

SPORTS TURF MANAGER

... for safe, natural sports turf

WINTER 2005 • VOL. 18, NO. 4

- 3 President's Message
- 4 OTS 2006 Turf Sessions
- 5 Coming Events
- 6 Sports Turf Industry News
- 8 Cover Story Continued
- 10 Municipal IPM Lawn Demonstration Final Results
- 14 STA Member Profile
- 15 Facility Profile
- 17 STA Scholarship Program
- 18 Performance of Cool Season Grass Species Under Traffic
- 20 More From Annual Field Day



AFTER...
Lakeview Centre Oct 05

BEFORE...
Lakeview Centre June 05

Oshawa's Pest Management Plan

DECREASING PESTICIDES AND THE NEED TO PASS RESTRICTIVE BY-LAWS

In January 2003, the City of Oshawa Council approved a Pest Management Plan (PMP) to be phased in over a five year period, 2003-2007. The main goal of the program is to eliminate the use of pesticides within the City of Oshawa while maintaining quality turf.

Pest Management Plan

The Pest Management Plan was a response to the pressure of other municipalities passing pesticide by-laws and includes both Integrated Pest Management and Plant Health Care. The plan does not ban the use of pesticides; it incorporates the use of all other alternatives first and uses pesticides only if pests surpass a predetermined treatment threshold. It was believed that a ban is a short lived solution which could result in poor quality and unhealthy turf. Pests are defined as a population of species that have a detrimental

effect on the health, productivity and aesthetic characteristics of the landscape. The treatment threshold is the stage when a pest population should be controlled to prevent pest numbers from reaching levels that will cause unacceptable amounts of injury or damage to plant material. Using this method completely eliminates routine spraying of pesticides and decreases the chance of pest populations developing chemical resistance.

Budget and Advantages

The initial establishment and capital costs associated with developing an integrated pest management system are often high. Pest management programs however, support greater cost efficiency over time through the prevention of future problems. The overall quality of the landscape improves and costs related to pesticide use are reduced. A PMP provides... → page 8

Merry Christmas





TURF TRADES

Employment Bulletin Board @
www.sportsturfassociation.com

Are you advertising a position? Are you searching for a job? Target your audience or refine your search with **Turf Trades**, an online resource for all staffing levels and areas of the sports turf industry. Employment Bulletin Board ads run for 60 days with an additional 30 days available at 1/2 the price. Cost is \$75 for STA members and \$100 for non-members for the initial 60 day period. Payment by cheque (Canada only), MasterCard or Visa must accompany the job description. Jobs will be posted in a standard page format.



For information on all STA advertising opportunities, contact Lee Huether at 519-763-9431, fax 519-766-1704, info@sportsturfassociation.com.

EVERGREEN™ Turf Blankets... ...trusted around the world!

**“Results Outstanding...
 Could Not Believe...”**

wrote **Dann Daly**, Park Maintenance Supervisor,
Parks & Recr. Dept., North Smithfield, RI

- Earlier spring green-up
- Faster seed germination
- Deeper root development
- Delays dormancy in fall
- Ideal winter blanket
- 3 & 7 yr. warranty covers
- Best for quick turf repairs
- Available in any size

**Want to know more?
 CALL TOLL FREE
 1-800-387-5808**

**COVERMASTER™
 COVERMASTER
 COVERMASTER**

MASTERS IN THE ART OF SPORTS SURFACE COVERS

COVERMASTER INC., 100 WESTMORE DR. 11-D, REXDALE, ON, M9V 5C3 TEL 416-745-1811 FAX 416-742-6837



Covers for baseball fields are also readily available.



Covered...



Uncovered...

It works on the greenhouse principle, every time!



covermaster.com

E-MAIL: info@covermaster.com

SPORTS TURF MANAGER

Volume 18, Issue 4, ISSN 1201-3765

is the official publication of the
SPORTS TURF ASSOCIATION OF ONTARIO
328 Victoria Road South, Guelph, ON N1H 6H8
Tel: (519) 763-9431, Fax: (519) 766-1704
E-mail: info@sportsturfassociation.com
Web: www.sportsturfassociation.com

BOARD OF DIRECTORS

PRESIDENT Andrew Gaydon
VICE PRESIDENT Gord Dol
PAST PRESIDENT Paul Turner
TREASURER Rick Lane
SECRETARY Bob Sheard
EXECUTIVE MANAGER Lee Huether

DIRECTORS

Brian Adriaans, Jane Arnett-Rivers, Cam Beneteau, Roy Forfar, Paul Gillen & David Smith

SPORTS TURF MANAGER

is published quarterly by the STA for free distribution to its membership. An annual subscription may be obtained for \$40/year. Please direct advertising inquiries to Lee Huether at the STA office.

EDITORIAL COMMITTEE

Jane Arnett-Rivers, Andrew Gaydon, Lee Huether and Paul Turner

PUBLISHER

New Paradigm Communications
R.R. #8, Owen Sound, ON N4K 5W4
Tel. (519) 371-6818, Fax: (519) 371-5789
E-mail: joy@npc-solutions.com

CANADA POST PUBLICATIONS MAIL SALES AGREEMENT No. 1461370

Postmaster: Please return undeliverable copies to the STA at 328 Victoria Rd. South, Guelph, ON N1H 6H8.



STA OFFICE HOURS

Lee Huether is in the office from 9:00 a.m. to 2:00 p.m. Tuesday through Friday. The office phone number is (519) 763-9431. At other times, a message may be left on the voice mail system. Please include the vital information of name, telephone number with area code, and time of calling. The office may be reached at any time by faxing (519) 766-1704 or via e-mail.

The President's Desk

ANDREW GAYDON



Many thanks...

Winter is now at our doorstep. Looking back, fall 2005 has been good to the sports turf industry as well as to farmers and growers of all crops. Turf managers have been able to oversee, topdress and lay sod. The rain has been well timed for the maintenance of sports turf.

Thanks for the Opportunity

As I am writing this message, I can not believe how time has flown by – my two-year term as President is complete this January. When I accepted this privilege, I thought two years would last a long time and the task would be daunting. In contrast, being part of the STA Board has been enjoyable and fulfilling.

The STA has increased membership and has seen increased attendance at each consecutive field day. Industry support for our association is at an all time high and we again thank all companies who have contributed and benefited from their participation in advertising and the field day (as well as in membership).

Premier Educational Event

The Ontario Turfgrass Symposium (OTS) will be held February 20 & 21, 2006 at the University of Guelph's

Rozanski Hall (see page 4 for more details). We hope you can support and enjoy this highly professional symposium which covers all aspects of turf management and features many new sessions and speakers this year. The STA's Annual General Meeting is on February 21 at 3:30 pm. Your invitation will follow by mail.

Board News

It is with regret that I inform you that David Smith is stepping down as a board member at the completion of his term. David has been on the board for a number of years and his vast experience in the industry has been of great value to the STA. He will be greatly missed, however, he is continuing to build his consulting business and we wish him continued growth and success.

We do have an open position on the board and if you would like to step forward and be nominated as a board member, please contact Lee Huether. We would very much like to hear from you.

With my term complete, Gord Dol is taking over as President and all of us on the board are looking forward to working with him.

Final Notes

Our website continues to expand and become more and more comprehensive (www.sportsturfassociation.com). We always welcome member feedback and contributions as well as features that you would like to see both on our website and in the *Sports Turf Manager*.

As this is the last issue of the *Sports Turf Manager* for the year, I would like to take this opportunity to thank all contributing authors, the editorial committee and especially our advertisers. Special thanks to our Executive Director Lee Huether for ensuring that the directors and the association are all running smoothly in this pro-active organization.

The Board of the STA would like to wish all its members and their family and friends a very enjoyable and relaxing Christmas. ♦

Strengthening Our Roots A Growing Tradition



SUMMARY OF SPORTS TURF RELATED SESSIONS

T1. 9:00 – 9:30, Tuesday, February 21

Competitive Turf: Overseeding For Weed Management by Evan Elford, University of Guelph

Research results from the 2005 season on the effects of overseeding athletic field turfgrass to reduce weed pressure will be presented in this session. IPM 0.66

T2. 9:30 – 10:00, Tuesday, February 21

Cultural Practices for Premium Sports Fields: What Works for Us by Tim Ernst, City of Kitchener

Providing safe, durable athletic fields that enhance the game is the objective of the Sports Turf Manager. The seminar will focus on sports turf management programs that provide premier athletic surfaces for elite play. IPM 0.66

T3. 10:30 – 11:00, Tuesday, February 21

If THEY Build it, They Will Come by Bob McFarland, City of Woodstock

At a time when resources do not match demands, the last thing a municipality wants to do is create facilities that will

be unappreciated and under-utilized. Partnering with community organizations in the development and operation of new facilities is one way to avoid this problem. The City of Woodstock and the Woodstock Soccer Club have formed a dynamic alliance that is in the process of creating an outdoor/indoor soccer complex. Could a similar strategy work in your community?

T4. 11:00 – 12:00, Tuesday, February 21

Field Closure Policies. Presentations will be made by representatives from three different municipalities, followed by a 15 minute discussion period.

- Tanya Steffler, City of Oshawa
Deciding when to close a field; what criteria should be used?
- Patty Peebles, Town of Oakville
Communicating field closures to user groups.
- Bruce Hay, City of Brampton
The positive and negative political and fiscal implications of field closures.

T22. 1:00 – 1:30, Tuesday, February 21

Turf Infill System: Two Years Under Our Belt by Stefan Szczepanski, Project Manager, Landscape Architecture, City of Mississauga

The presentation will highlight the operational results of the first 2 years of the City of Mississauga's Artificial Turf Infill System, located within the Parkway Belt lands at Iceland Arena. The presentation will illustrate the research and improvements made to the infrastructure and design of such a facility. In addition, the City's most recent project will be presented in detail.

T23. 1:30 – 2:00, Tuesday, February 21

It's a Brand New Field: Maintaining Artificial Turf Surfaces by George Bannerman, Bannerman Ltd.

Artificial turf surfaces are relatively new and information about maintaining them is insufficient. First hand experiences with maintenance techniques that ensure good, safe playing surfaces will be shared with the audience.

T24. 2:00 – 2:30, Tuesday, February 21

Artificial Turf: Maintenance Issues by Frank Erle, University of Western Ontario

A discussion on the maintenance issues surrounding various types of artificial turf including cleaning, ageing and painting will be presented. This should be of particular interest to those already maintaining artificial turf or those considering installing a new field.

T25. 2:30 – 3:00, Tuesday, February 21

The Evolution of Artificial Turf and New Products on the Horizon, Roy Klementti.

Visit www.open.uoguelph.ca/ots for details on additional sessions...

Registration Details...

1. **Early Bird Registration Date: December 19, 2005**
2. **Association Discount.** As an STA member in good standing, you qualify for lower association rates.
3. **Group Discount.** Others from your facility/organization who are not STA members qualify for the lower association rates when registered with a member. Send the registration in the same envelope, fax it at the same time, or make just one phone call to register.



Coming Events

January 4, 5, 9 & 11

Guelph Turfgrass Institute
Landscape Pesticide Certification
Preparation Course
Guelph, ON
Info: (519) 824-4120 x 52501
www.gti.uoguelph.ca (Education)

January 4-6

Ontario Golf Superintendents'
Association Golf Course Manage-
ment Conference & Trade Show
Toronto, ON
Info: (519) 767-3341
www.golfsupers.on.ca

January 10-12

Landscape Ontario Horticultural
Trades Association Congress 2006
Featuring Fencecraft 2006
Toronto, ON
Info: (800) 265-5656
www.hort-trades.com

January 18-22

Sports Turf Managers
Association (USA) Annual
Conference & Exhibition
Lake Buena Vista, FL
Info: (800) 323-3875
www.sportsturfmanager.org

January 30 – February 24

Guelph Turfgrass Institute
Turf Managers' Short Course
Guelph, ON
Info: (519) 767-5000
www.open.uoguelph.ca/
turfmanager

February 13, 14, 15, 16

Landscape Ontario
IPM Symposium
Barrie, London, Toronto, Ottawa, ON
Info: (905) 875-1805
www.horttrades.com

March 1, 8, 15 & 21

Guelph Turfgrass Institute
Landscape Pesticide Certification
Preparation Course, Guelph, ON
Info: see January 4,5,9 & 11 listing

March 3-7

Western Canada Turfgrass Assoc-
iation 43rd Annual Conference &
Show and 57th Annual Canadian
International Turfgrass Conf. & Show
Vancouver, BC
Info: (604) 467-2564,
www.wctaturf.com or (800) 387-
1056, www.golfsupers.com

March 29-30

Ontario Parks Association
50th Annual Educational Seminar
& Explorations Trade Show
Hamilton, ON
Info: (905) 864-6182
www.opassoc.on.ca

April 5, 6, 10 & 11

Guelph Turfgrass Institute Landscape
Pesticide Certification Preparation
Course (refresher), Guelph, ON
Info: see January 4,5,9 & 11 listing

GET ON THE LIST!

Contact the STA if you have an event
you'd like to advertise in the STM.

OTS 2006: FEBRUARY 20 & 21

Strengthening Our Roots: A Growing Tradition

Rozanski Hall, University of Guelph
Guelph, ON
Info: (519) 767-5000
www.open.uoguelph.ca/ots

February 21 (at the OTS)
Sports Turf Association Social
& Annual General Meeting



WELCOME TO THE STA!

Jeff Cassels, City of Woodstock, ON
Kevin Clayton, Ty-Crop Manufacturing
Ltd., Rosedale, BC

Odds and Ends

2006 Turf Managers' Short Course, University of Guelph

Canada's most successful and
valued Turf Managers' Short
Course, held at the Guelph
Turfgrass Institute, will be offered
from January 30 – February 24,
2006. Benefit from the expertise
and experience of industry
professionals and University of
Guelph faculty while enhancing
your knowledge of all aspects of
turf management and culture. For
more detailed information, visit
the TMSC website at
www.open.uoguelph.ca/
turfmanager or contact the Office
of Open Learning, University of
Guelph at 519-767-5000.

STA Membership Plaques

Display membership plaques are
available in executive engraved
walnut for \$50 plus S&H. To order,
contact Lee at the STA office.

Spring 2006 Submissions

If you have something you'd like
to submit for the next issue,
please forward it to the STA
office by February 10, 2006.

Editorial Content

Opinions expressed in articles
published in *Sports Turf Manager*
are those of the author and not
necessarily those of the STA, unless
otherwise indicated.





Sports Turf Industry News...

KEEPING TABS ON COMPOST, PESTICIDE USE, TURF RESOURCES,
AND NEW U OF GUELPH FACULTY & SCHOLARSHIP RECIPIENT

Newly Released by CCME

Guidelines for Compost Quality 2005

Oct. 12, 2005. A new edition of *Guidelines for Compost Quality* was released today by the Canadian Council of Ministers of the Environment (CCME). The guidelines serve as the national suggested standard for compost quality regulations for jurisdictions and are focused on environmental health and safety criteria for compost products.

Originally introduced in 1996, the guidelines detail requirements for compost product testing and identify limits on trace element levels and foreign matter as well as requirements for maturity and pathogen testing. CCME undertook a review of the guidelines during the past 18 months, assessing the need for any adjustments to the criteria based on new science and tech-

nical findings. The review paralleled the Standards Council of Canada's initiative to review the voluntary national compost standard, *Organics Soil Conditioners – Composts*, as managed by the Bureau de normalisation du Québec (BNQ).

Copies of the guidelines may be purchased through CCME by visiting www.ccme.ca/publications/newpublications.html.

"The guidelines are fundamental to ensuring that composting develops across Canada in an orderly manner and with the proper focus on product integrity," said Susan Antler, Executive Director, The Composting Council of Canada. "We are

very pleased that CCME has devoted attention to the advancement of composting and compost production through these guidelines. We look forward to working with each of the provinces and territories to support the integration of the guideline updates into the composting regulations of their jurisdiction."

Editor's Note. It's worth revisiting the article *To Test or Not to Test...* by Dr. R.W. Sheard published on page 8 in the Winter 2004 issue. It is strongly recommended that some certificate of analysis be provided by the supplier before a contract to purchase is made.

Keeping the Greens Green: Research Projects Aim to Reduce Pesticide Use on Golf Courses in Quebec and Ontario

Oct. 18, 2005. Minister of Agriculture and Agri-Food Andy Mitchell announced just over \$500,000 in funding for two collaborative research projects in partnership with the industry that aim to reduce pesticide use and promote non-chemical al-

"The ART of Sports Field Marking"

SIMPLISTIC
LINES INC.

FIELD MARKING PAINTS AND APPLICATORS

R.R.#5 Stratford On Canada N5A 6S6
Tel. 519.348.0653 • Fax: 519.348.0654
www.simplisticlines.com

ternatives for protecting golf courses in Quebec and Ontario.

The research will be done in partnership with the Canadian Turfgrass Research Foundation and the Coalition for Responsible Golf which will also invest an additional \$500,000 in this project. The two organizations have joined forces with Agriculture and Agri-Food Canada (AAFC) to study turfgrass pests, identify means to reduce the use of pesticides, and to develop an integrated pest management (IPM) network strategy to protect golf links from insects and diseases. The information will also benefit the farming community because many of the insects and diseases affecting golf courses are also found in agriculture.

"AAFC is pleased to partner with these organizations and to share scientific expertise that will help golf courses find effective pest control alternatives," said Minister Mitchell. "Reducing pesticide use is in the best interests of all Canadians and the development of new integrated pest management techniques could make an important contribution to keeping both our golfing greens and our crops healthy."

Under one project, researchers will lead a three-year study to increase knowledge of major insect pests and diseases that occur under eastern Canada climatic conditions. The research project, to cost \$750,000, will more accurately identify turfgrass pests and predict insect outbreaks in Ontario and Quebec. The data will help golf course superintendents better plan the use of pesticides, thereby reducing applications. The project will also include research on alternative pest control measures. An integrated pest management strategy will be developed to assist the industry.

The second project, a three-year study valued at \$277,000, will investigate the characteristics of winter freezing and snow mold diseases on bluegrass and identify more tolerant varieties. This information will help develop seed sources better adapted to winter stresses and contribute to the development of best management practices to improve winter survival and minimize pesticide use.

The turfgrass industry in Canada is estimated to be worth more than \$5 billion,

including golf courses, sod production, home lawns, commercial turf, sports fields and municipal parks. The information gained from these studies will benefit not only the entire turfgrass industry, but also those growing agricultural crops such as winter cereals and forage grasses which experience similar problems as well as farmers, producers, industry and communities.

For more information, contact Guy Bélair, nematologist, Agriculture and Agri-Food Canada, Horticulture Research and Development Centre at 450-346-4494 (ext.239) or Yves Castonguay, physiologist, Agriculture and Agri-Food Canada, Soils and Crops Research and Development Centre, 418-657-7985 (ext. 231).

STRI Makes it Easy to Access Turfgrass Info

Back issues of STRI's magazine *International Turfgrass Bulletin* are now available on-line for easy access via STRI's website, www.stri.co.uk. Content can be sourced from 1951 to 2004, right back to the original title, the *Sports Turf Bulletin*, first published in 1951.

This facility has been made possible through a joint venture between STRI and the Turfgrass Information Centre (TIC) based at Michigan State University in the USA. The TIC contains the world's largest publicly available collection of turfgrass educational material. They hold over 100,000 records in the database, the Turfgrass Information File (TGIF).

Last year, this joint venture successfully completed an online database to access back issues of STRI's annual journal, *The Journal of Turfgrass and Sports Surface Science*, dating back to 1929. This is the premier turfgrass research journal in Europe.

Clifford Haka, Director of the Michigan State University Libraries, stress that, "This is a wonderful example of how the research and information gathering process can be simplified. We are delighted to be able to add full-text access to the Bulletin to our Turfgrass Information File."

STRI spokesperson, Anne Wilson, Head of External Affairs, noted that this

would provide an enormous benefit to STRI subscribers and a welcome added bonus to their subscription.

For further details, contact Anne Wilson at T: 01274 565131, F: 01274 561891, e-mail: anne.wilson@stri.co.uk.

Katerina Jordan Joins U of Guelph Turfgrass Faculty

The STA welcomes Katerina Jordan to the Department of Plant Agriculture at the University of Guelph. Katerina completed her Ph.D. program at the University of Rhode Island and has a diverse background with a B.S. in microbiology and an M.S. in agronomy, both from the University of Maryland. Her Ph.D. research involved the study of plant-parasitic nematodes and their antagonists in golf putting greens. She will bring a unique perspective to her turf teaching and research duties at Guelph. Katerina and her husband Sean, a Penn State turf diploma grad and golf course superintendent, recently welcomed Baby Vincent to their family. Congratulations Katerina and Sean and welcome to Guelph!

Evan Elford Awarded NSERC Scholarship

The STA congratulates student member Evan Elford, recipient of a National Sciences and Engineering Research Council of Canada (NSERC) Industrial Post-Graduate Scholarship (IPS). Sponsoring support of the turfgrass industry is provided through the Ontario Turfgrass Research Foundation. The IPS provides financial support for highly qualified science and engineering graduates. The support allows them to gain research experience in industry while undertaking advanced studies in Canada. These scholarships are aimed at encouraging scholars to consider research careers in industry where they will be able to contribute to strengthening Canadian innovation. ♦

Editor's Note: Katerina, Sean and Evan will all be speaking at the 2006 Ontario Turfgrass Symposium: *Plant Parasitic Nematodes on Golf Greens in the NE United States; Internships: A Win/Win Situation; Competitive Turf: Overseeding For Weed Management*, respectively.





City of Oshawa's Pest Management Plan Continued From Front Cover

ESTABLISHED WITH THE LONG TERM GOAL OF REDUCING PESTICIDES & MAINTAINING HIGH QUALITY TURF

... a way to manage pests that have become resistant to pesticides while managing pests in locations where chemical pesticides cannot be used. It also protects the environment and the health of all organisms by reducing the amounts of pesticides used. The budget for the five-year Pest Management Program for the City of Oshawa is over \$1,500,000.

Alternatives

Alternatives to pesticides include: cultural, physical, mechanical, biological and genetic controls. Cultural control is aimed at producing healthy plants through sanitation, improving soil conditions, correct mowing heights, using a variety of plant species (no monocultures), and proper planting methods, i.e. watering, spacing, pruning and staking. Physical and mechanical controls include removing and or

This is an ambitious project. The budget for the five-year Pest Management Program for the City of Oshawa is over \$1,500,000.

killing pests by hand or machine, i.e. hoeing, line trimmers, heat applicators, traps and barriers. Biological control uses living organisms to reduce pest populations. Predators, pathogens or parasites can be introduced or attracted to the desired area. Genetic control uses genetically modified plant material that is resistant to pests.

The Pest Management Plan's 8 Elements

The combined goal of substantial reduction in pesticide use and continued vegetation quality in public lands necessitates a detailed process. The program is comprised of eight elements to identify and organize strategies to work with and include IPM. The elements are outlined as follows:

1. Integrated Pest Management (IPM) procedures – to guide environmentally sound management of City property.

2. IPM quality standards – detail specific criterion to manage landscape pests.

3. Alternative landscape treatment for specific property classifications – reduce the level of maintenance while still providing a quality landscape.

4. Expanded education and outreach programs – educate the public regarding how to reduce the use of pesticides.

5. Development standards – update standards to include PMP objectives.

6. Parks capital upgrades – improve the quality of turf in high profile areas.

7. Parks facility permitting – help balance use and maintenance of sports fields.

8. Provision of a PMP coordinator – to implement the plan.

Integrated Pest Management Steps

The PMP incorporates integrated pest management procedures. These procedures include six main steps to address specific pest problems, i.e. planning, identification, monitoring, action decisions, treatments and evaluation.

1. Planning includes proper cultural practices to ensure healthy vigorous plants, but also involves analyzing the effectiveness of the program itself.

2. Identification of both damage and pests is extremely important. Damage on plant material could be caused from the environment, machines or pests. Weeds and diseases are relatively easy to identify, however, insects are more difficult as there are many beneficial insects in lawns and gardens that help keep pest populations under control.

3. Monitoring involves a routine of regular inspections to determine and record pest levels. These records are used to determine the necessity of treatment strategies.

4. Action decisions include the treatment thresholds and a treatment strategy.

5. Treatment should only be necessary where preventative measures have not successfully kept the pest population below the threshold limit.

6. Evaluation of the results is important to determine if the program is working.

Implementation of the Plan

The Guelph Turfgrass Institute (GTI) was retained during the first year of the plan to analyze the existing sports fields in order to produce standards for development and maintenance for all sports fields in Oshawa. The PMP was implemented based on the results of the GTI report. A Parks Pest Management Technician was hired to oversee the plan and two skilled labourers were hired as dedicated staff for the PMP.

Equipment

As a result of increased maintenance on sports fields, additional equipment has been purchased including: 2 John Deere tractors, Vicon fertilizer spreader, 2 AerWay aerators, Ryan core aerator, 2 transportation vehicles, spray boom, soil compaction meter, compost tea brewer, Rotadarian renovator, and a self propelled overseeder.

Maintenance and Products

All turf within the City of Oshawa is cut at a height of 3" in order to provide greater quality and help smother weed seeds. Sports fields receive core aeration in the spring and fall, and slit aeration throughout the season. Based on soil tests, specific amounts of fertilizer are applied to each field. A variety of products have been used during the last two years including: gypsum, foliar fertilizers, liquid and granular kelp, profile and corn gluten. Horticultural vinegar trials were conducted for weed control on hard surface areas.

Once sports fields are closed for the season, a heavy overseeding (8-10 lbs/1000 ft²) program begins with our Land Pride overseeder. Special attention is given to the goalmouth areas: overseeded with Land Pride, soil put down, re-seeded by hand, levelled and fenced off. The seed is a mixture of perennial ryegrass and

fescues. We have had great success this year with the overseeding program.

Development Standards

It was determined that many problems with the existing sports fields are the result of improper construction. Newer fields have severely compacted sub-grades with insufficient quantities of appropriate soil on the surface. The GTI report indicates that all new developments should have a minimum soil depth of 12" and sod should come from a field with the same soil texture as the area of installation.

Scheduling of Play

Our Facility Booking Office is responsible for scheduling play on all the fields for the City of Oshawa. For the 2005 season, just under 18,500 hours were booked on the soccer fields. In order for the PMP to succeed, there must be co-operation and communication between the user groups, the Parks Services Branch and the Facility Booking Office.

Education and Outreach Program

In 2004, a marketing firm was retained to create a plan to help educate the public about the City's PMP. In the spring of 2005, information packages were mailed to every homeowner within the City. Information brochures and posters were created and placed at all City facilities. Three radio ads were played on 1350 CKDO, Oshawa's radio station, and six spots were placed on Rogers TV Cable channel 10. Staff participated in two radio shows "Lets Get Growing" with Marjorie Mason, and a two-page PMP newsletter was sent to the user groups. A website was constructed, www.oshawa.ca/mun_res/pest.asp, that has received approximately 1,900 hits since June 2005. In 2006, three newspaper articles will be printed to provide information to the public and techniques to help reduce the use of pesticides.

Future

Although the pest management team is planning its fourth year, there are still

goals that have not yet been achieved. The PMP has increased the amount of maintenance that the fields receive and therefore the amount of time devoted for field resting must also be increased. A policy is being developed that will help balance field use with required maintenance.

PMP has increased the amount of maintenance needed for fields; thus closure times must also increase. Policy is needed to balance both.

Conclusion

Although a pest management program is expensive to establish, the long term advantages of reducing the use of pesticides while maintaining high quality turf is worth the cost. Please note the pictures included with the article to view the exceptional results that the fields have shown this year. ♦

— Tanya Steffler, Parks Pest Management Technician, City of Oshawa

SEE PP. 14-15 FOR PROFILES OF TANYA STEFFLER AND THE CITY OF OSHAWA



DOL TURF RESTORATION LTD.

Turf Drainage Solutions • Aerification (All Types)
Top Dressing • Overseeding • Automated Laser
Fine Grading of Tee Decks & Sports Fields • Golf
Course Renovations • Sports Field Construction
& Reconstruction

and official distributors of
Permaline™ • SportGrass™

P.O. Box 240, 2785 County Road 27
Bond Head, Ontario L0G 1B0

Tel: 905-778-1222 • Toll Free: 1-800-794-9664

Mobile: 416-728-2371 • Fax: 905-778-1333

Email: gdol@dolturfrestoration.on.ca

MEMBER: STA, OGSA & ORFA

Your Sports Turf Specialists

The Sports Turf Manager isn't your only member resource. Why not visit



STA On-Line...
at www.sportsturfassociation.com

View a listing of all Sports Turf Manager articles from 1987 to the present. Go to the "newsletter" link and click on "cumulative index."

Contributions Welcome

Contact Lee Huether at the STA office if you are interested in contributing to the Sports Turf Manager. We appreciate feature-length articles, column ideas and newsworthy items. Updates on innovative research or equipment are also welcomed. This is a great way to both support your professional association and enhance your resume!

Municipal IPM Lawn Demonstration Project – Final Results From Year 3

STACEY FEARMAN, RESOURCE TECHNICIAN FOR THE ONTARIO PESTICIDES ADVISORY COMMITTEE, CONCLUDES STUDY

The Municipal Integrated Pest Management Lawn Demonstration Project began in spring 2003 and continued until fall 2005. This project compared and demonstrated the effectiveness of conventional, Integrated Pest Management (IPM), alternative, and no-pesticide approaches to lawn maintenance.

The conventional approach uses chemicals exclusively for pest control. IPM is a process that uses all the necessary techniques to suppress pests and sustain healthy landscapes. This is achieved by monitoring turfgrass to prevent problems and using thresholds and life cycles to decide how and when to treat pests. The alternative management program uses organic pesticides, corn gluten meal and Nature's Weed & Feed (a beet juice extract), for pest control. Lastly, no pest control is applied under the no-pesticide management program.

This was the third year of having no pesticides applied to these plots. The trial was established in three municipal settings (Guelph, Brantford and London) to show the impact that different lawn maintenance programs have on areas with slightly different microclimates, pest pressures and soil types. Figure 1 shows the overall layout of plots at the GTI in Guelph. This study also provided an opportunity for education and communication with area residents, municipal staff and turf managers regarding the different alternatives of lawn care programs.

Study Description

The study was established in three municipal settings: Guelph, Brantford and London. At Guelph, the plots are located at the Guelph Turfgrass Institute (GTI). There are 32 plots, 9 x 5.5 m each, with a total demonstration area of 1584 m². There are four management programs being ap-

plied to this area and they include: conventional, IPM, alternatives and no-pesticides (see the Spring 2005 issue of the *Sports Turf Manager* for tables of the plot plans for all three sites). At Brantford, the plots are located at the Glenhyrst Art Gallery near the Grand River. There are 24 plots, 7 x 5 m each, with a total demonstration area of 840 m². There are three management programs and they include: conventional, IPM and no-pesticides. Lastly, in London the plots are located at Watson Park near the Thames River. There are only two management programs at this location: IPM and no-pesticides, and the study consists of 16 plots, 10 x 4.5 m each, with a total demonstration area of 720 m².

In all three municipal settings, the demonstration trials were set up on established, predominantly Kentucky bluegrass turf with an existing moderate level of weed infestation. The plots of each demonstration trial were divided into four lawn care



Red and grey clay products designed for baseball, cricket and tennis, along with groundskeeping tools and accessories.

MAR-CO CLAY PRODUCTS INC.

Tel. 519-684-7591 Fax: 519-684-7457
www.marcoclay.com



JOHN BLADON

Technical Sales Representative
Tel: 519.757.0077
Cell: 519.574.2013
E-mail: jbladon@nu-gro.ca

Nu-Gro Professional Turf

10 Craig Street
Brantford, Ontario N3R 7J1
Product Info Line: 1.800.461.6471



Box 171
Harriston, Ontario
N0G 1Z0
Phone (519) 338-3840
Fax (519) 338-2510

Edward J. Seifried
J. Robert Dippel

SEEDS



PLANT PRODUCTS

Turf MVP • Grass Seed
Turf & Tree Fertilizers
Pest Control Products

Plant Products Co. Ltd.

Brampton, Ontario
905-793-7000 or 1-800-387-2449
Fax 905-793-9632 • plantprod.com

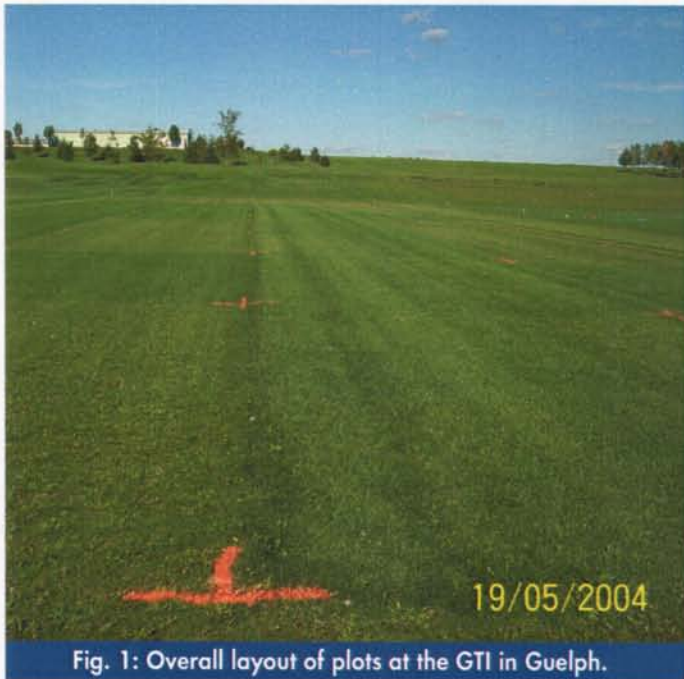


Fig. 1: Overall layout of plots at the GTI in Guelph.

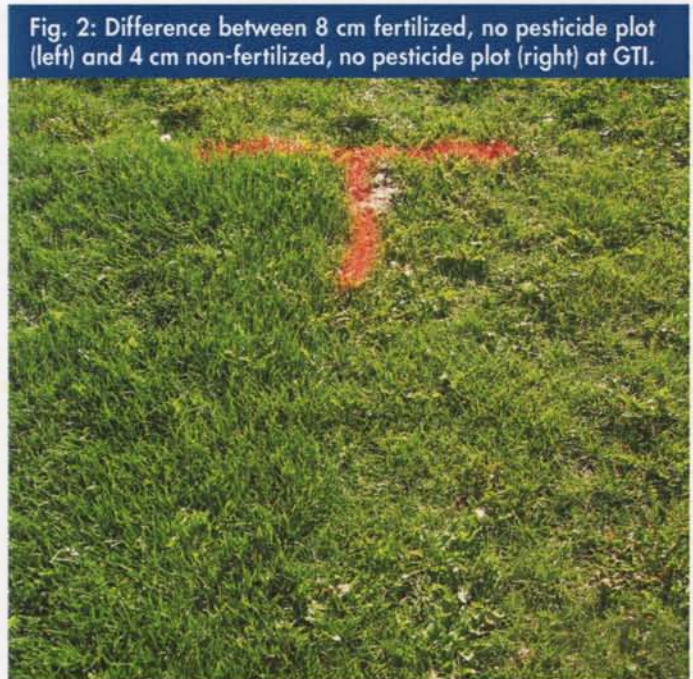


Fig. 2: Difference between 8 cm fertilized, no pesticide plot (left) and 4 cm non-fertilized, no pesticide plot (right) at GTI.

management programs: conventional, IPM, alternative and no-pesticide. Within each management program, the plots were subdivided into three superimposed treatments including: fertility (0 kg N/100 m² vs. 2.0 kg N/100 m²), mowing height (4 cm vs. 8cm) and irrigated vs. non-irrigated to demonstrate the effect that these treatments have on turf quality. The amount of irrigation was based on rainfall values. Unlike the previous two years, this year there was little rainfall and the effects of irrigation vs. non-irrigation could be observed.

The trial started at all three locations in late May and continued until mid-November. Visual ratings and mowing were carried out weekly while the application of fertilizers, monitoring of pests, and the application of pest controls were carried out according to each of the four management programs and their superimposed treatments. A summary of the monitoring and insect sampling techniques is provided in Table 1 of the Spring 2005 issue of the STM.

GTI Results

Turf Quality: Overall turf quality was highest in conventional plots, followed by IPM, alternative and no-pesticide plots, respectively. More specifically, the conventional, fertilized 8 cm plot and the IPM fertilized 4 cm plot had the highest over-

all ratings. In addition, turf quality within each management program was affected by the superimposed effect of fertility and mowing. Fertility improved turf colour, density and showed a drastic reduction in the weed population (see Fig. 2). Lastly, a higher mowing height (8 cm) improved turf density and made a large, observable difference in colour.

Broadleaf Weed: After each broadleaf herbicide application, there was a noticeable reduction in broadleaf weeds throughout the conventional and IPM plots. These results show that continual management through conventional or IPM methods reduce overall weed coverage. As for the alternative plots, the percent weed cover was similar throughout this season. In the no-pesticide plots, the percent weed cover decreased 15.93% in comparison to last year, although the amount of clover did increase.

Crabgrass: Crabgrass was not found in any of the plots of all four management programs. The effect of conventional, IPM and alternative programs on crabgrass control could not be examined.

Turf Insects: Neither hairy chinch bug nor sod webworm was found in any of the plots of all four management programs. Only one grub was found in a no-pesti-

cide plot, which is below the IPM threshold level of grubs, therefore no treatment was necessary.

Brantford Results

Turf Quality: Overall turf quality was highest in the conventional plots, followed by IPM and no-pesticide plots, respectively. The application of fertility and higher mowing height also improved the colour and density of the turf. In all six 8 cm, fertilized plots, it was observed that grass clippings were damaging parts of the turf. This caused some turf to die completely, leaving large bald spots in the plot. Fortunately, by the end of season three, these spots had almost completely recovered, Fig. 3.

Broadleaf Weed: Percent reduction in broadleaf weed cover was barely observable in conventional plots because they had very few broadleaf weeds to start with. In the IPM plots, reduction in broadleaf weed cover has been observed. The no-pesticide plots showed a general reduction in broadleaf weed cover over the season and the percent broadleaf weed cover was much higher in the non-fertilized than the fertilized no-pesticide plots.

Crabgrass: Crabgrass was found in all three management programs but in num-



Fig. 3: Recovering turf areas affected by grass clippings in Brantford.

bers below the IPM threshold level of crabgrass. All IPM plots were spot treated with a herbicide. As a result, this treatment completely cleared the conventional plots of crabgrass and drastically reduced crabgrass amounts in the IPM plots.

Turf Insects: Hairy chinch bug, sod webworm and grubs were found in all three management programs but in numbers below their IPM threshold levels.

London Results

Turf Quality: Overall turf quality was higher in the IPM than the no-pesticide plots. In addition, turf quality within both management programs was affected by the superimposed effect of fertility and mowing. Applying fertilizer and mowing at a higher mowing height improved the colour and increased the density of turf.

Broadleaf Weed: Percent broadleaf weed decreased over the season in the IPM plots and remained relatively the same throughout the season in the no-pesticide plots.

Crabgrass: Crabgrass was found in the plots of both management programs, but in numbers below the IPM threshold level for crabgrass. Hence, all plots that contained crabgrass were spot-treated rather than broadcasted with herbicide.

Turf Insects: Hairy chinch bug, sod webworm and grubs were found in both management programs but in numbers below their IPM threshold levels. No treatment was necessary.

Effect of Fertility on Broadleaf Weed Cover (All Locations)

The application of fertilizer has been observed to improve turf quality by increasing the 'greenness' and density of turf under all four management programs (Fig. 4). In addition, the percent broadleaf weed cover was greatly reduced in fertilized plots as compared to non-fertilized plots. The difference in turf quality between fertilized and non-fertilized in the no-pesticide plots has been drastic. Over the three seasons of the project, it has been

observed that broadleaf weeds have decreased in the no-pesticide plots in all three municipalities.

Effects of Irrigation vs. Non-Irrigation

This was the first year that showed differences between the irrigation and non-irrigation plots. Specifically, GTI showed the most drastic results. The non-irrigation plots went completely dormant for a week, see Figure 5. Fortunately, these plots recovered and the drought had no real effect on the amount of pests found.

Overall Pesticide Reduction

The breakdown of the number of pesticide applications among the four lawn care management programs in the three municipalities is illustrated in Table 2 in the Spring 2005 issue of STM. Overall, there was a 50-66.67% reduction in the number of pesticide applications in the IPM plots as compared to conventional plots in Brantford and London. This is the same reduction as last year.

Educational Opportunities

There were different types of communication and educational opportunities available throughout the season. At the Brantford location, a sign illustrating the purpose and method of the project was created and it provided information on the project to members of the public that pass by the park of the Glenhyrst Art Gallery. In London, questions regarding the project were sometimes asked by the users of Watson Park. The results from Year 1 and 2 were reported at the Ontario Turfgrass Symposium and the Landscape Ontario IPM Symposium in 2004 and 2005. Visit www.gti.uoguelph.ca/OPAC to view these reports. Results from the three years will be presented at OTS 2006 and the 2006 LO IPM Symposium.

Conclusions

Turf quality was highest in conventional followed by IPM, alternative and no pesticide programs. Despite the 50-66.67% reduction in the number of pesticides used, the quality of the turf in IPM plots was reduced only slightly. In addition, mowing at a higher height (8 cm) improved the density of turf, while the application of fertilizer improved turf colour and density and reduced broadleaf weed cover in the no-pesticide plots.

Turfgrass insects were not an issue in all three municipalities. They were all present in numbers below the threshold for IPM pest control. Crabgrass infestation was also not a problem. It was only found at Brantford and London in numbers below its IPM threshold level. As for broadleaf weed cover, a couple of trends were observed. The no pesticide plots experienced a decreasing trend of broadleaf weed coverage from Season 2 to Season 3. Also, fertilizer greatly decreased the amount of broadleaf weed infestation. This can prove to be an alternative way to manage weeds without using pesticides.

The cumulative results of the past three years have shown that IPM is a more environmentally friendly and efficient method of managing pests in turfgrass in comparison to conventional methods. It was also found that using fertilizer alone can greatly control broadleaf weeds and may be less costly than using pesticides all together.



Fig. 4: GTI. Difference between the 4 cm non-fertilized (left) and 8 cm fertilized (right).



Fig. 5: GTI. The effects of no irrigation and limited rainfall on the non-irrigation plots.

The next step of this project is to educate members of the community about the advantages of using IPM on their own lawns rather than conventional methods. By spreading the word, we can help protect the environment and have beautiful lawns as well.

For further information regarding this project, please visit the project website: www.gti.uoguelph.ca/OPAC. It contains general information, photos, presentation slides and final reports of the project. ♦

Acknowledgements

This project was funded by the Ontario Pesticides Advisory Committee and coordinated by the Guelph Turfgrass Institute. I would like to acknowledge the following people: Pam Charbonneau, OMAFRA; Doug Mewett, OPAC; Erica Gunn, GTI; Bruce McGauley, City of London; Dennis Wale, City of Brantford; Norm McCollum, GTI; Mark Meloun, City of Brantford; Mark Donahue, City of London.

STA Member Profile

Tanya Steffler • Parks Pest Management Technician • City of Oshawa

1. What is your role with the City of Oshawa?

In the capacity of the Parks Pest Management Technician, I implement the Pest Management Plan (PMP) for the City. The plan involves technical support, analysis, guidance and development of turf maintenance for sports fields and parks within the City of Oshawa. The PMP also includes our public education and outreach program. I direct the grass-cutting contractors and deal with public complaints/enquiries regarding grass or pests.

2. Provide some details about the Pest Management Plan.

The PMP was approved by Council in 2003. It is a five-year plan with a goal to reduce and eliminate the use of pesticides within the City of Oshawa. The intent of the plan is to proactively use Integrated Pest Management (IPM) principles to improve the health of turf on public lands along with public education in lieu of a by-law.

The plan follows IPM principles and includes: soil testing, fertilizing, aerating, overseeding, cutting turf at 3" and using various alternative products like corn gluten, soil additives and vinegar. Trials of various products have been conducted on different sports fields to determine their efficiency.

The plan is a proactive approach and includes an extensive public education and outreach program. In 2005, a comprehensive advertising program was approved by City Council. The program included radio and newspaper ads, posters and a brochure which was mailed to every land owner in the City. The website provides details on the PMP and other information,

www.oshawa.ca/mun_res/pest.asp. Newspaper articles will be run in 2006. In 2005, the PMP budget was \$450,800.

3. What kind of team do you work with?

Our team includes William Slute, Parks Manager; Leo Stafford, Supervisor Grounds Maintenance; two full-time skilled labourers; and myself. During the summer, the skilled labourers are dedicated to the PMP and in the winter are re-assigned to the forestry crew for juvenile tree maintenance. Indirectly, there are four full-time operators cutting parks and the staff that manage the off-site facilities.

4. What are you and your team responsible for?

We manage the PMP turf maintenance program for 124 parks covering about 2,100 acres. Included are 46 soccer fields and 72 ball diamonds.

5. What is the biggest challenge in your job?

Balancing user group expectations with the maintenance of the sports fields. The PMP has greatly increased the amount of maintenance the fields receive and the amount of time the fields need to be closed. Time is critical for the expected results to be achieved.

6. What is the most satisfying part, what makes the job worthwhile for you?

Our plan is working! The Guelph Turfgrass Institute report prepared for the City of Oshawa indicated the soil and turf in most of our sports fields was in poor condition. A maintenance plan was cre-

ated and implemented. In fact, some parks have shown a 100% improvement. Monthly photos taken of the sports fields shows the results that our hard work has accomplished.



7. What is the biggest misconception about your job?

This position can be perceived as straightforward and simple. However, since it is such a new position, even in Canada, it requires a great deal of work. Consideration of what, where and when products will be used, rates, tests to be done, trials, equipment, user group demands, weather, timing and other aspects.

8. What is your educational/employment background?

I have a B.Sc. in Plant Biology from the University of Guelph and an Environmental Technology Diploma from Fanshawe College.

9. What do you enjoy doing outside of the workplace? Hobbies, favourite past times?

I enjoy being outdoors, so my summer hobbies include hiking, canoeing, fly fishing and identifying plants and birds. When the weather turns colder I quilt, knit and do other crafty projects to keep my hands busy.

10. What direction(s) would you like to see the industry, as a whole, move towards?

I think the industry should concentrate more on Pest Management Programs, which incorporate both Plant Health Care and Integrated Pest Management, instead of passing pesticide by-laws. Education about pests, alternatives and pesticides is extremely important. Public education is the key and can in itself reduce the amount of chemicals being applied to gardens and lawns. We still want to maintain a healthy and aesthetically attractive community. Unless we as a municipality take the lead by showing and educating the public that a PMP works and that pesticide use can be reduced and eliminated, implementing a by-law will not be successful. To view the website that the City of Oshawa has created for our PMP, please visit www.oshawa.ca/mun_res/pest.asp.

11. What do you consider to be the biggest benefit of being a member of the STA?

The networking is a great asset as this position is so new. The knowledge that is available through all the members is a resource that has made my job easier.

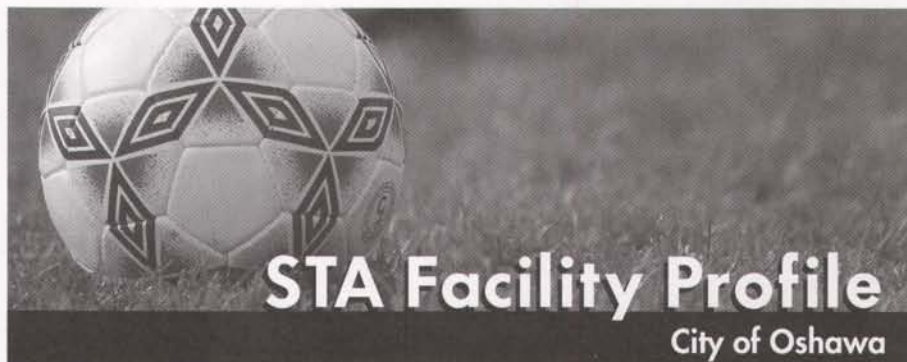
FACILITY PROFILE...

1. Name, location of facility.

The City of Oshawa has 118 athletic fields including 4 sport complexes. These include Lakeview Park, Lakefront West, Civic Auditorium and Alexandra Park.

2. General facility information.

Lakeview Park (8 diamonds lit and irrigated), Lakefront West (5 fields, 3 diamonds), Civic Auditorium (4 fields)



and Alexandra Park (1 field, 4 diamonds). Additional fields within other park areas.

3. What types of sports fields are on site?

Soccer, baseball, football and rugby. Ultimate frisbee and lacrosse are also played on some of these sites.

4. How many employees are involved with turf care?

To maintain the 4 sites there is 1 full time staff person and 19 seasonal staff.

5. How many acres of turf are maintained? How many acres of sports turf?

The staff maintains 178 acres which include 63 acres of sports turf.

6. What percentage of this acreage is irrigated?

Eighty percent of the facilities' sports turf is irrigated.

7. What is the primary type of turfgrass? Name of varieties.

The majority of the turf is Kentucky blue grass, however, our overseeding program consists of a mixture of perennial rye and fescue grasses.

8. Is yearly overseeding part of your sports turf maintenance program?

The City has had an overseeding program for many years. After the Guelph Turfgrass Institute (GTI) report was completed, a heavy overseeding program was started in the fall of 2004. Late play prevents overseeding at all locations.

9. How many times do you fertilize?

We granular fertilize at least three times a year if scheduling and weather permits. Liquid fertilizer and other product trials have been applied a few times this year. >>>>



Lakeview West in July – not a pretty site! Dramatic improvements were seen by October.

10. Do you aerate? Topdress?

We have a core and slit aerator. We try to aerate every field twice a year and the high profile fields 4 or more times a year. The City used to topdress, but the GTI recommended against it.

11. Has your municipality banned the use of pesticides?

No, the City of Oshawa has not instituted a ban. Instead, we have initiated a 5-year Pest Management Plan. The plan allows the use of pesticides if the pests are over a pre-determined threshold limit.

12. Are community user groups involved or have they been involved in the construction/maintenance of facilities? In what manner?

The Ball Diamond Council is involved and provided input into the original design and construction of Lakefront West. City staff is responsible for all maintenance of the 4 facilities. The Soccer Council meets monthly with city representatives to discuss any issues. We exchange ideas and promote the benefits and values of the Pest Management Plan (see article beginning on the front cover).

13. How many hours per year are the fields permitted? Who permits them? Are the fields ever closed during the season to give them a rest? How much input do you have in the amount and timing of use?

In 2005, the soccer fields were permitted just under 18,500 hours. The Facility Booking Department in Oshawa permits all sports fields. Fields are closed if weather conditions are poor. Spring and fall closures are based on the conditions of the fields and required maintenance. We are currently developing an open/closed policy for the sports fields. The Outdoor Sports and Facility Study (OSFS) identified supply and demand issues particularly for soccer. The OSFS identified the need, when the supply is met, to rest at least 6 fields on a rotating basis. ♦



Winter Driving Survival Kit

It's a good thing to keep a winter survival kit in your vehicle. Having essential supplies can provide some comfort and safety for you and your passengers should you become stranded.

Recommended Items

- Ice scraper/snowbrush
- Shovel
- Sand or other traction aid
- Tow rope or chain

- Booster cables
- Road flares or warning lights
- Gas line antifreeze
- Flashlight and batteries
- First aid kit
- Fire extinguisher
- Small tool kit
- Extra clothing and footwear
- Blanket
- Non-perishable energy foods, e.g. chocolate or granola bars, juice, instant coffee, tea, soup, bottled water
- Candle and a small tin can
- Matches

— *Winter Driving - Be Prepared, Be Safe*, Ontario Ministry of Transportation, <http://www.mto.gov.on.ca/english/safety/winterdrive/winterdrive.htm>

91 YEARS AND STILL CLICKING

www.rittenhouse.ca • 1-800-461-1041

TOP DRESSER

- SELF-PROPELLED
- 250LB HOPPER CAPACITY
- 3' TO 10' SPREAD WIDTH
- 34" WIDE, ABLE TO FIT THROUGH GATES



GRANULAR SPREADER

- SELF-PROPELLED
- JUMP ON AND GO!
- 125LB HOPPER CAPACITY
- OVER 100,000 SQ. FT. OF PRODUCTION PER HOUR



ENTER ONLINE TO WIN ONE OF THREE PRIZE PACKS!



PROMOTING SPORTS TURF CAREERS

SPORTS TURF ASSOCIATION SCHOLARSHIP PROGRAM EXPANDING FOR 2006

The Sports Turf Association is a professional association committed to the promotion of safe, natural sports turf through education and professional programs. In order to further this goal, the STA established a Scholarship Program in 1993 and has since awarded 24 scholarships. In the past, we have provided scholarships in two specific programs of study: the University of Guelph's Turf Managers' Short Course and the Ontario Diploma in Horticulture.

To continue to encourage, support and provide leadership to those considering a career in the sports turf industry, the STA has restructured its Scholarship Program, expanding it to include additional programs of study. Beginning in 2006, one scholarship in the amount of \$1,000 may be awarded annually.

The Scholarship Program is funded through STA membership fees. The award is intended to assist students with the cost of tuition, books and related expenses.

For those currently furthering their education, we encourage you to apply for the STA Scholarship if you:

- are a Canadian citizen or landed immigrant;
- are currently enrolled in and have completed one full year of education

in a post-secondary program in turf management at a recognized college or university in Canada; or, have completed the University of Guelph's Turf Managers' Short Course, or equivalent, in the current year;

- have been employed in the sports turf industry in the current year (including seasonal employment) by a member of the Sports Turf Association;
- have a desire to pursue a career in the sports turf industry.

For those who do not fit the above criteria, please pass along information about this opportunity to applicable employees including students.

Scholarship Policies

- Scholarships are non renewable.
- Candidates will be judged on the basis of the information contained in their Scholarship Application Form and support material.
- Applications must be received by November 1, 2006 for consideration.
- Incomplete applications will not be considered.
- Announcement of the scholarship recipient will be made at the Association's Annual General Meeting.

Scholarship Application Requirements.

Applicants must submit:

- A completed STA Scholarship Application Form;
- An official transcript of their grades for the previous year in the required program of study;
- A letter of recommendation a) from their employer who is a member of the Sports Turf Association; and, b) from their academic advisor;
- A typed essay, 1200-1500 words in length, on a sports turf related topic of their choice.

PREVIOUS SPORTS TURF ASSOCIATION RECIPIENTS...

Turf Managers' Short Course

Lorelie Eckel-Braun (1994)
 Tommy Joe Coffey, Jr. (1995)
 Gordon Noble (1995)
 Stuart Roberts (1996)
 Kim Nihls (1996)
 Robert Crump (1997)
 Derek Jazic (1997)
 Perry Davie (1998)
 Gordon Bruce (1998)
 Howie Kumagai (1999)
 Karen Richter (2000)
 John D'Ovidio (2001)
 John Peek (2002)
 Tennessee Propedo (2003)
 (No recipient in 2004)
 Jeff Fortune (2005)

Ontario Diploma in Horticulture

Kevin McLeod (1997)
 Duncan Graham (1998)
 Brian Brown (1999)
 Robert Gill (2000)
 Gerald Rees (2001)
 Craig Hirschberger (2002)
 Glen Kralka (2003)
 Randy McCord (2004)
 John Marshall (2005)

Applications will be available online...





Report From the International Turfgrass Research Conference

PERFORMANCE OF ESTABLISHED COOL-SEASON GRASS SPECIES UNDER SIMULATED TRAFFIC CONDITIONS

Traffic tolerant turfgrass species are required if natural grass surfaces are going to compete with synthetic turf systems. This research was conducted to determine which of six cool season grass species were the most tolerant to wear traffic stress. The species and cultivars evaluated in this study were:

- “Unique” Kentucky bluegrass
- “Catalina” perennial ryegrass
- “Millennium” tall fescue
- “Penncross” creeping bentgrass
- “Cindy” strong creeping red fescue
- “Supra” Supina bluegrass

Overview

The study took place at the University of Iowa Horticulture Research Farm from 2001 to 2003. It was conducted on mature stands of each of the above named species. Overseeding was done by hand, broadcasting seed on five different dates in 2001. This was done to simulate the practice of seeding before games to allow for the cleating-in of seed. In other words, the traffic of the athlete’s cleats was used to establish good seed to soil contact and press the seed into the seed bed. No overseeding was done in 2002 or 2003. Traffic stress was applied using a GA-SCW wear simulator with cleated rollers and differential slip action. There were two levels of traffic applied, low and high. Low traffic received two passes with the wear

simulator three days a week (Monday, Wednesday and Friday). The high traffic plots received four passes with the wear simulator three days a week. Traffic was applied from April 20 to May 15 and August 20 to October 26, 2001. In 2002, traffic was applied from August 19 to October 28.

Plots were rated for visual quality on a scale of 1-10 with 10 being the best and

species other than the species that was seeded and weeds) and exposed soil.

Results

Species differences were observed on 4 of the 5 observation dates over the two years of the study. The ranking of the species for their tolerance of wear was the same for both the high and low trafficked plots, however the differences were greater



turfgrass cover was recorded as a percentage from 0-100% on five dates throughout the duration of the experiment. Each plot was also rated for % of original grass species, percent invader species (grass

for the high trafficked plots.

The relative ranking of turfgrass traffic tolerance from best to worst was: Kentucky bluegrass = perennial ryegrass > tall fescue = supine bluegrass > creeping



Get on top with STA advertising! We have a variety of opportunities available throughout the year...

Make the Switch to *Quality*

Quality Seeds for Sod Growers, Golf Courses, Sports Facilities, Municipalities & Landscape Contractors



District Sales Managers
 Peter Coon • Cell: 705-715-3760
 John Konecny • Cell: 905-376-7044

1-877-856-7333 • 905-856-7333 • www.qualityseeds.ca

bentgrass > fine fescue. This ranking does not agree with Beard who gave the following relative traffic tolerance rating of: tall fescue > perennial ryegrass = Kentucky bluegrass = fine fescue > creeping bentgrass. Dr. Beard did not rank supine bluegrass in his book.

The percent of plot showing original species vs. invader species vs. bare soil was a good indication of both wear stress tolerance and recuperative potential combined. There were no significant differences between Kentucky bluegrass and perennial ryegrass at the high and low traffic treatments. These two species had greater than 90% of the original species at the end of the study with a very small percentage of weeds and bare soil.

Fine fescue had more exposed soil and invasive species than other species indicating that fine fescue would require continual overseeding to stand up to high or low traffic.

Supina bluegrass at the low and high traffic rate was equal to creeping bentgrass at the low traffic rate. At the high traffic

rate, creeping bentgrass had approximately 20% bare soil.

Tall fescue and supine bluegrass performed the same for turfgrass cover, invasive species and exposed soil under high traffic. Supina bluegrass had more exposed soil than tall fescue under low traffic. Tall fescue has good wear tolerance because it has high total cell wall content based on percent area, but it has poor recuperative potential because it is a bunch type grass. Supina bluegrass has good wear tolerance, but its strength is its aggressive recuperative potential after traffic. These two species give the same traffic rating but the response mechanism is different for each species.

Based on this research the best species for wear tolerance are Kentucky bluegrass and perennial ryegrass.

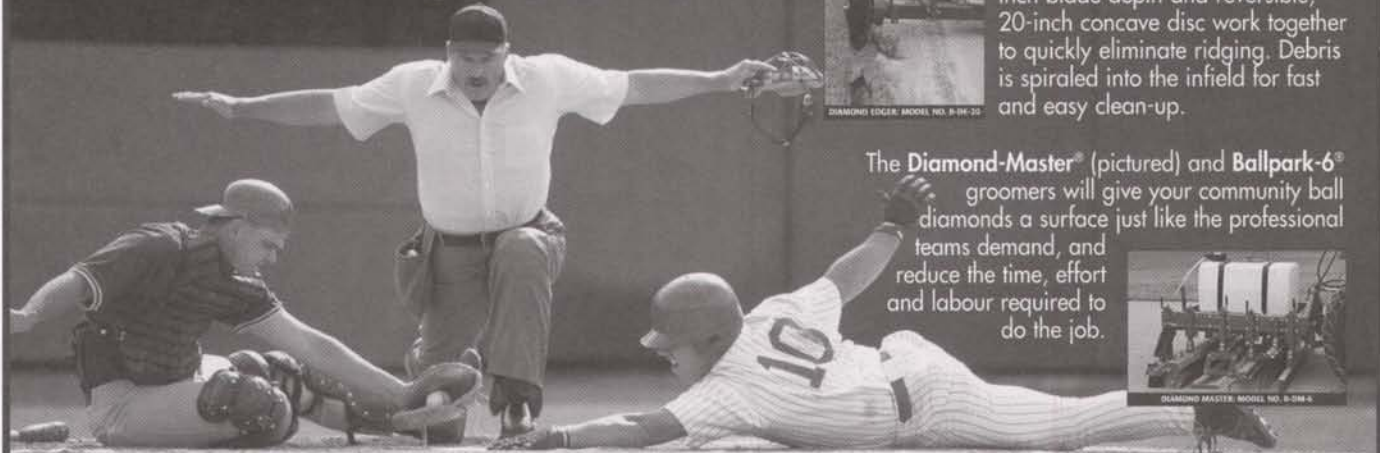
This research paper is published in the *International Turfgrass Society Research Journal*, Volume 10, Part 1, 2005, pp 393-397. ♦

— D.D. Minner and F.J. Valverde, Summarized by Pam Charbonneau, OMAFRA

NEW FROM G.C. DUKE

The Verti-Drain 1575 60" Cat. 2 Three Point Hitch Overseeder is the fastest, most versatile and efficient overseeder on the market with its innovative, unequalled disc slitting system which firmly plants the seeds in the ground, providing outstanding seed to soil contact and protection from the elements. Boasting 2.95" spacing, each seed coulter is individually suspended, accurately following terrain contours. The 1575's new seed box utilizes a proven roller design which allows the machine an infinite range of feed rates with all types of seed. With working speeds up to 9 mph, you can re-seed a football field in four directions in less than two hours. For more information, please contact Dick Raycroft, 1184 Plains Rd. E., Burlington, ON L7S 1W6, 1-800-883-0761 (ext. 116), e-mail draycroft@gcduke.com, www.gcduke.com.

For perfect diamonds Edge it & Groom it



With its adjustable guide shoe, the Bannerman **Diamond Edger** is surprisingly easy-to-use. Its three-inch blade depth and reversible, 20-inch concave disc work together to quickly eliminate ridging. Debris is spiraled into the infield for fast and easy clean-up.

The **Diamond-Master**® (pictured) and **Ballpark-6**® groomers will give your community ball diamonds a surface just like the professional teams demand, and reduce the time, effort and labour required to do the job.



41 Kelfield Street, Rexdale, Ontario, Canada M9W 5A3
CANADA 1-800-325-4871 USA 1-800-665-2696
Email info@sportsturfmagic.com www.sportsturfmagic.com

Bannerman

THE HOME OF SPORTSTURF MAGIC



STEWARDS OF THE GAME • MANAGING NUTRIENTS

18TH ANNUAL STA FIELD DAY COVERAGE CONTINUED • ARTICLES BY DR. ERIC LYONS & JOHN BLADON

STEWARDS OF THE GAME

Dr. Eric Lyons, Assistant Professor, Turfgrass Science, University of Guelph

Environmental stewardship is one of the most talked about subjects today, especially when the subject of turfgrass management is breached. All turfgrass managers should aim to be good environmental stewards. They should also aim to be something more; they should become stewards of the game.

A steward is defined as: 1) One who manages another's property, finances or other affairs; or 2) one who is in charge of the household affairs of a large estate, club, hotel or resort. Essentially, stewards are people who take care of things for society and future generations. The concept of environmental stewardship is based in making the right management decisions today to provide the best environment for future generations. I challenge each and every sports turf manager and turfgrass

manager to not only be a steward of athletic fields and the environment, but also be a steward of the games played on the areas we work so hard to maintain.

Benefits of Sport

Often a disconnect occurs between turfgrass managers and the end users of turfgrass areas. The best way to alleviate this disconnect is to remind ourselves why we play sports and why areas to play sports are important to our society. There are many reasons why we play sports – the most obvious are the beneficial aspects to physical fitness and mental health. The physical fitness of future generations is at risk. With each generation we, and subsequently our children, become more sedentary. The availability and access to large open areas in which to play sports is essential to encourage ourselves and future generations to maintain a level of fitness. In addition, there are the mental benefits

of competition and achievement that sports provide. There are also the life lessons that involvement in athletics can bring including team work, commitment and social skills that can only come from working closely with teammates and competing with other competitors. As turfgrass managers, we provide the safe and healthy environments that facilitate all the benefits that sport and athletics bring to our society.

Each day when turfgrass managers set out to do their job, the value they add to society should be in the forefront of their minds. Turfgrass managers do more than just maintain turfgrass athletic fields; they help maintain the physical, mental and social health of society. Never underestimate the importance of athletic fields and the opportunities and benefits having a safe place to play and engage in sport provide our children and those people who are young at heart.

Becoming Stewards

What can we, as turfgrass managers, do to maintain athletic opportunities for future generations? How can we truly become stewards of the game? Three simple things: become stewards of the environment, communicate the benefits of turfgrasses, and emphasize both the environmental and health benefits of turfgrass areas.

In recent years, turfgrass has become under attack as an environmentally unsound land use with little or no environmental and societal benefit. Research has shown that turfgrass areas have many environmental benefits. Turfgrass areas act as great water filters and can act as areas to capture storm water runoff increasing infiltration to below ground aquifers.

Each day when turfgrass managers set out to do their job, the value they add to society should be in the forefront of their minds.

Turfgrass also provides a great cooling capacity within city limits and during times of severe drought can be allowed to go dormant, as opposed to most bedding plants and trees which continue to use water through drought periods. In addition, turfgrass areas are also believed to store carbon below ground acting as a "carbon sink" to counteract the increasing carbon dioxide in the atmosphere. Essentially the soil becomes a place of carbon accumulation much like the wood in a forest. If you are interested in the benefits of turfgrasses, educate yourself so

you can communicate it to the end user and the rest of society.

The first step in communicating the benefits of turfgrass areas and the management that goes into turfgrass areas is to educate yourself in the facts about the environment and potential problems we are facing today.

The next step is to open lines of communication. This can be done by becoming involved in community newsletters, educating the end user about the practices being performed and benefits of different turfgrass areas. The most important thing is to become involved in discussions and become involved with the user groups. Most end users have no idea how much work and effort goes into providing the playing surfaces that they utilize. Most of them have home lawns and may be proud of their abilities to grow grass. But, they have one major advantage – they do not have to maintain quality turf for 20 events a week. Being present at organizational meetings and showing the stakeholders of athletic fields that there is a large team of individuals working hard to maintain the integrity of the playing fields is an effective way to garner support and educate the end user.

Once the end users are on board, the last step of emphasizing both the environmental and health benefits of turfgrass areas should start to take shape.

I want to conclude this article by saying thank you to athletic field managers. Sport has been a great influence in my life and I owe much of where I am today to the influence of athletics. Without the opportunities that turfgrass managers help facilitate through providing areas to play sport, our society would be very differ-

ent. In closing, turfgrass managers need to be stewards of the environment to be stewards of the game, because without areas to play the games will fade away.

MANAGING NUTRIENTS

**John Bladon, Nu-Gro Corporation
Summarized by Roy Forfar**

At the STA Annual Field Day this past September, John Bladon spoke on the topic of Managing Nutrients and Integrated Pest Management (IPM). This process involves using all necessary techniques to control pests effectively, economically, and in an environmentally sound manner while sustaining a healthy landscape. To achieve a successful IPM program, consider the following points.

Minimize...

Your facility's use and dependency on pesticides. This will result in decreased negative impacts on the environment. Consider management strategies that efficiently use resources like precious labour, equipment hours and fuel.

Maximize...

Plant health and quality; ecosystem natural order and biodiversity; customer satisfaction; economic viability (reduced costs, fewer applications, reduced equipment depreciation and fuel consumption); worker and workplace safety; and knowledge and diversity of pest controls, i.e. cultural, mechanical, chemical and biological means.

Smart Fertility

Use reputable and compliant manufacturers/suppliers who offer registered prod-



Suppliers of
Top Quality
Turf Products

- * No. 1 Kentucky Bluegrass
- * Five Varieties of Bentgrass
- * Extreme Fescue

NEW
GOLPLA
THE POUND THAT CARRIES WEIGHT
Turf Reinforcement System

(877) 727-2100

(416) 364-5700

www.zandersod.com



EQUIPMENT LTD.
ISO 9002 REGISTERED

Paul Turner

Sales Representative

Cellular: (416) 566-0211

1184 PLAINS ROAD EAST, BURLINGTON, ON L7S 1W6
Burlington (905) 637-5216 Toronto (905) 338-2404
1-800-883-0761 • Fax: (905) 637-2009 • www.gcduke.com

ucts and incorporate fiscally and environmentally responsible fertility alternatives. Provide both a balanced and metered feed to enhance both turfgrass and soil health – lessening the impacts of weather and environmental conditions. Build a fertility program that addresses the needs of the soil, the plant, and of course, the needs of your user groups.

What About Roots?

Roots provide plant anchorage, food/carbohydrate storage and stability to playing surfaces. The majority of the root system is located within the first foot of soil with feeder roots in the top 6". The bottom line is that shoots, roots, soil and microorganisms need to be considered as one complete system. Any improvement in root mass/elongation improves their functioning ability – anchoring, water/nutrient uptake and storage. Factors that decrease root growth include lower mowing heights, inadequate mowing frequency

or removing more than one third of the tissue at a time, excessive nitrogen, deficiency of potassium, excessive thatch, high soil temperatures, oxygen deficiencies and high salt concentrations.

We All Need Food

Nutrients reach roots by the mass flow of water, diffusion from soil to roots, and by root interception. Different soils affect nutrient availability and each has properties that may limit growth. Clay soils and compaction restrict nutrient mobility; sandy soils leach nutrients; low organic matter soils may be deficient in phosphorus. Working the soil, through various types of aeration, breaks up the profile and can improve nutrient availability. Remember that temperature can also have a dramatic affect on nutrient availability.

Nitrogen Management

This will differ with every season and soil type. Nitrogen fertility needs to be

approached with balance in mind, and is the most critical of the major elements. Furthermore, it is species dependent and must be adjusted according to use or traffic patterns. Finally, choices in a controlled release N source should match up with mowing frequencies; the more stable the feed, the more we can regulate our need to mow.

The Big Picture

One goal of the turfgrass manager is to maintain a favourable root to shoot ratio. This translates in avoiding practices that are unfavourable for root growth and stimulate excessive shoot growth. Always remember: *For every action there is a reaction.* Smart fertility = balance. Start with soil, end with tissue. Build a program that addresses deficiencies while taking into account use, is fiscally manageable and promotes balance. The latter will be the key in helping with reductions in pest pressures. ♦

STAY TUNED TO THE SPRING ISSUE OF STM FOR...

HELMUT SPIESER, OMAF



Turf Jargon

Soil Science Terminology from A-Z.



VANDEN BUSSCHE
IRRIGATION

RAIN BIRD.

Hunter®

Vanden Bussche Irrigation
Milton 1.800.263.4112 • King City 1.866.703.KING
Scarborough 416.289.3635 • Delhi 1.800.387.RAIN
www.vandenbussche.com

Turf Care Agronomics

- **South-Western Ontario/Niagara**
Duncan Brewer
905.536.0357
duncanb@turfcare.ca
- **Mid-Western Ontario**
Craig McCutcheon
519.421.6593
craigm@turfcare.ca
- **Greater Toronto Area**
Mark Scenna
416.458.2396
marks@turfcare.ca
- **Eastern and Northern Ontario**
Bill Martel
705.627.3590
billm@turfcare.ca



TURF CARE

Turf Care Products Canada
200 Pony Drive, Newmarket, Ontario L3Y 7B6
Tel: 905-836-0988 • Fax: 905-836-6442 • www.turfcare.ca



GRIGG BROS.



par ex
THE EX STANDS FOR EXCELLENCE



nu-gro



Milorganite
75 YEARS
1928-2001



Supreme-Green™ TURF COVER

The multi-purpose turf cover ideal for natural turf environments such as baseball, soccer and football fields, etc.

BENEFITS

- accelerated seed germination • encourages root development • early spring green-up
- delays dormancy in fall • winter protection: reduces frost and ice damage • turf repairs
- available in any size

Coverttech
Fabricating Inc.

Buy Direct From the Manufacturer!

Call 1-800-837-8961

www.coverttechfab.com • sales@coverttechfab.com



day
Same ~~job~~, different *day*
job



Tough day ahead? Whatever the job, there's a Toro® Workman® utility vehicle ready to help. Our versatile Mid-Duty can handle anything from infield grooming to collecting the trash. The electric will hustle just as hard without making a sound. And for those times when brute strength makes all the difference, nothing out powers our Heavy-Duty. To learn more, call your Turf Care Sales Representative or visit us online at www.turfcare.ca.



Count on it.

Contact Paul Cooper, Municipal Sales, National Account Manager, for a free demo at your convenience.

Happy holiday season from the staff at Turf Care Products Canada!

5716 Coopers Ave., Unit 6
Mississauga, ON L4Z 2E8
Ph: 905-890-6290
Fax: 905-890-5598

140 Milner Ave., Unit 24
Scarborough, ON M1S 3R3
Ph: 416-298-2101
Fax: 416-298-8758

2575 Delzotto Ave., Unit D
Gloucester, ON K1T 3V6
Ph: 613-822-1881
Fax: 613-822-2099

1110 Dearness Drive, Unit 13
London, ON N6E 1N9
Ph: 519-668-7664
Fax: 519-668-3722