

Sports Turf Manager

FOR BETTER, SAFER SPORTS TURF. SPRING 2014. VOL. 27. NO. 1.

Introducing Sports Turf Canada

The new face of the Sports Turf Association

Guelph, ON – At the recent annual general meeting, members of Sports Turf Association Inc. (Sports Turf Association) voted to continue the provincial not-for-profit corporation into the federal jurisdiction. The result? Updated letters patent, revised and updated governing by-laws, and the introduction of a now Canada-wide organization. As part of this renewal process the Sports Turf Association intends to become known as Sports Turf Canada, registering Sports Turf Canada as a trade style name.

The Sports Turf Association launched a branding and marketing review in 2013 examining its core values, positioning statements and brand through discovery meetings and phone and email interviews with members, stakeholders, the board of directors and staff. During this process the necessity for a more

SPORTS  **TURF**
CANADA

fitting corporation status, together with a title more reflective of its membership was confirmed.

Paul Gillen, now association past president, explains, “The nucleus of members of the Sports Turf Association has, since its inception in 1987, been based in Ontario. However we have long-supported sports turf managers

from coast to coast. The transfer of our corporate identity into the federal domain recognizes more formally our dedication to the promotion of better, safer sports turf across the country.”

First identified as a goal at the inaugural meeting of the association, the emergence of a more national profile was strengthened in 2009 with the recognition of the Sports Turf Association as the Canadian International Affiliate Organization of the American Sports Turf Managers Association. It continued



Tennessee Propedo (L), newly elected president of Sports Turf Canada with first association president Michael Bladon (1987-1989).

CONTINUED INSIDE ON PAGE 6

Inside Features

7 COMMUNICATING WITH OUR USER GROUPS A summary of a group session held at the 2014 Ontario Turfgrass Symposium.

12 MEMBER AND FACILITY PROFILE Meet Roger Macklin, North York District, City of Toronto.

18 WHAT'S THAT ORANGE STUFF ON MY SHOES? An examination of rust diseases on turfgrasses.



SIMPLISTIC LINES^{INC.}

Direct equipment manufacturer
and on field experience since 1999

NEW

GPS Autopilot Cut
and Line Painting System
(available without
GPS Control)



Walk Behind
Paint Liner



ENVIRONMENTALLY FRIENDLY BULK PAINT SERVICE



An authorized Canadian distributor for PEVO products.



"The **ART** of Sports Field Marking"

519-348-0653 info@simplisticlines.com

Sports Turf Manager

FOR BETTER, SAFER SPORTS TURF. SPRING 2014.

**“The first day of spring is one thing, and the first spring day is another.
The difference between them is sometimes as great as a month.” ~ Henry Van Dyke**

SPORTS  **TURF**
CANADA

WHAT'S ONLINE
SportsTurfCanada.com

Inside this issue...

REGULAR COLUMNS, DEPARTMENTS & SMALL FEATURES

4 The President's Desk. Great change for a great future!

6 Event Calendar. Courses, Scholarships, Symposiums.

Opinions expressed in articles published in Sports Turf Manager are those of the author and not necessarily those of Sports Turf Canada.

Deadline for Summer 2014 Sports Turf Manager: May 23

Your email address must be registered with us to log-in to the Members Only Section of our website.

From our annual general meeting

- Minutes of the meeting March 6, 2014 including 2013 association highlights and financial statements
- Revised and updated governing by-laws

Sports Turf Manager

Volume 27, Issue 1, ISSN 1201-3765

is the official publication of

SPORTS TURF CANADA

328 Victoria Road South
Guelph, ON N1L 0H2

Tel: (519) 763-9431

Fax: (519) 766-1704

E-mail: info@SportsTurfCanada.com

Web: SportsTurfCanada.com

BOARD OF DIRECTORS

PRESIDENT Tennessee Propedo

VICE PRESIDENT Tab Buckner

PAST-PRESIDENT Paul Gillen

SECRETARY Jason Inwood

TREASURER Ben Tymchyshyn

EXECUTIVE MANAGER Lee Huether

DIRECTORS

Bill Clausen, Gord Dol, John D'Ovidio,
Terry Henderson, Gord Horsman,
Roger Macklin, Ken Pavely, Paul Turner,
David Warden

SPORTS TURF MANAGER

is published quarterly by Sports Turf Canada for free distribution to its membership. An annual subscription may be obtained for \$129/year. Please direct advertising inquiries to Lee Huether at the STA office.

EDITORIAL COMMITTEE

Ken Pavely, Ben Tymchyshyn
and Lee Huether

PUBLISHER

Jackie Ranahan

Mach One Communications

Tel: (519) 846-0446

E-mail: jackie@thinkmachone.com

CANADA POST PUBLICATIONS MAIL SALES AGREEMENT No. 40031883

SPORTS TURF CANADA OFFICE HOURS

Staff are in the office from 9:00 am to 2:00 pm Tuesday through Friday. 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.

4 Spring 2014 Sports Turf Manager

President's Desk

BY TENNESSEE PROPEDO

As we withstand one of the coldest winters on record, things at the Sports Turf Association have been heating up. At our annual general meeting the membership voted to expand our horizons resulting in the STA becoming Sports Turf Canada. Our direction and focus will remain the same only now we will be the recognized voice of the sports turf industry in Canada. With our alliance with the Western Canada Turfgrass Association and our strong following in Atlantic Canada we have now become a truly coast to coast organization. Please stay tuned for educational and trade forums that we are planning to bring to the different regions across Canada as we move forward.

Also at our AGM a new board of directors was voted in for the upcoming year. Some familiar faces are leaving and new ones joining us. It is my extreme honour to thank Andrew Gaydon and Bob Kennedy who are leaving, for their service, dedication and vision while serving on the STA board of directors.

Andrew has been on the board since 1999, rising through the ranks to become association president in 2004-2005, and most recently holding the position of secretary. He participated in many working groups including the editorial committees of both the Sports Turf Manager and the Athletic Field Construction Manual, field day committee, nominations chair and the executive committee of the Ontario Turfgrass Symposium.

Bob joined the board of directors in 2006 and was often the face of the association chairing field days and sessions at the Ontario Turfgrass Symposium. He too participated on numerous committees including field day, Athletic Field Construction Manual production/marketing, scholarship adjudication, and STA growth; in the latter role reaching out to associations and sports turf managers across the country.

Paul Gillen now assumes the role of immediate past president, stepping down but not stepping away. Paul was the STA liaison when we became the first international affiliate of the Sports Turf Managers Association and president when we entered into our strategic partnership with the Western Canada Turfgrass Association, paving the way for Sports Turf Canada.

Andrew, Bob and Paul have all served in various capacities and titles over many years and we are at a better place because of their commitment and contributions to our industry. A very heartfelt and respective thank you Gentlemen, for your dedication to the Sports Turf Association.

Joining the board I would like to welcome Roger Macklin from the City of Toronto. Roger is the subject of our member profile inside this issue. Tab Buckner, from the Township of Langley, BC is our new vice-president and Jason Inwood, from the City of Vaughan, ON becomes our corporate secretary.

In closing please stay tuned, stay informed and get involved as 2014 looks to be the start of an exciting time for Sports Turf Canada! •

Read the Message from Past President Paul Gillen on page 6.



Andrew Gaydon (R), stepping down from the STA Board of Directors after many years of service, receives a token of appreciation from new association president Tennessee Propedo.



2014-2015 Sports Turf Canada Board of Directors

Back row (L to R) – Dave Warden, Jason Inwood, Bill Clausen, Tennessee Propedo, Gord Dol, Terry Henderson, Roger Macklin, Gord Horsman.
Front row (L to R) – Tab Buckner, Lee Huether – Executive Manager, Ben Tymchyshyn, Ken Pavely, Paul Turner, John D'Ovidio.
Absent from photo Paul Gillen.

See story on page 22.

NEW & RETURNING MEMBERS

British Columbia

Frank De Vita
Simon Fraser University
Burnaby, BC

Kevin Fraser
Township of Langley, BC

Bill Hewlett
Landscaping Done Right
Abbotsford, BC

Krista Hewlett
University of British Columbia
Garden Shop
Vancouver, BC

Chris Iverson
Cowichan Sportsplex
Duncan, BC

Hugh McDonald
Township of Langley, BC

Ron Rindt
Western Turf Farms Ltd.
Abbotsford, BC

Stan Kazymierchyk
Kwantlen Polytechnic University
Langley, BC

Alberta
Barb Holmes
City of Fort Saskatchewan, AB

Dennis McKernan
LifeWorks Design
and Consulting
Olds, AB

Ontario

Brian Macklin
Floyd Moffatt
City of Brampton, ON

Ian Ferguson
City of Guelph, ON

Michael Murphy
Dave Nicholls
City of Windsor, ON

Troy Stubinski
City of Kingston, ON

Mike MacLean
City of St. Catharines, ON

Rory Doucette
Greg Lampman
Town of Oakville, ON

Darryl Capern
Town of Ingersoll, ON

Rob Sarson
University of Toronto
Scarborough
Scarborough, ON

Craig McCutcheon
Direct Solutions
Brantford, ON

International
Greg Wadden
Nico Wynd Golf Course
Blaine, Washington USA

Past President's Message

BY PAUL GILLEN

This will be my last message as your president; I want to take a moment to thank all of those people who have made this such a wonderful experience. To all of my predecessors, who I have had the pleasure of working with over the last 25 years, thank you for your inspiration and setting such a high standard in making this association so relevant and meaningful. To all the board members, past and present, who dedicated so much of their time and experience to making this association the authority for sports turf management, thank you. And to the incoming executive and board, thank you for taking the time out of your busy schedules to help grow the association and keep it current. I step down from this role with the confidence that we have the foundation in place to sustain another 25 years of quality education and applicable information for our membership. •



STA past president, Paul Gillen

Introducing Sports Turf Canada

Continued from page 1

to develop its Canadian presence with initiatives in Atlantic Canada beginning in 2011, and in 2012 with the formalization of a partnership agreement with the Western Canada Turfgrass Association (WCTA) which recognized the Sports Turf Association as the national body for the promotion of better, safer sports turf in Canada.

“The creation of a national association was the vision all those years ago. It is exciting and gratifying to watch this niche organization grow into one with a national presence and a national mandate,” enthused Michael Bladon, a founding father of the Sports Turf Association.

“While Sports Turf Canada as a brand identity may be new, the passion and hands-on approach of board members and staff and their dedication to the association is not,” added new president Tennessee Propedo. “We are the authority in our field and are committed to providing our members with current, credible and relevant information to help them to manage their field assets in the most safe and effective manner.”

About Sports Turf Canada

Sports Turf Canada is the new operating name of Sports Turf Association Inc. Our roots go back to 1987 when after a brainstorming session at the University of Guelph a broad segment of the turf industry endorsed its need. Of particular concern at that meeting was the need to minimize and avoid injury to participants using athletic fields where they relate to sports turf. More than twenty-five years later Sports Turf Canada will continue to promote better, safer sports turf through innovation, education and professional programs. •

Event Calendar

April 28 to May 1

Sports Turf Canada

Sports Turf Management & Maintenance Course

University of Guelph

Guelph, ON

SportsTurfCanada.com/STMM Course

May 30

Sports Turf Canada

Robert W. Sheard Scholarship Deadline

SportsTurfCanada.com/Awards & Scholarship

August 17-24

International Symposium on Turfgrass Management and Science for Sports Fields

Part of the International Horticultural Congress

Brisbane, Australia

http://www.ihc2014.org/symposium_29.html

September

27th Annual Ontario Field Day

Watch for details!

SportsTurfCanada.com



Communicating With Our User Groups

This article, based on the group session presented at the recent Ontario Turfgrass Symposium, provides perspective from three different municipalities.

City of Mississauga Parks

Andy Wickens, Manager, Parks, Parks and Forestry Division

The City of Mississauga is Canada's sixth largest city, with a population of 720,000. In the last 40 years, the City has expanded its inventory of parks and sports facilities, and the groups using those facilities have expanded in both numbers and diversity.

Mississauga Parks Operations is responsible for the maintenance of 520 parks throughout Mississauga and is a section of the Parks and Forestry Division which is part of Community Services. Other sections within the division are Forestry, Park Planning and Park Development. Parks Operations employs 126 full time staff and 315 seasonal staff and in addition to parks maintenance, carries out maintenance and operations of two marinas and 10 city cemeteries. In the winter, the primary function is snow clearing in parks along with 65 city buildings. The overall Parks Operations budget is \$23.5 million.

The City of Mississauga's sports field inventory includes:

- 243 soccer fields (8 artificial fields; 1 football) – 18 lit
- 139 ball diamonds – 45 lit
- 6 cricket pitches

The City also permits 28 school fields/diamonds.

On an annual basis, the City of Mississauga issues 1,460 outdoor field permits to 160 groups. These groups represent 24,500 registered users. The total hours fields were booked in 2013 were 129,816.

Field allocation in Mississauga is managed by the Sports Unit which is part of the Recreation Division. Parks deals directly with user groups regarding field maintenance issues. Communication in season is primarily through email (maintenance) and the City web site (field closures). Staff also meets with sports groups annually to discuss issues, and the City meets several times yearly with the "Outdoor Sports Field Network" which includes a variety of stakeholders.

The City of Mississauga is just completing an Outdoor Sports Field Management Policy, which will help to articulate our practices and policies around field allocation and use. This replaces a number of informal or ad hoc practices that have been used over the years. In addition, as part of a review of field user fees, the City has been meeting with user groups to look at field maintenance costs and capital budgets in detail. The City is looking to sports groups for any suggestions as to improvements in the efficiency or consistency of field maintenance. The City is also reviewing the quality of its sports amenities and benchmarking against other municipalities. This information will assist us in developing future capital budgets. While discussions with groups have involved a lot of effort on both sides, many longstanding issues have been resolved in a way that is mutually satisfactory and the plan is to keep building on the progress to date.

In general, the relationship the City has with its sports groups has evolved over time. The City is less of an allocator and regulator and more of a partner in delivering sports activities across the city. The Sports Unit has adopted a more community development focused approach. Parks Operations has worked to keep lines of communication open and functioning effectively so that they can ensure they are delivering the right services in the right way. While ongoing effort is required to build relationships in this way, the outcome is much more effective over the long run.

City of Vaughan Parks & Forestry Operations

Jason Inwood, Manager Parks Operations

The City of Vaughan continues to grow at a rapid pace and has been recognized by the Conference Board of Canada as having one of the top two performing economies in the country.

In 2013, MoneySense magazine ranked Vaughan in the top ten best mid-sized cities in Canada, placing Vaughan 8 out of 46 in Canada.

In 1994 the newly formed “City” had a population of 100,000 and has continued to experience rapid growth. In 2013, Vaughan’s population grew to 315,000. Construction activity in the city has surpassed one billion dollars 9 times in the last 12 years and growth is forecasted to continue to 2031 with an anticipated population of over 415,000.

The City of Vaughan Parks & Forestry Operations Department is comprised of approximately 80 full time staff and 80 seasonal and student staffs. These staff are responsible for maintaining;

- 1,000 ha of parkland in 220 parks/facilities
- 500 floral displays and 750 hanging baskets
- Forestry - maintaining the urban tree canopy
- \$14.3 million annual operating budget
- \$2 million annual capital budget (Asset Replacement/Improvement Program)
- \$8-20 million annual park development budget

The Department maintains 184 soccer fields including 4 artificial turf (one Certified FIFA 2 Star Facility), 16 Category 1 fields, 43 Category 2 fields, and 121 Category 3 fields, 62 baseball diamonds including 28 premium hardball/softball diamonds, 25 junior diamonds and 9 T-ball diamonds.

Vaughan’s focus on communicating with user groups is one of the primary reasons for the success of the local clubs continued growth. Within the city there are 4 major soccer clubs representing 16,000 youth participants and 5 baseball clubs representing 3,500 youth participants.

The challenge of communicating with the groups has been a learning experience. Over the last 20 years, the evolution from calling the teams directly when there was a need to communicate a field closure or to discuss a concern has evolved drastically to include the use of social media and technology to support communication requirements.

A Sports Field Hotline is in place that users can call to hear a recorded message on field conditions; this is especially helpful when fields are wet and users need to know if the fields have been closed. “Email Blasts” are sent out frequently to advise user groups of upcoming events or policy changes that require their input. The use of Social Media continues to grow and is

leveraged for communicating with user groups, Twitter and Facebook have proven to be successful tools in getting messages out in a quick and effective matter.

In the spring of 2014, Vaughan launched a new feature on the city’s web site; an RSS (Rich Site Summary) Feed. The RSS feed enables the departments published web site content to syndicate to registered users automatically. When an update for field closures is published on the web site, users will automatically get a copy of the update sent to their smart phone or PC providing up to the minute updates.

Although technology has made communication much easier and more effective in getting messages out, there remains a need to have regular face to face meetings between club executives, coaches and city staff. Having personal interaction with the parties involved ensures that successful relationships are maintained and constructive dialogue continues between the City and user groups.

City of St. Catharines

John Bellehumeur, Parks Operations Foreman, and Kyra Allan, Acting Operations Coordinator, Recreation and Community Services

The City of St. Catharines is situated within the Niagara Region and is home to approximately 130,000 people. It is the largest municipality in the region (*Statistics Canada, 2011 Census*).

St. Catharines contains 402 ha of greenspace and has a total of 114 parks – 29 of which are active sports parks. Some of these parks include Lester B. Pearson Park, Joe McCaffery Park, Lancaster Park, and George Taylor Field.

Both the Horticulture Foreman and Parks Operation Foreman report to the Parks Manager/Assistant Director and in turn, the Recreation and Community Services Director. There are 10 full time staff, 13 part time/casual staff (32 weeks) and 24 summer students (17 weeks) in the parks operation branch of the organizational structure.

Many athletic events have been hosted for a wide variety of user groups including high school competitions, private clubs including the Niagara Olympic Club, and national and provincial softball tournaments.

The 2013 budget for sports fields (net expenditures) was approximately \$2,977,930. Parks featuring a sports field are divided into three separate categories and classification is based primarily on field assets:

Type A sports fields contain lights, washrooms, bleachers, and are fenced. They are lined according to existing bookings, contracts and permits. The City of St. Catharines has and maintains one artificial turf field, eight interchangeable soccer/football fields, nine senior softball diamonds, and one senior baseball diamond.

Type B sports fields contain bleachers. Similar to “Type A” fields, they are lined according to existing bookings, contracts and permits. St. Catharines features 18 soccer fields, 14 mini fields, 6 softball fields, and 4 baseball fields.



Type C sports fields are not lined and are only suitable for practices. There are 17 of these sports fields in St. Catharines.

Field booking reports demonstrate soccer field usage increasing more than double from 2013 to 2014 – jumping from approximately 10,419 hours to 21,634 hours.

Baseball and softball usage was compared using the same type of field booking reports and the results are similar, though not as drastic. These fields were booked for approximately 5,263 hours in 2012, with a slight increase to 5,329 in 2013, and a more significant jump to 8,164 in 2014.

At the beginning of the booking process user groups will typically book fields for their maximum participant level. Once they complete their registration process, they follow up with Enterprise Services staff to amend if necessary.

Once the booking has been completed, Enterprise Services staff will forward schedules and type/level of play to the Parks Operations Foreman.

A formal closure policy has not been established, but guidelines are followed by Recreation and Community Services staff in order to communicate the event of a field closure:

- The Parks Operations Foreman will consult with Park Operators and/or upon inspection of a field, will determine if a field should be closed after a weather event
- Any closures are posted on Twitter and are recorded on the Field (telephone) Line
- Referees and umpires also have the authority to cancel a game due to unsafe field conditions or weather. The user group is then required to contact Enterprise Services with the relevant information about the cancellation.

A field allocation meeting is held each spring. Staff meets with user groups from each individual activity and discusses their needs prior to creating new bookings.

User groups are generally given first rights to their preferred usage times according to their bookings from the previous year.



A City of St. Catharines' "Type A" sports field.



G.C. Duke
EQUIPMENT LTD.
ISO 9001 Registered

www.gcduke.com




JACOBSKY
A Tennis Centre
Elite Performance Multisport

Paul Turner
Manager – Municipal Sales
Cell: 416-566-0211
paul.turner2@sympatico.ca



1184 Plains Road East, Burlington, ON L7S 1W6
Phone: 905-637-5216 Toll Free: 1-800-883-0761
Fax: 905-637-2009 E-Z-GO Parts Direct: 1-877-226-3946



To contact our specialist
Alexander Dickie directly,
call 905.505.5014.

**Turf Specialist in Cultural Practices, Custom
Grows, and Sod Removal & Installation**

Drill & Fill • Root Pruning • Aeration • Overseeding • DeepTine • Verticutting

For more information, contact us at
877-727-2100 www.zandersod.com



Quality Seeds ♣

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 • FlocLoc Tackifier
Futerra F4 Netless Erosion Control Blanket**

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

Turfgrass Seed Sources in Ontario

Advertising Supplement to the Sports Turf Manager, Spring 2014

Sports Turf Canada strongly recommends to athletic field managers that they use only improved cultivars that have been tested and found superior under local conditions.

SPECIES	SUPPLIER							
	Direct Solutions (Agrium Advanced Technologies)		Graham Turf Seeds Ltd.		Lawn Life	Master's Turf Supply Ltd.		
Kentucky bluegrass	America Appalachian Armada Blue Velvet Crest Evora Explorer	Granite Langara Mercury Quantum Leap Touchdown Touche	Award Baron Bluechip Corsair Dauntless Everest Full Moon Impact Jumpstart	NuDestiny NuGlade Rugby II Rush Skye SR 2100 SR 2284 Sudden Impact	Mallard Monte Carlo Oasis Ridgeline Wildhorse	Award Baron Barrister Bedazzled Bonaire Brooklawn	Diva Everest Jumpstart Midnight Shamrock Wildhorse	
Texas/Kentucky bluegrass hybrid	Bandera	Spitfire				Bandera		
Poa compressa	Canon	Reubens	Reubens			Canada Blue		
Poa supina	Supernova		Supranova					
Poa trivialis	Colt Darkhorse	Racehorse	Maximum	Sabre III		Bartalon		
Fine fescue: Blue	Azay Blue		SR 3200					
Fine fescue: Chewings	Silhouette Victory II	Windward	J-5 Jamestown IV King James	SR 5100 SR 5130	7 Seas Survivor	Ambassador Bridgeport II	Culumbra II Shadow II	
Fine fescue: Creeping Red	Boreal Garnet Jasper II	Mystic SeaLink	Audobon Boreal Crossbow	SR 5210 SR 5250 Trapeze	Lustrous Penn ASC 295 Razor	Aberdeen Boreal	Miser Seabreeze	
Fine Fescue: Hard	Bornito	Spartan II	Bighorn GT Ecostar Soil Guard	SR 3100 SR 3150	Predator	Oxford Reliant IV	Reliant V Soil Guard	
Fine Fescue: Sheeps	Azay		Marco Polo	Quatro		Marco Polo		
Tall fescue	Cayenne Crossfire 3	Mustang 4	Darlington Grande II	Talladega	RK4	Bighorn GT Coronado Gold Fury	Lexington Titan	
Tall fescue: Spreading/ Rhizomatous	Blade Runner II	Team Blend	Speedway		Marauder	Falcon IV	Titan Ultra	
Perennial ryegrass	Arctic Green Cutter II Dasher 3 GLSR Double 4N Edge II Express III	Fiesta 3 Mighty Nightsky Quebec Transist 2600 Intermediate TXR Annual	Accent Arctic Caddyshack Calypso III Champion Extreme	Harrier SR 4220 SR 4420 SR 4500 SR 4600 Top Gun	Applaud II IG2 Integra Shining Star	Affirmed Charismatic II Dominator Doubletime IQ	Manhattan 5 Passport Plateau Trifecta Wind Dance 2	
Perennial ryegrass: Creeping/Regenerating	Blazer 4 Fiesta 4 GLSR	Karma Sideways	CSI		Allante Natural Knit	Baralpa		
Weeping alkali	Fults	Salty	Fults	Salty		Fults		
Contact Information	Direct Solutions (Agrium Advanced Technologies) 10 Craig Street Brantford, ON N3R 7J1 Contact: Mark Scenna P:519-770-3157 F:519-757-0800 mscenna@agriumat.com www.aatdirectsolutions.com		Graham Turf Seeds Ltd. 1702 Elm Tree Road, RR 1 Lindsay, ON K9V 4R1 P:795.878.8822 F:705.878.1978 graham@grahamturf.com www.grahamturf.com		Lawn Life 935023 Airport Road Mono, ON L9W 6C6 kpavel.lawnlife@ xplornet.ca lawnlifenaturalturfprod- ucts.com		Master's Turf Supply Ltd. P.O. Box 629 80 William Street West Harriston, ON NOG 1Z0 P: 519.510.8873 F: 519.510.8875 masterturf@wightman.ca	

Turfgrass Seed Sources in Ontario

TURF SEEDING RATES The following are seeding rates per 100 m² for specific species of grass seeds: creeping bentgrass, 0.5-1.0 kg; Kentucky bluegrass, 1.0-2.0 kg; perennial ryegrass, 2.0-4.0 kg; fine fescue, 1.0-3.0 kg; tall fescue, 2.0-3.0 kg; and velvet bentgrass 0.5-0.8 kg.

Source: *Turfgrass Management Recommendations, Publication 384, OMAFRA*

SPECIES	SUPPLIER					
	Ontario Seed Company		Pickseed Canada Inc.		Quality Seeds	
Kentucky bluegrass	Award Beyond Blue Chip Plus Freedom III Midnight Star NuBlue Plus NuGlade Perfection	America Appalachian Armada Blue Velvet Crest Evora Explorer	Granite Langara Mercury Quantum Leap Touchdown Touche	Abbey Alene Aviator Barduke Barimpala Barinque Bariris Baron Baroness Barrister	Barvette BlackJack Blue Angel Blue Coat Blue Note Blue Sapphire Cadet Corsair Courtyard Dauntless	Everglade Gaelic Hampton HGT Midnight Midnight II Prosperity Raven Rubicon Rubix
Texas/Kentucky bluegrass hybrid		Bandera	Spitfire	Fahrenheit 90	SPF 30	
Poa compressa	Canada Blue Reubens	Canon	Reubens	Reubens		
Poa supina		Supernova		Supranova		
Poa trivialis	Havana	Colt Darkhorse	Racehorse	Laser Sabre IV	Sun-Up	
Fine fescue: Blue		Azay Blue		Little Big Horn	MX 86	
Fine fescue: Chewings	J-5	Silhouette Victory II Windward		Fairmont Jamestown IV	Longfellow II	
Fine fescue: Creeping Red	Aruba Audubon	Boreal Garnet Jasper II	Mystic Sea Link	Boreal Crossbow Kent	LiFine Navigator II Trapeze	
Fine Fescue: Hard	Ecostar	Bornito	Spartan II	Chariot Firefly Heron	Rhino Ridu	
Fine Fescue: Sheeps	Marco Polo	Azay		Little Big Horn	Quatro	
Tall fescue	Arid III Inferno	Cayenne Crossfire 3	Mustang 4	Darlington Lexington Sitka	Tahoe II Talladega	
Tall fescue: Spreading/Rhizomatous		Blade Runner II	Team Blend	RTF Rhizomatous		
Perennial ryegrass	Evolution Revenge	Arctic Green Cutter II Dasher 3 GLSR Double 4N Edge II Express III	Fiesta 3 Mighty Nightsky Quebec Transist 2600 Intermediate TXR Annual	Amazing GS Apple GL Ecological Home Run Palace	Pillar Premium Presidio Primary Prominent	
Perennial ryegrass: Creeping/Regenerating	CSI	Blazer 4 Fiesta 4 GLSR	Karma Sideways	RPR Regenerating		
Weeping alkali	Fults	Fults	Salty	Fults II		
Contact Information	Ontario Seed Company 77 Wellington Street South Kitchener, ON N2G 2E6 P:519.886.0557 F:519.886.0605 richard@oscseeds.com www.oscturf.com	Pickseed Canada Inc. 1 Greenfield Road Lindsay, ON K9V 4S3 P:705.878.9240 F:705.878.9249 pstevens@pickseed.com www.pickseed.com	Quality Seeds 8400 Huntington Road Vaughan, ON L4L 1A5 P:905.856.7333 support@qualityseeds.ca www.qualityseeds.ca			

Member Profile

ROGER MACKLIN, GENERAL SUPERVISOR PARKS,
NORTH YORK DISTRICT, CITY OF TORONTO, ON



An Interview with Roger Macklin

What is your role with the City of Toronto? General Supervisor Parks, North York District. The Parks branch is divided into five operating districts: North York, Toronto and East York, Scarborough, Etobicoke and York, and the Waterfront District (WF). It's a North – South - East – West and WF split.

What kind of team do you work with? I report to a District Manager of Parks, who reports to the Director of Toronto Parks. My manager has another General Supervisor (GS) for Parks Operations, and we split the district east/west of Yonge Street. We also have one other GS for Parks Technical Services and Construction, and his team covers the entire district for trades work in all of our parks and recreation facilities. I have three Park Supervisors and we oversee the day to day parks operations, plus the landscape maintenance at several city arenas, community centres, libraries, heritage sites, and transportation division properties. Some horticulture displays are in the middle of busy streets. We also maintain the green space and flower beds at the Ontario Science Centre.

In my area there are 101 front line staff in peak season, 30 in non peak. With three parks supervisors and one support assistant in the office, and two parks foremen we form the Parks Operations management team east of Yonge Street.

Front line staff are members of the Toronto Civic Employees Union, CUPE Local 416. There are 40 permanent staff and 60 seasonal staff; 14 of the permanent staff leave my operation to work at outdoor artificial ice rinks each winter; 12 staff are on shifts to cover evening and weekend maintenance in peak season; the greenhouse gardeners are on a rotating shift all year.

What is your team responsible for? We are responsible for the turf and sports field maintenance, horticulture, general services, and winter maintenance at 250+ parks and city properties (over 950 ha of land area) maintaining approximately half of that area as recreational or passive open space and mowing 450 ha. Our crews work out of two main service yards year round with small engine mechanics on site, and staff work out of Edwards Gardens year round. Peak season we have staff located at three more seasonal/satellite yards to save on travel time. Parks have generally and highly maintained turf areas, sports fields, horticulture displays, playgrounds, natural areas, open bodies of water, splash pads, tennis courts, basketball courts, green houses, running tracks, a BMX bike park, skateboard bowls, environmentally significant areas, dog off leash areas, a disc golf course, an archery range, ravines, picnic sites, fire pits, a bake oven, parking lots, many kilometers of paved and natural surface trails, field houses, washroom buildings, lighting, irrigation, storm water and retention ponds – it's a long list of items we maintain year round.

- 7/365 operations at Sunnybrook Park and Edwards Gardens
- 74 outdoor sports fields for baseball, cricket, soccer, field hockey, football and Ultimate
- 30 ball diamonds Class A (4), B (19), C (7)
- 44 sports fields Class Premier (12), A (7), B (7), C (18)
- 12 field houses, washroom buildings
- 10 splash pads
- 10 picnic sites
- 2 greenhouses
- 2 formal gardens at Edwards, and Alexander Muir Gardens
- Over 100,000 annuals go in/out each year overall in our horticulture display beds

We have nine “flying” grass crews each led by a Lead Hand with one 16’ mower cutting the open areas, and two 6’ rotary mowers on a trailer that go park to park trimming and cutting an average 50 ha/week. One additional turf crew is dedicated to cutting, lining and maintaining the 12 premier sports fields and immediate grounds at Sunnybrook Park. They also cut the playing surfaces at the five diamonds at the Bond Park baseball complex up the street. The District has a dedicated Sports Field IPHC crew of a foreman and five staff that do the fertilizing, aerating, overseeding and topdressing at all the North District sports fields.

We have five flying horticulture crews, led by Lead Hands of Horticulture, and dedicated crews at Edwards Gardens and Alexander Muir Gardens as well as at the grounds of the Ontario Science Centre. An “orphan spaces” crew of gardeners does the horticulture and turf maintenance on the transportation sites. General services and shift crews keep up with the minor repairs to park amenities and maintain all the public use facilities in a clean and tidy manner.

What is the biggest challenge in your job? Making enough time to visit my parks on a regular basis and keep up with the correspondence requirements. You cannot run a quality parks operation from a desk or computer screen. You have to be “out-standing in your field(s).” Toronto Parks staff are very accessible to the public, and we respond to a lot of unique and direct customer service requests.

What is the most satisfying part, what makes the job worthwhile for you? That's a tough one as there are many satisfying parts of my job. The teamwork from my front line staff up to Manager and Director is great. Nobody hears us say, “No, we can't do it.” We figure out a way to get it done. I like being involved in city-wide projects about trail systems, storm water management, urban planning and transportation issues. Attending community meetings, and sports group meetings reinforce how important the parks system and features are to others as well. I still love the smell of fresh cut grass, especially the first cut of the season. I've had more than one person tell me I have the best job in the city – I don't argue that point. The fact that I can be paid to walk in a park some days, to confirm that it is clean and beautiful, is the icing on the cake.

What is the biggest misconception about your job? Many people think we just pick up litter and cut the grass in parks, so we must not do much in the winter. Yes, we are the keepers of the green, but that takes year round planning, stewardship and preventative maintenance to keep everything in a state of good repair. This winter I don't think we had many days we were not plowing or deicing paved trails, parking lots and park roadways.

Many people don't realize the extent of what we do in the summer. A parks system has so many components some folks take for granted. We ensure that for the public, our parks are a relaxing place to visit and enjoy nature, not a brain drain. Maybe that's one reason they don't notice all the work happening around them.

What is your educational/employment background? I started in the turf business in 1976 at the only job I know where they let you start at the top – digging holes to repair a water line leak at a local private golf course. Setting my sights on a Golf Superintendent position, I quickly realized you need good education to succeed in the field, so it was back to school time. I graduated from the Turf Managers' Short course in 1977, which whet my appetite for more turf knowledge. I received my Diploma in Agriculture from the University of Guelph in 1980, and had my Superintendent position at a small Par 3 course. I stayed in the golf business until 1984. I started with the City of North York Park Department in the spring of 1985 at a new sand-based soccer field and stadium they had just built, with six more soccer fields in the hydro corridor beside the stadium. That sand field is now synthetic infill turf.

Tell us about your family. I am a sixth generation Canadian from a long line of farmers, and the pioneer family recognized as the first settlers of Scarborough. The family names on my Mom's side (Thomson) and my Dad's side (Macklin) adorn heritage homes, elementary, secondary schools, and parks in the Scarborough area. We have three generations of University of Guelph Aggie grads in the clan.

What do you enjoy doing outside of the workplace? Hobbies, favourite past times? Like many in this business I like gardening – I play golf often (single digit index), and I've always played hockey.

How has the industry changed and in what direction(s) would you like to see the industry, as a whole, move towards? The demand for multipurpose sports fields has grown significantly. Multipurpose requests are growing where open green space is limited in a community. People want the ability to have layers of potential activities take place like special events, community markets and fitness camps on that ball diamond or soccer field that appears underutilized if dedicated only to sports.

There is more technology involved now, more finite maintenance regimes, and more demand for elite field conditions for longer periods of time.

The turf and sports field industry is becoming more important to the users. To facility providers they are a revenue source, as spaces to have open fields decreases and demand increases. I'd like to see synthetic fields used to meet the demand for longer seasons and reduce the wear tolerance issues on living turf fields. I think the synthetics can be great for practices, and learn to play, mini soccer and 7 on 7 recreational plays that puts so many feet on your field at once. Synthetics are good for wet weather/increment weather games. We still need to maintain quality living fields nearby for playoffs, elite youth, professional, international matches.

What do you consider to be the biggest benefit of being a member of Sports Turf Canada? Sports Turf Canada connections to sports turf industry experts is a great benefit, whether through educational seminars, publications or hands on at field days with our industry suppliers. I reference the publications on a regular basis to keep up with maintenance standards and innovations, as well as current research, and trends in the business. Sports turf is an ever improving and evolving field and Sports Turf Canada keeps me up to date, and provides the best opportunities for professional networking. •

If you are interested in being featured in this column, please contact Lee Huether at the Sports Turf Canada office.

VANDEN BUSSCHE
IRRIGATION
Since 1954

RAIN BIRD **Hunter**

Milton Office 1-800-263-4112 King City Office 1-866-703-5464
Delhi Head Office 1-800-387-7246 Scarborough Office 416-289-3635
www.vandenbussche.com

RAINED OUT AGAIN!

If you're sick of game killing rainouts and the hassles of constantly fixing your field, then give us a call. Unmatchable water management ensures that fields built or fixed with Mar-co Clay are **ALWAYS** the first ready to play and **ALWAYS** the least to maintain.

It's why we've been the LEADER in Open Air Field Mixes for over 20 years.

MAR-CO Saves The Game!

MAR-CO

Call us now for your **FREE** Custom Amendment Assessment.
www.MarcoSavesGames.com
1.888.697.9879

DIRECT SOLUTIONS
Committed to Growth™

**Advanced Technology.
Dependable Results.**

ProTurf

POWERED BY
POLYON
Controlled-Release Fertilizer

- Consistent, predictable, season-long feeding
- Maximizes nutrient-use efficiency and environmental safety
- Engineered to provide 100% controlled release nutrients with virtually no environmental loss or nutrient lockoff

aatdirectsolutions.com

For more information about seed, pest control products, granular or foliar fertilizers, contact your Direct Solutions sales representative or our customer service line at 1-855-228-2828

DIRECT SOLUTIONS
Committed to Growth™

A strategic division of
Agrium Advanced Technologies

DSCanada@AgriumAT.com

© 2012 Agrium Advanced Technologies Inc. AGRUM ADVANCED TECHNOLOGIES, DIRECT SOLUTIONS, COMMITTED TO GROWTH, POLYON and design are trademarks owned by Agrium, Inc.

Facility Profile

SUNNYBROOK PARK SPORTS FIELDS, CITY OF TORONTO, ON



General facility information:

Sunnybrook Park is a 60 ha property that serves users from across the City of Toronto. It is connected to three other large parks in the Don River watershed, Wilket Creek Park, Serena Gundy Park and E. T. Seton Park, that combined total 235 ha of parks, accessible by transit, but with parking for 1,000 cars. There are permitted picnic sites, horse stable, walking/hiking trails, the sports fields and a Parks Operations service yard on site.

What types of sports fields are on site? Natural? Synthetic?

All fields are natural living turf and are:

- 4 premier field hockey / multipurpose fields
- 3 premier soccer fields
- 3 premier cricket grounds
- 2 premier rugby fields
- 1 Ultimate Frisbee field

All fields here have a sandy loam soil texture. Mowing height on seven of these premium fields is 1.5" by multi deck (7) floating head rotary mower. Mowing up to 3 times/week as required so as not to remove more than 1/3 of the leaf blade in any one cut. This same mower and operator go 2.5 km up the road to cut the playing surface of five baseball diamonds at Bond Park twice/week. Cricket grounds have a synthetic turf pitch area in the centre. We also have a synthetic turf area with 5 practice cricket pitches.

The fields for soccer and rugby are mown at 2.5", the same as the remaining park land. The crew has access to a wide area 16' rotary mower and operator from a flying turf crew as required. The sports fields and pavilion area are part of the fly crew wide area mowers 50 ha/week cutting schedule.

North York District staff has been maintaining the premier sports fields at Sunnybrook Park without synthetic pesticides, applying only organic fertilizer products, and following a turfgrass specific Integrated Plant Health Care (IPHC) program for the past 14 years. The cultural practices of fertilizing, aeration, overseeding and topdressing, along with timely irrigation and mowing with sharp bladed equipment are the main components of the program. Communication and cooperation with users so as not to use the fields during inclement weather, also helps immensely.

Insect pests have been mostly Japanese beetle, and are controlled by inoculating the soil with parasitic nematodes for three years running a few years back, and now

by using pheromone traps to catch the adult beetles before they lay eggs. We catch thousands of adult beetles annually to keep them under control.

There is also a field house pavilion building, with a meeting room and washrooms.

How many employees are involved with turf care at this facility? The Sunnybrook sports field crew is made up of:

- 1 Permanent Lead Hand Parks that works at Sunnybrook in summer for 36 weeks then works at an outdoor artificial ice rink in the winter
- 1 Permanent Parks Handy Worker grade 2
- 2 Seasonal Parks Handy Worker grades 3 for 25 weeks each
- 1 Seasonal Parks Handy Worker grade 3 for 16 weeks

This group cleans up, cuts, trims, and paints lines on all the fields. They also cut and trim the perimeter around the fields, and some additional parkland within Sunnybrook Park. They set up for special events and help maintain the field house... they are a very busy group. A dedicated Turf IPHC crew that covers the entire North York District comes in to do fertilizing, aerating, overseeding and topdressing on a prescribed schedule.

How many acres of turf are maintained at this facility? How many acres of sports turf?

55 acres of turf on the plateau area that includes 30 acres of irrigated sport fields.

What is the primary type of turfgrass? Name of varieties. There is a mix of species and varieties depending on the height of cut. On the fields cut at 1.5" for cricket and field hockey we have 50% perennial ryegrass, 20% annual bluegrass, and 25% Kentucky blue. We still have a component of white clover in these fields. The fields for rugby and soccer, cut at 2.5", are more perennial ryegrass and Kentucky bluegrass in equal parts.



Sunnybrook Field Hockey, Multi-purpose Field

Is yearly overseeding part of your sports turf maintenance program?

Yes, our current standard for overseeding on premier fields is 4 times/year. Slit seeding in early summer and fall with an irrigated field seed blend. The same blend is used on our Class A and B fields: 25% Arrowhead Kentucky bluegrass, 25% Yankee Kentucky bluegrass, 30% Cardinal creeping red fescue, 20% Stellar perennial ryegrass at 75 lb/acre.

In summer the standard calls for 2 slit seedings of a 3-way perennial ryegrass mix: 33% each, Charismatic perennial ryegrass, IQ perennial ryegrass, and 34% Affirmed perennial ryegrass at 115 lb/acre.

We use a different seed blend for non irrigated Class C fields: 40% Boreal creeping red fescue, 40% Jamestown IV chewings fescue, and 20% Primary perennial ryegrass at 90 lb/acre.

When we procure turf grass seed blends all must contain varieties from the most recent NTEP trials so we may confirm the desired growth characteristics and qualities of the proposed blend.

How many times do you fertilize? Four applications of fertilizer on premier fields. At this site we use only organic 4 – 1 – 2 at 560 lb/acre to continue with the long standing organic program. At other fields we use synthetic fertilizers with XCU and polymers coated urea forms, but still have at least one annual organic fertilizer application on all classifications of fields.

Do you aerate? Topdress? Yes, as soon as we can get the irrigation heads up and marked we will aerate with either hollow tines or solid spiker tines depending on permits to use the fields. Four aerations per season, on these premier fields and the fall aeration is always hollow tine.

We topdress all fields at specific rates but these premier fields get topdressed with a 70:30 sand to ¼" screened compost blend applied at 44 yd³/ha in summer for 1/8" coverage, 88 yd³/ha in fall for ¼" coverage.

What is your maintenance regimen for synthetic turf?

The synthetic pitches in the cricket fields require minor surface repair after 1 - 2 seasons, significant repair after 2 – 3, and entire fabric replacement after 3 – 5 seasons.

I get my first synthetic turf field installed in 2014, at a location that was getting over 1,200 hours of permitting, plus some unauthorized use. It was a tough site to keep green. The City has four stadium fields with synthetic turf that easily handle up to and over 2,000 hours of permitted use. We also have six non stadium, outdoor synthetic fields in Toronto parks.

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?

The fields at Sunnybrook get an average of 700 hours of use a season. The fields are not lighted. We keep one soccer field at rest at all times, and rotate play as needed during the season. The season is 21 to 22 weeks long. We open living turf sport fields on the second Saturday of May annually and close September 30. Baseball diamonds at other park locations open May 1 annually and close September 30.

Field permits are available through the Parks, Forestry and Recreation Customer Service branch and they work more and more closely with Parks Operations to communicate with users, getting the word out when fields are closed for any reason, and trying to relocate groups and arrange rain out dates whenever possible.

We are implementing a new protocol about sports field playability and responsibility guidelines in 2014 that will improve issues related to field use during inclement weather, user safety, and potential for field damage. The Customer Service staff will have sent those guidelines to all sports field permit holders before the 2014 season begins.

We have a phone line at Sunnybrook for permit holders to call in; we update the field conditions, if anything is closed due to wet conditions and we have staff on site to uphold the conditions of the permit related to limiting use under poor field conditions. •

NATURAL KNIT

- We have some pretty happy customers of our **Natural Knit CPR** creeping perennial ryegrass (and by the way, no unhappy ones either) The NTEP Trials on Summer Density and Wear Tolerance simply confirmed what we saw for ourselves, and heard.



- Science told us that our **Water Star** varieties would more than hold their own in our ever-growing harsh Ontario summers...and boy, did they ever.

FiNALSAN

- And for users of non selective herbicides such as horticultural vinegars and fatty acids, our **Finalsan** is gaining popularity with each and every customer who uses it.

At **Lawn Life**, we don't profess to have the biggest selection with the flashiest brochures. What we do have is simply some of the best turf products money can buy-at very competitive prices backed up by industry veterans who know their way around sports fields and parks.

Contact us for more information and pricing, today.

LAWN LIFE

NATURAL TURF PRODUCTS

Ken Pavely 519.939.6063
or email kpavely.lawnlife@xplornet.ca
www.lawnlifenaturalturfproducts.com



CPR

Creeping Perennial Rye Grass

Bubble It!

Team up with The Farley Group to turn your outdoor playing surfaces into year-round facilities. For both seasonal and permanent applications, The Farley Group sets the industry standard in the design, implementation and service of air-supported structures.

Contact us today to explore the possibilities that an air-supported structure can create for your turf field. Our expert team will help guide you through every step along the way.



Sales Service Maintenance Design Installation

AIR-SUPPORTED STRUCTURES

www.thefarleygroup.com

The Farley Group
1-888-445-3223
info@thefarleygroup.com



WHAT'S THAT ORANGE STUFF ON MY SHOES?

Dr. Tom Hsiang, Professor, Environmental Sciences, University of Guelph



Rust diseases on plants have been known since ancient times, and are one of the plant diseases alluded to in the Bible. In Genesis 41:27 it states, "seven empty ears (of wheat) blighted by the east wind are also seven years of famine." This passage has been interpreted to describe rust spores carried by moist winds which led to famines in ancient Egypt. The Romans even had a God of Rust, Robigus, who was honoured or placated annually by sacrifices of red coloured animals such as cows or dogs, red wine, and perhaps even red-haired humans.

Rust diseases have caused severe economic impact, and a severe outbreak of rust on coffee in the mid-1800s was probably responsible for changing Britain to a land of tea drinkers. Rust diseases are notorious on cereal crops, and world-wide losses to wheat stem rust are estimated at several billion dollars each year. The rust diseases on cereals are also the ones causing disease on turfgrasses. Rust fungi require living host tissue to feed upon, although spores can survive for at least a short period on the surfaces of recently dead plant tissues. Rusts are also highly specific to their host species, and a rust of perennial ryegrass may be unable to infect Kentucky

bluegrass, and vice-versa. In some cases, some rust varieties are specific to particular host cultivars, so that they cannot attack other plant cultivars even within the same host species.

There used to be a very popular garden plant called barberry which has attractive variegated foliage (Figure 1), and served very well as hedges since they have prickly thorns. But then they mostly disappeared from the urban landscape. What did the disappearance of this plant have to do with turfgrass rusts? Barberry was banned in 1966 for import into and trade within Canada. The reason for this was because barberry acts as the alternate host for the rust *Puccinia graminis* which causes stem rust of wheat and also rust on a variety of turfgrasses. The meaning of alternate host is that the fungus needs both the grass host and the alternate host to complete a full life cycle. Many attempts have been made to reduce the severity of rust diseases by eliminating the alternate host.

Rust fungi have among the most complicated life cycles of all living organisms, and there may be five distinct spore stages with two different host plant species required to complete a full cycle. Wheat farmers over 500 years ago first started to notice that wheat



FIGURE 1 Variegated barberry plant which was very common up until the mid-1900's but almost disappeared from the urban landscape because of efforts to eradicate wheat stem rust by eliminating this alternate host.



FIGURE 2 Buckthorn in late spring infected by the crown rust fungus. The spores produced in specialized small cups on this host can only infect turfgrasses such as perennial ryegrass.

rust was often worse when barberry bushes were growing nearby. This led to the eradication programs for alternate hosts. Did these eradication programs for the alternate host manage to break the life cycle and eradicate the wheat rust also? Not really, because not all barberry plants were eradicated, and mostly because, in North America, wheat rust can survive on living host plants near the Gulf of Mexico and then travel northward in springtime by wind and infect newly growing plants.

In this article, we'll look at the major rusts that attack cool season turfgrasses. We'll discuss their biology, and ways of recognizing and controlling these diseases on turfgrasses.

Hosts: Nearly all grasses can be affected by their own rusts, but among cool season turfgrasses, perennial ryegrass seems to be most greatly affected. Rust disease is also a problem on Kentucky bluegrass, but often only one species is affected in an area. All of these rusts also have their cereal hosts, for example, *P. graminis* on wheat and *P. coronata* on oats. However, as they are so specialized, the strain attacking the cereal may not be able to attack turfgrasses. The alternate host for *P. graminis* is barberry (Figure 1), and that for *P. coronata* is buckthorn (Figure 2). Orange spots are visible on these alternate host plants in the spring to early summer. The common rust on perennial ryegrass is called crown rust caused by *Puccinia coronata*. It is called crown rust, not because it attacks the crown of plants, but because the spores have protrusions that look like crowns (Figure 3).

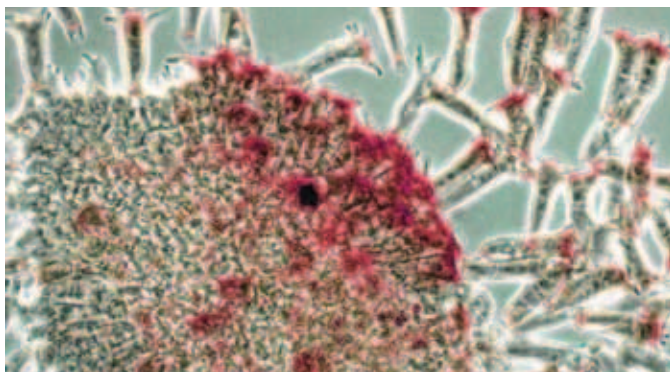


FIGURE 3 *Puccinia coronata* causing crown rust. It is called crown rust not because it attacks the crown of the plant, but because the spores have protrusions that look like a crown. (Courtesy of Dr. George Barron).

*Master's
Turf Supply Ltd.*
www.mastersturfsupply.com

P.O. Box 629
80 William St. W.
Harriston, ON, N0G 1Z0

Office: 519-510-TURF (8873)
Fax: 519-510-8875
Email: mastersturf@wightman.ca

Season of Occurrence: Rust on turfgrass is most commonly visible on leaf blades in late summer into fall. However, the infections may start in late spring, and through several cycles of infection (from spores landing on the plant surface and penetrating into the plant, until these new infections produce new spores), the levels of rust can build up exponentially by the end of summer.

Conditions Favouring Disease: The conditions that are favourable for initial infection differ from those that encourage development of the disease in the field. Infection is favoured under moist conditions, but symptoms on the plants are favoured by dry or hot conditions where plant growth is slowed. Alternation of wet cooler weather with hot dry weather during summer will greatly enhance infection and allow disease levels to build up. In the later part of summer and into early fall, dry, hot, sunny conditions slow the growth of the grass, and also allow the rust to almost completely infect the entire leaf blades and produce abundant orange spores that can coat shoes, socks, and sports equipment.

Symptoms: The first symptoms on grass are small yellow flecks on leaves or sheaths or upper or lower leaf surfaces depending on the species of rust. Reddish-brown pustules (Figure 4) appear on leaf blades, bearing masses of summer spores (Figure 5). These rust spores can easily be rubbed off, giving a reddish tinge to shoes and equipment which commonly occurs in fields with lots of rust, but the yellow-orange spore producing structures are still intact



DolTurf
RESTORATION | CONSTRUCTION | MANAGEMENT

We've Got You
COVERED!

Design - Build - Maintenance
and everything in between
**Leaders in Sports
Turf Management!**

www.dolturf.com | 800-794-9664

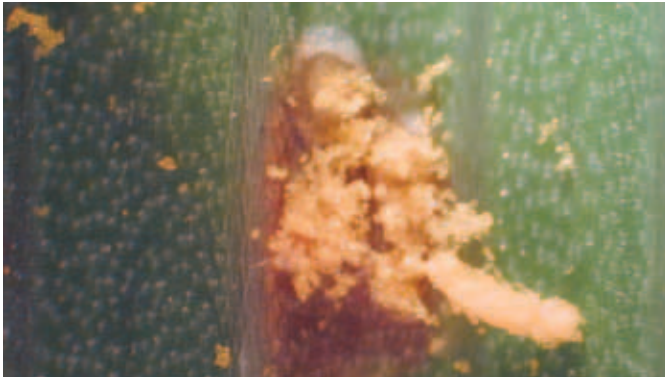


FIGURE 4 A yellow spot on a leaf blade caused by a rust is composed of the yellow plant tissue due to feeding by the rust, and the yellow-orange rust spores.

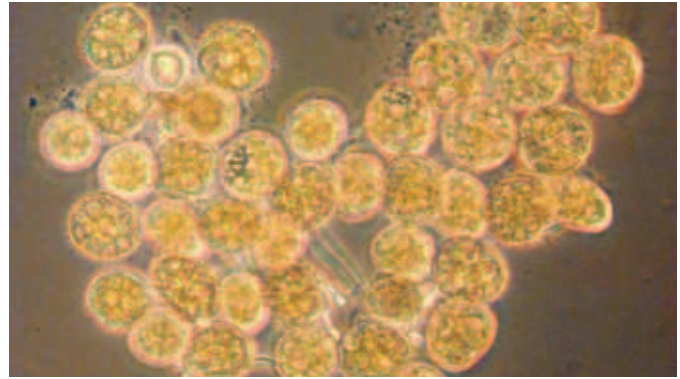


FIGURE 5 Rust spores are thick walled to withstand drying, and can travel long distances.

on the plant. These rust species are not known to be poisonous or produce toxins to animals, so occasional contact or even inadvertent ingestion shouldn't cause a health problem. Only aboveground plant parts are infected, and severe attacks may result in premature yellowing and shrivelling. After tissue has been killed or nearing the end of the growing season, brown or black spots composed of black winter spores may develop in place of the reddish-brown pustules (Figure 6).

Life cycle: Most rusts require more than one host species to complete a life cycle. In addition to the grass host, the other host, known as the alternate host, is usually a woody or herbaceous species such as barberry (Figure 1) or buckthorn (Figure 2). Typically the fungus overwinters on living or dead tissue of the grass host. If the fungus overwinters on living tissue, such as in areas of very mild winters, then there is no need to pass through the alternate host, and then the dormant mycelium will produce spores which serve as the primary source of infection in the following spring. This likely does not occur in northern latitudes including most of Canada because of the long winters.



FIGURE 6 Rust infections on perennial ryegrass later in the season. The rust has stopped producing the yellow-orange summer spores, and started producing the black winter spores which overwinter on dead grass foliage. The black spores will germinate in the spring to produce another short-lived spore than can only infect the alternate host, not the grass host.

In the spring, overwintering resting spores (teliospores) on dead grass tissue produce other spores (called basidiospores) which will only infect the alternate non-grass host. A few weeks after successful infection of this alternate host, another set of spores (called aeciospores) are produced in late spring or early summer which then infect the grass host. Infections on the grass host lead to production of pustules which bear many more spores (called uredospores) to re-infect grass (cycling stage which increases the amount of rust). As the grass host tissue dies off, another spore stage (usually black or dark brown and called teliospores) is produced on the grass tissue (Figure 6), and these structures overwinter to produce the next spore stage in spring.

Cultural Control: Mowing and managing fertility will usually control rust disease. If the grass is under irrigation, it should be watered infrequently but thoroughly early in the day to minimize leaf wetness periods and to avoid drought stress. Fertilization should be sufficient to avoid nutrient stress, and to improve leaf growth. Increased nitrogen fertilization may allow the plant to outgrow the disease so that infected tissues are mowed off before they have a chance to produce spores. Increased mowing height with greater frequency of mowing should also reduce disease symptoms, although some researchers recommend reducing the height of cut so that there is less foliage for infection. The drawback of this method is that the plant is weakened with a relatively smaller root system, and may be less able to fight off infection. Reducing shade and improving air circulation should lead to drier leaf surfaces and less opportunity for infection.

Chemical Control: No chemicals are registered for turfgrass rust disease control in Canada, but strobilurin and DMI fungicides have been found to be effective. Consult provincial publications and product labels for recommendations.

Resistant Turfgrasses: Cultivars of Kentucky bluegrass and perennial ryegrass with increased resistance to rust are available. Consult local publications or contact seed company representatives for lists of varieties. •

Except where noted, all images Tom Hsiang.



Cut and Line Self-Propelled Painter

Our new GPS guided application solution provides:

- Sports field line designs created, modified, pre viewed then properly stored by computer before any on field painting is performed.
- Organized field files can be reviewed anytime to check marking dimensions, marking placement etc.
- Eliminates all traditional "tools of the trade" aiding in field marking preparation.
- Start of season field painting takes no longer time than remarking; on field labour stays constant.
- Requires one staff operator
- Line quality is consistent and is controlled by RTK-GPS (sub-inch accuracy) autopilot.
- Rough surfaces and slopes have little effect on autopilot machine control.
- Sun glare, wind and even darkness have little effect on operator control.
- As fields are painted, electronic reports are created showing times, paint used, speeds etc. for cost management purposes.
- Pre-cuts grass and paints lines in one process.
- Functional, user friendly.

For further information please contact:

Simplistic Lines

#5358 Line 34 RR #5, Stratford, Ontario N5A 6S6
Phone: 519-348-0653 Fax: 519-348-0654
Email: info@simplisticlines.com



Rittenhouse Celebrates 100 Years – 1914-2014

"100 years as a family owned and operated company is an impressive milestone, and I feel privileged to be a part of that history" says current company president, Mark Rittenhouse who joined the company in 1985. "My grandfather, father and uncles encouraged me to learn all aspects of the business while growing up across the street from the original factory."

Rittenhouse has come a long way from its humble beginnings. The company has always been innovative with the products they sell and how they sell them in response to the countless green industry changes over 100 years: Mark's father, Glen, patented several equipment designs, and the company continues to build custom sprayers to this day; a 1990's mail order catalogue developed into one of the industry's largest shopping website and now ships product across North America on a daily basis as well as regular orders worldwide.

For more information or a more detailed company history, contact:

Wendy Rittenhouse

1402 Fourth Ave., St.Catharines, Ontario L2S 0B8
Phone: 1-800-461-1041
Email: wendy@rittenhouse.ca



"LEVELS AND GROOMS THE SURFACE WITH EVERY PASS"

Infield Groomer - The Ballpark-6® is the industry's original infield groomer, 6 foot width. It includes 5 standard adjustable grooming tools for speed, dependability and quality of surface. The Ballpark-6® is also ideal for working in soil conditioners and amendments.

Standard Equipment

- Ripper • Rake • Leveler • Roller • Brush



"LIP SERVICE FOR YOUR DIAMOND"

Edger - With its adjustable guide shoe, the Bannerman Diamond Edger is surprisingly easy to use. Its 3" blade depth and reversible, 20" concave disc work together to quickly eliminate ridging. Debris is spiraled into the infield for fast and easy clean-up.

Bannerman

Sports Turf
Distributors Wanted

41 Kelfield Street Rexdale, Ontario M9W 5A3
800-325-4871 • www.sportsturfmagic.com

The Only Sod You'll Ever Need!

- >> Self-repairing
- >> Drought tolerant
- >> Excellent colour & density



On a sports field there is a game to be played, a memory to be cherished, and a turf to withstand the wear. RTF Water Saver Sod can outplay and outlast other ordinary Kentucky bluegrass sods.

Specializing in:
Sod Installation
Sod Production
Hydroseeding
Kentucky Bluegrass/
RTF Fescue



VISSERS
Sod Farm
905-263-2126

For more information, please visit us online at www.visserssodfarm.com or give us a call.

Sports Turf Canada Elects 2014/2015 Officers and Directors

Members of Sports Turf Canada elected the 2014/2015 officers and directors at the annual meeting held recently at the Guelph Turfgrass Institute, home of the association.

Newly elected are president Tennessee Propedo/Director of Parks & Cemeteries for the City of Hamilton ON and vice president Tab Buckner/Manager of Parks Operations and Cemetery Services for the Township of Langley BC. Paul Gillen, president from 2010-2014, now serves as the immediate past president.

Returning to the board for a new term are directors Gord Dol/Dol Turf Restoration Ltd., Terry Henderson/City of Guelph ON, Ken Pavely/Lawn Life, and Paul Turner/G.C. Duke Equipment Ltd. Joining the board is Roger Macklin/City of Toronto, ON.

Continuing to serve the association are treasurer Ben Tymchyshyn/MMM Group Limited, and directors Bill Clausen/University of Guelph, John D'Ovidio/City of Mississauga ON, Gord Horsman/City of Moncton NB, and Dave Warden/City of Mississauga ON.

In accordance with the corporate by-laws the board filled vacancies in its membership at its first meeting, immediately following the annual general meeting. Jason Inwood/City of Vaughan ON was appointed corporate secretary.

We express our appreciation to departing directors Andrew Gaydon/Vanden Bussche Irrigation and Bob Kennedy/Sports Turf Management Solutions, both of whom have provided immeasurable contribution and support for many, many years. •

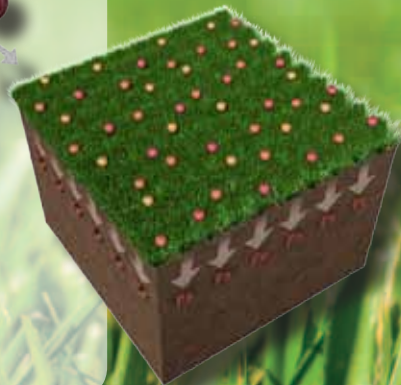
Apply iron more evenly

with Nutrite 20-0-12 50% Nutryon-S® Organic Base & HydroFuze®

HydroFuze®



The HydroFuze® process impregnates select micronutrients onto EVERY GRANULE of a fertilizer blend. This allows for an even and homogeneous distribution of the micronutrient wherever the fertilizer is applied and a better, more precise turfgrass response.



1.800.265.8865 | www.nutrite.com

Outsmart Mother Nature... Year Round!

EVERGREEN™ TURF COVERS

With 30 years of field proven experience and the longest warranties, EVERGREEN™ from COVERMASTER is the smart choice

SMART EDGE TECHNOLOGY™

- Hems and grommets are not required
- Unlike Polypro fabrics, EVERGREEN™ will not unravel
- Can be cut to custom sizes and shapes on site
- Anchor pins can be placed anywhere on the cover

UNIQUE DESIGN CREATES A TRULY 4-SEASON TURF COVER

- Winter blanket • Early spring green-up • Summer overseeding & repair • Frost protection • Extend your growing season

BE SURE TO ASK FOR EVERGREEN™, THE ONE WITH COLOR

- Provides additional light spectrum benefits for the turf
- Choose color based on your climate



Can be cut or shaped without fraying thanks to Smart Edge Technology™



The with and without look of natural turf using the EVERGREEN™ cover

COVERMASTER™
AHEAD OF THE GAME

Call Toll Free: 1-800-387-5808
Int'l: +1-416-745-1811 • FAX: 416-742-6837
E-mail: info@covermaster.com
www.covermaster.com



© 2013 Covermaster Inc.

covermaster.com/evad/



SPEARSEEDS

Lawn Care | Professional Turf
Sports Fields | Sod | Municipalities

Scott Bowman, Turf Specialist
P 519.338.3840
sbowman@spearseeds.ca






www.spearseeds.ca

Turf Genius®
Self Repairing PR Mixture

- Regenerating Perennial Ryegrass
- Aggressive lateral growth
- Excellent wear tolerance

Turf Genius®
Self Repairing TF Mixture

- Rhizomatous Tall Fescue
- Superior deep root system
- Advanced technology

Jump Start
Kentucky Bluegrass


- 5 to 7 day germination
- Compact Kentucky Bluegrass
- High traffic tolerance




Yellow Jacket®
Seed Coating

- Higher germination
- Holds 600 times its weight in water
- Helps seed thrive while conserving water


Celebrating 100 Years

Thanks to you, our customers, for making 100 years possible!



Rittenhouse
Since 1914



Space Saver Sprayer

Toll Free: 1-800-461-1041

www.rittenhouse.ca



Introducing Goals with Swivel Wheels

The **Evolution 1.1** and **2.1** Goals and the **Pro Premier European Match** Goal are now available with Swivel Wheels. The Swivel Wheels will make moving the goals much easier than our standard wheels and they are removable after use.

2B3306SW
Evolution 1.1

2B3406SW
Evolution 2.1

2B2001SW
Pro Premier European Match Goal

