



soil test for phosphorus and potassium and roughly 2.0 kg of nitrogen (N) per 100 m<sup>2</sup> per year will go a long way in helping to prevent weed invasion.

### Irrigating

Regular irrigation of a sports field to keep the turf growing vigorously throughout the growing season helps the turf out-compete weeds. If a field is allowed to go dormant during a dry summer, it is more susceptible to broadleaf weed invasion.

---

**Sports fields need regular irrigation to keep turf growing vigorously.** This helps turf out-compete weeds. If a field is allowed to go dormant during a dry summer, it is more susceptible to broadleaf weed invasion.

---

Elford et. al. 2008, showed in the non-irrigated, non-overseeded plots, dandelion populations were much higher than in the non-irrigated overseeded plots. Interestingly, clover was more of a problem in the irrigated fields. Excessive irrigation can increase the likelihood of invasion of annual grassy weeds such as annual bluegrass. Information on irrigation using a water budget method to determine irrigation timing and quantity can be found in *Sports Turf Manager* Vol. 19, No. 2 “Water in the Bank” and *Sports Turf Manager* Vol. 20 No. 2 “Use it or lose it” by Dr. Terry Gillespie and Pam Charbonneau, respectively.

### Aerating

We know that aerating has a positive effect on turfgrass by reducing thatch, soil compaction and improving rooting. Compaction has an effect on weed invasion. Many weed species out-compete turfgrass in compacted sites. Many highly compacted areas of a sports field will only support the growth of prostrate knotweed and annual bluegrass. On moderately compacted sites, plantain is more competitive than turfgrass.

A minimum of aeration twice a year is recommended in the spring and fall. On heavily used sports fields, this could be done monthly to keep turf healthy and help it out-compete weeds.

### Overseeding

Research into overseeding with perennial ryegrass as a means of suppressing or preventing broadleaf weed invasion has been investigated in Scandinavia, the United States and in Ontario. In athletic fields in Denmark, vertical mowing plus overseeding and topdressing resulted in a significant decrease in weed populations (Larsen et al., 2004). In the *Sports Turf*

*Manager* Vol. 17, No. 1, Chinery et al. summarized some work that he had conducted in “Heavy Repetitive Overseeding” and noted an increased turf density with heavy repetitive overseeding of perennial ryegrass; however the quantification of weed populations were not included in these studies.

Elford et al. (2008) found that overseeding three times a season in May, July and September at 4 and 8 kg/100 m<sup>2</sup> significantly decreased perennial weed cover (specifically white clover) in the irrigated trial and dandelion in the non-irrigated trial at the Guelph Turfgrass Institute. He also noted an increase in perennial ryegrass in all plots which received an overseeding treatment.

### Currently Available Weed Control Options

Under the Pesticides Act and Regulation 63/09, in Ontario the products that can be used on weeds in sports fields are corn gluten meal, acetic acid and *Sclerotinia minor*. Corn gluten meal is labelled for the inhibition of crabgrass, dandelion and white clover. Our experience with it shows that it may need to be used for several seasons to be effective. It does not, however fit in well with an overseeding program because it will inhibit germinating ryegrass seedlings.

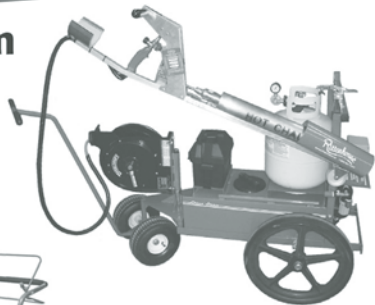
Acetic acid can be used to spot treat weeds. It needs to be applied to young growing weeds and may require repeat applications. *Sclerotinia minor* is effective under a very narrow set of environmental conditions (18-24° C and high relative humidity). It must be irrigated within 12 hours and the turf or weed canopy needs to be kept moist for several days for it to be effective. There are also non-selective weeding tools available from various suppliers that rely on super-heated water or propane flames that can kill weeds.

### Future Research

Last summer at the Guelph Turfgrass Institute, an overseeding and irrigation study was conducted on in-use soccer fields. This study combined core aeration and overseeding with a drop spreader at 0, 3 and 6 kg of perennial ryegrass per 100 m<sup>2</sup> in May, July and September. This study will continue in 2009 with the addition of slit-

# Leave The Competition 'GREEN WITH ENVY'

**Green Steam**  
from Rittenhouse,  
a revolutionary  
way to kill weeds  
with super-heated  
steam rather than  
chemicals.



We also carry the widest selection of top dressers, including self-propelled and push models.

*Top dressing is a must for your green program.*

See more green tools at:  
[www.rittenhouse.ca](http://www.rittenhouse.ca)  
1-800-461-1041

**Rittenhouse**  
Since 1914

**ZANDER**  
SOD CO. LIMITED

Suppliers of Top Quality Turf Products for over 50 years

No. 1 Kentucky Bluegrass \* Bentgrass \* Extreme Fescue  
Large and small rolls \* Custom grown sod available

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

[www.zandersod.com](http://www.zandersod.com)

**THE STA HAS MANY PRIME ADVERTISING OPPORTUNITIES THROUGHOUT THE YEAR. CALL US!**

**G.C. Duke** EQUIPMENT LTD.  
ISO 9001 REGISTERED

**Paul Turner**  
Sales Representative

Cellular: (416) 566-0211

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

"The ART of Sports Field Marking"



**SIMPLISTIC**  
**LINES** INC.

**FIELD MARKING PAINTS AND APPLICATORS**

R.R.#5 Stratford On Canada N5A 6S6  
Tel. 519.348.0653 • Fax: 519.348.0654  
[www.simplisticlines.com](http://www.simplisticlines.com)





seeding of perennial ryegrass at the three rates (see the “Irrigation and Overseeding of Pesticide-Free Soccer Fields” article in this edition of *Sports Turf Manager*).

In addition to the above mentioned trial, the Ministry of the Environment is funding a three year study conducted by Tardif, Jordan and Lyons, University of Guelph. The overall goal of this project is to provide the turfgrass industry with the knowl-

turfgrass rehabilitation.

Objective 4: Determine the efficacy of sodding Kentucky bluegrass or fine fescues compared to overseeding fine fescues or fine fescues into Kentucky bluegrass for the establishment of low maintenance turf.

The Ministry of the Environment has also partnered with the Agricultural Adaptation Council (AAC) to fund research

---

**Turf managers need to follow the basics.** Sound turf management practices help minimize weed populations in sports fields. Turf researchers also need to go back to the basics now that pesticides are banned.

---

edge to provide safe athletic fields and home lawns without the use of traditional herbicides:

Objective 1: Determine the optimal mixtures (Kentucky bluegrass and perennial ryegrass proportions), timing and method of overseeding allowing best weed suppression and highest turfgrass cover.

Objective 2: Determine the efficacy of seeding versus sodding, with or without traditional or alternative (exempted) herbicide applications, for the establishment of new turf.

Objective 3: Determine best combination of site preparation and seeding methods to reduce weed encroachment during

and innovation on alternatives to the use of pesticides for cosmetic purposes. The program is called CUPRI – Cosmetic Use Pesticides Research and Innovation Program. They are calling for proposals from for-profit, academic institutions, university researchers and not-for-profit sectors. A call for proposals was issued in May 2009 and a second will be issued in December 2009. For information on this program, visit [www.adaptcouncil.org](http://www.adaptcouncil.org) (the AAC website).

Suffice to say that turf managers need to follow the basics of turf management to help minimize weed populations in sports fields. Turf researchers and exten-

sion staff also need to go back to basics and investigate how these practices work without the pesticide tools that were available in the past. We also need to help validate and fine tune how some of these new products are used and how to make them work better. There is work to be done on selecting turfgrass species and cultivars for their ability to out-compete weeds. Hopefully, the answers will be forthcoming with all the effort focused on managing turf without pesticides. ♦

---

## References

Dernoeden, P. H., Carroll, M. J., and Krouse, J. M. 1993. Weed management and tall fescue quality as influenced by mowing, nitrogen, and herbicides. *Crop Science* 33: 1055-1061.

Elford, E.M., Tardif, F.J., Robinson, D.E. and Lyons, E.M. 2008. Effect of perennial ryegrass overseeding on weed suppression and sward composition. *Weed Technology* 22: 231-239.

Larsen, S. U., Kristoffersen, P., and Fischer, J. 2004. Turfgrass management and weed control without pesticides on football pitches in Denmark. *Pest Management Science* 60: 579-587.



### STA Membership Plaques

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

### Autumn 2009 Submissions

If you have something you'd like to submit for the next issue, please forward it to the STA office by September 4, 2009.

### Editorial Content

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



# STA Facility Profile

Steve Brown Sport's Complex/Lion's Park Auditorium • City of Brantford

### 1. Name, location of facility.

Steve Brown Sport's Complex/Lion's Park Auditorium, 12 Edge Street, Brantford

### 2. General info regarding the facility.

The Lion's Park Recreational Complex was officially opened on December 28, 1971. It was built with the financial assistance of the Lion's Club to replace the former outdoor skating rink on Market Street South, which had to be vacated for the first stage of the Brantford Expressway. Steve Brown Sport's Complex is part of/adjacent to Lion's Park. The arena is a single pad with an auditorium. The site also has a seven lane (recently re-surfaced) certified track. In 2002, the sports field areas of the park were re-named in honour of local volunteer Steve Brown. Steve was very active with Brantford Bisons Football and many other sports groups.

### 3. What types of sports fields are on site?

- 1 signature soccer field
- 1 Class A soccer field
- 1 Class B soccer field
- 1 Class A Baseball Diamond
- 2 Class B Baseball Diamonds
- 1 outside ball hockey (privately owned)

### 4. How many employees are involved with turf care at this facility?

For day-to-day mowing operations, we have 3 staff cutting this area as part of their regular rotation. This includes a trimmer, a striper for playing surfaces, and another mower for the perimeter cutting. We don't have any staff dedicated to this facility exclusively. We also have other staff who are involved in irrigation management and performing cultural practices such as fertilizing, aerating, seeding, etc.

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

The facility is 40 acres, approximately 30 in turf and 15 in sports turf.

### 6. What percentage of this acreage is irrigated? Of the 6 fields, 3 are irrigated.

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

As this is a well-established facility, the turfgrass is older mixed varieties. We do



use an overseed mix of perennial ryegrass as part of our overseeding program. The soil and turfgrass at this facility is exceptional so the need for overseeding is minimal.

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

As mentioned above, the soil quality at this site is exceptional so the only need for overseeding is to repair worn areas on the soccer fields. The goalmouths are sodded every fall.

**9. How many times do you fertilize?**

The facility is fertilized completely once per season. The playing surfaces are fertilized 3 times per season.

the municipality. However, we have accepted the fact that traditional pesticides are not available to us and have started looking to the future and viewing this challenge as a chance for us to be creative and move forward with some new ideas and procedures.

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

We have had groups involved in supporting the construction and upgrades at many of our facilities. At Steve Brown, we have had a score clock on one of the ball diamonds and lighting on one of the soccer fields donated by user groups.

---

**We were and still are firm supporters of the IPM Program.** Although we now have one less tool in the toolbox, we accept the fact that traditional pesticides are no longer available to us and accept the challenge!

---

**10. Do you aerate? Topdress?**

The facility is aerated once per season completely and the play surfaces are aerated 3 times per season. Topdressing is done as part of the repair/renovation process.

**11. Prior to the Cosmetic Pesticides Ban Act had your municipality banned the use of pesticides?**

Prior to the Cosmetic Pesticides Ban Act, we did not have a local ban on pesticide use. We were and still are firm supporters of the IPM Program. We now have one less tool in the toolbox and have concerns with the impact that this ban will have on

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

We don't have a limit on the hours these fields are permitted. They are available May 1 to October 1 and beyond this date with special permission. The Manager of Arenas and Fields issues the permits. We have very good relationships with our user groups, which allows us to be able to close fields to allow for proper renovation. For example, the 'A' soccer field at this facility is very heavily used. We have delayed

**LION'S PARK  
SITE OF FIELD  
DAY 2009**

**SEE YOU SEPTEMBER 17!**



the opening in spring or closed it early in the season or early in September to allow for proper regeneration. The teams understand and are good with moving to other fields short-term. Beyond that, we work around the scheduled games during the season for any additional maintenance on the field. All staff involved with our sports fields meet on a regular basis to discuss field allocations and field closures. ♦

**EMPLOYMENT ONLINE**

Are you advertising a position or job searching? Visit us online at [www.sportsturfassociation.com](http://www.sportsturfassociation.com) and click on "Turf Trades" for info. Cost to post an ad is only \$75 for STA members (2-month listing).



**JOHN BLADON, TECHNICAL SALES REPRESENTATIVE**

Tel: 519.757.0077 • Cell: 519.574.2013

E-mail: [jbladon@agriumat.com](mailto:jbladon@agriumat.com)

**PRODUCT INFO LINE 1.800.461.6471 WEB [www.turfpro.ca](http://www.turfpro.ca)  
Head Office: 10 Craig Street, Brantford, Ontario N3R 7J1**



**PLANTPRODUCTS**

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

**Plant Products Co. Ltd.**

Brampton, Ontario  
905-793-7000 or 1-800-387-2449  
Fax 905-793-9632 • [plantprod.com](http://plantprod.com)

# STA Member Profile

Dennis Wale • Foreman of Horticulture & Turf • City of Brantford



## 1. What is your role with the City of Brantford?

My title is Foreman of Horticulture & Turf with the Parks & Recreation Department.

## 2. What kind of team do you work with?

I work with a team of qualified and dedicated staff that ranges from longtime/fulltime staff, experienced seasonal workers and enthusiastic students. At present, we have 2 leadhands, 2 gardeners, 2 journeymen, 1 apprentice, 2 operators, 20 students and 18 seasonal staff.

## 3. What are you and your team responsible for?

We are responsible for the following: 12,000 sq ft greenhouse complex growing approximately 250,000 annuals and various specialty crops; planting all of the municipality's floral displays; both indoor and outdoor landscaping; and maintaining over 500 acres of turf, over 50 km of trails, and all roadside grass cutting. We also do the majority of our training for job specific responsibilities.

## 4. What is the biggest challenge in your job?

Being able to provide quality service throughout the municipality. Our facilities are across the city so travel time as well as wear and tear on equipment is a challenge. Another challenge is providing the proper orientation and training for 38 seasonal and student employees.

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

The positive impact the department has on the community from the quality sports fields, beautiful trails and the floral displays across the municipality.

## 6. What is the biggest misconception about your job?

I think the biggest misconception is that City employees don't work hard. Our staff are among the hardest working and dedicated I have ever encountered.

## 7. What is your educational/employment background?

I started with the City of Brantford as a student in 1978. I was offered an apprenticeship and have been here ever since. I have apprenticeships in horticulture nursery/greenhouse worker, landscape/greenskeeper with the Ministry of Skills Development, and horticulture landscaper with the Ministry of Colleges and Universities. I also have a certificate in business management skills from the Ontario Management Development Program (OMDP) along with several distance education programs in horticulture.

## 8. Tell us about your family.

I have been happily married to my lovely wife Margaret for 27 years. Margaret is the Coordinator of Student Services at Mohawk Brantford. We have 2 adult children. Amy, 26, is a teacher and our son Michael, 23, is an apprentice sheet metal mechanic.

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

I like to keep active. I enjoy curling and am a member of the Brant Curling Club. I run and compete in various races (10 km to 26 km) throughout the season. I also enjoy recreational cycling.

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

The changes I have noticed are more emphasis on quality turf, i.e. better use of cultural practices, and more focus on training and safety for all staff – particularly our students and seasonal staff. The efficiency of the equipment available has provided opportunities to get more done with what we have. I think that it's important that the industry as a whole continue to partner with related organizations in order to better reach and inform all of our professionals.

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

I find networking with members very useful, and appreciate the training and resource opportunities provided by the STA. ♦



# Supreme-Green™ TURF COVER

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

### BENEFITS

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



Buy Direct From the Manufacturer!

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

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



## TAKE ACTION ON COMPACTION

- Exclusive machinery combats compaction
- Breaks through most dry, hard soils
- Complete, combination or individual treatments available
- Specialized field recovery team
- **Call 1-800-950-2555**



**MAR-CO**  
CLAY PRODUCTS INC.

Mar-Co Clay Products Inc.  
**1-800-950-2555**

RR#3 Bright, Ontario  
Canada N0J 1B0

[www.marcoclay.com](http://www.marcoclay.com)

**STEP 1** Loosen hard, dry or heavy soils

**STEP 2** Improves effectiveness of all machines

### GROUND BREAKER



### SANDMASTER



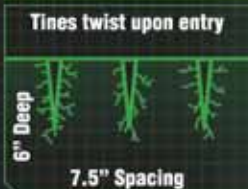
### VERTI-DRAIN



### CORE TINE AERATOR



### SHATTER TINE



EECI9107-S01-01