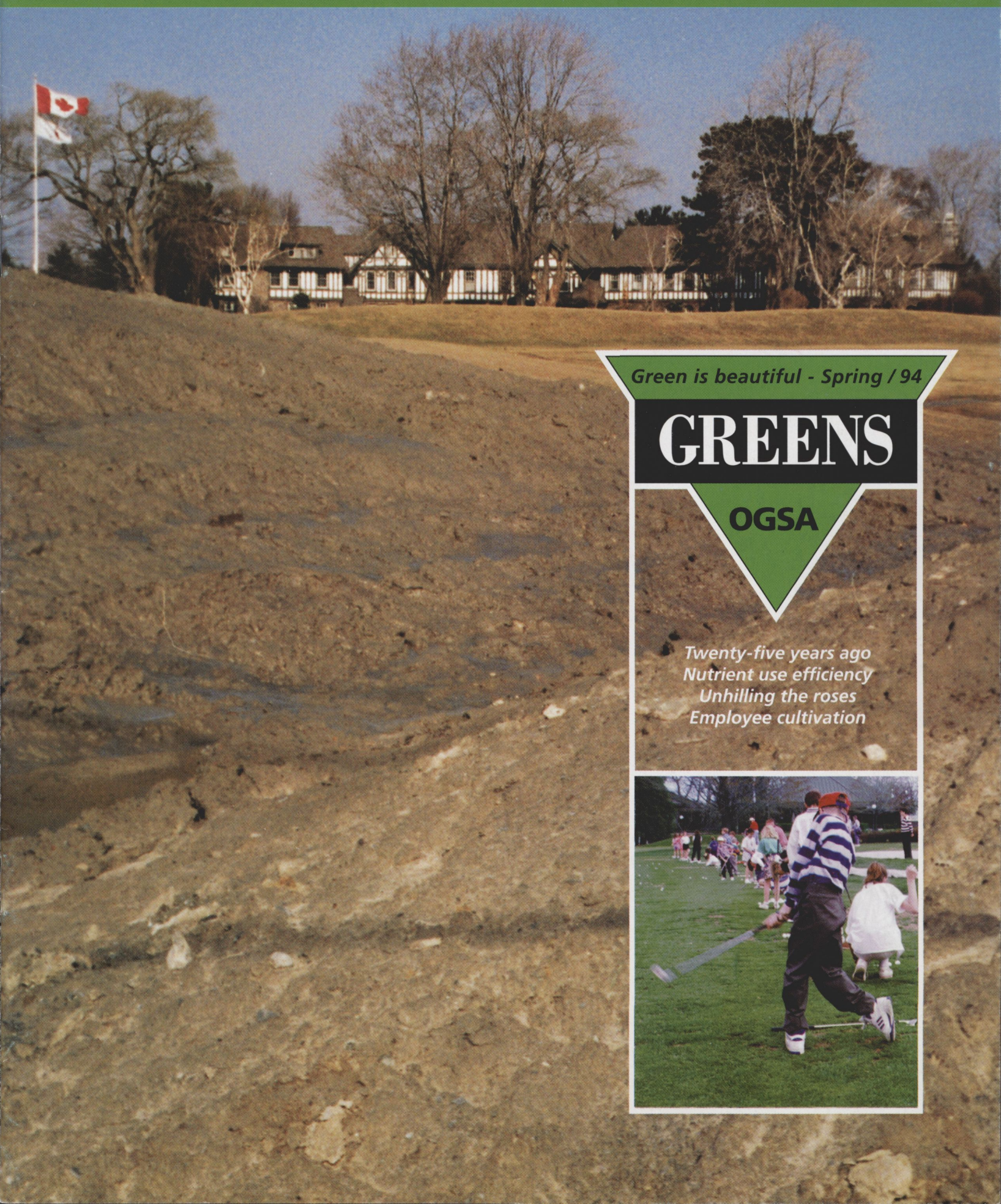


Friendly environments
Advocate speaks out

Disease diagnosis
Turf trouble-shooting

New provincial regulations
Ministry plan in-hand



Green is beautiful - Spring / 94

GREENS

OGSA

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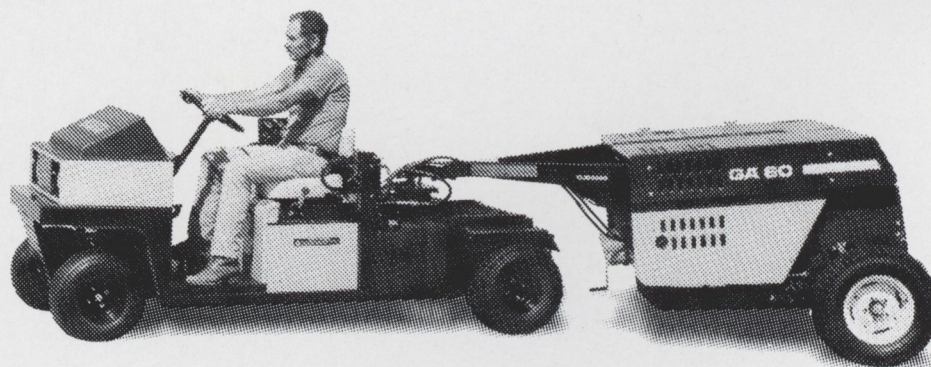
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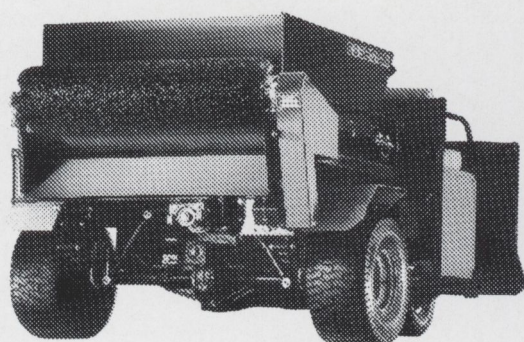
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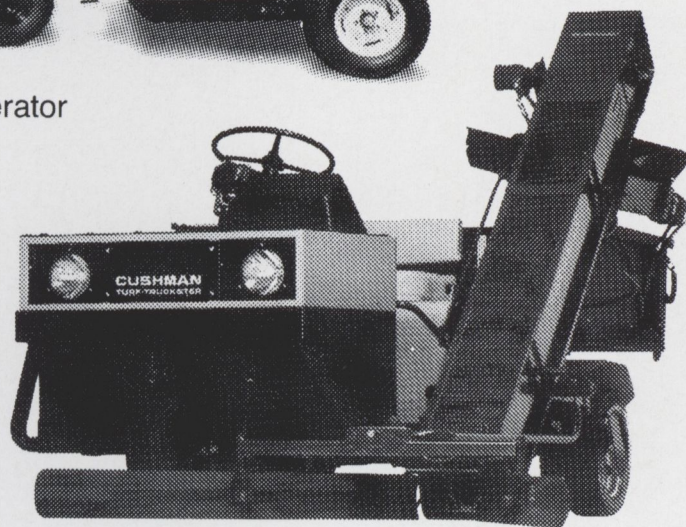
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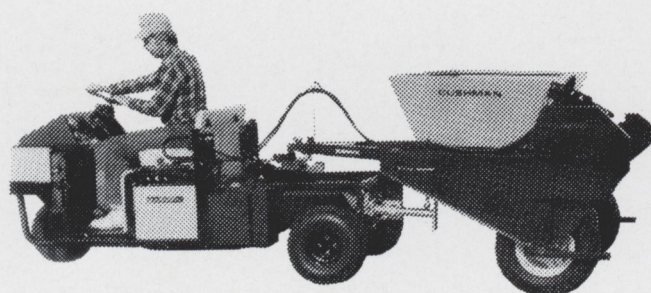
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Spring issue, 1994

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Feature pairing

- 6 Advocate speaks out
by David Turner
- 7 Nutrient use efficiency
by Daisy Moore
- 8 Employee cultivation
by J. Paul Evenden
- 14 Turf trouble-shooting
by Pam Charbonneau
- 18 Ministry plan in-hand
by John Gravett

Greens sections

- 3 Presidential fairways
- 5 Editor's clippings
- 9 History courses
- 10 Association cuts
- 11 Industry contours
- 17 Gardener's plot

Cover
Mississauga's famous clubhouse is framed by extensive new mounding surrounding its rebuilt practice area. Completed late last fall and now ready for turf growth, it is scheduled for re-opening this spring; and (inset) robins aren't the only sign of warm weather as juniors start the season with vigor.

Photographs: GOLF IMAGES

Green is beautiful

Presidential fairways Continuity is our goal

OGSA

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Three years of symposiums

Your Association has just completed its third year of involvement with the Ontario Turfgrass Symposium. And the event improves every year. The trade show and educational sessions were first rate. It is the right time to leave the festive season behind, and turn our thoughts back to the greens business.

A forum for learning

Many superintendents at the symposium are heard reflecting on the past year, and discussing their plans for the upcoming one. These symposiums are important avenues for learning and exchanging information amongst ourselves and leading industry personnel. Sometimes, members at our various courses have difficulty in

understanding what we do during the winter months. But, participating in educational programs of this type can be important for regaining enthusiasm for a new season.



Commitment to 1994

Your Board of Directors has been organizing for 1994 and is committed to maintaining continuity.

I would like to take this opportunity to thank Rhod Trainor and David W. Gourlay for their years of service on the Board. I am also grateful for entrusting me with the position of President of the Association. I would welcome our newest Board member, Jerry Richard of Craigowen Golf Club in Woodstock.

Enjoy the early spring season with the knowledge that the busy time is just around the corner.

BRUCE BURGER
President

Career profile - Bruce Burger, OGSA President

- Bruce attended Port Hope High School and in 1974 received a Bachelor of Arts in Urban Geography from Brock University • As a student, he worked at Dalewood Golf Club later becoming Assistant Superintendent
- In 1978, he was Superintendent of Penryn Park • Then he returned to Dalewood and by 1981 was the club's Superintendent • Galt Golf Club appointed him in 1985 as Superintendent • In 1990, Bruce became the Construction Superintendent at Greystone and also assisted in the supervision of Deeridge • Lakeview Golf Club in Mississauga attracted him in 1991, as Superintendent, where he continues today • Since 1986, Bruce has been involved with OGSA activities which have included Golf Committee, Secretary, Treasurer, Vice-president and symposium speaker •

White becomes green in spring

Nature becomes a 'whitekeeper' while superintendents plan for spring and attend important winter annual conferences and seminars.

This winterscape, a dramatic illustration of a resting golf course, is proof of positive environmental impact. And that eventually, the forces of summer prevail.

At the storied Hamilton Golf and Country Club - despite two moves in its early period - the gentle blanket of winter has been a continuous scene for a century.

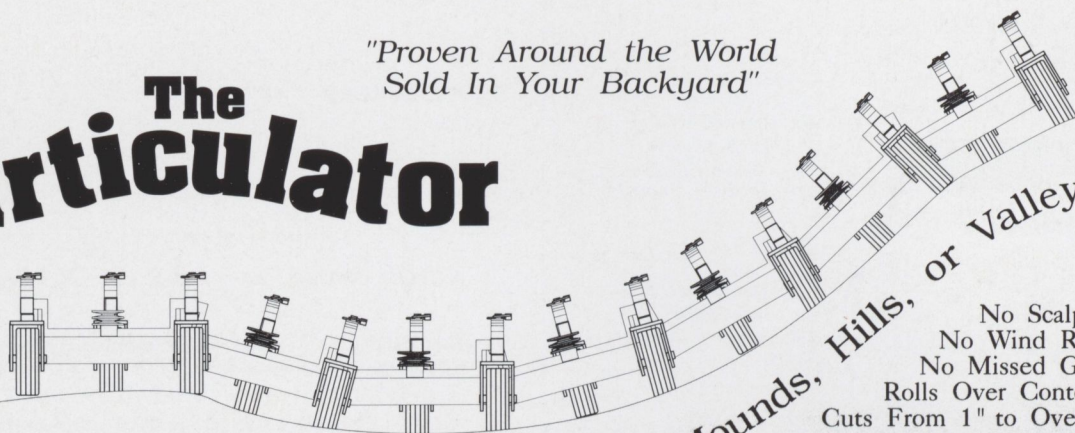
On the other hand, the violent action of ice breakup can cause spring havoc often requiring expensive remedial solutions.



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The Ontario Turfgrass Symposium continues to be a success. On page 16 are views from the scrapbook.

Dallas reflections

by Gord Witteveen

There was an upbeat mood in Dallas, Texas when almost 20,000 delegates descended on the city to attend the International Turfgrass Conference Show put on by the (GCSAA) Golf Course Superintendents' Association of America.

The mood was positive, because the American economy is improving and this was reflected in increased activity on the convention floor. Everyone I talked to, had something good to say.

GCSAA revitalized

Not only was the economy on the upswing, but so was the GCSAA. Randy Nichols, a Georgia superintendent (with the help of a progressive Board), revitalized the Association. Key long-time members were replaced with three new ones with fresh ideas. The group is on a roll again and there was a feeling of relief that much of last year's bitterness was history.

(continued page 9)



Gord Witteveen has written about his Dallas experiences, which include a portrait, a shoeshine and a party or two.

DOUG SUTER
Editor

Green is beautiful

Editor's clippings

Winter travels are valuable

OGSA

Guelph, Calgary and Dallas - memorable events

I had the opportunity this past winter to attend our Turfgrass Symposium at Guelph, and the annual CGSA show in Calgary.

As usual, the Calgary trade show was outstanding. There was a wide variety of new product on display such as electric triplexes. In the many years I have been attending this national event, this year's educational content was one of the best. As an example, there were many excellent speakers. Those who attended, I'm sure, would agree. Our Association's annual event, also, was first rate.

To complete the winter 'refresher' courses, I also travelled to the Dallas conference. It was interesting to hear Pam Charbonneau, of the OMAF, speak about the principles of developing a dunes course in North Carolina. In this spring issue, Pam writes about the seven steps in turfgrass diagnosis.

One more Dallas note: a thoughtful IPM seminar listener was Lynda Rankin who has a directive to write an integrated pest management program for the Maritime Superintendents Association.

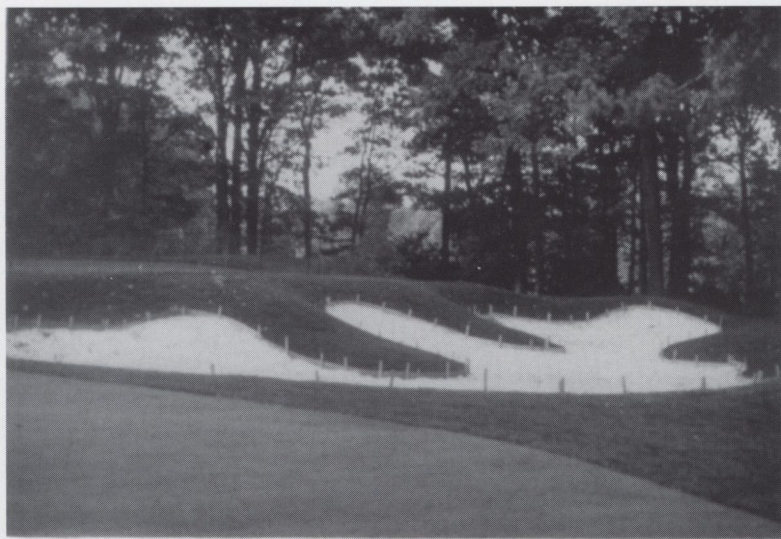
No more writer's cramp

We continue to have a good response from experts in our industry who wish to contribute articles. I would be happy to hear from anyone about their thoughts regarding editorial material.

With spring now here, and courses opening throughout the province, I wish everyone a successful 1994 season.



(Top) 1994 Board of Directors;
(above) David W. Gourlay, President, makes traditional gavel presentation to incoming OGSA President, Bruce Burger, at annual Turfgrass Symposium.



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Q: Are golf courses 'friendly' enough?

A: Maybe

BY DAVID TURNER
Landscape Architect

Turner, as demonstrated by his article, is a strong proponent of making the most of local environments in the building, renovation and maintenance process.

He practices what he preaches in his parks work for the Town of Caledon.

Although turf managers have long believed in the responsible care of the environment, it is becoming clear that a more proactive approach might be necessary to help dispel commonly-held public myths.

This view demonstrates the modern approach to design. Tall grasses and protected wetlands frame a playing area at Lionhead providing a natural look and minimizing perimeter maintenance.



Lionhead Golf & Country Club
Architect: Ted Baker & Associates
Superintendent: Jim Molenhuis

The environment is a big issue today and golf courses have been singled out by many groups as being environmentally-unfriendly. There have been arguments on both sides of the issue, but the stigma remains.

It is time for the golf course industry to make strong positive moves in continuing to create environmentally-friendly golf courses, as well as upgrade them. In this way, the game of golf can be better recognized as benefitting the natural environment rather than degrading it.

The golf course industry is the undisputed expert in turf management and is leading the way in the application of natural landscaping. Some of the new courses are incredibly beautiful and are demonstrating a return to natural values.

Many of today's courses are being designed within the settings of tall grass meadows, wildflowers and other similar framework - a significant departure from courses manicured from edge-to-edge. This approach has resulted in maintenance and construction cost savings and is more environmentally responsible. But, can more be achieved?

"The public perception of chemical runoff and mono-culture wastelands needs to be addressed. My suggestion is a stronger attempt to change areas outside of the playing zone into dynamic, bio-diverse gems. For example:"

- *Improve the habitat for the biotic community and positive attention can result from the media and the sceptics.*
- *Change the stereotype mono-culture golf course image into islands of diversity.*
- *Push the limits of plant material use from the traditionally used 10 to 20 species to the hundreds, or even thousands of species that naturally occur in the area.*

This is a big challenge and can represent a dramatic move forward for this important business. I am convinced that the only impediment to a comprehensive undertaking would be the lack of will to begin.

In our case, we have been doing some experimenting and are finding that these ideas are not necessarily expensive. They can be aesthetically pleasing and environmentally correct.

All it takes is commitment.

Here, the backdrop to the green is bush which will mature to a more stately stand; whereas, the foreground is sacred river space with banks left natural. This total scene becomes a pleasing view liberated from architectural tricks.



Fertilizers: a balancing act

BY DAISY MOORE

Horticulturist, Vigoro Canada

A well-planned fertility program is basic to turfgrass maintenance:

- areas under-fertilized tend to be weak and discoloured
- those over-fertilized, particularly with soluble nitrogen, can have thatch problems, excessive shoot growth, insect and disease trouble

An efficient fertilizer program will ensure that essential nutrients are present. Excessive nutrient levels - detrimental to turfgrass - will also be avoided.

A proper growth system is important given environmental impact and budget. In golf course management, focus is on optimum conditions for turfgrass growth and long-term health of the eco-system.

Although natural systems are self-sustaining, golf courses are not. Because of the need for a defined and uniform playing area, special attention is required.

Fertilizer - how much, when, and how to apply - factors to consider:

- Soil type • history of the course • age of the course • type of player • maintenance level • water supply • time of year

A healthy soil produces healthy plants

A soil test should be done at least once a year prior to determining a program.

Texture (clay / sand / sandy loam) is telling about soil and plant interactions.

Sandy soils have very low water and nutrient holding capacity. With these soils water-soluble nutrients should be kept to a minimum to avoid obvious leaching.

Clay soils have very high nutrient and water retention abilities. Sand greens are ideal mediums to withstand the compaction stresses of golf. Applied nutrients are absorbed by the clay particles and can be held until the turfgrass plant can use them.

Sandloam is generally recognized as the best soil texture for turfgrass given problems with the extremes of sand or clay. A green built with sand, although porous, is an ideal medium to avoid compaction stress.

Knowing the nutrient-holding capacity of soil is important in determining how to provide turf with a slow and steady supply.

Know the meaning of pH

Soil pH has an impact on nutrient availability because soil texture determines the rate of material needed to adjust pH. By soil testing the same area at the same time each year, increase or decrease in salt levels, as well as whether pH level is up or down, can be determined.

If the level of a particular nutrient is increasing, the fertilizer program can be adjusted to reduce application of that nutrient.

The trends of soil test results over several seasons are important. These tests, their interpretation and documentation of nutrients, will assist in fine-tuning the program.

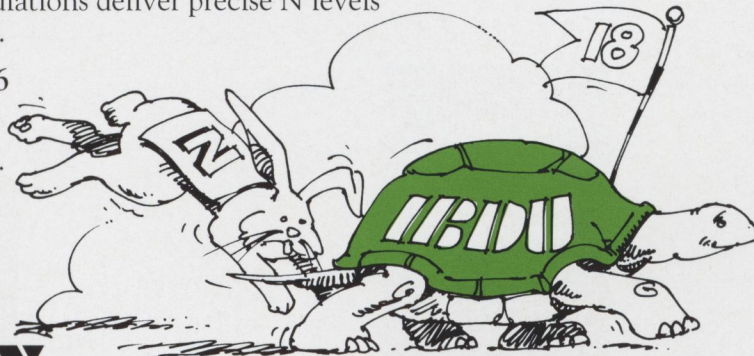
(continued, page 13)

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In my opinion

After reading an editorial comment in a golf course superintendents' association newsletter, I felt compelled to write this letter.

The superintendent writing the article commented that he was tired of winter, and he could barely remember the 95 degree heat of the past summer. He remembered those hot days when he longed for cooler weather and to be able to spend more time with his employees talking about "football, women, etc". In the cold spell, he wanted to be in Florida "playing golf and watching all those cute little babes in their bikinis".

But wait, salvation is just around the corner - soon, he reported, he would be in Dallas to "look at all those cute little cowgirls".

How, I asked myself, did these comments get past the magazine's editor? In 1994, how could anyone believe these comments would be amusing, or charming, or invoke sympathy from the enlightened men and women who would be reading his material?

I have spoken with a few colleagues about this and, to my dismay, this attitude towards women in the turf industry is not an unusual situation. Well guys, this is not a boy's club. It's time to realize that women are an important part of the turf industry. They are scientists, superintendents, salespeople, secretaries, and more.

It is time that certain female-related jokes (which I have heard), and other inappropriate remarks, are eliminated. It is time to take down the 'girlie' calendars from the maintenance shop walls.

Otherwise, the women who are involved in the turf industry might form opinions about golf course superintendents similar to the opinion I formed of the man represented by the above quotes.

Cindi Charters
OGSA Office Manager

We would welcome other letters about current issues, or general comment.

Editor / GREENS

"Cultivation of each employee to their full potential is a necessity"

J. Paul Evenden, Assistant Superintendent at Hamilton Golf & Country Club, highlights an innovative staff management program.

The current economic and employment environment has created new challenges for turf managers. Demand for improved quality and budget constraints requires innovative thinking.

The old-time management techniques are giving way to progressive styles of the 90s. We are using more time and energy in the management of staff.

Our objective is to instill in employees the concept that overall condition of the course is a group responsibility. In this way, doing only assigned duties is discouraged.

Our program of 'value-added' is now a reality. In hiring, we look for diversification of skills and experience with enthusiasm and attitude as key considerations. Otherwise, quality results are difficult to achieve. The foundation is finding ways for the employee to want to go the extra mile.

The most important characteristic for building productivity is the development of a positive group morale.

To achieve this requires management effort since there is a direct link between low morale and poor results. Positive individual attitudes are a must, but group morale is essential.

Recognition for a job well-done; setting goals with staff;

and other motivating strategies serve as boosters. *Some successful morale builders we use, are:*

- Employee-of-the-month award is available during the growing season for maintenance staff - \$100 and a crested jacket - and this is determined by a staff vote.
- To get trivial jobs done, we hide 10 poker chips in areas that need attention. Each is worth a pop. A single red chip is worth a golf shop shirt.
- After a long week, we hold a barbecue and serve staff hot dogs and hamburgers during an impromptu lunch.
- A staff newspaper is published by the staff.
- A staff tournament is held at the end of the golfing season. The course is closed for their exclusive use. Staff organizes the event.
- Refreshments provided after a hot work day are a morale booster.

These are a few easy ways to keep staff coming to work with a smile. We try not to create a popularity contest. Rather, it is acknowledgement of our appreciation for extra effort.

As managers, we expect improved attitudes in the workplace, but we should also recognize that some of our views must change. Together, a forward-thinking program maximizes human resources.

The result is a commitment to a more motivated and positive work environment.

Staff at Hamilton Golf Club respond well to 'value-added' program.



J. PAUL EVENDEN

BY BARRY ENDICOTT
Nobleton Lakes Golf Club

The annual meeting was held December 10, 1968 at Hawthorne Valley with **John Arends** as host. The 34 members present elected the 1969 Board of Directors: **A.V. Jones**, Aurora Highlands (President); **John Grighmire**, Beverley (Vice-president); **John Arends**, Hawthorne Valley; **Dick Woodward**, Rideauview; **Bill Hynd**, St. Georges; **Phil Glover**, Rivermead; **Frank Dunn**, Camp Borden.

OGSA held its annual banquet and dance at Aurora Highlands at the end of February - host, **Allen Jones**. Sixty-five people attended which was organized by **Bernie Macdonald** and **Frank Dunn**. President **Jones** presented **Fred Grighmire** with an Honourary Membership plaque.

Bob Brewster, a greenkeeper at Northridge near Brantford, won the OGSA Scholarship Award for having the highest marks in the first year of the Ontario Diploma in Horticulture course at the University of Guelph. **Bob Moote**, OGSA Past-president, presented the award at the

banquet during the National Turf Conference in Montreal.

Professor **Jack Eggens** and OGSA organized the first Annual Field Day at the turf plots at University of Guelph. **Paul Scenna** hosted the golf tournament afterwards and **Clay Switzer** was the dinner speaker.

The OGSA conducted their second annual tournament for superintendents and greens chairman on July 25. It was won by **Bob Heron** (Superintendent) and **Stu Thompson** (Greens) of Markland Woods. They also served as hosts. Low net were **Helmut Kopp** (Superintendent) and **Reg Acomb** (Greens) of Uplands. More than 100 attended the meeting and were addressed by golf architect **Geoff Cornish**.

Bob Heron was the winner of the Alex McClumpha Golf Tournament held at Thornhill. The first tournament in 1944 was also held there and the late **Mr. McClumpha** was their superintendent until retirement. Despite the rain, 140 superintendents and guests attended this tournament. **David Gourlay** was host.

David Moote accepted the superintendent's position at Essex. Prior to this he was superintendent at Rosedale for 17 years. **Harry Van der Berg**,

formerly superintendent of Maple City, took over as superintendent at Dundas Valley.

Monthly meetings were held at Uplands - **Helmut Kopp**, Whitevale; **Albert Reeve**, Richmond Hill; **George Daron** and **Ed Ortlieb**, Bayview.

The National Turfgrass Conference and Show, sponsored by the RCGA in cooperation with the CGSA, took place March 9, 10 and 11 in Toronto's Seaway Towers.



Hair and now:
Gord Witteveen (left), and Thom Charters congratulate each other for a good hair day.

Dallas reflections (continued from page 5)

Small gems displayed

Jacobsen and Ransomes drew large crowds with their electric riding greens mowers. There is still some concern about battery life, but for those who can't cut greens on Sunday mornings due to noise restrictions, there is hope for relief.

The product show is so large, it takes at least two full days to review. Among the exhibits of the big companies, are many small gems. There is always a chance of finding a new product that will suit a particular course and its members.

Portraits, parties and a piano player

At the Toro booth, I had my portrait drawn seated on top of a greens mower (something that I rarely do anymore). The likeness was good enough to frame and now hangs in our office.

Toro also entertained their international customers at a giant cocktail party. This is a good place to meet Canadians, as well as superintendents from other countries. If you are selective with friends, it is quite possible to get invitations to a host of parties.

Ciba Geigy had a huge one, so did Jacobsen and Scotts. Some are for distributors and although there are ways to get in, crashing is not advised. After nibbling hors d'oeuvres at parties, there is little need to go out for supper.

One of my favourites is a combined effort by Milorganite and the Wisconsin Superintendents' Association. What makes this one so special?

The answer is Fred Scheyhing, a superintendent from Mt. Kisco, New York. He has a wide angular face on top of a strong square body. Fred sports a moustache to compensate for a receding hairline. When I first saw him, he came strutting across the ballroom floor, dressed in shorts and exposing bulging muscles. He looked like a sailor coming from a bar where he had just lost a fight. He was heading for the grand piano.

As soon as he caressed the keys, the macho image disappeared. His soft blue eyes stared into space and his head swayed with the music he played - Tenderly, Laura's Theme and Feelings.

Now in his fifties, he has been in demand for functions at the club he has been superintendent at for almost 30 years. Fred Scheyhing does not read music.

President's reception

This is the most prestigious party to attend. It is by written invitation only and includes a receiving line. Don't even try to crash this party.

But, once in, it's a fine place to chat with Trent Jones; meet Byron Nelson; say hello to Jim Beard; smile at Joe Vargas; and listen to another piano player - not as good as Fred Scheyhing.

A 'Kross' presentation

During all this, time must be found to attend lectures. Zig Zigar's remarks during opening ceremonies was outstanding, Zig said, "Treat every day as if it were the day before your vacation.

You'll be surprised how much work you will get done." Best advice I have had in years.

Then, there was the macabre presentation by Dr. Kross about what superintendent's die from. The good doctor had completed a study on 612 who had died between 1970 and 1992. Cancer took 136, or 36 more than there should have been. Others succumbed to liver and heart disease and intestinal cancer. Perhaps due to worry, heavy drinking and smoking. My colleague, Ted Woerh from Detroit, agreed.

Amazingly, not of the deceased superintendents had died from skin cancer. Maybe Rush Limbaugh is right - the hole in the ozone layer is just a socialist plot.

The final polish

In the registration area, two young men operated a shoe shine. I had my shoes polished there (\$3.50 plus tip) - much less than at Pearson International.

I asked one of them what was the most number of shoes he had polished in one day. The answer, 150 pairs. This was at a financial convention, something to do with mutual funds.

"How do we superintendents compare?", I asked. He said it had been a slack week. Only once did he get up to 50 pairs.

Many had worn sneakers that week. If we want to improve our dress, I guess we shall need some lectures on how to dress. That's the advice from the people who work at our feet.



Winter seminars provide for educational update and comraderie.

Children's Fund grateful

Brenda Burns, CFRB Director of Community Relations and Promotion sent this letter of appreciation to all Association members:

"Many thanks for your very generous donation of \$500 for the CFRB Children's Fund in support of The Hospital for Sick Children.

"The success of the CFRB 1993 Children's Fund drive can only be measured by the enthusiastic response and generous commitment of people like you. Thank you for caring - thank you for sharing. The children will most certainly benefit from your benevolence."

Dallas contingent

Fifty-three countries were represented at the Dallas show.

Canada was the largest foreign contingent with 467 participants.

Award winners

Mark Schneider, OGSA Scholarship Chair, reports the following 1993 OGSA Turfgrass Award Winners:

- **Terry Blok**
Bayfield, Ontario
*Lambton College, Sarnia
Parks / Nursery Technician program*
- **Wendell Henry**
Nepean, Ontario
*Seneca College
Golf Course Technician program*
- **A. David Grant**
Lethbridge, Alberta
*University of Guelph
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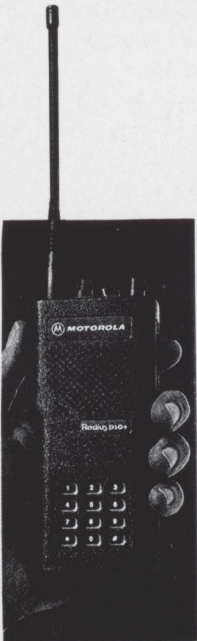
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Hard hats cause pain

It seems that understanding regulations about hard hat compliance is simple. Not so, at least in the United States.

A Pennsylvania superintendent called the GCSAA about the Occupational Safety and Health Administration's hard hat regulation for employees.

Although there is no specific law, OSHA has told the GCSAA on many occasions that golf course employees should wear a hard hat if working in an area where chances of being struck by a golf ball are increased.

Being responsible, the superintendent asked the employees to don the protective bonnets. But, that's when the trouble began.

"When they weren't wearing the hard hats, golfers would wait for them to move out of the way before they hit the ball," said the frustrated superintendent.

"But, when they are wearing the hard hats, the golfers think it must be OK to hit because they are protected.

"Now, I've got guys getting hit in the face, the arms, the legs, back, all over," he reported.

"Let me tell you, unless you drop a ball out of a helicopter, the chances that a flying golf ball will hit a guy on the top of the head are pretty slim."

OSHA representatives say they do not have a solution for the peculiar situation.

Great Lakes and pesticide

Golf courses in the Great Lakes region contribute the least amount of pesticide residues found in the watershed, according to a report issued by US General Accounting.

Conducted at the request of Senator Carl Levin of Michigan, the report found that of the 56 million pounds of pesticides used annually in the United States and Canada in the Great Lakes watershed, only two million pounds were used on golf courses. Agricultural crops took 45 million pounds and lawns, eight million.

The study is to be tabled in 1994.

Georgian Bay events

1994 golf events and meetings of the Georgian Bay Superintendents Association, are:

• **Mad River / May 17**

Host: Ray Richards

• **Owen Sound / June 7**

Host: Mark Schneider

• **Scotch Settlement / July 12**

Host: David Brooke

• **Lake St. George / August 23**

Host: Greg Louth

• **Horseshoe Resort / September 13**

Host: John Hughes

All OGSA members are welcome. Please telephone well in advance to register and book tee times.

Weather lore

• If a crescent moon hangs like a cradle in the springtime the summer will be dry.

* *On April 18, 1855 a line of violent thunderstorms swept across Southern Ontario. Known as the hurricane of 1855, it prompted water to rise 3 m at Owen Sound and along Lake Ontario.*

• Dry Lent, fertile year.

* *On March 12, 1870 the first of three major snowstorms struck Southern Ontario with 23 to 63 cm of snow from Hamilton to Markham. A second storm on the 16th dumped 45 to 63 cm and a third on the 27th added 90 cm more.*

• Clover contracts before a storm.

Sources: • Old Farmer's Almanac Book of Weather Lore * Canadian Weather Trivia Calendar

Rockies see White

An eager participant at his first major turfgrass conference as a professional was Peter White, Assistant Superintendent at Credit Valley Golf Club.

White who, admittedly, "had never been west of Thunder Bay", got his first glimpse of Canada's Rocky Mountains when he travelled in March to the CGSA Annual Turfgrass Conference in Calgary.

Sadly, White reports: "I was just too busy attending workshops to do any sightseeing."

Hunter G-606 introduced

Valve-in-head rotor designed for golf courses

Hunter industries has introduced the gear-driven G-606, an electric valve-in-head golf course rotor with pressure regulation.

It is designed for mid-range coverage on greens, tees and multi-row fairways, and has five interchangeable nozzles to vary the radius from 53 feet to 78 feet. The flow rate is adjustable from 13 to 32 GPM.

The impact-resistant, flanged body provides stability and protects the sprinkler from heavy equipment. A new valve filtration system prevents contamination and ensures positive shut-offs.

Engineered to deliver years of performance, the heavy-duty gear-drive operates as a fixed, full circle sprinkler providing uniform water distribution.

It pops up 3 1/2 inches with a built-in recess cap for yardage, and operates at a pressure range from 50 to 100 PSI.

All Hunter rotors are available with a purple, reclaimed-water identifier cap for use on courses irrigated with non-potable water.

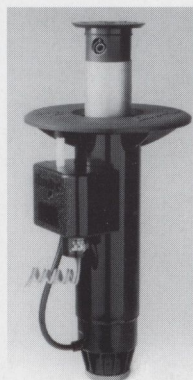
For more information, contact the Hunter Canadian distributor:

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Tel: (905) 881-4794.



Information about products or industry news may be sent to the Editor, care of the Association office.

Water Saver lawn seed

Oseco announces a new concept for home lawns and low maintenance areas.

Water Saver lawn seed is a product for the times we live in - watering restrictions, conservation and naturalization.

The turf-type fescue cultivars that make up the new seed mixture are drought-tolerant, low-growing and disease-resistant.

They are endophyte-enhanced to discourage surface insects and require less fertilizer.

Water Saver will produce an attractive dark green lawn in sun or shade. The extensive root system has no thatch build-up and withstands foot traffic better than Kentucky bluegrass.

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Tel: 1-800-668-5080

Appointments

David Schmelefske, a past director of the Ontario Golf Superintendents Association has joined the turf and golf course division of **Ontario Seed Company**.

Schmelefske had been superintendent at Merryhill Golf Club and can be reached at: 1-800-465-5849.

McCracken Golf Supplies recently announced the appointment of **Everett Nieuwkoop** as **Technical Sales Representative**.

Nieuwkoop, with a strong background in fertilizer, seed and pesticides, will be calling on courses in Southwestern Ontario. He can be reached at: (519) 579-3024.

Turf Care Products Canada is pleased to announce the appointment of **Stephen Hewgill** to the position of **Turf Specialist**.

This newly created position will further develop the company's commitment to their fertilizer business.

Hewgill has several years of sales experience, six years in the golf course business and recently completed a University of Guelph Diploma in Horticulture.



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Jeff McMaster

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Golf courses - old and new

Well-managed established courses should have a thriving turfgrass community which only requires supplemental levels of nutrients. On a new golf course, the soil has been disrupted, often compacted, and the soil biology is out of balance. Root systems are shallow and can't easily seek nutrients. More supplemental fertilization is needed until the system finds a balance. Soil tests should be done often.

Different needs for turf variety

Turfgrass species vary requirements for fertilizer - especially nitrogen. Annual bluegrass will be under stress if fertilized at bentgrass rates. Bentgrass will be thatchy if fertilized at bluegrass levels. Creeping red fescue has a very low requirement for nitrogen. Thus, feeding it at the same levels as Kentucky bluegrass wastes money.

Proper maintenance plays a role

Maintenance practices play a role, such as leaving clippings which reduce fertilizer needs since natural organic breakdown increases nutrients. Excessive clippings can be managed by reducing the quantity of water-soluble, or readily available nitrogen.

Nitrogen should be metered

Nitrogen is an important element in nutrient use efficiency. When present in soluble form (urea) it will be converted and move through the system. The most effective way of supplying nitrogen is by introducing it in small amounts. Controlled release nitrogen is an excellent way of metering out nitrogen and increasing efficiency.

Methods of slowing down nitrogen release include:

- Coated materials - sulphur coated urea, polymer coated urea
- Methylene urea(s) - short, medium and long chain
- IBDU - isobutylidene diurea
- Natural organics - i.e. manures, compost, protein meals (bone meal), sewage sludge.

Various characteristics create harmony

All of these materials have unique release characteristics which need to be understood to maximize their benefits. Longer-lasting nitrogen sources can be applied less frequently; shorter-lasting products need to be applied frequently at lower rates.

Temperature and microbial activity are essential for some controlled mechanisms to work and moisture must always be present for any to work. Knowing the factors determines high or low demand.

Overall improvement

Fertilizer granulation sizes and timing technology have improved greatly. It is critical to consider release principles and proper timing of the correct nutrient blends at the right rate. To do so, means a sustainable agricultural system.

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Timing is critical in maximizing efficiency

- **In late season**, grass stops growing. Plants are still green carrying on photosynthesis, but shoots do not need sugar. This is stored in the crown, roots, rhizomes and stolens for new growth. Properly timed application promotes this. Benefits of late season application include earlier spring green-up and an extended period of photosynthesis.

- **Late spring** application prepares turf for stressful summer months. Root growth is minimal with high temperatures and the plant relies on stored materials.

- **In late summer** when root activity begins again, is ideal to fertilize to increase shoot density and prepare for winter.

Turf *trouble-shooting*

BY PAM CHARBONNEAU
OMAF Turfgrass Advisor

An unfortunate reality of managing golf course turf is that diseases are likely to occur at some point during the season. A very important step in disease control is accurate diagnosis. Some fungicides are known to enhance certain diseases. Thus, a misdiagnosis followed by an incorrect choice of fungicide could worsen the situation. Repeat applications of fungicide cause stress to the turf killing-off beneficial fungi. These help to break down thatch and keep disease organisms in check.

There are several steps to take which will help solve the disease puzzle.

Seven steps in diagnosing disease

1. Turfgrass species

Identify the turfgrass species which is affected: Some diseases are very specific to one species of turfgrass. Identification can help correctly determine the problem. A good example of this is anthracnose which affects *Poa annua* and not creeping bent.

2. Weather conditions

Keep track of weather conditions: Many turf diseases require very specific environmental conditions for infection to occur, including specific relative humidity, temperature and periods of leaf wetness. A useful diagnostic tool is the turfgrass disease time profile chart. This helps hone in on about one-half dozen diseases which are possible in any given month. For instance, if there is a problem in April, there are five possible diseases to consider based on the average temperature experienced during those months in Southwestern Ontario.

Keeping track of minimum and maximum temperatures can be very useful in diagnosing. Another good example of using weather conditions, is with the identification of pythium blight. High temperatures of 30 degrees C in the day and 22 degrees C at night, plus 10 hours of leaf wetness, are required. If temperatures have not been that high, then its presence can be eliminated.

2. Weather conditions

Know your specific growing environment: When turf is stressed, it is more likely to be affected by disease. Some factors which lead to stress are compaction, poor drainage, nutrient deficiencies, poor air movement and insufficient light. Providing a more favourable growing environment for turf may help areas which have chronic disease problems.

4. Symptoms

Make a note of the symptoms: Many turf diseases cause similar symptoms, namely - dead patches in the turf. There are a few subtle differences if the patch is examined closely. Some diseases cause 'frog eye' symptoms. Others have a smoke ring on the outer edge of the patch. Certain patches are brown in colour, others straw-coloured.

The size of the patch often is indicative of one specific disease. Diseases usually occur in a random pattern. If the symptoms observed are regular, then the damage may be caused by a sprayer, mower, hydraulic leak, or so forth. It is important to make detailed notes on all of the above to assist in diagnosis.

5. Close look

Take a closer look: Once the size and characteristics of the damage have been noted, look closer at the turf leaves and roots. Some diseases produce characteristic lesions on turf blades which aid in the diagnosis. Helminthosporium leaf spot produces a characteristic oval lesion which is straw-coloured in the centre with dark brown margins.

Do not ignore the roots - many affect the roots and crowns of plants. To examine the roots, take a cup cutter and remove a plug. Turf roots should be deep and white. If the top of the plant readily falls away from the roots, and the roots appear black, this can be an indication of a patch disease.

Remember that root problems will result in foliar symptoms which can cause confusion when trying to diagnose the disease.

6. Signs of pathogen

Look for signs of the pathogen: After making note of the symptoms, take a closer look. This might require the use of a hand lens, or a dissecting microscope. Signs of physical evidence of the pathogen include mycelium such as occurs with pythium or dollarspot, hair-like fruiting bodies which are found with anthracnose or sclerotia (hard fruiting bodies) associated with grey snow mold.

To correctly identify one mycelium from another often requires more sophisticated equipment such as a compound microscope. If mycelium is observed and the disease is not easily identified, the next step is to send a sample to a clinic for diagnosis.

7. Turf sample

How to submit a turf sample: There are several items to remember when taking a turf sample for disease diagnosis:

- Take the sample from the border of the diseased and healthy area. This is where the pathogen is most active. The centre of the dead area will no longer have fungal activity and it would be impossible to diagnose a sample from this area.
- The turf sample should be 10-15 cm. square and should include some of the roots. A cup cutter size plug is a perfect size.
- Do not send a sample that has had a recent fungicide application. Turf which has been treated with a fungicide will have no active diseases present and it will be difficult to make a diagnosis. Take the sample before treatment.
- Keep the sample cool before shipping and do not allow it to dry out.
- Wrap the sample in newspaper or paper toweling. Do not add water. The sample can be placed in a loose plastic bag or wrapped in foil. Pack in a sturdy box.
- Include a Pest Diagnostic Clinic turfgrass submission form (available from all OMAF

offices), or write a letter including as much background as possible. In the absence of a form, the following information is required:

- identify grass species and variety, if known
- age of turf and whether sodded or seeded
- soil condition (type, depth, texture, USGA or native)
- dates and rates of pesticides and fertilizers, topdressing, aeration prior to disease onset
- disease symptoms, size, shape, and colour
- weather conditions at time of symptom development

Samples submitted for diagnosis should be sent by courier to:

The Pest Diagnostic Clinic
Agriculture and Food Laboratories
Services Centre
Box 3650, 95 Stone Rd. W., Zone 2
Guelph, Ontario N1H 8J7

Tel: (519) 767-6256
Fax: (519) 767-6240

Charges for diagnostic services are:
-Basic fee, \$10
Additional charges, \$32/hr. (max. 2 hrs.)

A Turfgrass
Disease / Time
Profile Chart is
available
through the
OMAF office.

Other OMAF services

- **Turf hotline:** three- minute recorded message, updated weekly with current information on insects and diseases occurring in the province; service operates April to October; diseases prevalent each week are recorded, their symptoms and treatments
- **Turf Advisor** is available for site visits about problems which cannot be identified

Pam Charbonneau
OMAF Turfgrass Advisor
(Ontario Ministry of Agriculture and Food)

Tel: (519) 824-4120 / ext. 2597
Fax: (519) 766-1704
Turf hotline: (519) 767-1211

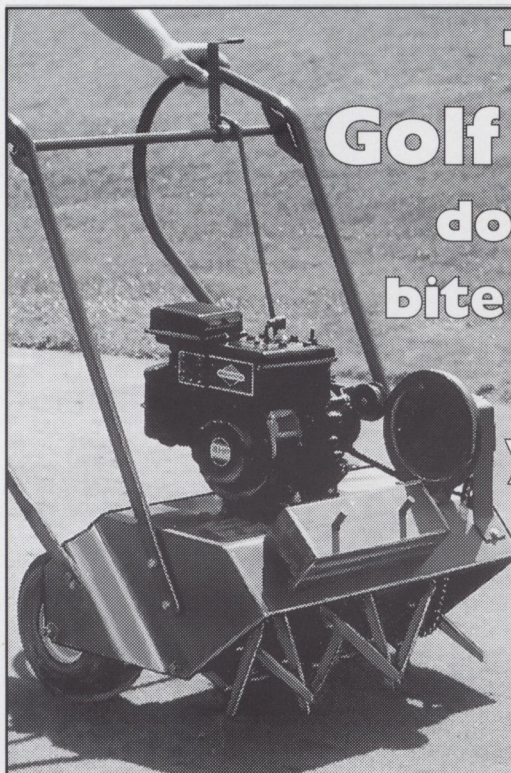
Reference material

Comparing symptoms with pictures can be useful in diagnosis. Good reference material on hand is useful:

- **Compendium of Turfgrass Diseases**, 2nd edition, 1992; by R.W. Smiley; available from American Phytopathological Society, 3340 Pilot Knob Rd., St. Paul, Minnesota, 551-21-1097, USA; call 1-800-328-7560; US \$25

- **Management of Turfgrass Diseases**, 2nd edition, 1993; by J.M. Vargas; available from Lewis Publishers, 121 South Main St., PO Box 519, Chelsea, MI, 48118; call (407) 994-0555; US \$59.95

- **Scotts Guide to Identification of Turfgrass Diseases and Insects**, 1987; call 1-800-543-0006; US \$12



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New law passed: Caddies 90 cents per hour

The Ontario legislature passed an Act late in the fall of 1968 affecting wage earners everywhere in the province.

The bill guarantees male employees a minimum wage of \$1.30 per hour starting January 1. Up until recently, the minimum wage has been \$1.00 per hour.

Referring to persons under the age of 18, the act states that caddies must be paid a minimum of 90 cents per hour. Up until now, caddies have been paid anywhere from \$2.00 to \$3.00 per round.

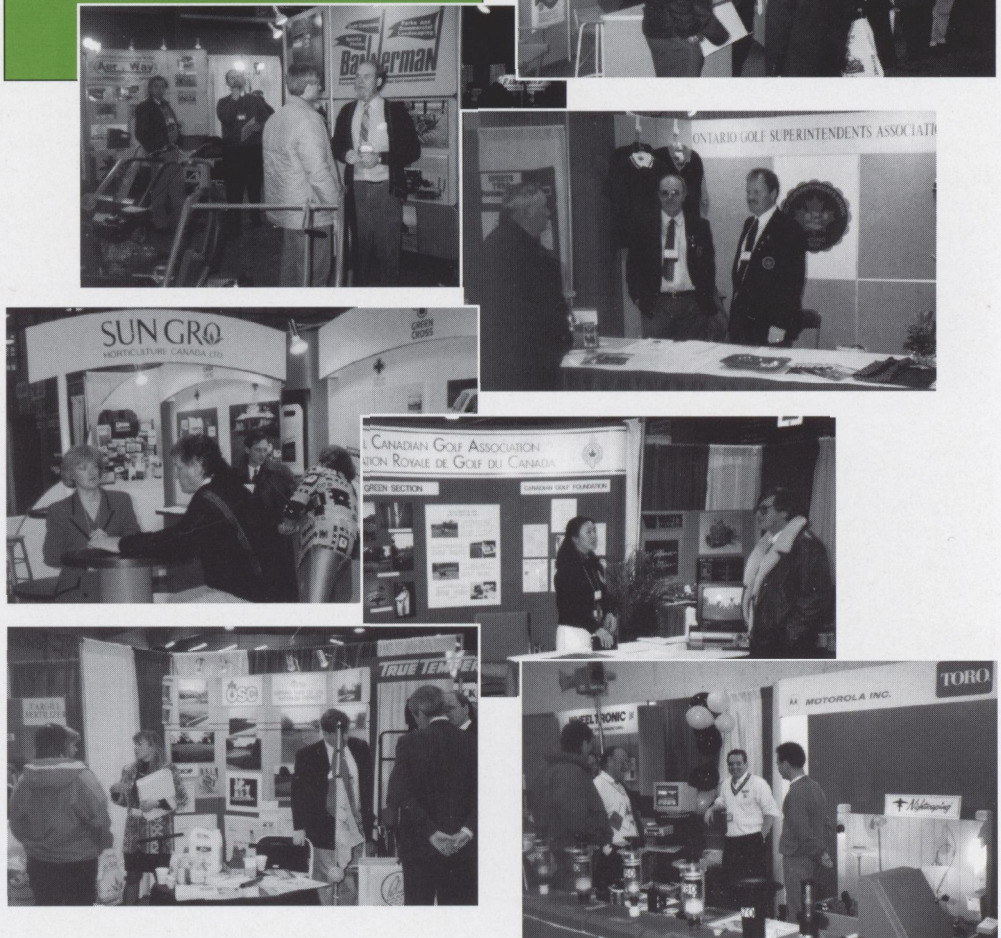
If the average round of golf takes four hours to complete, caddies may earn as much as \$3.60 for a round and with a tip it would cost a member about \$4.00.

But, what about weekends when a round of golf may take up to six hours to complete on busy courses. Are golfers prepared to pay their caddies in excess of \$5.00 for a round of golf?

It seems they have two alternatives: either rent a cart, or speed-up play.

Taken from newspaper files and reported by Barry Endicott.

Exhibitors display a wide-range of product and services during Ontario's annual turfgrass industry show.



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(Top) OGSA President, David W. Gourlay presents a \$25,000 cheque to GTI Director, Jack Eggens; (middle) Paul Dermott, Founding Chair of OTS receives an honourarium of books given to GTI library in his name from OTS Executive Committee; (bottom) cheque for \$10,000 is presented to GTI from PLCAO President, Bruce Shepherd.

BY MARK SUTHONS

Horticulturist, Lambton Golf Club

Winter is winding down and with spring quickly approaching, our busiest and most hectic time of year is about to begin.

Lambton Golf & Country Club, established in 1902, has approximately 150 rose bushes. These are primarily hybrid teas with



After insulation through hilling and winter snow, Suthons will bring Lambton's roses back to life through careful attention to spring duties.

some floribundas and grandifloras. Of all of our gardens, members seem to prize their roses the most.

To help achieve the best possible show, don't overlook a few basic practices. Here is how we approach these chores to help ensure that roses are brought back to their full beauty. Prepare now for the best display this summer.

*Gather ye rosebuds while ye may,
Old time is still a-flying,
And this same flower that smiles
today Tomorrow will be dying.*

Make sure that the rose bushes are carefully unhilled, pruned and treated with a dormant lime-sulphur spray.

1. After unhilling, the spring pruning of roses is very important.

- Pruning allows for new growth to occur, thus invigorating the exhausted bush.
- Increased flower size and number of blooms result from the strong vigorous canes that will be promoted.
- Ideally, you would like to create an open centered bush with three to seven canes and each having three to seven buds.
- Make sure you prune to select outward facing buds that will become the new rose canes. New canes will then not grow inwards and crowd each other. This will help the appearance and also improve air circulation within the bush, thus decreasing the chance of insect and disease problems later in the season.

2. After pruning all of the rose bushes, remove any debris remaining in the bed.

3. Apply a lime-sulphur spray at this time.

- Lime-sulphur is a fungicide, often acting as an insecticide as well. This product is considered relatively safe to the user and can be purchased at most garden centres. Read the label on the container and follow the instructions.
- Lime-sulphur can be phytotoxic to the rose bush if the spray application is not timed properly. Once the buds break, and the plant is actively growing, do not attempt to spray using this product. The lime-sulphur spray application must be done while the plant is still dormant.

Following these steps will help produce healthy, productive rose bushes.

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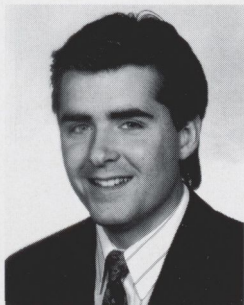
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Ministry plan in-hand

BY JOHN W. GRAVETT
Turfecs



John Gravett
of Turfecs provides
professional turf-
grass educational
consulting services.

The Ministry of Environment and Energy has reviewed the current Ontario pesticide licensing system. The findings confirmed the need to streamline the system and improve training associated with licensing.

Its goal appears to be the full licensing of all individuals who apply pesticides commercially.

With a new season about to begin, keep in mind the regulatory changes that will be enforced this year for pesticide use in Ontario.

- Specifically, posting signs that were legal for use in 1990, 1991 and 1992 cannot be used in 1994.
- Signs in inventory with the words *Keep off* are no longer legal in the province.
- In regard to recent regulatory changes, all applicators must ensure that signs posted are removed not less than three days and not more than 10 days after spraying occurs.

Keep off

Five types of licenses

There are five types of licenses in the revised system. These are:

**Operator
Vendor
Land Exterminator
Water Exterminator
Structural Exterminator**

Each license type has been further subdivided into license classes, prescribing the conditions of pesticide sale or use. Each class is identified in descriptive terms, such as landscape, forestry and fumigation, rather than by a class number as is done under the current system.

A phased-in system

The revised licensing system will be phased-in over a five-year period beginning in 1995 with operator and vendor licenses.

Some current license holders may be required to upgrade their training by undertaking an initial certification course. This is because license classes under the revised system are broader than current ones.

Exterminator licenses

In regard to Exterminator licenses, classes under the revised system (to be phased-in over the next five years) correspond to major pesticide-use activities. Licenses will not be limited to certain schedules of pesticide products, but will authorize the exterminator to carry out pesticide applications using products appropriate to that activity.

Each licensed exterminator will be able to supervise a maximum of three unlicensed technicians. The supervising licensed exterminator must visit and observe the technician at least once per day. As well, this person is ultimately responsible for the acts and omissions of the unlicensed technician.

Unlicensed technicians

According to regulation, the unlicensed technician must pass a ministry certification course which covers the safe use and handling of pesticides before any application. The operator and/or supervising exterminator are expected to provide additional training relating to specific pesticide applications to be performed by the technician.

Upon completion of this course, the technician will receive a wallet-size certificate which they must carry during all exterminations. The certificate is valid for a period of one year for technicians working under the supervision of a Land Exterminator.

The unlicensed technician (who must be a minimum of 16 years of age) may not perform the following duties: product recommendation; selection of application method, or rate of application; mixing and loading of schedule 1 and 5 pesticide products, or application of schedule 1 and 5 pesticide products. The same technician being supervised by exterminators must maintain a log book and keep a daily record of the name of the supervising exterminator, as well as the time and location of each on-site visit.

Additional changes

Further changes to the system states that all exterminators must be trained in safety precautions; pest identification; proper use and handling of chemical pesticides; use of alternatives to pesticides; integrated pest management techniques and application technology.

Prior to obtaining a license from the ministry, each candidate will be required to pass a certification course and associated examination.

Licensed exterminators will also be required to undergo recertification (retraining) every five years in order to renew their license. The ministry is currently negotiating with various agencies and consortiums for delivery of certification and recertification courses.

In 1994, this sign becomes illegal. To avoid non-compliance, they should be eliminated from the golf course inventory.

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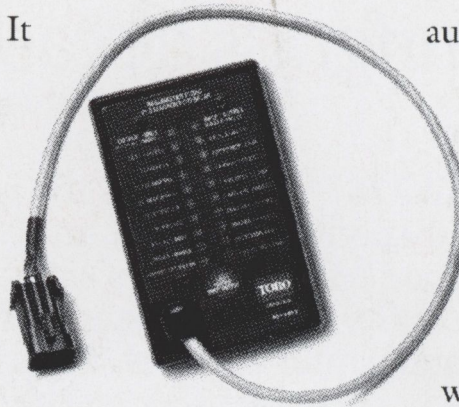
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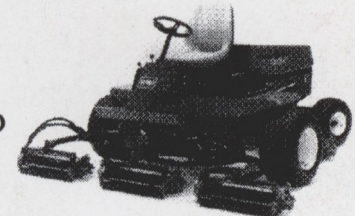


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