Fertilizer Technology: Understanding Slow Release Nitrogen

Dr. Eric Lyons, Associate Professor, Department of Plant Agriculture, University of Guelph

The introduction of synthetic fertilizers such as urea revolutionized turfgrass management. Finally there was an efficient, inexpensive nitrogen source to increase fertility and therefore growth and vigour of turfgrass stands. The issue with readily available fertilizers is that they need to be applied every three weeks to have a steady growth pattern. This is usually not feasible considering the labour costs involved in application. The solution is to use a slow release fertilizer that provides a steady release of nitrogen available to the plant throughout the season. In order to most effectively use slow release fertilizers, turfgrass managers must understand the factors that affect the release of nitrogen from the product.

Slow release fertilizers can be categorized in many ways. In this article they are categorized by the factor that predominantly affects the release, either water or temperature. In order for release to occur with any of these fertilizers, both factors have an effect, but one is always more important than the other. Fertilizers that release based on water availability will release more with increased moisture. If you have a wet summer, release will be faster and you will get more growth and most likely have to reapply sooner than during a dry summer. Conversely, temperature-based release products need some moisture but adding more moisture does not speed the release. Rather, a cooler summer will have slower release than a hot summer. This means that a cool summer may lack in fertility while a hot summer may have increased growth and the need to reapply sooner.

Generally, temperatures are more predictable than rainfall, so fertilizers with temperature-based release can be more predictable and often more expensive. That being said, understanding the release and incorporating some flexibility into your management strategy can allow a sports field manager to maximize the efficient delivery of nitrogen to create the optimum growth for his or her operation.

>> continued inside on page 21

Inside Features

STA Field Days 1 9

Yes, we hosted two this year, the first on July 21 in Moncton, New Brunswick, and our annual Ontario event was held September 22 in Oakville. Coverage begins on page 9 with lots of photos. Many thanks to all participants!

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28 GREEN BENEFITS. Debbie Whitehouse shares information on the benefits of parks and open spaces in our communities.
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WHAT’S ONLINE

www.sportsturfassociation.com

Michael J. Bladon Educational Link
The complete digital archives of the Sports Turf Manager as well as full subscriber access to Michigan State University’s Turfgrass Information Centre.

STA Membership Directory
Is your contact information current? Your email address must be registered to login to the “Members Only” section.

Members Only Section
Coming Soon: Call for nominations and details of our AGM.

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President’s Desk

BY PAUL GILLEN

OW – that is the only way that I can describe the inaugural Atlantic Sports Turf Field Day in Moncton on July 21. The organization and hospitality were first class, the presentations were thorough and down to earth, the weather cooperated, and the sponsors and suppliers stepped up with a genuine show of support. Special thanks to our host, Gord Horsman and the City of Moncton; to our moderator, Bob Daniels; to our presenters Eric Lyons, Katerina Jordan, Gord Dol and George Bannerman; and to the suppliers – you all made this a day to remember. Be sure to see Bob Daniels’ recap ahead in this issue.

Speaking of field days, as I pen this message the Annual Ontario Sports Turf Field Day is coming up on September 22 and this year, it’s being hosted by the City of Oakville. Our thanks to hosts Jane Arnett and Dwayne McAllister and all the industry suppliers who will be onsite to discuss the latest in equipment and technology. We have a great program of guest speakers and timely subjects including crime and the sports turf manager, water conservation, alternative weed control in a pesticide-free environment, and fertilizer technologies. Look for highlights in this and subsequent issues of the Sports Turf Manager.

Have you thought of playing a more active role in the STA? Being a director is a rewarding volunteer effort – not to mention a great networking opportunity. Watch for the call for nominations.

We received three applications for the Robert W. Sheard Scholarship this year. Each was impressive and made the selection process difficult, but the committee decided to give the 2011 award to R. Guy Mackie. See his essay that was submitted as part of the application on page 23 of this issue. The quality of the applications this year inspires real confidence for the future of this industry. The award will be presented at the Fall Field Day.

The POSA Summer Operational Forum was held this year in the City of St. Catharines. This forum addressed a variety of occupational health and safety issues as they relate to sports field and parks maintenance employees – management as well as staff. Our featured guest speaker was Debbie Whitehouse, Senior Director Guest Relations, Gardens & Nature, for the Niagara Parks Commission. A synopsis of her presentation can be found on pages 26-29.

We are pleased to advise that we will again be offering a synthetic turf workshop in cooperation with our POSA partners. This year’s event will be held in Oshawa on November 10th. This is a great opportunity to gain firsthand knowledge of everything that goes into the selection, budgeting, construction and maintenance of a synthetic turf field. Complete details are available at www.POSAlliance.ca.

Just a reminder, too, that the Ontario Turfgrass Symposium will again be held at the University of Guelph on February 22 & 23, 2012. The brochure will be available later this fall. Watch for it!

It’s been a busy year, but extremely rewarding. We work in a great industry with really good people. I hope to see you out to at least one of the events in the coming months.
Congratulations Guy Mackie, 2011 Scholarship Winner!

GUELPH, ONTARIO. The Sports Turf Association is pleased to announce the recipient of the 2011 Robert W. Sheard Scholarship. R. Guy Mackie is a graduate of the University of Guelph’s Turf Managers’ Short Course, the Landscape Technology Program at Humber College, and is a Certified Irrigation Technician. He is Assistant Foreperson, Sites and Fleet Services, with the Waterloo Regional District School Board. The award was presented to Guy at the STA’s 24th Annual Field Day held September 22 in Oakville.

As part of the application process, candidates are required to submit an essay on a sports turf-related topic of their choice. Read Guy’s candid essay “Sports Turf Management in a School Board Environment: The Challenges” on pages 23-25.

THE STA ROBERT W. SHEARD SCHOLARSHIP. In order to encourage, support and provide leadership to those considering a career in the sports turf industry, the STA established a scholarship program in 1993 and has now awarded 29 scholarships. The scholarship program is funded through STA membership fees and is intended to assist with the cost of tuition, books and related expenses. For scholarship policies, application requirements and an application form, visit www.sportsturfassociation.com. Deadline for submissions for the 2012 award is May 1.

Speaking of Atlantic Canada

STA President Paul Gillen enjoys a lobster boil at the speakers dinner hosted by the Horsman’s. Full coverage from our 1st Atlantic Field Day, held July 21 in Moncton, can be found on pages 9-11. Feedback has been nothing but positive and we’re looking at increasing our eastern exposure in coming years. Stay tuned...

New & Returning Members

Steve Naumoff
Dol Turf Restoration Ltd., Bond Head, ON

Robert Mullane
Halifax Regional Municipality, NS

Sean Bradbury
Zander Sod Co. Limited, Kettleby, ON

Ray Walsh
City of Saint John, NB

Paul Proulx
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Odds & Ends...

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Event Calendar

ASSOCIATION EVENTS ARE HIGHLIGHTED IN GREEN


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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.ots.open.uoguelph.ca

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.

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An Energizing Inaugural Event.

THE CATCHPHRASE FOR THE EVENT was “Meet Us in Moncton” and the invitation was well received! More than 100 turfgrass industry professionals gathered at the geographic centre of the Maritimes for the Atlantic Sports Turf Field Day on July 21. The response was remarkable and the enthusiasm energizing for our inaugural eastern event.

A HANDBUL OF THE COMMENTS RECEIVED TO DATE:
• “Qualified presenters with research-based material.”
• “Practical information that is easy to apply.”
• “Highlights of major issues affecting turf maintenance and the importance of the turf manager.”

>> Turn the page for photos and a summary of the day by Chair Bob Daniels.
ATLANTIC SPORTS TURF FIELD DAY SUMMARY

The turf industry in eastern Canada reached another milestone on July 21 when the first Atlantic Sports Turf Field Day was held in Moncton, New Brunswick. The event was presented by the Sports Turf Association, in cooperation with the City of Moncton, and marked the first time that such an event was held in this region. A measure of just how successful this day was is that in excess of 100 individuals representing the sports turf industry were in attendance and participated in the events.

Throughout the years, several methods have been and are still used presently to provide education to sports turf managers. These have consisted primarily of specific week-long training sessions offered through the Office of Continuing Education at the Nova Scotia Agricultural College and a sports turf session component, first at the Regional Turf Conference held in Saint John, NB, for several years, and thereafter via a combined session with the Annual Atlantic Golf Superintendents Association meetings. Another learning opportunity was held in conjunction with the annual meeting and educational symposium sponsored by Plant Health Atlantic in Sussex, NB. While all of these were both successful and beneficial, the recent field day was the first time that a session specific to sports turf managers was held in Atlantic Canada.

The commitment and efforts of the two main organizers were the driving forces behind this event. The Sports Turf Association provided leadership in organization, speaker selection, advertising, promotion and registration, while the City of Moncton provided an ideal setting as host. Due to its central location, Moncton made the event accessible to a wide range of participants enabling most to make it a day trip substantially decreasing the cost.

The support and promotional assistance of Plant Health Atlantic, the numerous provincial associations who serve the industry, and Mike Jiggins, editor of Turf & Recreation magazine, greatly contributed to the success of this event. Gorden Horsman, City of Moncton, and his staff did an outstanding job in having the sports facilities in excellent condition, providing individual tours to specific sport fields and ensuring that all events went smoothly. The attendance by Tab Buckner of the Western Canada Turfgrass Association gave us an east-to-west coast perspective.

Those who made the day most successful however were the 79 individuals who registered for the event and participated attentively in the educational sessions both in the morning, held inside, and the onsite outdoor afternoon sessions. Suppliers of the turf industry also heavily supported this event, with 25 individuals representing 14 industry related suppliers participating in the successful tailgate trade show.

The day began with official opening remarks by Paul Gillen, President of the Sport Turf Association. Paul welcomed all attendees and expressed his commitment that the STA would like to continue its support with future sessions if interest by local practitioners remained keen.

The first speaker was Dr. Eric Lyons, University of Guelph, who focused on using fertilizers correctly and in doing so, reducing the need for pesticides. This was accomplished by providing a review on the role of each nutrient and the consequences of providing individual nutrients to turfgrass throughout the growing season. As all cultural practices significantly affect the overall health of turfgrass, such practices as correct mowing and seasonal aerations were incorporated into proper seasonal fertilizer usage. His position that a healthy turf results in a reduced usage of pesticides...
while still providing for an acceptable playing surface emphasizes the present and future environmental trend in sports turf maintenance.

Continuing on the reduced pesticide theme, Dr. Katerina Jordan, University of Guelph, delivered the presentation Putting IPM Into Action. First, she provided a background and basic review of IPM, emphasizing pests specific to this region. Tips on pest identification and acceptable thresholds were provided. Once these were established, individuals were given advice on how to scout for the various pests, and when found and identified, procedures on how to properly record their existence and establish threshold levels. Lastly, the importance of IPM in the overall seasonal turf maintenance program was discussed.

Third speaker for the morning session was Gord Dol of Dol Turf Restoration. His topic was Synthetic Turf. As many new and upgraded products are now available, Gord spent time explaining each, emphasizing their advantages. He also indicated specific usages, which is valuable information for individuals considering either replacement of an existing artificial surface or installation of a new artificial playing field.

Afternoon activities included a barbecue lunch and a tailgate trade show with individual suppliers present to explain their products and answer questions.

The afternoon concluded with a practical demonstration on the technique of infield grooming by George Bannerman, Gordon Bannerman Ltd. In addition, George gave demonstrations on removing infield lips on ball fields and mechanical drainage of individual localized wet areas. The grooming session emphasized the necessity of proper mechanical set up of both the field groomer and tractor. The pitfalls of improper preparation and operating techniques were also covered. The benefit of this type of onsite discussion and practical demonstration is that individuals can easily take the information home with them and implement it immediately.

Based on participant response, this event was a great success and support for continuing these sessions appears to be strong. Presently, all involved are evaluating the day and a decision will be made on how best to proceed in the future. It is most likely that future offerings will be based on a similar format whereby the expertise and leadership of the Sports Turf Association is combined with organization from within the region.

— R.W. Daniels

Editorial Note: The STA expresses appreciation to Bob Daniels, Adjunct Professor, Turfgrass Science, Nova Scotia Agricultural College, for his tremendous support, assistance and participation as chair of the event.

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TRUE TO FORM (or, at least as one would hope), the last day of summer was bright and sunny; a clearing of skies from the rain which preceded and then followed. More than 200 participants representing the turfgrass industry joined us “Onsite in Oakville” for the 24th Annual Field Day at the Glen Abbey Community Centre on September 22. The respected speakers, topics that were varied and on trend, tremendous supplier support and presence, delicious lunch, and of course, the delegates who were keen to learn, all contributed to the day’s success.

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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.
General information regarding the facility. Glen Abbey Recreation Facility, 1415 Third Line, Oakville, has three natural playing surfaces, one hardball, one softball and a field hockey pitch that doubles as a mini soccer field. Adjacent to the fields are a skateboard park, one basketball court and four outdoor tennis courts. The recreation building houses two community rinks, a gymnastic facility, squash courts, pool and a library facility for the Glen Abbey community.

What types of sports fields are on site? Natural? Synthetic?
All fields are natural and irrigated.

How many employees are involved with turf care at this facility?
No permanent staff are designated to the facility. It falls under an area serviced by one full-time sports field operator with two seasonal summer students. A sports field cutter cuts irrigated surfaces three times a week. Another crew cuts general parkland.

How many acres of turf are maintained at this facility? How many acres of sports turf? Glen Abbey is just over 5 hectares, three of which are used for playing surfaces.

What percentage of this acreage is irrigated? Over 50%. Baseball diamonds, the field hockey pitch and select shrub beds surrounding the site are on our central irrigation system.

What is the primary type of turfgrass? Name of varieties.
Perennial rye and Kentucky blue.

Is yearly overseeding part of your sports turf maintenance program? Yes, we overseed in the spring, summer and fall with extra attention paid to high traffic areas.

How many times do you fertilize? Irrigated surfaces are done three times; general parkland once.

Do you aerate? Topdress? We aerate 5x/year and topdress three times with lots of spot seeding/topdressing during play.

If applicable, what is your maintenance regimen for synthetic turf? Not applicable at this location.

Are community user groups involved or have they been involved in the construction/maintenance of this facility? In what manner?
Community volunteer groups sometimes pick up litter in the skateboard area and along the creek trail.

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?
Our fields are operational from late April until mid-October, weather permitting. For the most part, our user groups are community based and school boards. Occasionally, we receive bookings for special events. We close the fields when we get inclement weather as long as permitting has enough notice to get the information to user groups. As far as closing to help the turf recuperate and do some maintenance, we are currently unable to do so because there is a lack of alternate sites for groups to be moved to.
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What is your role with the Town of Oakville? Supervisor – Sports Fields and Integrated Pest Management.

What kind of team do you work with? I am fortunate to work with a highly dedicated parks team who do their best to ensure the internal and external client experience at our sports facilities is top notch.

What are you and your team responsible for? Our team covers the entire Town of Oakville and is specific to the maintenance of sports fields and the Town’s IPM program. We maintain 56 irrigated fields, two artificial, one cricket pitch, and assist with the community run bowling green. We also maintain numerous class B&C fields on parkland and school board properties.

What is the biggest challenge in your job? One of our largest challenges is balancing permitting hours with down time for maintenance. Like so many municipalities, Oakville is growing in leaps and bounds. It is a long process to get new community parks in place to accommodate increased user enrolment. Each year, groups want a bigger slice of the available time. The end result is that there is more use on existing fields.

What is the most satisfying part, what makes the job worthwhile for you? It is exceptionally nice to look at the address section of an e-mail and see that the Mayor, Commissioner, Director and Manager have all been notified that frontline staff did a great job. I know they did, but acknowledgment from the client and being the bearer of that message to the team who did the work is very fulfilling.

What is the biggest misconception about your job? That we take winter off. The general public has no idea how much work goes into scheduling, hiring and equipment maintenance to make the following season run smoothly. Throw in the natural ice rinks and snow removal and our winters can be as busy as the summer.

Tell us about your family. Born in Oakville, with my teen years spent in Ottawa, it is fitting that I landed back in Oakville to work. My fantastic wife Linda and I have an eight year-old son David. We recently moved to Oakville from the Puslinch/Guelph area. My wife and I are football fanatics – she’s a Packers fan and I’m a Bears guy. Makes for some interesting discussions.

What do you enjoy doing outside of the workplace? Hobbies, favorite past times? My current hobbies pretty much involve being the taxi driver for David’s sporting events. I’m the coach of his hockey and lacrosse teams and have a blast doing so at the house league level. We use my brother’s cottage up Minden way in the summer but for the most part enjoy down time working around the older home we bought.

How has the industry changed and in what direction(s) would you like to see the industry, as a whole, move towards? We are all so much wiser on the benefits of IPM and reduced pesticide use, but I think water conservation and reuse needs to be brought more to the forefront. We know in that in the near future it’s going to be a huge issue. I would like to see a movement towards central irrigation systems as part of the blueprint for our new parks along with greywater recycling.

What do you consider to be the biggest benefit of being a member of the STA? There are several. It’s an easy avenue to keep abreast of all the advancements and technologies out there for us to use, and the networking, which occurs from being an active member, is also a great benefit.
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Fertilizer Technology: Understanding Slow Release Nitrogen  
Dr. Eric Lyons, Associate Professor, Department of Plant Agriculture, University of Guelph

WATER-BASED RELEASE

Sulfur Coated Urea (SCU)
SCU is a prill of urea that is coated with sulfur. The sulfur protects the urea from immediately dissolving when it comes in contact with water. The sulfur must first dissolve before the water can dissolve the urea inside. The release of SCU is often referred to as catastrophic release because once the integrity of the coating is compromised, the urea immediately becomes readily available.

Isobutylidene-diurea (IBDU)
IBDU is urea that is reacted with carbon to form a short carbon chain attached to the urea molecule. This molecule breaks down slowly in the presence of water releasing the nitrogen in the form of urea. The release is primarily water dependent although it does slow a little at lower temperatures. The best analogy for its release is that like a bar of soap, it slowly rubs off over time. The water slowly releases the urea through hydrolysis (the splitting with water). This release mechanism means that the smaller the prill or particle, the faster the release. In this case you may get four weeks of release from a small prill and larger prills can get up to 6-8 weeks of release. Straight IBDU has an analysis of 31-0-0 and IBDU is 85-90% slowly available nitrogen, the rest being urea.

TEMPERATURE-BASED RELEASE

Polymer Coated Urea (PCU)
PCU is a prill of urea that is coated in polymers (plastic). These polymers create a barrier that slows the water from reaching the urea inside the prill and the dissolved urea from escaping. Unlike SCU, the coating remains intact and the release is dependent on the diffusion of the urea through microscopic fissures (channels) in the coating. This release mechanism makes the release very dependent on temperature because with warmer temperatures diffusion occurs at a faster rate. Water must be present but the amount of water is not as important as temperature. One drawback of this technology is that the prill, while it may eventually break down in the soil, remains after the urea has dissolved. Large amounts of nitrogen can be applied at once but if the operator overlaps improperly, it can result in an entire season of having excessive nitrogen striped down the field. In addition, timing of applications may need to be changed based on the temperature of the season. A cold spring may require a delay in the early summer application while a warm spring may require an earlier application than originally planned.

Methylene Urea
Methylene urea is urea that is reacted with carbon to form intermediate and long carbon chains. Microbes degrade the carbon chains to release the nitrogen. The length of the carbon chain determines the length of time it takes to release the urea. Different methylene urea products can have the same amount of slow release nitrogen but their release times will vary based on the length of the carbon chains. Release characteristics of methylene urea can vary greatly from product to product. The reason temperature mediates release is because microbial activity is regulated by temperature.

Formaldehyde Urea
This is similar to methylene urea but the chains are even longer and they can last much longer in the soil. Microbial activity affects the release, therefore temperature is the most important factor in determining the release characteristics. With both methylene and formaldehyde urea it is important to note that smaller prill sizes will break down quicker due to more surface area available for microbial action but it is less important than with the IB ureas.

Summary
Proper nitrogen fertility is important to maintain sufficient growth throughout the playing season without creating excessive growth. Understanding the benefits and limitations of fertilizer technologies will help maximize resources within a sports field management operation. In the end, the technology is only as good as the people who implement the programs.

Above. Over-application of sulfur coated urea (SCU) fertilizer that resulted in burn. Although the fertilizer contained SCU a significant portion of the nitrogen in the bag was straight urea.
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The Many Challenges of Sports Turf Management in a School Board Environment

R. Guy Mackie, 2011 STA Scholarship Recipient

In this article, I will cover some of the challenges associated with managing sports turf within the school board setting – and I’ll sincerely strive to do so without it sounding like a gripe fest – though this may be a challenge. For the purpose of perspective, I should mention that my experience with the board spans a mere seven years. I have, however, worked in the landscape industry for the past 25 years in a number of different disciplines. The list below covers common issues we deal with. It’s a long list to be sure, and I don’t anticipate the adoption of all, or frankly any, of the proposed solutions should they make it to the ears of those with the powers to affect change. However, we’ve got to talk about these issues. Our passion dictates that we do.

**THE ISSUES...**

- Reciprocal agreements. Is there a mutual need?
- Low bid policy. Is it what the taxpayer really wants?
- Budgets. Is there any flexibility?
- User cooperation. Aren’t we in this together?
- The value of professionals. If you’re going to pay, pay for passion and education as staying current pays dividends.
- Water conservation. Is legislation next?
- Contracting out. Is it cheaper?
- The Cosmetic Pesticides Ban. How do we best implement?

**Reciprocal Agreements**

The need for reciprocal agreements seems like a “no brainer” to me, however, I’ll admit up front that I have limited experience with them. Here’s how I see it. The school board has a resource, athletic fields. Municipalities have a somewhat fluctuating need for these fields and the school board has a certain obligation to share these resources. Municipalities seem to have, by observation, much larger budgets (as evidenced by the amount of manpower, equipment and materials available). I also assume that athletic programs operated on school board properties would generate revenues for the cities. We, at the board, do what we can within our budgets to maintain safe, playable surfaces but are falling short, way short in my humble opinion. But if we supply the fields and help with the maintenance, and the municipality also contributes to maintenance while generating revenues to offset their increased costs, and the results are safer, better quality turf for both, I’d call that mutually beneficial. I’d also call it a joint effort with shared and complimentary resources to achieve a common goal, thus a “no brainer.”
The Lowest Bid Wins (Or Does It?)

Does the typical low bid policy, whether adopted by or imposed upon the board by government, have to be so structured and inflexible? Does the taxpayer always want the lowest price possible or would they prefer good value for their dollar? And who are these low bidders? Sometimes they’re large companies or franchises doing large volumes to cover large overheads. Sometimes they’re smaller companies trying to make their mark. Some companies in both categories are desperate for work, work they need to keep employees and suppliers on board. They are not concerned initially with profit, until they hit the job site. The results typically are substandard or unspecified materials and substandard practices that result in grading, drainage, seeding and compaction issues. Further, maintenance obligations and warranty issues are neglected. A lack of supervision and required inspections by the board only serve as contributing factors to these results. We have had the lowest bidder provide quality workmanship and products on many occasions, so we know it’s achievable. We just need some flexibility within the policy to achieve these results more frequently and realize value for taxpayer dollars.

Budget Flexibility

When we hear the word budget, we often think set in stone, cast, or poured in place. We do this, I believe, to our detriment. Budgets should have inherent flexibility. For example, combining this year’s budget with next year’s to enable us to acquire an irrigation system that provides optimum, efficient coverage with better materials that increase the life span of both field and system makes sense to me. But “carry-over” rules would need to be changed or more aptly manipulated for long-term advantage. Perhaps we could take a percentage of dollars designated for low use turf areas and combine them with dollars allocated for high use athletic turf. This would make it just that much more safer and playable, concentrating dollars for effect or prioritizing for more effective use of budgets. We all know budgets need parameters, but creativity within budgets may produce surprising results.

User-Manager Relationship

Another challenge we face as turf managers is our relationship with the users of our facilities. You would think this would be a match made in heaven. We want to provide safe, quality turfgrass and they want to play on safe, quality turfgrass. Is there an echo in here? But, unfortunately that’s where the similarities end. The keys here are respect and cooperation. If the school administration and athletic departments as well as municipal groups respected us as turf management professionals they wouldn’t, as requested, use fields before the spring minimum deadline, use the fields when wet or raining, and reduce wear by using end zones and auxiliary fields for practice purposes and physical education classes. The message we try to convey is basic: limited maintenance funds are no match for unnecessary misuse. It just doesn’t work. It’s perplexing to me. We have the same ultimate goal, but I believe different attitudes.

Professionalism & Professionals

School boards could benefit from more of each of these. Turfgrass management is not a fledgling industry and school boards should be actively recruiting educated and experienced individuals. Turf professionals dedicate time to education and work hard in their trade to gain experience. This invariably leads to people who are passionate about their work. When you work with like-minded individuals, problem solving seems easier, there is more collaboration and ideas flow freely. It bears repeating; if you have to pay, pay for passion.

Time for a brief testimonial. Here are just a few lines to sing the praises of continuing education. My career started with a three-year landscape technology
fortunately, this is where the similarities end. I want to play on safe, quality turfgrass. Is there an echo in here? Un-made in heaven. We want to provide safe, quality turfgrass and they

You would think the user-manager relationship would be a match made in heaven. We want to provide safe, quality turfgrass and they want to play on safe, quality turfgrass. Is there an echo in here? Unfortunately, this is where the similarities end.

Water Conservation
I need to talk about the challenges of water use as they relate to our irrigation systems. We have 16 high schools in our board with at least one and often two systems at each. All of this was achieved in a relatively short time period, but I wish it hadn’t been. Systems were installed so quickly we rarely had time to evaluate their effectiveness and subsequently determine if changes, upgrades or downgrades should be made. We now have many systems installed without consideration for design and design patterns, available water, static pressure requirements, head spacing and selection, drainage, vandalism issues and maintenance contractor? I personally don’t know and am not in a position to find out. However, I am a proponent of efficiencies and as a former contractor, I know I had to use my equipment almost year round to fund the next new piece. Perhaps it’s more related to priorities. We could focus our resources on what we do best, most efficiently and more cost effectively, and let others do the same. Work contracted out can’t be forgotten however. Contractors have to be managed. They’re not all professionals like you and me. Some are desperate for work, they take on too much and quality suffers. A good rule of thumb may be to go with your strengths and evaluate often.

Sub-Contracting
Another contentious issue of late is that of contracting out. The initial motivation seems to be to save money. Can I put an operator on a mower for less than the average operator on a mower for less than the average

Cosmetic Pesticides Ban
We haven’t used pesticides at our school board for over ten years, and this strategy was self-imposed. Naturally, we utilize more cultural practices, but the effects are minimal. I am certainly not a proponent of indiscriminate pesticide use. However, I believe the restricted use on specific, high use areas by professionals would result in safer, more playable turf where it is needed most. It’s concentrating effort and resources for areas of concentrated use. It’s a fair and logical compromise.

The Last Word
In my attempt to relate the challenges associated with sports turf management in a school board setting, it is my sincere hope that I didn’t come across as too critical. The challenges are unique and I readily admit, somewhat new to me. I offered solutions based on experience that some might deem inadequate. But, I can assure you that my common sense is intact and I use it frequently to keep it sharp! I believe reciprocal agreements are necessary, but not imperative. A rigid low bid policy is detrimental to quality and budgets without flexibility are limiting. User groups need to be more respective and cooperative and trust the judgement of the turf professional. And speaking of professionals, isn’t it time we gave these dedicated individuals the opportunity to ply their trade, yes I said trade, in private as well as public organizations.

Finally, I can’t stress enough the benefits of educational opportunities for staying current in the turfgrass industry. Knowledge breeds confidence and confident people take chances. They experiment and break through barriers. In this eco-friendly era, the double challenge of efficient water use and pesticide restrictions put the turfgrass industry on its heels, but only briefly. The response was swift, with new irrigation technologies and techniques and groundbreaking research in pesticide alternatives.

It’s a great time to be a turfgrass manager and I’m proud to count myself among the many. The dedication I witnessed in my fellow students at the 2011 Turf Managers’ Short Course bodes well for the industry. As for the challenges I face at the school board, I feel prepared.

HIGH SCHOOL SPORTS: WHERE LESSONS OF LIFE ARE STILL BEING LEARNED, AND WHERE ATHLETES STILL COMPETE FOR THE LOVE OF THE GAME AND THEIR TEAMMATES.

Michael Powers
The 5th Annual Parks and Open Space Alliance (POSA) Summer Operational Forum was presented June 22 at the St. Catharines Museum and Welland Canals Centre. The theme was “The New Face of Parks and Open Spaces.”

The keynote speaker was Debbie Whitehouse, Senior Director Guest Relations – Gardens & Nature, The Niagara Parks Commission (NPC). I was pleased to be the chair of the day and welcome and introduce Debbie who I have known for many years.

Paul Ronan, Executive Director of OPA, Vic Hergott, parks sector professional and Rolf Huber of Everplay Installation all spoke about the Good, the Bad and the Ugly. Two issues addressed were the impact of the AODA Legislation and the popularity of outdoor gym equipment being installed in parks. The AODA Legislation can easily be dealt with by referring to the CSA Standards for Play Equipment that has a section on the AODA. As for the gym equipment, standards are required and industry experts are working together with the CSA to establish them. As well, more users, less budget dollars and the challenge of finding trained staff is difficult. Not much has changed over the past 40 years.

Ministry of Labour and Frank Cowan Company representatives spoke on the risks, responsibilities and benefits of using volunteers. Volunteers need to be given an orientation to the job and worksite, be given adequate and job specific training for the job that they are doing and be given an adequate performance appraisal. There is a fine balance between an acceptable volunteer and a diligent operation. We were challenged to find that balance.

Throughout the morning and during lunch we had an opportunity to visit the exhibitors and find out about their products and services. After lunch we had an opportunity to discuss open forum topics of interest including dog off leash parks, splash pads and wading pools, and outdoor ice rinks.

The next educational opportunity presented by the coalition is the Introduction to Synthetic Turf and Maintenance workshop, November 10, at Oshawa’s Civic Recreation Complex. Visit www.POSAlliance.ca for details and registration.

— Jay Kivell, Jay Kivell & Associates, POSA Committee Member
Turfgrass Education Initiative to Help Rural Communities

JULY 29, 2011. Safe school grounds and high-quality municipal sports fields maintained without traditional pesticides are the focus of a new University of Guelph-based initiative. The Turfgrass Outreach Project (TOP) supports rural groundkeepers across southern Ontario, providing workshops, training programs and an online knowledge centre.

The project is run by scientists and educators from the Guelph Turfgrass Institute and is supported by the Knowledge Translation and Transfer program, a new initiative under the University’s partnership agreement with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). That program funds projects that turn research knowledge into use in the agricultural, food and rural sectors.

Without cosmetic pesticides (banned since 2009), rural groundkeepers have had to make major changes to manage school and municipal sports fields. But so far, public outreach has focused on the impacts on residential lawns and urban sports fields. This project is looking to address rural sports fields, said Eric Lyons, a professor of plant agriculture and TOP project manager.

“Urban areas have often had municipal restrictions in place for a while, but in many cases, rural communities have had to adapt very quickly to managing turf without cosmetic pesticides,” Lyons said. “The education and outreach to deal with that just isn’t in place in rural communities like it has been in urban centres.”

In response, TOP is pulling expertise from the Guelph Turfgrass Institute, U of G’s Ontario Agricultural College and its School of Environmental Design and Rural Development, and OMAFRA to create accessible educational opportunities for rural groundkeepers. It’s also partnered with the Sports Turf Association.

“We welcome the chance to learn more about the specific challenges faced by rural schools and municipalities,” said Nicole Markwick, TOP’s project co-ordinator. “For example, the safety of sports fields is important because they are used year-round for various sports and events that impact rural communities economically, socially and environmentally.”

TOP also aims to foster stronger networks for continuing education on sustainable resource management for rural turfgrass managers. It has also partnered with community organizations. More information about the Turfgrass Outreach Project is available online at www.uoguelph.ca/turfgrassoutreach. You can also contact Nicole Markwick at 519-824-4120, Ext. 52251, turfgrassoutreach@uoguelph.ca.

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The Benefits of Parks & Open Spaces
Deborah Whitehouse, Senior Director Guest Relations – Gardens & Nature, NPC

This article is intended to share information on the benefits of parks and open spaces in our communities. While commonly known benefits such as improved health, wellness (physical/emotional), recreation (passive and active), education and security, habitat, environment, biodiversity, economics and adjacent property value enhancement have been well documented, the focus of this article is on some lesser known and emerging benefits. These lesser known benefits include improvements to the environment through energy production/conservation, emergency uses, environmental “filters,” and food/renewable resource production.

Conservation
We hear much in the news these days about climate change. Environment Canada defines it as “a long term change in weather over time.” To combat climate change, new concepts are emerging through technology. For example, wind farms over forests, while feasible from an engineering perspective, must also provide for conservation and environmental principles in forests, whether protecting trees or bird flight and migration paths (see: www.dwworld.de/dw/article/0,15281635,00.html. The Ontario Ministry of Natural Resources is contemplating how solar farms might be incorporated into its parks, conducting policy reviews on this and other forms of renewable energy (see: www.mnr.gov.on.ca then, from the home page, search - renewable energy strategic policy review).

Another popular new initiative in various sectors is the establishment of Greening Committees. Various government and non-government agencies embraced energy conservation in the 1970s in response to then rising oil prices, and efficiencies were found as a result. Greening Committees are currently being created in response to not only the current need to conserve energy in light of rising energy costs and to combat climate change, but are also being sold on solid business cases to reap associated cost savings. These committees can also bring forward additional green ideas. Agendas at meetings focus on such items as environmental initiatives, waste management/recycling and energy savings opportunities. The key purpose is to bring forward new energy saving/green ideas for action and implementation, investigate/apply for applicable energy grants, create

NIAGARA PARKS COMMISSION

Established in 1885, The Niagara Parks Commission (NPC) is a Crown Agency of the Ontario Government. The core purpose of NPC is to preserve and enhance the natural beauty of the falls and the Niagara River corridor for the enjoyment of current and future visitors while being financially self-sustaining. Certainly, the vision of our founders allowed for a small park surrounding Niagara Falls to grow to include lands covering the full length of Niagara River, for mandated protection and enhancement and so much more. Ideally, all can agree it is important to protect our precious parklands by “thinking globally” and “acting locally.”
proposals and support corporate greening goals by meeting with each other regularly to discuss challenges, accomplishments and new ideas.

Beyond establishing a Greening Committee at Niagara Parks, some additional greening projects include:

- Waste diversion: recycling and composting
- Spare the Air: Emissions Reduction Program
- Policy, inventory and monitoring projects: e.g. habitat restoration, prescribed burns, education and volunteer programs with sustainability themes
- Legends Golf Complex Environmental Management Plan
- NPC trademarked green products and procurement
- Energy Audit and Conservation Program

Emergency Uses
Japan has a number of examples in recent memory where public parks and open spaces were crucial as places for establishing temporary shelter during emergencies. In big cities with tall buildings falling down, a lack of such spaces to run to during emergencies can literally mean the difference between life and death. The Kobe earthquake and the 9/11 twin tower attack in New York City are both grim reminders that open spaces are important. Beyond better preparation for crises like these, open space such as the Memorial Park in New York City at the ground zero site provides a more traditional purpose as a place of remembrance, also often served by our parks.

World Crops Study
Beyond community gardens, Think Globally, Act Locally is a way to describe the new Vineland Research and Innovation Centre’s (VRIC; Vineland, ON) World Crops research program. In 2009, Vineland Research and Innovation Centre initiated a world crops study to investigate grower and locally grown ethnic vegetable market opportunities. New crops for Canadian farmers and adequate supply to the marketplace are key to the research. VRIC has partnered with the Ontario Fruit and Vegetable Growers’ Association and along with federal/provincial funding, has initiated production trials. This year, field trials were conducted on a number...
of new crops, with three promising crop varieties including okra, yard long bean and Oriental eggplant (see: www.vine-landresearch.com then, from the home page, search - world crops). Niagara Parks has a trial bed of these crops in both our Queenston Heights Park and at Niagara Parks Botanical Gardens. This is a new and unusual addition to our park “flower beds” with the attractive plants serving an aesthetic purpose, as well as being served to our guests. We are told that a number of these crops already are enhancing community gardens.

Riparian Buffers
Utilization of parkland as riparian buffers (naturalized zones beside watercourses and sites of surface water such as ponds and lakes) has gained much support recently not only for their importance as environmental filters, but also for reduction of maintenance costs. While many people can agree with the concept in principle, when contrasted with well-groomed parks, natural buffers can “look messy.” How the use of buffers is framed and communicated makes a significant difference with adjacent residents, which is important if you wish to garner their needed support.

Education and outreach about water quality improvement, habitat restoration and ecosystem health can go a long way to counter concerns. Reducing mowing is an option and replanting with native vegetation can improve biodiversity as well. With an addition of attractive wildflowers in the mixture, such concerns can be mitigated. It is even better if the adjacent residents can be involved in the selections, with expert guidance. The ultimate goal of improving water quality and protecting natural water sources is worth the effort and is aided by buffers (see www.npca.ca then, from the home page, search - buffers).

Approximately ten years ago, Niagara Parks created a small series of habitat restoration efforts in several areas of its parks. The result is the establishment of a riparian buffer zone along portions of Niagara River.

Addressing Challenges
Interesting challenges sometimes exist in parks and nature when these environmental initiatives are implemented. At Niagara Parks, with improved habitat conditions, beavers have re-populated in a number of areas. With increased adjacent development, deer and geese populations are shifting to parklands in record numbers, causing nuisances and damages along with the rising beaver population. Some human park guests also abuse nature through thoughtless acts of vandalism. Economics and restricted budgets present the need for creative and appropriate new revenue streams and the completion of long-term strategic plans for sustainability to achieve mandated objectives. The ever-present threat of climate change adds yet another concern to the list.

Protection has grown to mean more than a “hands-off” approach. It merits active and well-considered decision-making, management and mitigation of impacts to natural spaces. Parks and related open spaces continue to provide historically documented benefits. Additionally, park agencies are engaged in addressing a number of emerging opportunities. The benefits of our parks and open spaces, and their related value, remain important in potentially new ways as a result.
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