our commitment to promoting ourselves as golf superintendents and environmental stewards throughout Ontario.

curling day

by Alex La Belle CGCS

Alen Beeney, of North Halton Golf Club, hosted another curling day on March 26. It almost didn't happen. The OGSA is developing a master calendar identifying all of our usual events. Unfortunately the curling day event was misplaced. Thanks to the efforts of Graydon Golf, a last minute phone blitz netted twenty enthusiastic souls who kept the day alive. Skip Richard Butler, and his team of Cara Sheppard and John Stein, wrestled the title away from last year's champ Dean Baker. Next year we will be holding this event in the third week in March as opposed to the last week. We were concerned that early spring openings might put a damper on the situation. As always, Alan took very good care of everyone and, for a neagre ante, a delicious meal of soup and sandwiches whetted every bodies appetite.

Golf Course Pumping Stations & Service

by Steve Wilkinson of PUMPS PLUS

continued...

The VFD is often sold with exaggerated claims that make the fixed speed station sound like prehistoric junk and this is simply untrue. Claims of VFD eliminating pipe breaks, no pressure fluctuations, fixed speed motors drawing full amperage all the time and short term payback are all questionable. Any time claims are made of a high energy savings with a VFD, a new irrigation system has been installed at the same time. The best thing you can invest in, other than a reliable constant pressure pump station, is the addition of a computerized TORO or RAINBIRD irrigation system which incorporates an excellent flow management program. This will save money by maximizing the pump station's efficiency, reduce the water window which reduces the amount of time the pump station is turned on. With any type of pumping system, if you maximize its potential and run it less hours, it will save money. It's like buying a variable speed drill — it's fun to show your friends, but when you use it, you hold it on full speed in order to get the job done as soon as possible.

To conclude, the pump station is an integral part of the golf course and not easily removed or exchanged. PUMPS PLUS is an independent pump service company that has experience in both irrigation systems and pump stations and we'd be happy to investigate all your options whether they be maintenance, repairs, up-grades or complete pump station installation to ensure you are and continue to remain completely satisfied.



THE ESTABLISHER™
SEED ENHANCING MULCH

*The Establishe™ seed enhancing granule mulch.
Can be applied with a drop or rotary spreader!*

COMPACT SOD
CAMBRIDGE
(519) 653-7494
Fax: (519) 653-0833

HAMILTON SOD
HAMILTON
(905) 389-1315
Fax: (905) 679-4444

SOD OUTLET
NIAGARA REGION
(905) 984-8448

SOD OUTLET
LONDON
(519) 652-3510

ONTARIO SOD
MISSISSAUGA
(905) 257-8795

GREEN HORIZONS
GROUP OF FARMS LTD.

Our Reputation is Growing!



ETHICAL STANDARDS OF ONTARIO GOLF SUPERINTENDENTS' ASSOCIATION

- *To ensure that respect is accorded our profession, our Association and our individual members, these ethical standards are to be observed and practised..*
- *Maintain courteous relation with your employer, employees and fellow superintendents, while practising sound business and turf management.*
- *Continue to broaden your knowledge through formal education channels and by exchanging experiences and ideas with fellow members.*
- *Endorse products or practises only when completely satisfied through personal experience..*
- *Refrain from corresponding either verbally or in writing, with a Director, member or official of another club, regarding its affairs, without the prior knowledge of that club's superintendent.*
- *Apply only for a position that is vacant, and, if possible, talk to the person who held the job last or other local superintendents.*
- *Offer employment to another club's employee only after advising that club's superintendent.*
- *Notify the superintendent of the club you are visiting directly, and, whenever possible, do so in advance.*
- *Misrepresenting the Association and yourself by lending your membership card will not be condoned..*
- *It is the responsibility of each member to abide by these standards and to report any violations to the Board of Directors, in writing.*



TURF CARE

Who's NEW?



Wray Mason, our NEW Turf Specialist.



Alex McLeod is back in full force as our Demo Man.



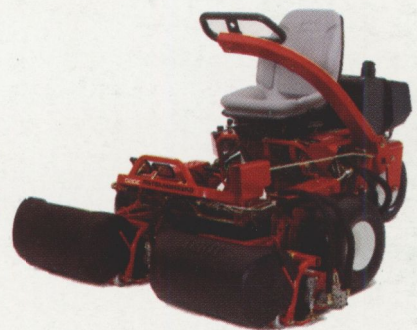
David Calverley, our NEW Demo Man.



Gary Supp, Store Manager for our NEW Scarborough Location.

What's NEW?

Greensmaster 3050, the lightest riding greensmower you will experience.



Contour 82" Deck for Groundsmaster 3000 takes rotary mowing where it's never gone before.

Talk, Listen, **Ask**, answer, Discuss, Debate, **Learn**, teach, Show, Tell, At Turf Care

Visit our NEW locations in Scarborough and Mississauga

140 Milner Avenue, Unit 24
Scarborough, Ontario M1S 3R3
Phone: (416) 298-2101
Fax: (416) 298-8758

190 Britannia Road East, Unit 22
Mississauga, Ontario L4Z 1W6
Phone: (905) 890-6290
Fax: (905) 890-5598

Locate us on the Web at www.turfcareproducts.ca

Ottawa Branch: 2465 Stevenage Drive, Unit 110, Ottawa, Ontario K1G 3W2
Phone: (613) 736-1890 Fax: (613) 736-0159

Turf Care Products Canada Limited

200 PONY DRIVE, NEWMARKET, ONTARIO L3Y 7B6 PHONE (905) 836-0988 FAX: (905) 836-6442

