The University of Guelph expanded its artificial turf inventory three-fold this year adding two new lit soccer pitches and a half-sized field to its inventory. The University also installed state of the art Polytan Liga 265 Turf on the rugby pitch in 2010. The new fields were constructed on the site of the multipurpose practice fields located on the east side of campus near The Arboretum. The facility now features two full-sized lit artificial soccer fields, a half-sized artificial practice field and a full-sized natural grass rugby/football field. The west soccer pitches will have seating for roughly 450 spectators and the east for approximately 120.

Looking back, the main problem with the University of Guelph’s sports fields was over-use causing such significant wear and tear that no amount of maintenance could keep them safe for play after a certain number of hours of use. University sports field use is between August 15 and November 30 each year. University of Guelph fields averaged between 45 and 60 hours of use each week during this time period. It was virtually impossible for the Grounds Department to maintain turf during that time period. All that could be done was keep the fields closed from April to August and work diligently to ensure they were in as good condition as possible for the start of the fall playing season.

The secondary issue was the University’s inability to host external clients on its sports fields. The Department of Athletics would receive numerous requests from local, provincial and occasionally, national sports organizations, for fields throughout the year and the department could accommodate none of them.

Taking a step back even further, in 1971, the sports field inventory consisted of Alumni Stadium (lights), a rugby pitch (lights), soccer pitch (lights), field hockey pitch (lights), main softball diamond (lights), South Diamond, and two football-sized multipurpose fields. Student population was under 10,000 students. Varsity athletic programs consisted of men’s football... >> cont. inside on page 16
Announcing
SELECTUS™
Not just new... better

Some would lead you to believe “all turf seed is the same.”
But the expert eye knows better, and reaps the results – gorgeous, healthy turf.
There is nothing new in this. That which is good or great makes itself known.

Drawn directly from the leading seed growers, Plant Products brings you the “best of the best” in turf and reclamation seed; SELECTUS™ by Plant Products.

Seed, fertilizer, biologicals, plant protection, and now... more than ever... Expertise.
Inside this issue...

REGULAR COLUMNS, DEPARTMENTS & SMALL FEATURES

4 The President’s Desk. By now, you should have received your call for nominations to the board of directors. Consider playing a role in 2012.

7 Event Calendar. January & February are full of educational opportunities.

13 Grass Seed Update. Prices are going to increase and a look at a new spreading perennial ryegrass.

27 STA Scholarship. Submission deadline is May 1; applications are online.


Without continual growth and progress, such words as improvement, achievement and success have no meaning. –Benjamin Franklin
President’s Desk

BY PAUL GILLEN

This was quite a year from a weather perspective – from a cold, wet spring to a hot, dry couple of summer months, to a very wet, yet pretty warm fall. It has made maintaining athletic turf challenging to say the least! Speaking of maintenance, the 2nd POSA Introduction to Synthetic Turf and Maintenance Workshop was held in Oshawa on November 10. For those of you who couldn’t attend, you missed a great opportunity to network and learn. On the bright side, we have included an interesting perspective piece on maintaining synthetic turf by former NFL head groundskeeper Rob Anthony in this issue.

For a greater understanding of synthetic turf certifications and testing, plan to attend the supplementary session at the Ontario Turfgrass Symposium. Grow Your Knowledge will be held February 22 & 23 at the University of Guelph. Special guest speaker is Dr. James Beard. I have worked in this industry for 30 years and Dr. Beard has always been known as the guru on the cutting edge of research, yet practical in his approach to application. OTS 2012 may be the only opportunity you will have to see and hear one of the truly great men of our generation in turfgrass science and I urge you to take advantage of it.

Keeping with tradition, the STA Annual General Meeting will be held during the conference on February 22. As this is our 25th anniversary year, I encourage all of you who can possibly make it to attend this historic meeting. You will have received your call for nominations to the board of directors by the time you’re reading this. Consider lending some of your time and giving back to the industry that supports you by volunteering as a director. It’s a wonderful networking experience and can be very rewarding as you help to shape opportunities for the next generation.

On behalf of the Board of Directors and our hard working staff, I wish you and your families a happy and safe holiday season and the very best for the New Year.

QUOTABLE QUOTE....

For last year’s words belong to last year’s language and next year’s words await another voice. ~ T.S. Eliot
Which Canadian city can claim to be the rainiest or the snowiest?

From St. John’s to Victoria, Canadians love to brag about the weather that they endure (or enjoy!). Surely their community must get the most this or that in the entire country! But which Canadian city really is the rainiest, the snowiest or the windiest? And where is the sunshine capital? To find the answers, David Phillips, Environment Canada’s Senior Climatologist, and the nation’s favourite weather guru, has analyzed 30 years of recent weather data for Canada’s 100 largest cities. To see how your city ranks and for what, visit http://climate.weatheroffice.gc.ca/winners/intro_e.html.

New & Returning Members

Ryan Scott, Gormley, ON
Rutherford Contracting Ltd.

Joe Breedon, City of Barrie, ON

Lorne Simpson, Town of Newmarket, ON

Robin Milne & Jeff Myer
Township of Guelph Eramosa, ON

Stephan Roy, Tapitec, Saint Laurent, QC

Andrew Godard, University of Guelph, ON

Scott Bowman, Speare Seeds

Jeremy Machin, Elora, ON
Township of Centre Wellington

November 2011 POSA Workshop

City of Mississauga’s Carmen Roberto (left) and Cliff Towers provided the Synthetic Turf Maintenance session for the second year running. The city’s first full year of operation with synthetic turf fields was in 2004 at the Hershey Sports Zone South. See pg. 15 for coverage.

Seasons Greetings From The STA

As we approach the end of 2011, on behalf of Lee, Cheryl & the STA Board of Directors, we wish you all Season’s Greetings and the very best in 2012.

Odds & Ends...

Turf Trades Employment Ads
Are you advertising a position or job searching? Visit us online at www.sportsturfassociation.com and click on Turf Trades. Cost is $75 plus HST for STA members for a 2-month listing.

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

Sports Turf Manager (STM) Advertising Opportunities
We keep professionals updated on leading research, STA programs and activities, and industry information and events. Because of its highly specific turf-related readership base, STM has proven to be a successful venue for industry advertisers. Contact us!

STM Editorial Content
Opinions expressed in articles published in the Sports Turf Manager are those of the author and not necessarily those of the STA.
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wrote Dann Daly, Park Maintenance Supervisor,
Parks & Recr. Dept., North Smithfield, RI

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- Faster seed germination
- Deeper root development
- Delays dormancy in fall
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- 3, 7 & 10 yr. warranty covers
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- Available in any size

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MEMBER

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Event Calendar

ASSOCIATION EVENTS ARE HIGHLIGHTED IN GREEN

December 15, 2011. Early Bird Registration Deadline. Sports Turf Managers Association 23rd Annual Conference & Exhibition. See details below...


January 6. Early Bird Registration Deadline. 21st Annual Ontario Turfgrass Symposium. See details below...

January 10-12. Landscape Ontario Congress
Toronto, ON, www.locongress.com

Note: STA members can register at STMA rates!


January 30 to February 24. University of Guelph Turf Managers’ Short Course Guelph, ON, www.tmsc.open.uoguelph.ca


February 22 & 23. 21st Annual Ontario Turfgrass Symposium “Grow Your Knowledge.” University of Guelph, Guelph, ON, www.turfsymposium.ca

Info: 519-763-9431, www.sportsturfassociation.com

If you have an industry-related event you’d like publicized, contact Lee at 519-763-9431, info@sportsturfassociation.com

TURF TRADES
Employment Bulletin Board

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 including HST is $84.75 for STA members and $113 for non-members for the initial 60 day period. Payment by cheque (Canada only), American Express, MasterCard or Visa must accompany the job description. Jobs will be posted in a standard page format.

Contact Lee Huether at the office at 519-763-9431, info@sportsturfassociation.com
Sports Turf & ORFA Specific Sessions

WEDNESDAY, FEBRUARY 22
High traffic sports fields that receive little or no synthetic pesticide inputs require strict attention to cultural management. These practices include regular mowing, irrigation (where available), fertilization, cultivation and seeding. This presentation will describe these practices in detail and show how to integrate them into a practical management plan.

W7. How to influence the sports field maintenance budget. John Lohuis, City of Mississauga (retired). Parks, recreation and sports administrators are continually challenged to meet expectations when fiscal resources are dwindling and demands are increasing! Identify key stakeholders and learn new ways of “making the case” to procure necessary resources to be successful.

W8. Panel discussion: Working with purchasing, permitting, specification writing and special events. Dwayne McAllister/Town of Oakville, John D'Ovidio and Rob D'Ovidio/City of Mississauga, Terry Henderson/City of Guelph, Dennis Wale/City of Brantford. Purchasing compliance agreement – does one exist in your municipality and are you in compliance? How do you make sure purchasing understands what you do and how you do it? What’s your relationship with permitting and how can it improve? How do you get the product that you require and stay within guidelines when writing tenders? Do you have the necessary policies and procedures in place to be successful at hosting special events? Learn how to react to these challenges and more.

>> Thursday sessions on page 11...

KEYNOTE ADDRESS (W3)
The history of turf. Dr. James Beard, International Sports Turf Institute. Dr. Beard is one of the world’s leading authorities on turfgrass science. He has spent most of his career in academic research and has pioneered investigations concerning turfgrasses and the ecology of grass. As the Guelph Turfgrass Institute and the Sports Turf Association celebrate 25th anniversaries, it is timely for Dr. Beard to discuss “The History of Turf.” This talk addresses the initial uses of turfgrass from the 15th century through the 18th century, early turfgrass cultural practices plus pre-1950 innovations in turf maintenance and post-1950 advances in turfgrass science.

General Sessions

WEDNESDAY, FEBRUARY 22
W2. GTI update and 25th anniversaries of the GTI and STA. Rob Witherpoon, Guelph Turfgrass Institute.

W4. Plant responses to climate change. Dr. Jonathan Newman, University of Guelph. A brief introduction regarding the impact of climate change on plant growth habits in Southern Ontario. Of particular interest will be how grass and weed species may respond.

W5. Phosphorous losses from turf and urban areas. Dr. Doug Soldat, University of Wisconsin. Environmental issues associated with phosphorus pollution from urban and turf areas. Learn strategies to minimize loss and respond to research regarding the accuracy of soil testing.
ONTARIO’S KEY ANNUAL TURF CONFERENCE

Registration for OTS 2012 is now open. Individuals interested in attending the Ontario Turfgrass Symposium on February 22 & 23 can register online by going to www.turfsymposium.ca. The new website is easy to use and provides both online and printable registration opportunities. Look to the website to provide other current and important information. The print brochure for Grow Your Knowledge, OTS 2012, will be distributed in early December. Join turf industry experts, speakers, delegates and sponsors for two exciting days at the University of Guelph this February.

Important Registration Details

EARLY BIRD DATE: JANUARY 6, 2012. STA DISCOUNTS!

As an STA member in good standing, you qualify for lower association rates. In addition, 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. Visit www.turfsymposium.ca or call 519.767.5000 for more information.
Celebrating 25 Years!

THE SPORTS TURF ASSOCIATION & THE GUELPH TURFGRASS INSTITUTE BOTH TURN 25 IN 2012

SPORTS TURF ASSOCIATION

The Sports Turf Association was conceived in 1987 when, at a ‘brainstorming’ session held 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 facilities where they relate to sports turf. Twenty-five years later we continue to promote better, safer sports turf through innovation, education and professional programs.

GUELPH TURFGRASS INSTITUTE

The initial idea for the creation of the GTI came from discussions amongst University of Guelph faculty after they had collaborated to host the International Turfgrass Research Conference at Guelph in 1981. Formally created by the University of Guelph Senate as a centre for excellence in turfgrass and related research, education and information, the GTI quickly garnered the support of the turfgrass industry through a fundraising campaign led by the Ontario Turfgrass Research Foundation. Sparked by a major donation from golf course owners Mac and Beth Frost, the campaign raised over one million dollars to fund construction of the G.M. Frost Research & Information Centre, that was officially opened in the summer of 1993. True to its original mandate, the GTI continues to serve as a focus for turfgrass research, education and information, not just for scientists and students at the University of Guelph, but for the entire Ontario and Canadian turfgrass industries.
Sports Turf & ORFA Specific Sessions

THURSDAY, FEBRUARY 23

An increasing number of sports governing bodies are setting standards for playing and material qualities of their synthetic sports surfaces. This session will describe how standards are set, what characteristics they cover and how governing bodies certify products and installations. Learn why an increasing number of markets around the world now use these standards as the basis of construction specifications for new fields, courts and track.

T2. What Lies Beneath BMO Field. Rob Heggie, BMO Field.
This session provides a brief history of the construction of BMO Field and illustrates some of the systems such as SubAir and glycol heating that helped to deliver green, natural turf in April. Also learn about the maintenance challenges of a sports field that is sodded with a native soil sod placed upon a sand based rootzone. Future plans for BMO’s field surface are also discussed.

T3. Problems facing sports field managers. Brad Park, Rutgers University.
Some of the most common problems facing sports field managers include field overuse, poor drainage conditions, baseball and softball skin surface irregularities, and encroachment of summer annual weeds. This talk will take a case study approach to defining these problems and providing solutions that can be accomplished using practical methods.

T4. Rhizomatous tall fescue and regenerating perennial ryegrasses for sportsfields. Dr. Joseph Wipff, Barenbrug.
How do these differ from traditional tall fescue and ryegrasses and what are the applications of rhizomatous tall fescue and regenerating perennial ryegrasses on a sports field.

T5. An update of the bioherbicide Phoma macrostoma and its potential use on sports fields. Dr. Karen Bailey/Agriculture & Agri-Food Canada, Stuart Falk/The Scotts Company. Phoma macrostoma is a new bioherbicide registered in Canada in 2011. Pre-emergent applications control emerging dandelion and other broadleaved weed seedlings, reducing the weed seed bank and preventing new weed establishment in established turfgrass or when sowing grass seed. The presentation will show how application may be beneficial in the maintenance of sports fields.

Browse the OTS brochure for more sessions and details!

General Sessions

The injury and death rate for park workers is three times higher than other workers. The parks’ workforce is varied: permanent, part-time and/or seasonal staff that includes young and new workers with a range of job experience, literacy levels, and health and safety training. Have you prepared for the health and safety of your staff?

T22. Turf things microscopic. Dr. Tom Hsiang, Dr. Ken Carey & Aurora Patchett/University of Guelph, Shahr-ram Sharififar/Natural Insect Control, Pam Charbonneau/OMAFRA.
This session will take advantage of on campus laboratory space to allow participants the use of dissecting microscopes to see things not easily seen with the naked eye. This includes mycelium and spores of turf, disease causing organisms, grub rasters, plant parasitic nematodes, insect parasitic nematodes and grass vegetative features.

T23. Cultural practices for high school and municipal sports fields. Dr. François Tardif/University of Guelph, Gord Doi/Dolf Turf Restoration, Ken Pavely/Dufferin Lawn Life.
This session covers the results of a three-year trial that examined overseeding at the GTI and City of Guelph in-use soccer fields as part of an integrated weed management system. Also presented is a 2010 study looking at the relative effectiveness of different aeration methods and slow release nitrogen products.
IT'S MORE THAN 100 YARDS OF TURF.

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It's not just about the fiber design or how close to natural grass you can get. It's not just about whose fields you've done or not done. It's about the entire experience. From the stability and backing of the company itself to engineering functional and high performance turf systems that combine durability, safety and ease of use, Shaw Sportexe brings it all together. No other company can give you the assurance, satisfaction and personal service that we provide.

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SEED PRICES FOR 2012 & A NEW RYEGRASS

For the past couple of years, purchasers of turfgrass seed have enjoyed the consequences of larger supply inventories and reduced demand (at least stateside). And as we all know, in the world of commodity pricing, what goes down eventually heads back up.

FORCES AFFECTING PRICING FOR 2012 INCLUDE:

• Shrinking inventories. Growers report their excess inventories are gone.
• Slowly increasing demand continent-wide (Cnd. market has remained strong).
• Production changes. A portion of the acreage that was devoted previously to turfgrass seed production has moved to agricultural crops such as wheat and other grains. Quite simply, farmers are going to grow crops that provide a better return, and grains are now outpacing returns over turfgrass seed.

As a result, our industry can expect price increases ranging from 5-15%. Of course, the Canadian dollar versus the American greenback will also play a factor for those varieties grown in the US.

INTRODUCING NATURAL KNIT™. Perennial ryegrass has consistently been an important component of a sports turf manager’s management regime. The introduction of stoloniferous ryegrass adds a new twist in keeping the centres of your fields from succumbing to the pressures of daily use.

Natural Knit™ spreading perennial ryegrass sends out pseudo-stolons from the base of the mother plant, either running at or just below the soil surface. One breeder reported stolons measuring several feet in length. Stolon production begins after vernalization (induction of the flowering stage), and this is important to remember when setting expectations. There can be a huge variance in the percentage of plants that send out the stolons. Numbers can be as low as 11% and as high as 100%, so due diligence is necessary when sourcing this seed.

Test data showed a marked improvement in turfgrass quality in high traffic environments. Seed size is smaller than traditional rye, resulting in a higher count per pound of product. Numbers reported are 268,000/lb vs. traditional rye at 247,000/lb. Natural Knit has been shown to be rather aggressive, and in a sports field situation, this can be a very good characteristic when a manager is struggling to keep turf in a goalmouth or down the middle. One breeder reports his cultivar has outstanding rust resistance as well. And, despite the stoloniferous reproduction, there is no thatch development.

Finally, winter hardiness has traditionally been a question mark for ryegrasses, and there is no indication at this point about any improvement in this area. Still, in a regular overseeding program, a 100% application of Natural Knit, or a blend with it, could improve turf quality in high traffic situations.

Contact your seed supplier this winter for further information.
— Ken Pavely, LawnLife Natural Turf Products

Editor’s Note: Look for what’s new in turf species at the 2012 Ontario Turfgrass Symposium; in sessions and in the concourse with our sponsor companies.
THE STUFF CHAMPIONS ARE MADE ON

UBU SYNTHETIC TURF SYSTEMS
UBU Sports offers a variety of synthetic turf systems scientifically engineered with proven components, to maximize player safety and provide the optimal playing surface for your sport. Call Dol Turf to find out more about our synthetic turf systems.
Continued Learning & Networking...

**FOLLOWING UP ON LAST YEAR’S HIGHLY SUCCESSFUL** professional development opportunity, this repeat workshop was offered under the leadership and co-ordination of the Parks and Open Space Alliance (POSA). More than 50 sports turf, facilities and parks professionals participated in sessions with leading industry speakers on the topic of synthetic turf. Our appreciation is extended to speakers Dru Chillingworth/City of Oshawa, Mario Pecchia/City of Toronto, Mark Nicholls/Turf Industry, UBU Sports, Gord Dol/Dol Turf Restoration Ltd., and Cliff Towers and Carmen Roberto/City of Mississauga. They, together with our exhibitors, presented a first-rate educational and networking experience for our delegates.

The City of Oshawa was a gracious host and we were among the first to experience the meeting room facilities at the newly renovated and expanded Civic Recreation Complex. The Complex received government infrastructure funding for the modernization and expansion of the facility. The project included:

- Replacing the Civic Auditorium Arena with an indoor multipurpose field house that has an international size artificial turf playing surface.
- A reconstructed parking lot.
- A new lit outdoor artificial turf playing field.
- Replacing the natural grass turf on Civic Fields Stadium field with an artificial turf playing surface.
- Replacing the existing running track with a higher quality rubberized track surface.
- Replacing the Stadium’s field lighting, fencing, sound system and expanding parking.
- Upgrading the Stadium.

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- Spreader of nutrient lawn fertilizers
- Spreader of seed on lawns
- Wide range of options
- Spreader for use on artificial turf
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**Bannerman Turf Topper**

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[www.sportsturfassociation.com](http://www.sportsturfassociation.com)
Continued from cover... soccer, rugby and women’s field hockey. Each program had their own practice/game field. Intramural use was extensive but focused on Monday to Thursday evenings after varsity practices.

Between 1971 and 2009, actual field inventory grew by only four slow-pitch diamonds and two small multipurpose spaces suitable for ultimate Frisbee. Meanwhile, student population had grown to 22,000 students. Varsity programs now include men’s football, soccer, rugby, lacrosse, women’s field hockey, rugby, soccer, lacrosse and softball. We more than doubled our student population and the number of varsity teams using our fields while adding minimally to the inventory. Field use was consistently from 4:30 pm to dark on the unlit fields, 4:30 pm until midnight on the lit fields Monday through Thursday, 2:30 pm until 9:30 pm on lit fields Friday, 10:00 am until 5:00 pm Saturdays and noon to midnight on Sundays.

By the first of October each year, the lit fields were definitely showing significant wear; by Thanksgiving they were mud bowls if it was a wet fall, dust bowls if dry. The unlit fields began to show significant wear after Thanksgiving and some years much earlier if we had excessive hours of use during the spring and summer.

In 2005, the Department of Athletics contracted the Consulting Services Division of the Guelph Turfgrass Institute to review our playing fields and provide a report and recommendations for improving field conditions. Among their recommendations was the establishment of one artificial turf field on the existing soccer pitch.

In 2007, the Athletic Facilities Master Plan was written. This plan suggested the need for four artificial turf fields to provide safe playing conditions year round for the department’s ever expanding programs and requests from external users. In 2008, the students voted in a referendum to support a new Athletic Centre and new field complex on the east side of campus with an additional student building fee for the next 30 years.

In May 2010, construction began on a new artificial surface on the rugby pitch suitable for soccer, football, field hockey, lacrosse and rugby. The field was completed in time for fall sports to begin their training camps on August 15, 2010. The Department of Athletics hosted Ontario University Association league, rugby, soccer, lacrosse and field hockey games throughout the fall culminating in hosting the Canadian Intercollegiate Women’s Field Hockey Championships in November. Intramural programs used every hour available for touch football and soccer.

The Guelph Youth Soccer Association took to the artificial field in April 2011 when the natural grass fields were not open and the feedback was outstanding.

Venture Construction acted as the lead in this design-build project with Centaur
Products supplying the Polytan artificial turf. The project was completed on time and within its $1.8 million dollar budget.

In May 2011, construction on Phase One of the new Gryphon Soccer Complex began with five weeks of rain. Stantec was the lead on this design-bid-build project and they provided an exceptional design that is practical and aesthetically pleasing. Wilco Landscaping acted as the General Contractor with Fairway Electric, AWS and Centaur Products as the major sub-contractors.

The additional artificial fields have allowed the Grounds Department to focus on the remaining natural grass fields and this year, Alumni Stadium was in the best condition it has been in since 1992.

The two lit soccer pitches were both completed in time for fall training camps to begin by August 15. The half-sized practice field was completed in late September. The natural grass rugby pitch was sodded the first week of November and will be ready for play next August.

Despite horrible weather conditions at the start of the project and during October, the project has been completed on time and within the Phase One budget.

Since the Gryphon Soccer Complex opened in mid-August, intercollegiate soccer, lacrosse and rugby training camps, practices and regular season games have been held. Intramural soccer, touch football and ultimate Frisbee fill almost every remaining hour. The 2011 OUA Women’s Field Lacrosse Championships took place there in October.

The additional artificial fields have allowed the Grounds Department to focus on the remaining natural grass fields and Alumni Stadium was in the best condition it has been in since 1992. Intramural sports now have the opportunity to play on superior turf from the beginning to the end of the season. The entire process from planning to implementation has been a positive, successful one for all involved – especially the users.
How does one determine what type of natural sports field you can afford to construct? There are many decisions that need to be made by user groups and programming staff prior to determining whether you require a high performance sand-based natural turf field or a non-modified natural turf field.

Based on my firm’s (MMM Group Limited) experience over the past several years, the selection between a sand-based and non-modified natural turf field can be a difficult choice for the client as the costs for many of the fields can surpass $200,000. Site selection is a major factor in determining sports field type. Whether the existing field is being replaced, a new field is being built, the field is a re-development of a brownfield, or the field is being built on landfill or engineered fill, the site will impact the choice of field.

There are numerous decisions that need to be made prior to constructing a natural turf field including:

- Is the site selection suitable for natural turf fields?
- Do you require FIFA accreditation or that of another international organization?
- Is field lighting a requirement?
- Is irrigation a requirement?
- Is drainage a requirement?
- And finally, you will need to hire a consultant with experience and understanding of natural turf.

Figure 1 on the adjacent page will aid in determining the type of natural turf field that is appropriate for your community and its needs.

Natural Turf: Athletic Field Pricing

Based on my experience with MMM Group Limited, I have outlined average field pricing for each category of natural turf in Table 1.

Pricing is based upon a new (green) build site or a renovation within an existing open space. Assumptions for the above pricing are that the field will be contained within a 120 x 75 square metre area and that all options within the field categories have been included within pricing.

Table 2 on page 21 outlines the permitting hours for the five categories of fields.

Note that Figure 1 (adapted) and Table 2 are from the Athletic Field Construction Manual, Sports Turf Association, 2008.

Table 1. Average field pricing for categories of natural turf fields.

<table>
<thead>
<tr>
<th>Category</th>
<th>Price Per Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$575,000</td>
</tr>
<tr>
<td>2</td>
<td>$520,000</td>
</tr>
<tr>
<td>3</td>
<td>$475,000</td>
</tr>
<tr>
<td>4</td>
<td>$410,000</td>
</tr>
<tr>
<td>5</td>
<td>$280,000</td>
</tr>
<tr>
<td>Lighting</td>
<td>$300,000</td>
</tr>
</tbody>
</table>

Design Team

Once you have determined the type of field, you will need to assemble and hire a design team. >> cont. on page 21
Figure 1: Summary of field categories based upon the Athletic Field Construction Manual, Sports Turf Association, 2008.

LIGHTS
Drainage
- Irrigation
  Sand-based (Category 1)
  Less than 25% silt plus clay (Category 2)
  25-40% silt plus clay (Category 3)
- No irrigation (not recommended)

No Drainage (not recommended)

NO LIGHTS
Drainage
- Irrigation
  Sand-based (Category 1)
  Less than 25% silt plus clay (Category 2)
  25-40% silt plus clay (Category 3)
  Greater than 40% silt plus clay (Category 4)
- No Irrigation
  Less than 25% silt plus clay (not recommended)
  25-40% silt plus clay (Category 3)
  Greater than 40% silt plus clay (Category 4)

No Drainage
- Irrigation (not recommended)
- No Irrigation
  All soils (Category 5)
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Choosing the right team is essential to getting the field you want and should include the following individuals:

- Landscape architect with design and construction based experience for all types of sport fields (natural, synthetic)
- Civil engineer and stormwater engineer as required
- Geotechnical engineer
- Testing lab for soil/agronomist
- Land surveyor
- Contractor administrator with construction experience for natural turf

Depending on the location and specific requirements of the field you may want to include:

- Architect – if building is required
- Structural engineer – if building is required,
- Mechanical/electrical engineer – if building is required,
- Exterior electrical engineer – if field lighting is required,
- Certified irrigation designer – if irrigation system is required
- Geotechnical engineer – for testing and inspections

It is important that the team members you choose have collaborated before and have a good working relationship.

This article points out that there are many factors leading to the selection of a natural turf field. Site selection, cost and amenities are all important factors to consider. Once a decision has been made on the type of field you will construct, choosing the design team is equally important.

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The selection between a sand-based and non-modified natural turf field can be a difficult choice for the client as the costs for many of the fields can surpass $200,000.


<table>
<thead>
<tr>
<th>Category</th>
<th>Permitted Days</th>
<th>Permitted Hr/Day</th>
<th>Consecutive Days of Use</th>
<th>Permitted Hr/Season</th>
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<tr>
<td>5</td>
<td>180</td>
<td>2.5</td>
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*Category 1 fields may have significant down time for restoration during the playing season. Category 1 fields require a high level of on-site supervision and management knowledge. Category 1 fields shall have controlled access.
Tips on Maintaining Infill Synthetic Turf

Rob Anthony, Turf Professional, Former NFL Head Groundskeeper & Horticulturalist

For the better part of the past 15 years, the sports turf landscape has been swamped with filament style, infilled synthetic fields. Although there is no doubt they are a vast improvement over the original Astroturf, they have still sparked debates of all kinds within the groundskeeping community.

Synthetic fields have gotten better and better over the years with millions of research dollars going into finding ways to make them look and play more like real grass, and dramatically improved construction methods are a far cry from the early days when it seemed like every field was installed by a road builder who thought he could grade for an athletic field.

While there is no doubt that synthetic turf has a place in the industry, no self-respecting groundskeeper wants one as his prized game field. After all, we are in this business to grow grass and to make it lush, green and beautiful, not to groom plastic. Still, we have evolved enough to recognize that having a synthetic field or two for a Division I or professional football team for two-a-day practices, etc., can be a savior for turf managers fighting the daily battle against the damage the ever larger players can do to a field in a short period of time.

In fact, an actual game seems like a walk in the park compared to practice because the number of players on the field at any given time is limited to 22 and the play is, for the most part, spread all over the field, without the dreaded repetition of drill after drill in the same location. The same is true for all the overused high school and community fields with no realistic budget or proper level of manpower to manage them correctly.

Maintenance Free Myth

As turf managers, we have learned a tremendous amount about these infill synthetic fields over the years and the equipment available to maintain them has grown by leaps and bounds, largely driven by a market need that now makes it profitable to manufacture said equipment.

We have also learned it is a myth to believe these fields do not require any maintenance. In fact they are anything but, and some calculations have shown that factoring in the cost of the initial installation, plus the investment in specific
equipment for their maintenance, and the inevitable replacement of the field 8-10 years down the road, means there may be very little, or even no savings at all over that time.

The issues with these fields are well documented: some have been improved, some are curable, and some simply cannot be cured. Dr. Andy McNitt at Penn State has been conducting a very extensive study for 10 years addressing every conceivable aspect of synthetic surfaces and using natural grass fields as a sort of benchmark for how they stack up, can be changed, improved and maintained to minimize some of the less desirable issues that they pose.

There are some very positive effects to having water available for a synthetic field that were initially overlooked. Consider installing a perimeter irrigation system with your new field.

Some of the early problems that were not anticipated involve compaction of the infill to levels that rival the hardness of Astroturf and cause leg fatigue and concussions; extreme heat on the surface caused by the black rubber infill and underlayment; silica sand dust from the sand infill that has been linked to silicosis; and bacteria that grows on the largely sterile surfaces. The results of these studies have given rise to solutions to some of these problems. Some have proven to be less of an issue than originally thought, but some have shown that they cannot be overcome with any reasonable activity. Altogether however, this is where the no-maintenance theory has been dispelled, and in fact proven that to have a quality synthetic field, it is actually rather maintenance intensive.

One of the issues that has been shown that cannot really be overcome through any conventional means is that of heat or temperature. Synthetic fields have been measured with infrared thermometers in the south, in the summer, just when most football teams are headed to summer camp, at temperatures of up to 160 degrees Fahrenheit (71º C) on the surface. The bottoms of athletes’ shoes have measured as high as 125 degrees (51.5º C). This has caused a shift in the way these fields are used to confine practices to times of the day when the sun is not as intense and the field temperatures are lower. For two-a-day practices, 7 am and 7 pm are the preferred times.

The Water Factor

It was originally thought that the application of water to synthetic fields would lower the surface temperature, although no one had provided for a way to do this since it seemed unnecessary at first. People tried various options. Water cannons were brought in to run down the middle of the fields as if growing in a natural grass field. This was not the best solution however, as it typically takes a cannon two hours to travel the length of a football or soccer field. Nevertheless, at first this seemed as though it may be a viable exercise. Initial application of water to a hot synthetic field showed a drop in surface temperature of sometimes 50 degrees or more. This seemed promising, however it was soon discovered that this drop in temperature was very short lived and often lasted no more than 15 minutes. On top of that, it added an element of humidity. This was often right at the level at which the athletes were working, and some reported the humidity made the situation even worse.

Despite the above, there are some very positive effects to having water available for a synthetic field that were initially overlooked. In the summer of 2002, Southern Methodist University in Dallas decided to replace its Bermuda grass game field with a synthetic one to accommodate the football team being able to practice in the stadium every day. As head groundskeeper, I saw an opportunity to take advantage of an irrigation system that was already in place.

We left the system under the field (it was already a 100% sand-based root zone and that was also left intact in the event we would ever want to go back to natural grass) and only removed the heads, capped the swing joints and turned them down in the sand, removed the valves, and altered the plumbing slightly to ensure there would be no water under the field. We then took the perimeter lines and moved them out to the edge of the rubberized warning track and changed the heads from sports field heads to golf course heads so that nearly 100% of the field could be reached with just a perimeter system.
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The above strategy was important, and I’m so glad we had the foresight to do it. I knew what was on my field after every practice, game, or for that matter, any event. Think about some of the substances that are deposited on a field during a contest – substances that I would typically wash out with post game irrigation anyway – although the primary importance of that was to begin the healing process for the natural grass as quickly as possible. You have blood, vomit, sweat, spit, potentially other bodily fluids (believe me, I’ve seen it, even in a packed stadium), and of course the obligatory 10-20 gallons of sugar-filled Gatorade or other sports drink dumped directly on the field by the trainers after every game as they packed up to leave the field.

Some moisture in the field gives the players better footing, and cuts down on the sand and rubber flying that we see on very dry fields.

Now think about all the available living microbes in a natural grass field that would typically render all of this a non-issue. Not so on a sterile synthetic surface, so as soon as the field was clear, the equipment removed, and the bench tarps rolled up, one would go the irrigation to begin the flushing and cleaning process. I believe this to be one of the biggest tools we had available to us in maintaining that field and in keeping what is now an 8-year-old field still looking like one of the best synthetic fields in the country.

There were also other benefits to being able to apply water that we found advantageous. Many groundskeepers with sand-based root zones, particularly with Bermudagrass, have seen that a wet field actually plays better than a dry field, even in a light rain. This is because the root zone is firmer and allows for better footing. As long as there is no soil which gets slippery when wet, this is a proven improvement. The same is true for a synthetic field. Some moisture in the field gives the players better footing, and cuts down on the sand and rubber flying that we see on very dry fields.

This is no small issue to the players who have to deal with these substances in their eyes and noses and can be a bigger problem than is often publicized. Applying water will also cut down on the displacement of the infill, especially at the line of scrimmage where the most aggressive footwork takes place, and it cuts down on static electricity, whether you use a fabric softener or not. This helps with the static attachment of the rubber particles to helmets, but has become an even more significant benefit as more and more players have gone to clear plastic face shields. If you watch closely, you will routinely see these particles attached to all parts of the uniform, but especially the plastic parts like the helmets and shields.

A good soaking of the field during the early morning on game day, or even the night before, will allow you to realize these benefits during the game, and with any required painting complete and the game set up not yet in place, the timing works out perfectly. Only in very hot climates and in the early part of the season, when it is typically warmer everywhere, may the moisture not last for the entire game, but it will last a long time and is always worth the effort.

Lesson Learned
It is important to remember that very little of the above can be accomplished without an in-ground irrigation system just like you would use for a natural grass field. Although it can be done, it is not recommended to place live irrigation lines directly under the playing surface because of the obvious repair nightmares should something go wrong – synthetic grass cannot simply be removed and replaced like natural grass. Because of this, perimeter irrigation is a fantastic tool that very few groundskeepers think about.

You should demand it if you have to make a change, or build a new field, and field designers should recommend it when designing a field. The cost is minimal in the grand scheme of the project and it pays untold dividends that are rarely considered, even if cooling the surface is not one of them. There are ever emerging, new technologies, albeit expensive, that will one day address that issue for sure.

— Reprinted with permission from the February 2011 issue of SportsTurf (also published on www.sportsturfonline.com)
Agrium Adds to NA Marketing Team

LOVELAND, CO. (NOV. 7, 2011). Agrium Advanced Technologies today announces the addition of Ron Dekok as North America Marketing Manager for the company’s Turf & Ornamental Wholesale division.

In his new role, Dekok will have responsibility for each of the POLYON® and DURATION CR® Controlled-Release Fertilizer and PRECISE® Controlled-Release Protection product lines in North America. Based out of Agrium Advanced Technologies headquarters in Loveland, CO., Dekok will report to Jeff Novak, Vice President of Marketing for Agrium Advanced Technologies.

“Ron’s product, customer, market and distribution expertise will be extremely valuable to help us accomplish our aggressive sales goals for the Turf & Ornamental Wholesale division,” said Andrew Mittag, President, Agrium Advanced Technologies. Prior to joining the Turf & Ornamental Wholesale division, Ron served as Marketing Manager for Direct Solutions, the direct-to-market sales division of Agrium Advanced Technologies. Dekok had also worked as the Sales & Marketing Manager for the Canadian ProHort division prior to and following its acquisition by Agrium Advanced Technologies in 2008.

ABOUT AGRIUM ADVANCED TECHNOLOGIES

Agrium Advanced Technologies is the leading manufacturer and marketer of slow- and controlled-release fertilizers and micronutrients in the agriculture, professional turf and ornamental, consumer lawn and garden, and specialty agriculture markets. Agrium Advanced Technologies’ brands include: ESN®, POLYON®, XCU®, NITROFORM®, NUTRALENE® and DURATION CR® slow- and controlled-release fertilizers, ULTRA YIELD® Micronutrients, AMP™ and PRECISE® controlled-release plant protection. Agrium Advanced Technologies is a strategic business unit of Agrium Inc. For more information or to contact us, please visit www.agriumat.com.

Four-Year Partnership For Kwik Goal

OTTAWA, ON (SEPT. 27, 2011). Kwik Goal, Ltd. and the Canadian Soccer Association are pleased to announce an agreement naming Kwik Goal as an Official Supplier to the Canadian Soccer Association. Under terms of the agreement, Kwik Goal will provide equipment exclusively to the Canadian National Teams in the soccer goal, soccer field and training equipment, and coaching accessory categories. The agreement runs through 2015.

“The Canadian Soccer Association is pleased to add Kwik Goal as a partner,” said Peter Montopoli, General Secretary of the Canadian Soccer Association. “We are confident that with their support and innovative equipment, we can provide improved competitive and developmental environment to our teams and coaching staff.”

“Kwik Goal is proud to call the Canadian Soccer Association a partner,” said James J. Pepe, Director of Marketing for Kwik Goal. “The Canadian Soccer Association is looking to continue its tremendous strides in the development of players and coaches in Canada, and we look forward to helping them achieve their goals through our innovative line of equipment and accessories. As the game continues to grow in Canada, we look forward to being there every step of the way.”

About the Canadian Soccer Association. The Canadian Soccer Association, in partnership with its membership and its partners, provides leadership in the pursuit of excellence in soccer, both at the national and international levels. The Canadian Soccer Association not only strives to lead Canada to victory, but also encourages Canadians to a life-long passion for soccer. For more details on the Canadian Soccer Association and its National Teams’ schedules and results, please visit www.canadasoccer.com.

ABOUT KWIK GOAL

Kwik Goal was founded in 1981 and is celebrating its 30th year as a soccer goal manufacturer. A full line of soccer goals, training equipment and coach accessories can be viewed on www.kwikgoal.ca. Kwik Goal has worked closely with Toronto FC, Vancouver Whitecaps FC and Montreal Impact.

Once a year, advertisers who commit to space in all four issues of the Sports Turf Manager can submit a press release.
Robert W. Sheard Scholarship

Dear Board of Directors and Scholarship Committee,

I am writing to thank you for the honour of being selected to receive the STA Robert W. Sheard Scholarship for 2011. It gives me great pride to be recognized by my peers and by an association whose efforts provide support to and promote sports turf managers and their trade. I know the value of continuing education and the importance of promoting the trade and its professionals and the Sports Turf Association does a great job at both. I look forward to all the opportunities afforded me by the Sports Turf Association.

Keep up the good work!

Yours Truly,

R. Buy Mackie, Cit, Landscape Technician
Assistant Foreperson, Sites, Waterloo Region District School Board

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Have a great article idea or job site story you’d like to share?

We welcome submissions on a variety of turf-related topics. For details, contact Lee at the STA office.

IMPORTANT DATE

May 1 Application Deadline

The Sports Turf Association (STA) established a scholarship program in 1993 and has since honoured almost 30 individuals. The STA Robert W. Sheard Scholarship ($1,000) is funded through STA membership fees and is intended to assist students with the cost of tuition, books and related expenses.

We encourage you to apply if you are 1) a Canadian citizen or landed immigrant; 2) currently enrolled in and have completed two semesters of education in a post-secondary program in turf management at a recognized college or university in Canada; or, have completed the University of Guelph’s Turf Managers’ Short Course, or equivalent, in the current year; and 3) have a desire to pursue a career in the sports turf industry.

The STA is dedicated to the promotion of better, safer sports turf through innovation, education and professional programs. If you or someone you know could benefit from the Robert W. Sheard Scholarship, please submit an application. Scholarship policies, criteria and an application form can be found online at www.sportsturfassociation.com.
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