

# Sports Turf Manager

*for safe, natural sports turf*

1987-2007

CELEBRATING  
★ 20 YEARS ★

## Winter 2007

VOLUME 20, NUMBER 4

- 3 President's Message
- 4 Coming Events
- 5 Ontario Turf News
- 6 OTS 2008 Turf Sessions
- 7 Cover Story Continued
- 9 Sorry, What's Your Name Again?
- 11 President's Profile: Gord Dol
- 13 Using Composts to Improve Turf
- 18 Winterkill of Turfgrass
- 21 Walk Behind Snow Blowers SOP

## Seasons Greetings

The Sports Turf Association wishes you a joyful holiday season and a prosperous New Year. We look forward to serving you in 2008!

*Merry Christmas*



THE CASTLE COURSE, COURTESY OF ST ANDREWS

## St Andrews Comes to OTS 2008!

HEAD GREENKEEPER GORDON MCKIE IS THIS YEAR'S KEYNOTE SPEAKER IN GUELPH

**St Andrews Links** is the *Home of Golf*, where the game evolved and where the spirit and traditions of golf have been safeguarded for over six centuries. Keynote speaker at the 2008 Ontario Turfgrass Symposium is Gordon McKie, Head Greenkeeper at the world famous Old Course.

**G**ordon, previously Head Greenkeeper at the New Course, took up one of the most prestigious roles in golf this year. "It is a privilege to work on the most famous course in the world," he said. "The history and tradition surrounding the Old Course makes it unique and it is continually under the glare of the international media spotlight. I am very much looking forward to maintaining the exceptionally high standard of the course and ensuring it continues to set the benchmark for links courses around the world."

One of the extraordinary facts about the Old Course is that it was not designed by an

architect but has evolved over six centuries. Even more remarkable is the fact that while the equipment and the standards of play have improved dramatically, the Old Course remains a true test of championship golf. The Old Course starts and finishes in the town. Originally it was played over 22 holes using the same 11 holes on the way out and in. In 1764 this was reduced to 18, which became the standard number of holes for courses worldwide. It was originally played the opposite way round with golfers teeing off to what is now the 17th green. This explains why so many of the bunkers, for example on the 12th, are not visible from the tee. ➔ **page 7**

The **BLEC SANDMASTER** is a unique, one-pass surface draining machine that's designed to work on a wide range of athletic and golf surfaces where compaction and drainage is a problem.

It has the ability to introduce a wide variety of materials into a playing surface with minimum damage and quick recovery.

**Call today and have us put the Sandmaster to work on your turf.**



**mountainview**  
GOLF & ATHLETIC TURF SPECIALISTS

**1 (800) 260-5922**  
mountainviewturf.com

OVER 30 YEARS OF RELIABLE SERVICE

**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!



## SPORTS TURF MANAGER

Volume 20, Issue 4, ISSN 1201-3765

is the official publication of the  
**SPORTS TURF ASSOCIATION INC.**

328 Victoria Rd. S., RR 2, Guelph, ON N1H 6H8

Tel: (519) 763-9431, Fax: (519) 766-1704

E-mail: [info@sportsturfassociation.com](mailto:info@sportsturfassociation.com)

Web: [www.sportsturfassociation.com](http://www.sportsturfassociation.com)

### BOARD OF DIRECTORS

**PRESIDENT** Gord Dol

**PAST PRESIDENT** Andrew Gaydon

**TREASURER** Rick Lane

**SECRETARY** Bob Sheard

**EXECUTIVE MANAGER** Lee Huether

### DIRECTORS

Jane Arnett-Rivers, Cam Beneteau,  
Murray Cameron, Dave Chapman, Bill Clausen,  
Paul Cooper, Rob Field, Paul Gillen,  
Bob Kennedy, Grant McKeich & Paul Turner

### SPORTS TURF MANAGER

is published quarterly by the STA for free distribution to its membership. An annual subscription may be obtained for \$60/year.

Please direct advertising inquiries to Lee Huether at the STA office.

### EDITORIAL COMMITTEE

Murray Cameron, Andrew Gaydon,  
Paul Turner & Lee Huether

### 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](mailto:joy@npc-solutions.com)

### CANADA POST PUBLICATIONS MAIL SALES AGREEMENT No. 40031883

Postmaster: Please return undeliverable copies to the STA at 328 Victoria Rd. South, RR 2, 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 – Gord Dol

By now Winter has probably set in and it's time to reflect on this past season. We just went through one of the driest seasons in many years and I am sure that the drought has taken its toll on your fields.

**W**ith this issue of the *Sports Turf Manager*, our 20<sup>th</sup> anniversary year will be drawing to a close. We have recognized and celebrated this milestone through an awareness campaign which has highlighted our journey and accomplishments. Whether you read Mike Jiggins' interview in *Turf & Recreation* magazine, our chronicle *20 Years of Service*, our past president profiles, or viewed the audio/visual presentation at the Ontario Turfgrass Symposium, spring workshop or fall field day, we hope you considered for just a moment where we began and how far we have come.

### As a Sports Turf Member

- you are a valuable link in the network of experts engaged in the research and development of turf, as well as the all important care and maintenance of athletic fields;
- you are a participant in liaising with and supporting other turf related organizations;



- you assist in the support of a professional office for the Sports Turf Association at the Guelph Turfgrass Institute, ensuring we are placed at the leading edge of turfgrass research and education for our members;
- you contribute to turfgrass research through the Ontario Turfgrass Research Foundation;
- you contribute to the Robert W. Sheard educational scholarship;
- you assist in and benefit from co-sponsoring the Ontario Turfgrass Symposium, the province's most comprehensive turf education conference, as well as the development and presentation of spring workshops and annual fall field days;
- you contribute to and receive the *Sports Turf Manager* on a quarterly basis;
- you assist in the development of and benefit from information books and other materials; and

→ page 4

## EVENT CALENDAR

### February 19

*Sports Turf Association Annual  
General Meeting @ the OTS*  
University of Guelph, ON  
Info: 519-763-9431  
[www.sportsturfassociation.com](http://www.sportsturfassociation.com)

### February 19 & 20

*Ontario Turfgrass Symposium*  
Guelph, ON  
Info: (519) 767-5000  
[www.open.uoguelph.ca/OTS/](http://www.open.uoguelph.ca/OTS/)



### January 8-10

*Landscape Ontario Congress*  
Toronto, ON, 1-800-265-5656  
[www.locongress.com](http://www.locongress.com)

### January 15-19

*Sports Turf Managers Association (US)  
19<sup>th</sup> Annual Conference & Exhibition*  
Phoenix, AZ  
Info: [www.stma.org](http://www.stma.org)

### January 16-18

*Ontario Golf Superintendents'  
Association Golf Course Management  
Conference & Trade Show*  
Toronto, ON, 1-877-824-6472  
[www.golfsupers.on.ca](http://www.golfsupers.on.ca)

### January 28 – February 22

*University of Guelph  
Turf Managers' Short Course*  
Guelph, ON, (519) 767-5000  
[www.open.uoguelph.ca/turfmanager](http://www.open.uoguelph.ca/turfmanager)

### February 6 & 7

*Ontario Parks Association  
52<sup>nd</sup> Annual Educational Conference  
& Explorations Trade Show (Feb. 6)*  
Hamilton, ON, 1-866-560-7783  
[www.opassoc.on.ca](http://www.opassoc.on.ca)

### February 24-27

*Western Canada Turfgrass Association  
45th Annual Conference & Show*  
Penticton, BC, 604-467-2564  
[www.wctaturf.com](http://www.wctaturf.com)

## President's Message Continued...

• you have access to an online membership directory and receive a membership certificate recognizing your membership in and support of the Sports Turf Association.

Over the period of two decades, a number of people, companies and organizations have made their mark on the association and indeed, the turfgrass industry as a whole. To name them all would be impossible. Suffice it to say that without the vision, the enthusiasm, the support and the dogged determination of so many, the association would not be where it is today.

---

Consider putting your name forward or nominating a colleague who is interested in serving on the Board. Nominations deadline is December 21, 2007.

---

As we look back, we realize it is of equal importance to look ahead. This winter, your Board of Directors will participate in a strategic planning exercise to proactively plan the future of the Sports Turf Association further examining where we are, where we want to be and how we are going to get there. We welcome your input in order to determine how best to continue to serve the needs of the mem-

bership. Please forward your suggestions to any Director or to Lee Huether, Executive Manager, by mail, email or fax.

You will have received by now the Call for Nominations for the 2008 Board of Directors. Consider putting your name forward or nominating a colleague who is interested in serving on the Board. The nominations deadline is December 21, 2007. All will be presented at the Sports Turf Association's Annual General Meeting during the Ontario Turfgrass Symposium.

The Ontario Turfgrass Symposium: *The New Green* is February 19<sup>th</sup> and 20<sup>th</sup>, 2008. Sports turf related sessions are highlighted inside. Visit the symposium website [www.open.uoguelph.ca/OTS](http://www.open.uoguelph.ca/OTS) for all the details or consult the brochure which you will receive by mail. We hope you'll join us for both the conference and our Annual General Meeting.

This issue also carries my last President's message. At the AGM in February, a new president will be selected. I have been a part of this organization for 14 years, as a director for 9 years and president for the last 2 years. I have thoroughly enjoyed my time as president of the Sports Turf Association, and look forward to serving on the board for many years to come. I would especially like to thank Lee for her hard work and dedication.

We wish you all a Merry Christmas and a safe and prosperous new year. ♦



## ODDS & ENDS

### 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 2008 Submissions

If you have something you'd like to submit for the next issue, please forward it to the STA office by February 22, 2008.

### 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.

# U of G Turf Certificates Ranked One of the Top in North America

GUELPH, ON. *Turfnet*, the online news magazine, has recently ranked the University of Guelph as one of the top destinations in North America for turf certificate studies. Guelph's Turf Managers' Short



Course (TMSC) is at the heart of this certificate effort and has been valued by turf managers and staff for over 30 years.

The University of Guelph has expressed great satisfaction in being highly ranked by *Turfnet*.



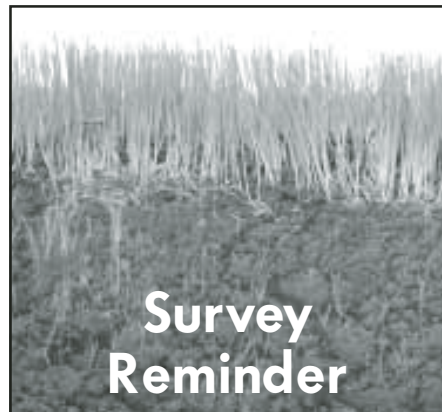
"We are very pleased with this ranking from *Turfnet*. It means that our training program is on par or surpasses other Canadian offerings and is of great value to American clients as well. The Turf Man-

agers' Short Course is recognized and valued by educators and turf staff on both sides of the border," commented Stephen Fleischauer, Manager, Program Development, Office of Open Learning, University of Guelph.

The TMSC is a four week residential program that makes use of a combination of university faculty and industry experts to facilitate discussion in current turf research and maintenance issues. This focused course prepares attendees with a "crash course" of intensive professional development instruction in turfgrass management.

"The *Turfnet* ranking is a reflection of the long standing reputation of the Turf Managers' Short Course as well as the success of those who have completed the course over the 30-plus years it has been offered," added Rob Witherspoon, Director, Guelph Turfgrass Institute.

The next offering of the TMSC is scheduled January 28 to February 22, 2008. For more information, interested individuals should contact the Office of Open Learning at 519-767-5000 or visit: [www.open.uoguelph.ca/turfmanager](http://www.open.uoguelph.ca/turfmanager).



## Survey Reminder

The University of Guelph and the Ontario Turfgrass Research Foundation are conducting a research study on the economic profile of the Ontario turfgrass industry. This study is the first comprehensive economic review of the industry in more than 20 years. The study will help us understand and raise awareness about the importance of the turfgrass industry to the province and the country.

We would like to ask for your participation in this study by filling out a survey. Please visit the STA website at [www.sportsturfassociation.com](http://www.sportsturfassociation.com) to access it online.

Please complete this survey by December 15. However, we will continue to collect responses after the deadline. Your participation is crucial for the successful completion of this study. For information, contact: Kate Tsplova, 519-824-4120 (x 58343), [ktsplov@uoguelph.ca](mailto:ktsplov@uoguelph.ca) or Katerina Jordan, 519-824-4120 (x 56615), [kjordan@uoguelph.ca](mailto:kjordan@uoguelph.ca).

### WELCOME TO THE STA!

#### Ian Bowen

Hutcheson Sand & Mixes  
Huntsville, ON

#### Tammy Lawrence

Turf Revolution, Ayr, ON

#### Evan Taylor

Student, University of Guelph



**NEW MEMBERS**

*Master's Turf Supply Ltd.*

890 Fairground Rd. R.R. #4 Langton Ont. N0E 1G0  
Phone (519) 875-4094 Fax (519) 875-4095

Website: [mastersturfsupply.com](http://mastersturfsupply.com)  
email: [mastersturf@hughes.net](mailto:mastersturf@hughes.net)



99 John St. North, Box 171  
Harriston, Ontario  
N0G 1Z0  
Phone (519) 338-3840  
Fax (519) 338-2510  
Email [speare@wightman.ca](mailto:speare@wightman.ca)

**SUPPLIERS OF PREMIUM TURF SEED PRODUCTS**

# thenewgreen

FEBRUARY 19 & 20, 2008 • UNIVERSITY OF GUELPH • GUELPH • ONTARIO

## SPORTS TURF RELATED SESSIONS

### TUESDAY, FEBRUARY 19

#### 1:30-2:30 T4 Making the Move to Grey Water: The Burlington Golf and Country Club and Woodbine Race Track Experience

*Tom Brain, Burlington Golf and Country Club & Sean Gault, Woodbine Race Track*

Tom Brain discusses the reasons for moving to grey water, the equipment used and their experiences with it. Sean Gault outlines how his facility design allows the use of grey water. The benefits and what the future holds for grey water are also discussed.

#### 2:30-3:00 T5 What are Your Choices for Evapotranspiration Based Water Savings?

*Chris LeConte, Smart Watering Systems*

Almost all irrigation product manufacturers have brought SMART Controllers to market that can save you time, water and money! However, only a few are readily available in Canada. Learn more about ET based irrigation, the different types of products and how to choose the right product for your application. IPM 0.66.

#### 3:00-3:30 T6 Maintaining Plant Health During a Water Ban

*Grant McKeich, Town of East Gwillimbury*

The 2007 season was the driest summer in recent memory and many municipalities enacted water bans. Learn about challenges and solutions to maintain sports fields and other municipal landscapes during the summer of 2007. IPM 0.66.

### WEDNESDAY, FEBRUARY 20

#### 9:00-9:30 W1 Controlling Sports Field Energy Consumption and Light Pollution

*Terry Piche, ORFA*

Setting fees for field use at night require that facility managers understand the cost factors, including energy waste. Safely activating and deactivating field lights and other electrical sources require a clearly set plan for both field operators and users. Balancing user need, non-user quality of life and energy costs require ongoing evaluation and proactive management.

#### 9:30-10:00 W2 Tournament Preparations – It's Not Over Until It's Over!

*Terry Henderson & Leo Ostner, Town of Oakville*

Behind the scenes activities and months of preparations are required to host a successful tournament. This presentation will identify key aspects that must be taken into account to provide the best possible service to your clients. Learn how to make your tournament a huge success.

#### 10:00-10:30 W3 Security Issues for Parks and Facilities

*Constable Clayton & Constable Biggs, Halton Regional Police*


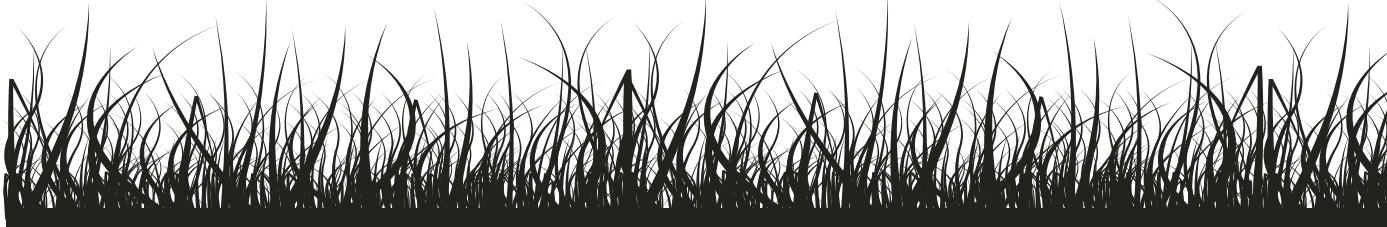
Members of the Halton Regional Police Services will present CPTED – Crime Prevention Through Environmental Design. Keep your employees and the public safe through the implementation of security measures at parks and facilities.

#### 11:00-12:00 W4 How Are We Coping with Pesticide Restrictions?

*Doug Smith, City of Toronto, Jeff McMann, Town of Markham & a Town of Vaughn Representative*

The panel will discuss the impact of pesticide restrictions on the quality of municipal sports fields. IPM 1.33.

FOR GENERAL, GOLF & LAWN CARE SESSIONS, PLEASE REFER TO THE OTS BROCHURE.



## IMPORTANT REGISTRATION DETAILS

**EARLY BIRD: DECEMBER 21, 2007**

**Discounts.** It is important to be aware that as an STA member in good standing, you qualify for lower association rates. Secondly, 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.



## Cover Story Continued...

During the 1860s, players alternated between left and right-hand circuits on a weekly basis. Gradually the right-hand circuit (anti-clockwise) became more popular although the clockwise route was still used occasionally until the 1970s. Since 2002, the Old Course has been opened for play in reverse for a few days in April. The physical features of the Old Course include 112 bunkers, some of which are particularly famous, e.g. Hell on the long 14th, Shell on the 7th and Strath on the short 11th. The double greens are another special feature where a golfer can face a putt of up to 100 yards.

David Anderson, known as Old Daw, keeper of the links until 1855, created a second hole on the massive 5th and 13th green to avoid confusion between outgoing and incoming golfers. Now the only single greens are the 1st, 9th, 17th and 18th. The individual who played the most significant role in shaping the course was four times Open Champion Tom Morris, appointed by the Royal and Ancient Golf Club as Custodian of the Links for nearly 40 years (1865–1903). With the help of his assistant David Honeyman, he widened the fairways and the greens, and added sand to encourage the fine links grasses such as fescue and bent. He also built the 1st and 18th greens as they are today.

Today the course is still managed according to the tradition of Old Tom with indigenous grasses encouraged, plenty of sand and minimal use of pesticides and fertilizer.

The session *Maintaining the Links at St Andrews – Past and Present* is scheduled for February 19, opening day of the OTS. Visit the symposium website [www.open.uoguelph.ca/OTS](http://www.open.uoguelph.ca/OTS) for all the details.

— *St Andrews info from*  
[www.standrews.org.uk](http://www.standrews.org.uk)

## FACTS ABOUT ST ANDREWS LINKS

FIND OUT MORE AT OTS 2008 WITH KEYNOTE GORDON MCKIE

“One day I’ll be able to tell my kids and my grandchildren about what happened to me at the Old Course. Without a doubt, I like it best of all the Open venues. It’s my favourite course in the world. To win at St Andrews is the ultimate.” — *Tiger Woods*

### Links Trivia

- St Andrews Links is the largest public golf venue in the world.
- St Andrews Links Trust manages the courses and all the facilities.
- All six golf courses at St Andrews Links are public – open to all golfers.
- There are five 18 hole courses and one nine hole course, giving 99 holes in all.
- All five 18 hole courses can be booked in advance.
- Over 200,000 rounds are played in total on the six courses – 60% local; 40% visitor.
- Around 42,000 rounds a year are played on the Old Course.

“If I had ever been sat down and told I was to play there and nowhere else for the rest of my life, I should have chosen the Old Course at St Andrews.”

— *Bobby Jones*

- The floodlit practice centre has 12 covered bays, 36 open bays, a short game area specially designed for links golf with greenside and fairway bunkers, three practice greens and a putting green. It was extended and upgraded in winter 2005/06.
- It employs around 250 people in the high season.
- There are five teams of greenkeepers – one team for each 18 hole course.
- The turf nurseries cover around 46 acres.
- A state-of-the-art £2.5m irrigation system began operating in 2001.
- There are two clubhouses which are open to the public.
- The Trust is developing a seventh course to meet rising demand.
- The Trust is a charitable organization so all surpluses are reinvested into the Links.

### Facts about St Andrews Links Trust

The Links Trust was set up in 1974 by an Act of Parliament to manage and preserve the Links as a public park. → **page 8**

The Trustees designated the Links for playing golf. Previously, the land was owned by St Andrews Town Council and the courses run by a committee made up of members nominated by the Council and the Royal & Ancient Golf Club. Following local government reorganization, St Andrews Town Council was disbanded and the Trust was created by a special Act of Parliament to ensure continuity in running the courses. The Town Council was replaced by North-East Fife District Council in 1975 which, around 20 years later, was replaced by Fife Council, based in Glenrothes.

**“This is the origin of the game. Golf in its purest form, and it’s still played that way on a course seemingly untouched by time.”**  
— *Arnold Palmer*

The Links Trust is a self-financing charitable trust with two accountable bodies – the Trustees and the Links Management Committee (LMC). Each group is made up of eight volunteers nominated by Fife Council and the R&A. The local member of Parliament is automatically a trustee and another member is nominated by the Secretary of State for Scotland. The role of the Trustees is to set policy, manage new developments and ensure that the Links are run according to the Act of Parliament. The LMC is responsible to the Trustees for running the golf courses and facilities.



**“I wish that every man who plays golf could play St Andrews once.”** — *Gene Sarazen*

**“If a golfer is going to be remembered, he must win the title at St Andrews. At last, it is my greatest dream come true.”**  
— *Jack Nicklaus*

**“Victory anywhere is always sweet, but to win at St Andrews is so special it rises above everything else.”** — *Seve Ballesteros*

**“It will always be the greatest because nowhere else is there the turf that you have here.”** — *Peter Thomson*

**“If I could play one course for the rest of my life it would be St Andrews. Every day it’s a different course, depending on the conditions. You never have the same shot twice.”** — *Stewart Cink*

**“The way the wind changes, it’s a different course every time. I think 17 is a great hard hole, but 18 is one of the best holes I’ve ever seen. You just can’t do anything wrong on 18; you’ve got to birdie it every time. Only you can’t.”** — *Pete Dye*

**“Some people love St Andrews as a monument. I love it as a golf course. With man-made courses, someone designed the best way to play a hole. At St Andrews you figure that out yourself.”**  
— *Tom Doak*



# SIX STEPS TO RELIEVE THE MOST COMMON MEMORY WORRY

SORRY, WHAT'S YOUR NAME AGAIN? • ROGER SEIP • FREEDOM SPEAKERS AND TRAINERS

With the conference season almost upon us, memory consultant Roger Seip shares his expertise on helping people learn how to remember and associate names and faces. In this article, he makes it easier than most of us thought possible – read on – and enjoy!

If you live in fear of forgetting prospects' names, sometimes within mere seconds of being introduced to them, you're not alone. Surveys show that 83% of the population worries about their inability to recall people's names. Ironically, while most of us hate having our names forgotten or mispronounced, the majority of us claim, "I'm just not good at remembering names or putting faces together with names," when we meet people again.

If you have difficulty recalling names, you know the two most common scenarios are forgetting the name instantaneously upon being introduced to someone new, and failing to recall the name of someone you've met and interacted with in the past and should know but just can't pull up from your memory bank.

Forgetting names becomes more than just an embarrassing social faux pas in sales. Straining to recall a name can so preoccupy you that you are unable to fully pay attention to your client or prospect. He or she may perceive you not only as unfocused and easily distracted, but also as not very interested if you're unable to devote your full attention to him or her. Even worse, if you forget the name of a client with whom you've worked in the

past, he or she may view your memory lapse as a betrayal of trust, which can cost you a great deal of money if that client severs the relationship.

## Integrating Learning Styles to Improve Name Recall

While common, this frustrating phenomenon can be relatively easy to overcome when you commit to taking steps to improve your memory. The most important key to really effective learning of any kind is understanding that there are three learning styles: 1) visual, 2) auditory, and 3) kinesthetic (physically interactive). The more you can apply all three of these styles to a task, the more quickly and solidly you will learn anything.

Practice each of the following steps to improve your name recollection in every sales and social situation.

*Step 1.* When you're first introduced to someone, look closely at his or her face and try to find something unique about it. Whether you find a distinctive quality or not is irrelevant; by really looking for a memorable characteristic in a new face, you're incorporating the visual learning style. A word of advice: if you do find something that really stands out about someone's face, don't say anything!



Within minutes of meeting someone new, it's generally a bad idea to say anything because you just might be thinking out loud something like, "Whoa! That's a huge nose!"

*Step 2.* The next step utilizes both auditory and kinesthetic learning styles. When you meet someone, slow down for five seconds and concentrate on listening to him or her. Focus on the prospect and repeat his or her name back in a conversational manner, such as, "Hello, George. It's nice to meet you, George." Also make sure to give a good firm handshake, which establishes a physical connection with the prospect.

*Step 3.* Creating a mental picture of someone's name incorporates the visual sense again. Many people have names that already are pictures. Consider Robin, Jay,



**JOHN BLADON, TECHNICAL SALES REPRESENTATIVE**

Tel: 519.757.0077 • Cell: 519.574.2013

E-mail: jbladon@agriumat.com

**PRODUCT INFO LINE 1.800.461.6471**

**Head Office: 10 Craig Street, Brantford, Ontario N3R 7J1**



**PLANTPRODUCTS**

Turface 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



**People can't remember names for one main reason:** they're not paying attention. The most important thing to know about this memory process is that even when it doesn't work, it still works! It forces you (and maybe only at a subconscious level) to try to remember.

Matt or Dawn to name just a few. Some names will require you to play with them a bit to create a picture. Ken, for example, may not bring an immediate image to your mind, but a "can" is very close. Or you might envision a Ken doll. The point is not to create the best, most creative mental image ever, so don't get caught up in your head during this step of the process, thinking, "Oh, that's not a very good picture, what's a better one?" The worst thing you can do when learning is to stress yourself out and over think the process. If an image doesn't come to you right away, skip it and do it later. You'll undo all of your good efforts if you're staring dumbly at your prospect, thinking, "Hold still for

a minute while I try to turn your name into a picture!"

*Step 4.* Once you've identified a mental image that you can associate with a person's name, the next step is to "glue" that image to the person's face or upper body. This bridges that gap many people experience between being able to recall faces but not the names that belong to those faces. If you met a new prospect named "Rosalind," for example, you might have broken her name down into the memorable image of "rose on land." Now you must create a mental picture that will stick with you as long as you need it and pop into your head every time you meet her; this should be something fun, even a little odd, that will bring "rose on land" to mind when you see her face. You

might even imagine something totally absurd such as her buried up to her neck in earth, with roses scattered around her, for example. Because you created the image, it will come up next time you see her and enable you to recall her name.

*Step 5.* At the end of the conversation, integrate auditory learning by repeating the prospect's name one more time, but don't over use someone's name in an effort to place it more firmly in your mind. Use the prospect's name only at the beginning of the conversation, and then again at the end. If you feel like you can do so naturally, you might insert the person's name once or twice in a natural fashion during the course of the conversation as

well. But if you've ever had a stereotypically pushy salesperson use your name a dozen times in a five minute conversation, you know how annoying, even weird, this can be, so don't over do it.

*Step 6.* Writing is a form of kinesthetic learning; you're getting a part of your body involved in the learning process. So if you're really serious about wanting to remember people's names for the long term, keep a name journal or a log of important people you meet, and review it periodically.

### **Forget Me Not; It's the Effort that Matters Most**

The most important thing to know about this memory process is that even when it doesn't work, it still works! For example, if you get stuck trying to make a picture out of someone's name, skip it for now. The next day, when you have a chance, give the matter a few minutes of concentrated thought. If you still can't get a picture, stop and take up the matter a week later. Even if you're still unsuccessful at creating a mental image, you've thought about the prospect's name so much, there's now no way you'll ever forget it! So you've actually accomplished what you set out to do in the first place.

People can't remember names for one main reason: they're just not paying attention. This process forces you to think. If, for example, you struggle with the step of creating a mental picture, the other steps – looking at the prospect closely, shaking his or her hand confidently and repeating the name a few times – are easy to do, will solidify the name in your memory and will ultimately convey a positive image of you to clients and prospects. That positive image will certainly make you memorable to prospects, bringing your name and business to the forefront when they are considering your type of products. Chances are it will help you to close more deals and increase your bottom line. ♦

*Turf News*, Volume 30, Number 1, Jan/Feb 2007, published by Turfgrass Producers International. Roger Seip can be reached at 1-888-233-0407, email [info@deliverfreedom.com](mailto:info@deliverfreedom.com), online at [www.deliverfreedom.com](http://www.deliverfreedom.com)

1987-2007  
CELEBRATING  
★ 20 YEARS ★

## STA Member Profile

STA Current President Gord Dol, Dol Turf Restoration Ltd.

**1. You are the current president of the Sports Turf Association whose term is ending at the association's annual general meeting in February, 2008. What is your role in the turfgrass industry?**

Andrea and I are the owners of Dol Turf Restoration Ltd. Dol Turf Restoration is a company that specializes in professional sports field and golf course work including artificial turf. We currently employ approximately 40 people in peak season.

**2. What is the biggest challenge in your job?**

Managing multiple projects with tight timelines, incorporating weather delays and other elements beyond our control.

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

Seeing the finished product. I feel a great deal of pride going back to a facility that we have constructed or restored and watching people, especially kids, playing and enjoying a safe field.

**4. What is the biggest misconception about your job?**

That owning a business is easy. You are constantly juggling work and home schedules. There never seems to be enough hours in the day.

**5. What is your educational/employment background?**

After finishing school, I worked for many years in a family sod business. At the time, Dol Brothers Sod was one of the largest sod operations in Ontario. In 1993, I left the family business and started Dol Turf Restoration Ltd.



**6. Tell us about your family, your hobbies and favourite past times.**

I am married and have four kids. Andrea (my spouse) works in the business managing accounting and human resources. Andrea is also the treasurer of our local hockey association. Matthew (21) is in the armed forces now stationed at CFB Petawawa. Patrick (15) and Eric (13) are actively involved in hockey and ball hockey. Patrick is also a referee in the hockey association. Colleen (12) participates in swimming, soccer and horseback riding. I am also involved in both the hockey and ball hockey associations as a coach, trainer as well as many other volunteer tasks in our community. I enjoy being active in local sports either coaching or as part of the coaching staff. In the summer I also play in local (beer league)

baseball. During the winter months, I like to spend time on the trails snowmobiling.

**7. How has the industry changed and in what direction(s) would you like to see the industry, as a whole, move towards?**

Pesticides, over use of fields, and finding enough qualified people are a big challenge. More and more, we are losing the tools that we need to maintain safe sport fields.

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

Networking! The Sports Turf Association is a well educated group of sports turf professionals who love their jobs. We are always trying out new products and procedures in maintaining our fields. The networking that happens during and outside our functions helps us all learn and be better sports turf managers.

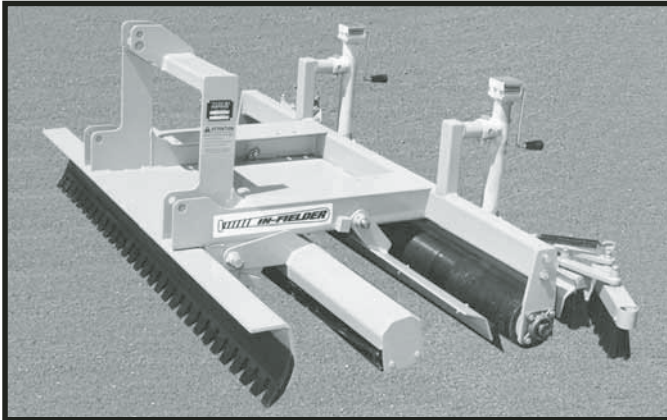
**9. What would your advice be for future presidents of the STA?**

Go for it! I have found that being the president of this association and being part of the board to be very rewarding. At times it may seem like a daunting task with the many other pressures that life throws at us, but working with and meeting so many professional people makes it all worthwhile. ♦

### QUOTABLE QUOTE

Leadership and learning are indispensable to each other.

~ John F. Kennedy, 1917-1963  
From speech prepared for delivery in Dallas the day of his assassination



## REIST INFIELDER

72" width • Floating clod breaking pulverizer roller & leveling bar • 6 section packer roller, reduces skidding during turns & comes with a **5 YEAR WARRANTY**  
 Also features the first in spring loaded wing brushes  
**OPTIONAL** 48" width available & tow hitch with adjustable wheels  
 The **BEST WARRANTY** in the industry.



## REIST AERASEEDER

Comes in widths of 48", 72" & 96"  
 With the largest seed box capacity  
 The 72" will give you over 1700 perforations per square yd • The base unit comes with front cone spike or knifing tine roller and a solid rear packer roller  
 Seed is distributed through our ground drive mechanism  
**OPTIONAL** rear cone spike or knifing tine roller



Visit our website [www.ReistIndustries.com](http://www.ReistIndustries.com)  
 to preview a video presentation of our equipment.

**1-877-467-3478**



# Quality Turf Seed Specialists

*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

### PRODUCT MANAGER

Cathy Wall • Cell: 416-802-4391

*Exclusive Distributors* for hydraulic mulches featuring  
 Flexterra FGM • Jet Spray • FloccLoc Tackifier  
 Futerra F4 Netless Erosion Control Blanket

1-877-856-7333 • 905-856-7333 • [www.qualityseeds.ca](http://www.qualityseeds.ca)



## TURF TRADES

Employment Bulletin Board @  
[www.sportsturfassociation.com](http://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 plus gst for the initial 60 day period. Payment by cheque (Canada only), American Express, MasterCard or Visa must accompany the job description.

# USING COMPOSTS TO IMPROVE TURF PERFORMANCE

PETER LANDSCHOOT • PROFESSOR OF TURFGRASS SCIENCE • PENN STATE

If you have been searching for ways to improve turf performance in marginal or poor soils, consider using compost as a soil amendment. In clay soils, good quality compost will improve structure, reduce surface crusting and compaction, promote drainage, and provide nutrients. In sandy soils, compost increases water and nutrient retention, supplies nutrients, and increases microbial activity. These improvements promote faster turf establishment, improved turf density and colour, increased root growth, and less need for fertilizer and irrigation. In many cases, compost production sites are located near areas of intensive turf use, providing a readily available and reasonably priced source of organic matter. Depending on your location, compost may be less expensive than topsoil and peat. When considering costs, keep in mind that compost usually produces better turf than equal or greater amounts of topsoil.

**T**he following are some basic guidelines for evaluating the suitability of a compost for use on turf.

## Appearance

Although the appearance of compost will differ slightly among products, the colour should resemble a dark topsoil and have a light, crumbly structure. It should be free of large stones, large pieces of wood, trash (especially glass), and other objectionable objects.

## Particle Size

The size of compost particles can vary depending on the method of application

and how the turf is used. For use in surface applications on athletic fields or lawns, a compost should be able to pass through a 3/8-inch screen. Composts with slightly larger particles can be used as soil amendments if thoroughly tilled into the soil prior to seeding or sodding.

## Odour

A good quality compost should have an “earthy” aroma (similar to that of a forest) and should not emit peculiar or offensive odours, such as those associated with ammonia or sulfur. These odours may be an indication that the compost is not mature (not fully composted). Immature

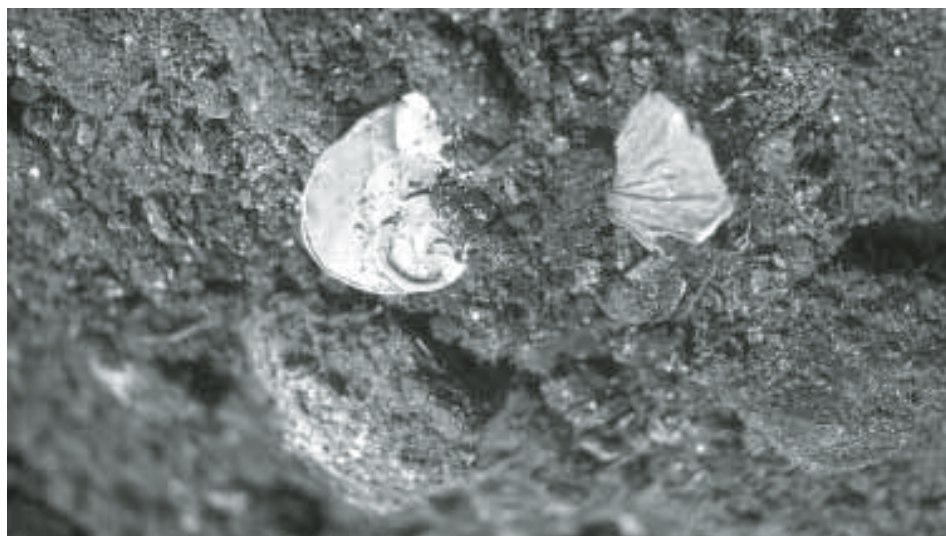
## Some Selection Guidelines

Before selecting a compost, realize that not all products are alike. Composts are made from many different materials, including household refuse (municipal solid waste), leaves and grass clippings (yard trimmings), sewage sludge (biosolids), animal manure, paper mill by-products, and food residuals, to name a few.

Compost quality varies depending on the source and how it is produced. Because of differences in quality among composts, it is important to have some basis for determining suitability for use on turf. Ideally, the product in question has been field tested at a university and/or has been used successfully by other turf managers. Using a compost with a proven track record can take some of the guesswork out of the selection process, provided that the product is consistent from batch to batch.

Whether you are using a field tested product or one that has never been used on turf, obtain a sample of the compost prior to use and examine it for undesirable objects and peculiar or offensive odours. If the producer does not have an analysis of chemical and physical properties, submit a representative sample to a laboratory that will conduct appropriate tests and provide recommendations that you can understand.

**Abjacent:** Composts should be free of large stones, large pieces of wood, trash (especially glass) and other objectionable objects.



composts may have adverse effects on turf and should not be used.

### Weed Seeds

If the product has been properly composted and stored, weed seed contamination will not be a problem. The composting process should destroy nearly all viable seeds. Occasionally, temperature control in some composting operations is not monitored adequately and some weed seeds survive. Another source of contamination is weeds growing on compost piles that have been stored outdoors for long

faces. Tilling wet material into soil may result in poor mixing and poor establishment. Wet composts also are heavy and difficult to handle. Dry composts (less than 20% moisture content) are easy to handle and spread easily, but may produce excessive dust. On windy days, this dust may leave a film on the windows or siding of nearby buildings. The dust also may be inhaled or may get into the eyes of the equipment operator. Dry composts that are high in organic matter tend to “float” on the soil surface during attempts to incorporate them. In this case, the equipment

contains mostly decomposed, humus-like material or undecomposed organic matter, such as wood. Some test labs report a value called “ash content.” Ash is the mineral matter that remains after the compost sample has been subjected to extremely high temperatures in a furnace. Assum-

---

Using a compost with a proven track record can take some of the guesswork out of the selection process. Try to find a product that is consistent from batch to batch and preferably one that has been used successfully by other turf managers.

---



periods. If these weeds are not controlled, they can deposit seeds in the compost. Although a few weed seeds do not necessarily preclude the use of a compost as a soil amendment for turf, composts containing large amounts of weed seeds are unacceptable. If possible, inspect the production site to make sure that weeds are not growing in or around the compost piles.

### Moisture Content

The moisture content of a compost is important when uniform application and good mixing with soil is desired. Composts with moisture contents between 30-50% are usually ideal for handling, surface applications and soil incorporation. Wet composts (greater than 60% moisture content) tend to form clumps and do not spread evenly when applied to turf sur-

operator may have to spend more time and effort working the material into the soil.

### Organic Matter & Ash Content

When using compost as an organic matter supplement, keep in mind that not all of the product is organic. In fact, some products contain less than 50% by weight of organic matter. Organic matter content can be determined by a lab test, but the most common procedure employed by laboratories considers everything that is combustible as organic matter (including wood chips, bark, leaves and plastic). Hence, a lab test may not tell you everything about the *quality* of the organic matter.

Although it is impossible to determine how much organic matter is present simply by looking at the product, a visual examination may tell you if the compost

ing that everything burned off in the furnace is organic matter, the percentage of ash in the sample can be subtracted from 100 to provide an estimate of percent organic matter. For example, an ash content of 20% indicates that there is an estimated 80% organic matter in the sample. Keep in mind that this process only *estimates* organic matter. In reality it measures weight loss of any material that is combustible at high temperatures.

### Carbon-to-Nitrogen Ratio

The amount of carbon (C) relative to the amount of nitrogen (N) in a compost is an important indicator of nitrogen availability. The carbon-to-nitrogen (C:N) ratio of a compost should equal or fall below 30:1. If it's above 30:1, soil microorganisms can immobilize nitrogen, making it unavailable to the turf. Fortunately, most commercial composts have C:N ratios below 30:1.

### Nutrients

When compared with fertilizers, composts generally contain low amounts of nutrients. Whereas a small amount of quick-release nitrogen (ammonium) is present in some composts, most nitrogen is in the organic form and is slowly available to turf. Studies of biosolids composts show that only about 10% of the nitrogen is available to plants during the first growing season. Little is known about the nitrogen release characteristics of other

composts. Other nutrients, such as phosphorus, potassium, calcium and magnesium, can be present in significant quantities in composts. Some composts, however, may contain very low concentrations of one or more of these nutrients, and fertilizer supplements may be required to meet the turf's nutrient needs.

Typically, large amounts of compost must be applied to supply all or most of turf's nutrient requirements. This is difficult to achieve with surface applications since only a small amount of material can be applied in a single application. However, a 1- to 2-inch layer of compost tilled 4 to 6 inches into a soil can supply all of the nutrients necessary for turf growth and development for an entire year and possibly longer. The amounts of nutrients supplied by a compost depend on the source (animal manure composts are typically higher in plant nutrients than yard trimmings composts) and the availability of the nutrients. More research is needed to determine the availability of nutrients from different composts.

### pH

Most composts have a pH of between 6.0 and 8.0, a range favourable for turf root growth. A few composts, however, fall outside of this range. The pH of a compost may be detrimental to turf when very high (greater than 8.5) or very low (less than 5.5). Extremes in pH may result in reduced availability of some plant nutrients and/or toxicity problems. In a turf establishment study at Penn State, seedling inhibition occurred following incorporation of a 2-inch layer of poultry manure compost (pH of 9.1) into a clay loam soil. It is likely that the high pH and presence of ammonium in the compost caused ammonia toxicity and subsequent death of the seedlings. Fortunately, most soils are buffered against rapid and drastic changes in pH, and even composts with extremes in pH may not alter the overall soil pH a great deal. To be on the safe side, however, try using materials with a pH as near to neutral (7.0) as possible.

### Metals

Composts made from biosolids often have higher metal concentrations than those made from other sources. Govern-

## GUIDELINES FOR CHOOSING A COMPOST

### Appearance, size and odour

Colour . . . . .	Brown to black
Size (surface applications) . . . . .	1/4 to 3/8"
Size (incorporated) . . . . .	1/4 to 1/2"
Odour . . . . .	"Earthy"

### Physical properties

Moisture content . . . . .	30 to 50%
Organic matter . . . . .	Greater than 30%
Ash content . . . . .	Less than 70%

### Chemical properties

Carbon:nitrogen ratio . . . . .	Below or equal to 30:1
Nitrogen . . . . .	0.5 to 3.0%
Phosphorus . . . . .	Greater than 0.2%
Potassium . . . . .	Greater than 0.2%
pH . . . . .	6.0 to 8.0
Metals . . . . .	Determined by government agencies
Soluble salts . . . . .	Depends on turf species, type of salt, concentration and application method. Consult test lab or other expert to determine how this will affect the turf.

**Note:** Use this information only as a general guide. Some composts have properties that do not fall within these guidelines yet are acceptable in certain situations. Others, though they may fit these criteria, may have serious drawbacks.

ment agencies have established maximum levels of metals in biosolids composts that are to be used for land application. Composts used for turf usually have to meet the same standards set for other crops. There are several biosolids composts that have been used successfully on turf in Pennsylvania that fall below the maximum allowable metal concentrations for land application.

### Soluble Salts

High concentrations of soluble salts may be present in certain types of compost, such as those made with spent mushroom substrates or animal manures. Excessive soluble salts can cause injury to turf by reducing water absorption, by toxicity or by a combination of both of these factors. A common question among turf managers concerning soluble salts is:

at what salt concentration will turf injury occur? The answer is that it depends on the *type* of salt, the salt tolerance of the turf species or variety, and the method of application.

Most soil laboratories can analyze composts for salt content. However, the salt concentration by itself may be somewhat misleading since the *type* of salt may be more important in determining potential plant injury. For example, salts containing sodium are more toxic to turfgrasses than potassium salts. Turfgrass species and varieties vary in their tolerance to soluble salts. Salt-sensitive grasses such as Kentucky bluegrass may be injured at concentrations of about 3 mmhos/cm in the germination and seedling stage (turfgrasses are particularly vulnerable in the early stages of growth). A moderately salt-tolerant grass, such as tall fescue, may not

be injured unless the compost has a higher salt level (greater than 6 mmhos/cm).

The method of compost application may also influence the degree of salt injury. When composts are incorporated into soils, the salt concentrations are greatly diluted. Irrigation further diminishes salt concentrations by leaching them out of the root zone. In a recent establishment study

---

A 1- or 2-inch layer of compost tilled 4 to 6 inches into a soil can supply all the nutrients necessary for turf growth and development for an entire year.

---

at Penn State, a spent mushroom substrate compost with a soluble salt content of 8.10 mmhos/cm was incorporated into a clay loam soil and irrigated daily until Kentucky bluegrass seeds germinated (approximately 20 days). Despite this high salt concentration, no noticeable seedling

inhibition occurred, presumably due to the dilution effect of soil incorporation and leaching. The salts were composed primarily of potassium and calcium, and the results might have been different if high levels of sodium were present. Surface applications of high-salt composts may cause injury to established grasses, especially during hot weather. Always irrigate to leach salts from the compost/soil mix immediately following surface applications to avoid the possibility of salt injury.

### Summary of Guidelines

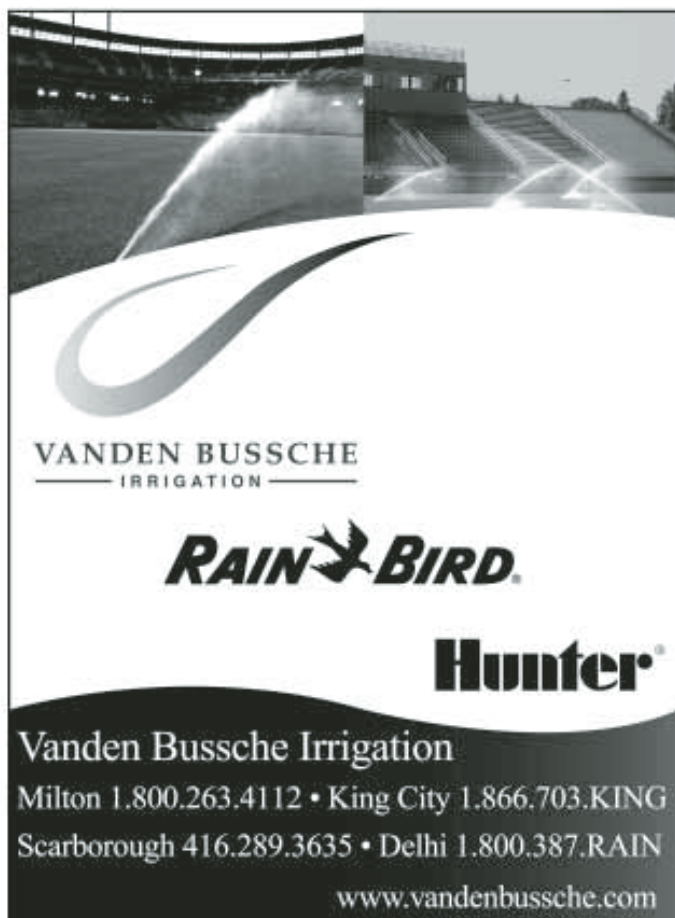
The preceding paragraphs serve only as a *general* guide. Some composts may meet these criteria but could have other properties that make them unsuitable for turf use. Others may have properties that do not fall within these guidelines, yet are acceptable for use in some situations. When choosing a compost as a soil amendment prior to seeding or for surface application, it is important that you are familiar with the product and how it will affect the turf. Try to find a product that is

consistent from batch to batch – preferably one that has been thoroughly researched and/or used successfully by other turf managers. If you are unfamiliar with the product, be sure to examine it for colour, objectionable objects, particle sizes and odours. It may be worthwhile to visit the site where the compost is stored to make sure it is not contaminated with weeds or weed seeds. Other important considerations are moisture content, organic matter content, C:N ratio, nutrients, pH, metals and soluble salts.

### METHODS OF APPLYING COMPOST

#### Soil Incorporation Prior to Turf Establishment

In most cases, composts are applied to the soil surface at a rate of between a 1-inch layer (approximately 3.1 cubic yards per 1,000 ft<sup>2</sup>) and a 2-inch layer (about 6.2 cubic yards per 1,000 ft<sup>2</sup>), then incorporated into the soil to a depth of 4 to 6 inches. In order to obtain maximum performance from your application, make



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

GREATER TORONTO, Mark A. Scenna, Sales Manager  
(416) 458-2396, marks@turfcare.ca

SOUTHWESTERN ONTARIO, Duncan Brewer  
Sales Representative, (905) 657-1745, duncanb@turfcare.ca

WESTERN ONTARIO, Craig McCutcheon  
Sales Representative, (519) 421-6593, craigm@turfcare.ca

EASTERN & NORTHERN ONTARIO, Bill Martel  
Sales Representative, (705) 627-3590, billm@turfcare.ca

Agrium  
Advanced  
Technologies

For Better Results.  
Naturally.

Milorganite

Cascade Plus  
Longer Lasting  
Water Infiltration

TURFONE™

TURF CARE PRODUCTS CANADA  
200 Pony Drive, Newmarket, Ontario L3Y 7B6  
Tel: 905-836-0988 Fax: 905-836-6442  
New Website! [www.turfcare.ca/agronomics.asp](http://www.turfcare.ca/agronomics.asp)



sure that the compost is mixed thoroughly with the soil and is not forming a layer at the soil surface. Depending on the product, this may require several passes with a rototiller.

The lower rate (1-inch layer) is better suited for marginally good soils and the higher rate (2-inch layer) for very sandy

---

Modified spreaders with conveyor belts and brushes mounted on the back are ideal for surface applications of compost.

---



soils, clay soils, or subsoils low in organic matter. We have found that if more than two inches are applied, it may be difficult to mix the material 4 to 6 inches into the soil. On clay or compacted soils, it is helpful to rototill the soil first, then apply and incorporate the compost.

Although high nutrient-containing composts, such as biosolids composts or composted animal manures, can usually supply enough nutrients for good establishment, some composts (such as those made from yard trimmings or municipal solid wastes) may require additional phosphorus and potassium as well as starter fertilizer for vigorous seedling growth.

Although many composts can raise the pH of slightly acid soils, soils with a very low pH (below 5.5) may require additional lime. If you plan to use a compost with a high soluble salt concentration, make sure to thoroughly irrigate the site after incorporation and prior to seed germination in order to leach the salts.

### Surface Applications on Established Turf

Composts are used frequently as surface applications (topdressings) on established turf. This practice provides a means of gradually incorporating organic matter into the soil without causing extensive disruption of the surface. The two most limiting factors associated with this practice are finding suitable application equipment and working the material into the soil. Since compost is light and bulky, a spreader with a large hopper is preferred. Modified manure spreaders with conveyor belts and brushes mounted on the back are

ideal for spreading compost over large areas. Conventional tractor-mounted fertilizer spreaders have been used successfully but may require many refills. If spreaders are not available, compost can be applied to the surface by spreading piles into a thin layer with a York rake or a grading blade. For applications over small areas, the compost can be spread with a shovel and worked into the turf with a leaf rake.

When applying compost as a top-dressing, it is important to apply a thin layer (about 1/4 inch) and work it into the soil. Successive applications of thick layers without soil incorporation will result in a build-up of organic matter at the soil sur-

face, which may cause rapid drying of turf roots and may form a layer that restricts root growth into the soil.

The best way to incorporate compost into the soil is through aeration. A good method is to apply the compost first, followed by several passes with an aerator equipped with hollow tines and a heavy drag mat attached. The drag mat will break up the cores and mix the compost with the soil, dragging some of the mix back into the holes. This operation is best performed during cool and moist seasons when grass is actively growing. Aeration and dragging can be stressful to turf during hot, dry weather. ♦

## SUGGESTED AMOUNTS OF COMPOST

(in cubic yards) per unit area to apply to established turf as surface applications or to till into soil prior to establishment

Units in square feet	Inches of compost applied				
	Surface application	Tilled into soil			
	1/4	1/2	1	1-1/2	2
1,000	1*	2	3	5	6
5,000	4	8	15	23	31
10,000	8	15	31	46	62
20,000	15	31	62	93	123
30,000	23	43	93	139	185
40,000	31	62	123	185	247

\*Amounts of compost in cubic yards rounded to the nearest whole numbers.

# WINTERKILL OF TURFGRASS

DR. KEVIN W. FRANK • DEPARTMENT OF CROP AND SOIL SCIENCES • MICHIGAN STATE UNIVERSITY

“Winterkill” is a general term that is used to define turf loss during the winter. Winterkill can be caused by a combination of factors including crown hydration, desiccation, low temperatures, ice sheets and snow mold. Because of the unpredictability of environmental factors and differences in other factors such as surface drainage, the occurrence of winterkill on turf is variable and can vary greatly from location to location.

## Crown Hydration

In general, annual bluegrass (*Poa annua*) is the most susceptible to crown hydration injury. During the warm days of late winter, annual bluegrass plants start to take up water (hydrate). Potential for injury exists when a day or two of warm daytime temperatures in late winter is followed by a rapid freeze. The most com-

---

To assess if damage has occurred, samples can be taken from turf areas, moved inside and placed in a warm, sunny area to see if the turf greens up.

---

mon time for winterkill associated with crown hydration and refreezing to occur is during the late winter and early spring when there is snowmelt or rainfall and then refreezing of the water that has not drained away. Crown hydration is a problem during these events because ice crystals can form in the crown of the plant, rupture the plant cells and ultimately cause the plant to die. Annual bluegrass is more susceptible to crown hydration injury than creeping bentgrass because it emerges from dormancy and begins taking up water. Creeping bentgrass remains dormant longer and, therefore, does not take up water and is not as susceptible to crown hydration injury during the late winter.

## Desiccation

Winter desiccation is the death of leaves or plants by drying during winter when the plant is either dormant or semi-dormant. Desiccation injury is usually greatest on exposed or elevated sites and areas

where surface runoff is great (Beard 1973). Winter desiccation injury to turfgrass in Michigan is normally rare, though sites similar to those described above can be prone to desiccation injury on a regular basis.

## Low-temperature Kill

Low-temperature kill is caused by ice crystal formation at temperatures below 0° C (32° F). Factors that affect low-temperature kill include hardiness level, freezing rate, thawing rate, number of times frozen and post thawing treatment (Beard 1973). Soil temperature is more critical than air temperature for low-temperature kill because the crown of the plant is in the soil. It is difficult to provide absolute killing temperatures because of the numerous factors involved. Beard (1973) provided a general ranking of low-temperature hardiness for turfgrass species that were autumn-hardened.

## Ice Sheets

Ice sheets are often blamed for killing turf when, in fact, it is crown hydration and subsequent refreezing that has resulted in the kill. The reason for the confusion is that as snow melts and refreezes creating ice sheets, the ice sheets are often in poorly drained areas where crown hydration can occur because of the stand-

ing water. As the ice sheet melts away, the area damaged closely mirrors where the ice occurred, and therefore, the conclusion is that ice sheets caused the kill. Beard conducted research on ice sheets on three turfgrass species: Kentucky bluegrass, creeping bentgrass and annual bluegrass. Kentucky bluegrass and creeping bentgrass survived 150 days of ice cover without significant injury; annual bluegrass was killed somewhere between 75 and 90 days of ice cover (Beard 1998). The author concluded that cause of death for the annual bluegrass was most likely from toxic gas accumulation under the ice sheet.

## Snow Mold

The two diseases commonly called snow mold are *Typhula* blight (gray snow mold) and *Microdochium* patch (pink snow mold). Gray snow mold requires extended periods of snow cover; pink



snow mold can occur either with or without snow cover. If snow mold injury is a recurring problem, preventive fungicide applications are the best control option.

## Steps in Recovery

To assess if damage has occurred, samples can be taken from turf areas, moved inside and placed in a warm, sunny area to see if the turf greens up. If there is no green-up within a couple of weeks, the turf was killed. Reestablishing turfgrass in damaged areas can be very challenging

in the spring because of the cool, cloudy conditions that often persist. Depending on the extent of damage, either seeding or sodding may be necessary to facilitate recovery.

In areas where the turf was killed in a manner that left well-defined margins between dead and living turf, it may be fea-

The interseeding process should continue weekly until the damaged area has recovered completely.

sible to strip dead turf and sod the area. In areas where the kill was more scattered, it may be easier to seed the area. Tools such as the Job-Saver aerator attachment, which produces numerous small, shallow holes, increase the success of an inter-seeding program. The interseeding process should continue weekly until the damaged area has recovered completely.

Keys to success for renovating winterkilled areas are to divert traffic from newly seeded areas, apply light fertilizer

## GENERAL RANKINGS

of low-temperature hardiness for autumn-hardened turfgrasses

Low-temperature hardiness	Turfgrass species
Excellent	Rough bluegrass, Creeping bentgrass
Good	Kentucky bluegrass, Colonial bentgrass
Medium	Annual bluegrass, Tall fescue, Red fescue
Poor	Perennial ryegrass

applications to stimulate growth, and irrigate to ensure that the seedbed or sod is moist throughout the establishment period.

— Michigan State Univ. Extension, *Bulletin E-0019TURF*, Oct. 2005, [www.turf.msu.edu](http://www.turf.msu.edu)

### Literature Cited

- 1) Beard, J.B. 1973. *Turfgrass: Science and Culture*. Englewood Cliffs, NJ: Prentice-Hall.
- 2) Beard, J.B. 1998. Winter ice cover problems? *TURFAX*. 9(1):1-2,5.

### 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. This is a great way to both support your professional association and enhance your resume!

**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](mailto:info@sportsturfmagic.com) [www.sportsturfmagic.com](http://www.sportsturfmagic.com)

**Bannerman**

**THE HOME OF SPORTSTURF MAGIC**

www.dolturf.com

# Dol Turf

RESTORATION | CONSTRUCTION | MANAGEMENT

www.dolturf.com



- SPORTS FIELDS
- GOLF COURSES
- SYNTHETIC TURF
- DESIGN BUILD

AERATION | SYNTHETIC TURF | DRAINAGE | FERTILIZING  
 IRRIGATION | LASERGRADING | OVERSEEDING | TOPDRESSING  
 POND EXCAVATION | CONSTRUCTION | RECONSTRUCTION

**1-800-794-9664    info@dolturf.com**

"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



## SAFE OPERATING PROCEDURES FOR SNOW BLOWERS

D. MURRAY CAMERON, OALA • MANAGER OF PARKLANDS AND GREENWAYS • OPERATIONS DEPARTMENT • CITY OF GUELPH

**A**s it happens every year, we'll be feeling the effects of 'Old Man' winter before too long and will be well entrenched in our respective activities related to winter control. Preparing for winter snow events includes making sure our motorized equipment has been fully serviced and deemed reliable for the coming season. Along with ensuring the likes of snow blowers and sand/salt spreaders are fully operational, have you taken the time to train your staff as to the safe operation of the equipment they will be expected to use? If not, now is the time to put such measures into place.

The development of written standard operating procedures for workplaces is imperative. The Occupational Health and Safety Act states that a supervisor shall advise a worker of the existence of any potential or actual danger to the health or safety of the worker of which the supervisor is aware, and that the supervisor will take every precaution reasonable in the circumstances for the protection of a worker.

Before it's too late, you are encouraged to develop standard operating procedures (SOPs) for workplace tasks or use of equipment that has the potential to cause critical injury and/or occupational illness.

The responsibilities of hiring and training new and returning staff for our spring operations will be upon us sooner than we may like to think. Now is the time to plan for and demonstrate due diligence by ensuring your staff will be adequately trained and signed-off on standard equipment and/or operating procedures. With a safer winter operation in mind, the example of a *Snow Blower SOP* has been provided for your reference. Please revise it as you see fit to reflect the safe operation of your specific make and model of equipment. ♦

**SNOW BLOWER SOP ON NEXT PAGE**

 **ZANDER**  
SOD CO. LIMITED

*Top Quality Turf Products*

No. 1 Kentucky Bluegrass \* Bentgrass \* Extreme Fescue

**(877) 727-2100 (416) 364-5700**

www.zandersod.com



**EQUIPMENT LTD.**  
ISO 9001 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

# Standard Operating Procedure

By designing an SOP for every piece of equipment, the message is loud and consistent for every employee. The following is a seasonal example.

## WARNING!

This Safetygram is designed as a tool to be used in conjunction with the operator's manual in the safe operation of the **walk behind snow blower**. Further site training and experience are necessary for competent operation.

## SAFE PRACTICES

- **DO NOT USE** equipment unless trained.
- If equipment is damaged or malfunctions, **DO NOT USE**. Report to your supervisor immediately.
- **DO NOT REMOVE** or circumvent any safety devices on the equipment.
- **ALWAYS WEAR** prescribed personal protective equipment.
- **FAMILIARIZE** yourself with the operating manual before use.

# Snow Blower Walk Behind

## PERSONAL PROTECTIVE EQUIPMENT



- Green patch safety boots
- Gloves (for inspection)
- Warm seasonal clothing
- Follow legislations and use P.P.E.
- I.E. (safety vest, reflective striping, safety glasses)

## PRE-USE INSPECTION & MAINTENANCE

- Pre-use inspection of unit.
- Check engine oil and fuel levels.
- Check for loose or worn parts.
- Adjust runner to allow 1/8" (3mm) to 1/4" (30mm) clearance between scraper blade and uneven or loose gravel surfaces.
- With the key in STOP position, squeeze Auger Clutch Lever to engage position pull the Recoil Starter Handle. If you cannot pull the handle then the impeller may be frozen and you may have to move the unit to a warm area to thaw.
- If unit is equipped with operation lights, check for proper operation.
- After starting the snow blower, test all controls that operate the blower. Check the drive clutch, the auger clutch and the chute adjustment. When disengaged the clutches should quickly stop the auger, impeller and drive wheels.
- Keep the locking pin in the right wheel hub when blowing snow for best traction.

## CAUTION

- Do not operate this equipment with loose clothing or long hair that might get caught in rotating parts.
- If the unit gets clogged shut the engine off before clearing.
- Remember that your surrounding area can change its structure in seconds and will not be the same as you remember it on your last pass just seconds ago.
- Be always aware of other traffic in your vicinity.
- Allow the engine to cool before refuelling.
- Obey safety stickers on the unit.



## STARTING PROCEDURE

Turn the discharge chute straight ahead. Make sure the traction and attachment clutches are fully disengaged. Push the primer bulb 2 or 3 times. If the engine is cold, apply the choke. Set the throttle to the starting position. Insert the key and push to the RUN position. Pull the rope in a continuous full arm stroke. If using the electric start, follow the first six steps listed above then push the start button. Do not hold the start button for more than 15 sec.

## OPERATING PROCEDURE

- First do a visual inspection of area to remove snow.
- Check area for obstacles, bystanders, wind direction, objects that may damage the unit or get thrown by accident and property that may be damaged by thrown snow or other projectiles.
- Have a plan in your head before you start blowing snow.
- Engage the auger clutch with the unit clear of snow. Now engage the drive clutch, the auger will remain engaged until the drive clutch is released.
- Increase the throttle to full for normal operation.
- Transporting should be done at a lower throttle.
- Always adjust the discharge chute for height and direction before engaging the auger.
- Slow down before changing direction.
- Release the drive clutch to stop the unit and allow the auger to run for a short time to let it clear and avoid freezing. Throttle the engine down before shutting it off with the key.

## TRANSPORTATION

Choose a transport gear that you are comfortable with. Do not transport at full throttle. Do not engage the auger clutch for transporting. Secure the unit on a trailer or in a truck for transporting the unit from site to site.



# 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



Buy Direct From the Manufacturer!

**Call 1-800-837-8961**

[www.covertchfab.com](http://www.covertchfab.com) • [sales@covertchfab.com](mailto:sales@covertchfab.com)

## Your Homefield Advantages



**MAR-CO**  
CLAY PRODUCTS LTD.  
[marcoclay.com](http://marcoclay.com)  
1-800-950-2555

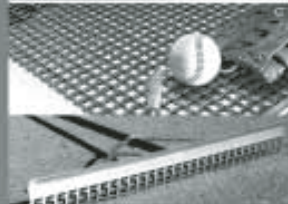
### SPORTS CLAY



### TURF SERVICES



### TOOLS & ACCESSORIES



### CONSTRUCTION





*Happy Holiday Season from The Staff at Turf Care!*

### **The New Groundmaster®7200**

Introducing the first zero radius turn mower that doesn't hibernate when the snow flies. The patent-pending POLAR TRAC™ system converts the mower to a snow removal machine with rubber tracks and a heated cab – That's Groundmaster Versatility. A quick connection system allows you to switch between snow blower, rotary broom, angled snow blade and V-plow.

For more information, contact your Turf Care Sales Representative.



## **TURF CARE PRODUCTS CANADA**

200 Pony Drive, Newmarket, ON L3Y 7B6 • Tel: 905-836-0988 • Fax: 905-836-6442 • [www.turfcare.ca](http://www.turfcare.ca)  
Mississauga • Scarborough • Gloucester • London