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SPORTS TURF MANAGER

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Field Day 2009

THE SPORTS TURF ASSOCIATION TRAVELS TO THE CITY OF BRANTFORD THIS FALL FOR THE 22ND ANNUAL FIELD DAY

Located just an hour's drive from the City of Toronto, Brantford 'The Telephone City' will host sports turf managers from across the province for the Sports Turf Association's 22nd Annual Field Day, Thursday, September 17, 2009.

Brantford is home to the Alexander Graham Bell Homestead National Historic Site. It was here the great inventor conceived his ideas for the telephone. Brantford is also the hometown of hockey legend Wayne Gretzky. Walter Gretzky will be on hand to welcome us to the Steve Brown Sports Complex at Lion's Park.

The Field Day Committee is in the midst of applying the finishing touches to this year's program. For topnotch education, a mouth-watering chicken and rib BBQ, and the opportunity to network with peers, industry suppliers and 'The Great One's' dad, *Answer the Call of The Telephone City* and visit us online at www.sportsturfassociation.com for all the details as they become available!



The President's Desk – Gord Dol

Summer is here. I trust that all your fields are under control and you are planning for some well deserved vacation time. With the current economic conditions and budget cutbacks, I'm sure everyone is feeling the pressure to do more with less.

Autumn Events...

Golfing for Grass

The 2009 Ontario Turfgrass Research Foundation Fundraising Golf Tournament is Monday, September 14th at The National Golf Club of Canada in Woodbridge, ON. For sponsorship and registration details, visit www.otrf.ca.

Field Day 2009

Mark your calendars for the STA's 22nd Annual Field Day, Thursday, September 17th at Lions Park, Brantford, ON. Further details will be provided as they are confirmed. As always, the Field Day Committee is working hard to provide another great day of networking and education.



Early this year, the Canadian government introduced a large stimulus package, "Canada's Economic Action Plan" (www.wd.gc.ca/eng/11264.asp). Part of this plan is the program known as RInC, the Recreational Infrastructure Canada program. This is a new infrastructure fund that will invest \$500 million in recreational facilities across Canada over a two-year period. This national initiative will provide a temporary economic stimulus that will help reduce the impacts of the global recession while renewing, upgrading and expanding recreational infrastructure in Canadian communities.

Projects approved under RInC can receive up to \$1 million in federal funding, which normally represents one-third of project costs. These investments in recreational infrastructure will stimulate the economy, create jobs and contribute to the health and quality of life in communities across Canada, now and in the future.

Staying Current

In late 2007 the Board of Directors initiated the development of a new strategic plan for the Sports Turf Association. Eight key strategies were identified and their accomplishment is of a progressive, ongoing nature. In April of this year, we reconvened to regenerate, refresh and refocus the passion that unites all of us who work for the common cause of the STA.

Our mission statement, used effectively, drives the association. We must ensure it is always relevant and reflective of our organization and the environment in which we work. With this in mind, our mission statement has been updated from ...*dedicated to the promotion of safe, natural*

sports turf through education and professional programs (November 2000) to ... *dedicated to the promotion of better, safer sports turf through innovation, education and professional programs* (April 2009).

Note the strategic removal of the reference to 'natural' sports turf. In his article in the Spring 2009 issue of *Sports Turf Manager*, Francois Hebert writes: "Today, synthetic turf has come to be seen by many not as a substitute to natural grass, but as a necessary tool in the sports field manager's arsenal to provide the public with quality playing surfaces."

As the synthetic turf industry grows in Canada, we must provide our members with the knowledge necessary for the construction and maintenance of this technology. To this end, you will begin to see the inclusion of a synthetic turf component in our educational events and print and web resources.

Educational Partnerships

Another one of our strategic planning initiatives is the creation and/or maintenance of partnerships. The Parks and Open Space Alliance (POSA) is a prime example. As I write this column, we look forward to the Alliance's 3rd Annual Summer Operational Forum, June 24 in Oshawa, ON. In April of this year, 16 students participated in the first STA Sports Turf Management and Maintenance Course, one of the three courses required for the Parks and Open Space Professional Training Program – Level I. The second offering will be September 28-October 1 in Petawawa, ON. For details, visit www.sportsturfassociation.com.

Have a safe summer and don't forget the sunscreen! ♦

The Evolution of The "Hat Trick" From Britain to Guelph to Toronto

If you ask any longtime Guelph hockey fan about where the hat trick came from, they'll tell you the term originated within the boards of a Guelph arena.

But, while the Royal City has a major stake in the evolution of the hat trick, there are others who lay claim to bringing the term to hockey.

It was 1947 when the Guelph Biltmore Mad Hatters were revived after a hiatus during the Second World War. The Ontario Hockey Association team (a precursor to the Ontario Hockey League), was sponsored by Guelph-based hat company

he would give him a hat. Kaleta delivered and then some. He scored not just a hat trick, but four goals in the Jan. 26, 1946 game. Kaleta's performance in that particular game is noted on the Chicago Blackhawks' team website, as well as in *Hockey's Book of Firsts* by James Duplacey, as "the first hat trick with a hat."

The Hockey Hall of Fame in Toronto also credits Taft with bringing the term to hockey in the 1930s, although Kelly Masse, spokesperson for the Hall of Fame, said it's hard to say when the term started being used in hockey.

The hat trick has evolved over time. In the 1970s, NHL fans started throwing their ball hats on the ice when a player scored three goals in a game, a tradition that continues in hockey arenas today.

Biltmore Hats. In the 1950s, Biltmore took advantage of its hockey team sponsorship to market its fedoras and gave them away to league players who scored a hat trick.

Guelph has competition, however, from another hatter who's also laid claim to originating the term.

The late Sammy Taft, who sold hats from his shop in Toronto, rewarded National Hockey League players at Maple Leaf Gardens who netted three in a game.

The story goes that Chicago Blackhawks winger Alex Kaleta walked into Taft's shop, but couldn't afford a hat.

Taft told him if he scored three goals in that night's game against the Maple Leafs,

No matter when the term was adopted for hockey, however, the hat trick actually originated in the sport of cricket.

The popular British team sport has existed for centuries, but the first formal rules were written in 1744.

The first use of the term hat trick in cricket was in 1858, and its use is recorded in the Extended Oxford Dictionary. HH Stephenson, of the All-England Eleven, was awarded a hat after taking three wickets in three balls, or in other words, he hit the wicket behind the batter three times in three consecutive bowls.

— excerpts from "Guelph's Tricky Claim" by Janet McLeod, *Guelph Mercury*, Mar. 21, 2009



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Welcome to the STA!

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EVENT CALENDAR

September 14

Ontario Turfgrass Research Foundation
Fundraising Golf Tournament
The National Golf Club of Canada
Woodbridge, ON
www.otrf.ca

★ **SEPTEMBER 17** ★

Sports Turf Association
22nd Annual Field Day
Lions Park, Brantford, ON
www.sportsturfassociation.com

September 28 to October 1

POSA Parks and Open Space
Professional Training Program—Level 1
Sports Turf Management and
Maintenance Course
Petawawa, ON
Info: 519.763.9431
www.sportsturfassociation.com

★ **NOVEMBER 1** ★

Sports Turf Association
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Contact the STA office if you have
an event you'd like to advertise
in the *Sports Turf Manager*.

Industry Alert: Cell Phones & Personal Entertainment Devices On The Job

The Parks and Open Space Alliance (POSA) continually monitors issues and legislative changes that may impact green space operations and industry best practices. These alerts are offered jointly to the members of OPA, ORFA and STA in hopes of collectively improving worker and community safety through awareness and compliance.

1) As part of its ongoing commitment to Health and Safety issues, POSA encourages all members to consider the implementation of a policy regarding use of electronic communication and personal entertainment devices as part of their internal safe driver and equipment operator training initiatives.

Attention Employers! Policies regarding use of electronic communication and entertainment devices should be implemented as part of all safety and training initiatives.

In September of 2008, the Ontario Medical Association released a report indicating “that cell phone use (regardless of whether it is hands-free or hand-held) has a significant impact on the driver’s cognitive functions, visual concentration, the speed at which they can process information and, as a result, their reaction time.”

Employees operating any kind of machinery while using telephones, text communication or entertainment devices would suffer from similarly reduced abilities and as a result could potentially face an increased exposure to hazard and risk of injury through error or distraction.

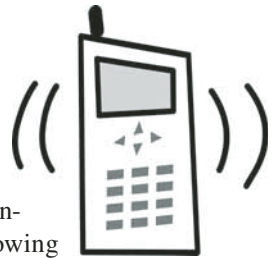
As an example, the Town of Blue Mountain has now endorsed a proposal to restrict the use of Personal Audio Equipment which requires the use of head/earphones such as personal CD/MP3 players in certain work areas. POSA strongly suggests that all members consider endorsement of a similar policy in their respective Health and Safety programs as a measure

to help protect all employees, employers, workers and clients alike.

2) On April 22, 2009 the Ontario Government passed the following amendment to the Highway Traffic Act:

Section: 78.1 (1) No person shall drive a motor vehicle on a highway while holding or using a handheld wireless communication device or other prescribed device that is capable of receiving or transmitting telephone communications, electronic data, mail or text messages. (2) No person shall drive a motor vehicle on a highway while holding or using a hand-held electronic entertainment device or other prescribed device the primary use of which is unrelated to the safe operation of the motor vehicle.

A reminder to all that breaches of this new regulation may result in personal driving penalties and/or fines that will be the responsibility of the worker and may impact vehicle operator insurance premiums.



Information Links

- Legislative Assembly of Ontario:
http://www.ontla.on.ca/web/bills/bills_detail.do?locale=en&BillID=2099&detailPage=bills_detail_the_bill
- Occupational Health and Safety Act:
http://www.elaws.gov.on.ca/html/statutes/englishelaws_statutes_90o01_e.htm#BK21
- Canada Safety Council:
<http://www.safety-council.org/info/traffic/cellular.html>
- Ontario Medical Association:
<http://www.oma.org/media/news/pr080914.asp>





IRRIGATION & OVERSEEDING OF PESTICIDE-FREE SOCCER FIELDS

PETER PURVIS (GTI, U OF GUELPH), PAM CHARBONNEAU (OMAFRA) & KEN CAREY (GTI, U OF GUELPH)

Continued From the Front Cover. ... golf course superintendent. They believed that it was time to bring some publicity to the Guelph Turfgrass Institute by including public use of the site, as well as providing in-use fields for research.

It seemed natural to then talk with Guelph Soccer, since they have been promoting and developing soccer in Guelph since the early 1960s. Guelph Soccer has close to 5,000 members and is growing rapidly; they were very happy at the prospect of having several more fields at their disposal. In the spring of 2008, aided by several members of Guelph Soccer, we found a suitable section of turf at the GTI and mapped out the area for our two “mini fields” (each about 37 m x 63 m). The turf

was thin, weedy and had significant winter injury – a perfect scenario for our upcoming research.

The fields were used extensively by Guelph Soccer’s “Under 10” rep teams and by their Centre of Excellence Player Development Program, starting in early May and running until early October. On weekends, adult recreation league teams and house league tournaments were commonly found at the GTI. The partnership with Guelph Soccer was excellent. Allan Gould, Executive Director, was easy to work with and always accommodating. The association and its members respected the station and the research plots and we could conduct research on in-use fields. It was a win-win situation.

Adding the Research Element

One focus of our research was to examine irrigation and water-use efficiency. Irrigating efficiently is essential in light of municipal watering restrictions and bans. As Dr. Bob Sheard once wrote, “Water is money. Use it wisely. Excessive use is damaging to the environment. Insufficient use is damaging to the grass.”

In this experiment, we irrigated each field with a different protocol. One field was irrigated three times each week with 10 mm of water delivered at each irrigation. This “conventional” method simulated a field irrigated using an automatic timer set to turn on at regular intervals. Often turf managers will use this method to simplify their maintenance practices.

TABLE 1. ESTIMATORS FOR PAN EVAPORATION BASED ON OBSERVED WEATHER CONDITIONS (TAKEN AT 1:00 PM)

Sun	Temperature	Humidity*	Wind**	Estimated Pan ET (mm)
Full	>23° C	Low	High	8.0
			Low	7.5
Full		High	High	7.0
			Low	6.5
Full	<23° C	Low	High	6.5
			Low	6.0
Full		High	High	5.5
			Low	5.0
Cloudy	>23° C	Low	High	5.0
			Low	4.5
Cloudy		High	High	4.0
			Low	3.5
Cloudy	<23° C	Low	High	3.5
			Low	3.0
Cloudy		High	High	2.5
			Low	2.0

* Low humidity = clear sky, unlimited visibility; High humidity = smog, haze, fog

** Low wind = leaves and small branches moving; High wind = tree tops moving

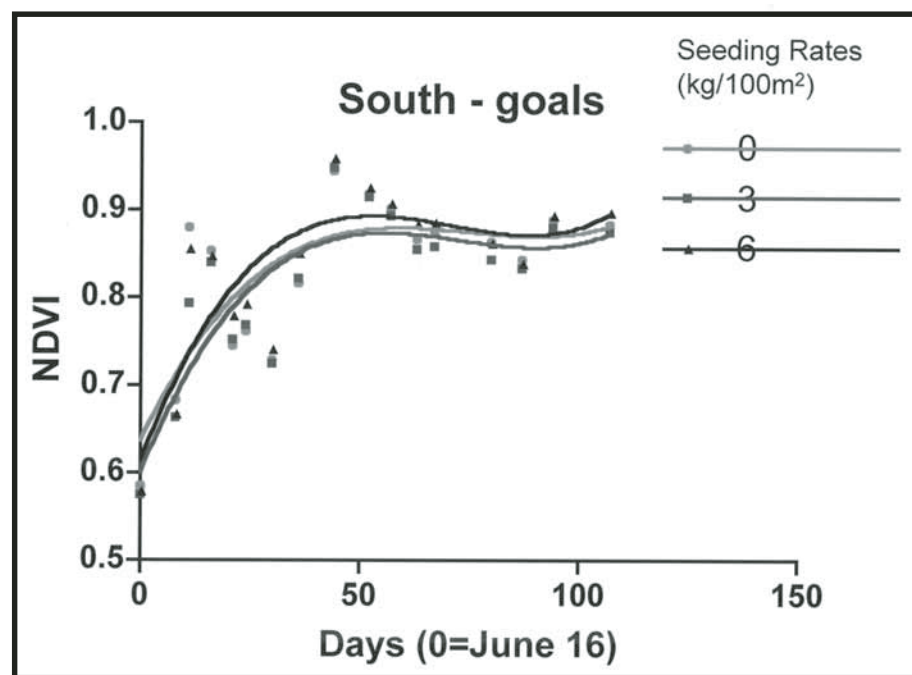


FIGURE 1. Greenseeker data for the south soccer field goal mouth area. NDVI stands for Normalized Difference Vegetation Index and is an indication of the quality and density of the turf stand.

The second field was irrigated according to a model developed by Terry Gillespie from the University of Guelph with modifications by Bob Sheard. This model is based on evapotranspiration (ET), which is the combination of water lost through transpiration from the leaf surface and lost through evaporation from the soil surface. Water is applied according to plant need and not on a set schedule. To estimate ET, daily weather readings are taken (Table 1) and the ET values entered into a water budget spreadsheet (Table 2). You can then determine when to irrigate and for how many minutes based on the estimated moisture capacity of the soil. It is generally accepted that watering should occur when 50% of the water available to the turf is lost through ET.

Unfortunately, 2008 was not an ideal year to conduct irrigation research. In fact, it was a year of record-breaking rainfall in most of Ontario.

Unfortunately, 2008 was not an ideal year to conduct irrigation research. As you may recall, last summer was very wet and rainy. In fact, it was a year of record breaking rainfall in most of Ontario. We did, however, get some data during a dry period in late June and early July (Table 2). In this 19 day period, we irrigated seven times and applied 70 mm of water when the schedule was predetermined and only twice with 40 mm of water using the evapotranspiration model. Despite using almost half the water when using the evapotranspiration model, there were no differences in turf density and quality between the two irrigation protocols. Even during this short period, there was considerable water savings using ET with no decline in turf quality.

As mentioned earlier, the turf on our fields was initially thin and sparse with extensive winter injury. Therefore it was only natural that a second research focus was to examine the effects of overseeding on turf density and quality. Overseeding is the practice of seeding a

TABLE 2. WATER BUDGET FROM THE GUELPH TURFGRASS INSTITUTE BETWEEN JUNE 23 & JULY 11, 2008

Date	Sun/Cloud	Temp.	Humidity	Wind	Estimated ET	Rain (mm)	Irrigation (min) (mm)	Soil Moist. Capacity(%)	Conv. Irrig. (mm)
23/06/2008	cloudy	LT23	high	calm	2	53	- -	100.0	10
24/06/2008	sun	LT23	high	calm	5	0	- -	93.8	-
25/06/2008	sun	GT23	high	high	7	0	- -	85.1	10
26/06/2008	cloudy	GT23	high	high	7	0	- -	76.5	-
27/06/2008	cloudy	GT23	high	calm	7.5	3	- -	72.9	Rain - 0
28/06/2008	sun	GT23	low	calm	7.5	0	- -	63.6	-
29/06/2008	cloudy	GT23	high	high	7	17	- -	87.3	-
30/06/2008	sun	GT23	low	calm	7.5	0	- -	78.0	10
01/07/2008	sun	GT23	low	high	8	0	- -	66.6	-
02/07/2008	sun	GT23	low	high	8	0	- -	55.2	10
03/07/2008	cloudy	LT23	high	high	7.5	6	- -	55.9	-
04/07/2008	sun	GT23	low	calm	7.5	0	120 20	80.9	10
05/07/2008	sun	GT23	low	calm	7.5	0	- -	70.2	-
06/07/2008	sun	GT23	low	high	8	0	- -	58.8	10
07/07/2008	cloudy	GT23	high	high	3.5	3	- -	59.5	-
08/07/2008	sun	GT23	low	high	8	0	- -	48.1	10
09/07/2008	sun	GT23	low	high	8	0	- -	36.6	-
10/07/2008	sun	GT23	low	high	8	0	120 20	60.9	Rain - 0
11/07/2008	cloudy	GT23	high	calm	3.5	25	- -	100.0	-
							TOTAL: 40		TOTAL: 70

desirable turf species into established turf to thicken the stand and fill in bare spots.

On each field, 12 plots were established (each 2 m x 14 m) located in the high traffic areas just outside the goal mouths and in the centre of the field. We applied three overseeding treatments on three dates (June 16, July 16 and September 11, 2008). The treatments were: 1) no overseeding; 2) overseeding at 3 kg/100 m² each date (for a seasonal total of 9 kg/100 m²); and 3) overseeding at 6 kg/100 m² each date (for a seasonal total of 18 kg/100 m²). We overseeded with perennial ryegrass (*Lolium perenne* L. 'Fiesta

3') using a drop spreader. Prior to overseeding, the fields were core aerated and the cores were drag-matted to break them apart.

Fields were fertilized with a seasonal total of 200 kg N/ha (Agromart 24-4-10) and mowed at a height of 5 cm, three times per week. Weed counts were taken regularly throughout the season. We also measured turfgrass density and quality using a device called the Greenseeker. This device detects reflection of light at a wavelength of 660 nm (where chlorophyll absorbs) and at 770 nm (a reference wavelength), to produce an index which is correlated with chlorophyll content, photosynthetic

activity, canopy cover and other parameters of turf health.

The Greenseeker data (Figure 1) shows that turfgrass density and quality generally increased throughout the season. At times, the highest rate of overseeding tended to produce the best quality turf although the results were not consistent. It is likely that there was limited stress on the turf due to the wet season and therefore all the grass, regardless of treatment, grew well.

Of interest to all soccer players (and their parents!) is the hardness or softness of the playing surface. We measured field hardness using a device called a Clegg

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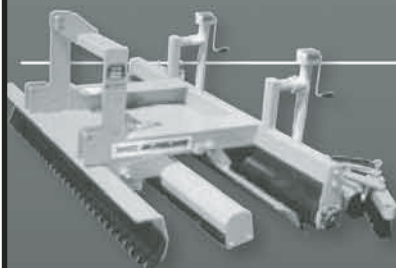
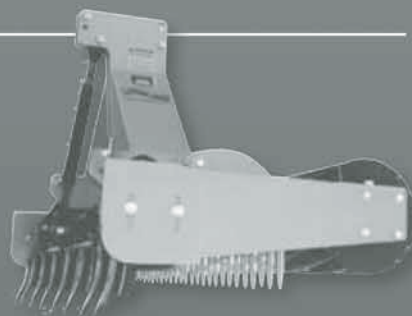
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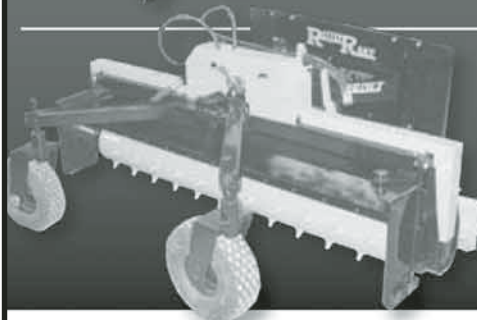
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Hammer. This simple yet effective device consists of a weight which is dropped down a vertical guide tube. The digital readout gives an indication of the hardness or softness of the field. There was little difference in Clegg Hammer readings between treatments and fields. Both fields were generally soft and spongy, mainly due to the rainy weather.

The results of our preliminary irrigation and overseeding research were



Above: Measuring surface hardness with a Clegg Hammer.

less promising than we had hoped due to the effects of the wet season, therefore we plan to continue studies on the soccer fields in 2009. This season we will modify the evapotranspiration model to reduce water usage even more. We will also add slit seeding at the three different seeding rates to determine which method is best at providing a thick turf stand all season long.

As this is being written, soccer nets and corner flags are being set in place and field boundary lines repainted. We look forward to another year of enthusiastic kids playing soccer at the Guelph Turfgrass Institute coupled with more exciting research. ♦

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