



## Introducing Goals with Swivel Wheels

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

**2B3306SW**  
Evolution 1.1

**2B3406SW**  
Evolution 2.1

**2B2001SW**  
Pro Premier European Match Goal

# Sports Turf Manager

FOR BETTER, SAFER SPORTS TURF. SUMMER 2013.

Some of the best memories are made in flip flops. ~Kellie Elmore



WHAT'S ONLINE  
[www.sportsturfassociation.com](http://www.sportsturfassociation.com)

## Inside this issue...

### REGULAR COLUMNS, DEPARTMENTS & SMALL FEATURES

- 4 The President's Desk.** Branding and marketing, programs and events.
- 5 New and Returning Members.** STA is growing.
- 6 Event Calendar.** 2013 Field Days.
- 6 Sports Turf Manager of the Year Award.** Start the nomination process now.

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

Deadline for Autumn 2013 Sports Turf Manager: September 6

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

- Events – Your portal to our programs and events with all the details as they become available
- Sports Turf Manager of the Year Award – Criteria, purpose, eligibility, policies and the nomination form
- Michael J. Bladon Educational Link – Search the Michigan State University's Turfgrass Information File.

# Sports Turf Manager

Volume 26, Issue 2, ISSN 1201-3765

is the official publication of the  
**SPORTS TURF ASSOCIATION INC.**

328 Victoria Road South  
Guelph, ON N1L 0H2

Tel: (519) 763-9431

Fax: (519) 766-1704

E-mail: info@sportsturfassociation.com

Web: www.sportsturfassociation.com

## BOARD OF DIRECTORS

PRESIDENT Paul Gillen

VICE PRESIDENT Tennessee Propedo

PAST-PRESIDENT Gord Dol

SECRETARY Andrew Gaydon

TREASURER Ben Tymchyshyn

EXECUTIVE MANAGER Lee Huether

## DIRECTORS

Tab Buckner, Bill Clausen,  
John D'Ovidio, Terry Henderson,  
Gord Horsman, Jason Inwood,  
Bob Kennedy, Ken Pavely, Paul Turner,  
David Warden

## SPORTS TURF MANAGER

is published quarterly by the STA for  
free distribution to its membership.  
An annual subscription may be  
obtained for \$125/year. Please  
direct advertising inquiries to  
Lee Huether at the STA office.

## EDITORIAL COMMITTEE

Ken Pavely, Ben Tymchyshyn  
and Lee Huether

## PUBLISHER

Jackie Ranahan

Mach One Communications

Tel: (519) 846-0446

E-mail: jackie@thinkmachone.com

## CANADA POST PUBLICATIONS MAIL SALES AGREEMENT No. 40031883

## STA OFFICE HOURS

Lee Huether is in the office from  
9:00 am to 2:00 pm Tuesday  
through Friday. At other times,  
a message may be left on the  
voice mail system. Please include  
the vital information of name,  
telephone number with area code,  
and time of calling. The office may  
be reached at any time by faxing  
(519) 766-1704 or via e-mail.

# President's Desk

BY PAUL GILLEN

**W**elcome to summer, at last. It was a long time coming this year; or it seemed to be, anyway.

Your association personnel have had a busy spring. We've graduated 39 students from the spring offerings of the Sports Turf Management and Maintenance Course; 22 in Guelph and 17 in Midland, Ontario. Did you know that our instructors will come to you as we did in Midland and Moncton, New Brunswick? Contact Lee Huether for particulars if you are interested in having an in-house presentation of the course.

The National Leadership Forum of the Canadian Recreation Facilities Council was held June 10 and 11 in Toronto, Ontario. The STA sponsored the Innovations for the Sustainability of Sports Fields session for this national event.



**Atlantic Sports Turf Field Day Program Participants** L-R:  
STA Atlantic Director Gord Horsman/City of Moncton,  
Speaker Eric Lyons/University of Guelph, Event Day  
Chair Bob Daniels/Dalhousie Agricultural Campus,  
Event Host Rob Mullane/Halifax Regional Municipality,  
and Speaker George Bannerman/Bannerman.



L-R: Gord Horsman with speaker  
Tim Vanini/New Dimensions  
Turfgrass

We are making progress with our Branding and Marketing Project that we introduced in the last issue. Your directors participated in a discovery meeting late in May, with a number of member, partner and stakeholder interviews to follow. We hope to have an initial presentation of the combined results at the Board of Directors meeting this month. We are excited by the process, which, in the end, will help to guide and assist us in

establishing and achieving our goals as an organization as we move into the next 25 years.

In this issue we look at the Sports Turf Field Day at the Dartmouth Sportsplex and Commons in the Halifax Regional Municipality where we hosted sports turf managers and industry professionals from Nova Scotia, New Brunswick and Prince Edward Island. We express our appreciation to our program participants and to all of our industry supporters. We also examine a Canada-wide plague – the goose problem.

See "Understanding Canada Goose Management" inside together with an article on Oakville, Ontario's Canada Goose Management Program. As always, we welcome your comments.

Be sure to mark your calendars for the local upcoming field days – August 29 in Langley, British Columbia and September 19 in Mississauga, Ontario. Both have excellent programs arranged. We are also preparing for a 1-day Synthetic Turf Workshop to be held in November in association with our Ontario Recreation Facilities Association partners. Stay tuned to the STA website for the details of each event.

That's it for me for now. Always remember – "Safe and Playable". •



## LIGHTNING SAFETY AND PREPAREDNESS

### When thunder roars, GO INDOORS!

Every year in Canada, lightning can cause as many as 10 deaths and 164 injuries. You can avoid a tragedy like this by taking a few simple precautions.

If you can hear thunder, you can get hit by lightning. Take shelter immediately. If you cannot find a sturdy, fully enclosed building with wiring and plumbing, get into a metal-roofed vehicle. Stay inside for 30 minutes after the last rumble of thunder.

Direct strikes are responsible for only 5% of lightning-related deaths and injuries. Two other types of hazardous phenomena are caused by lightning. Ground current and side flash account for 60 to 80% of lightning-related injuries and deaths. A ground current is set up when lightning hits the ground, spreads out and sends a current through a victim. Side splash occurs when lightning hits a tall object, travels partly down the object and then jumps to a nearby victim.

For more information on lightning, visit Environment Canada's Lightning in Canada website at [www.ec.gc.ca/foudre-lightning](http://www.ec.gc.ca/foudre-lightning)

## NEW & RETURNING MEMBERS

### British Columbia

**David Davidson**  
Kwantlen Polytechnic University  
Langley, BC

**Blair Arbuthnot**  
Catherine Eiswerth  
RF Binnie & Associates Ltd.  
Surrey, BC

**JD Frame**  
Prairie Coast Equipment  
Chilliwack, BC

**David Pasko**  
District of North Vancouver, BC

**Scott Mitchell**  
Target Products Ltd.  
Abbotsford, BC

### Ontario

**Mark Reinert**  
Ann Turcotte  
Town of Petawawa, ON

**Lindsay Allward**  
Jason Britton  
Town of Markham, ON

**Mark Thomas**  
City of North Bay, ON

### Ontario

**Trevor Arthurs**  
Leonard Belcourt  
Dan Chisholm  
Jason Cremer  
Frank Ferlito  
Mary Jan Howitt  
Jeff Latour  
Tom Murphy  
Keith Sager  
Ian Sheriff  
Danielle Smith  
Leeanne Tremblay  
Town of Midland, ON

**Dave Bone**  
Julie Randall  
Town of Bradford West  
Gwillimbury, ON

**Jonathan Roe**  
Jim Scanlan  
Township of Oro-Medonte, ON

**Chris Nichols**  
Township of Springwater, ON

**Bob Golden**  
Turf Care Products Canada  
Newmarket, ON



# Event Calendar

ASSOCIATION EVENTS ARE HIGHLIGHTED IN GREEN

## Sports Turf Manager of the Year

- While the deadline isn't until December 1, start the nomination process now.
- Download the criteria and nomination form from the STA website.
- Consider and identify the information you will need in support of your nomination.
- Who will you nominate? Ensure your nominee's eligibility.
- In what category? Begin to document and gather facts, figures, and photos to formulate and strengthen your nomination.
- Identify whom you will approach for letters of support (maximum of three). Contact them and discuss who, what and why.

**Sports Turf Manager of the Year.** A professional award program of the Sports Turf Association with the Cooperation and Sponsorship of the Guelph Turfgrass Institute and GTI Solutions Group. Who will be our inaugural recipient?

## 2013 Field Days

**August 29**

**Western Canada Turfgrass Association/  
Sports Turf Association**

**West Coast Sports Field Training Day**

Langley Events Centre/Willoughby Community Park  
Langley, BC

[www.sportsturfassociation.com/Events/FieldDays](http://www.sportsturfassociation.com/Events/FieldDays)

**September 19**

**Sports Turf Association**

**Sports Turf Field Day**

Mississauga Valley Community Centre & Park  
Mississauga, ON

[www.sportsturfassociation.com/Events/FieldDays](http://www.sportsturfassociation.com/Events/FieldDays)

**December 1**

**Sports Turf Manager of the Year Award  
Nomination Deadline**

[www.sportsturfassociation.com/Awards&Scholarship](http://www.sportsturfassociation.com/Awards&Scholarship)

**Table 1.** Taxonomy of Canada and Cackling Geese.

Large Bodied ( <i>Branta canadensis</i> )		Small Bodied ( <i>Branta hutchinsii</i> )	
Scientific Name	Common Name	Scientific Name	Common Name
B.c. canadensis	Atlantic	B.h. hutchinsii	Richardson's
B.c. interior	Interior	B.h. asiatica	Bering
B.c. maxima	Giant	B.h. leucopareia	Aleutian
B.c. moffiti	Moffit's	B.h. taverneri	Lesser*
B.c. parvipes	Lesser*	B.h. minima	Cackling
B.c. fulva	Vancouver		
B.c. occidentalis	Dusky		

\*These geese are part of a group of geese called the "Lesser Complex." Features can be challenging to differentiate in the field.

Cackling geese are recognized in North America (Banks et al. 2004; Table 1). For the purpose of this article, all subspecies will be collectively referred to as Canada geese.

The differences in subspecies include physical size (e.g. the smallest form—the small Cackling Canada goose weighs 3 - 5 pounds, whereas the largest form — the Giant Canada goose weighs over 20 pounds), population numbers, status, distribution, and management.

## Ecology

Understanding life-history and annual patterns of geese can assist managers to identify appropriate management windows. Canada geese are considered Arctic-nesting geese; that is, when following natural patterns, these birds generally nest in northern latitudes and migrate south after the breeding season. During mild climatic conditions, particularly in south-western Canada, Canada geese may begin nesting as early as February. Egg-laying is initiated in March and can continue into late May. Females typically lay 4 - 7 creamy white eggs (average is 5; total can be as high as 12) on consecutive days (Figure 1). They may also lay replacement eggs if originals are preyed upon, or the nest is destroyed early in incubation, which is approximately 25 - 27 days (Mowbray et al. 2002, Environment Canada 2003).

In late summer, prior to the fall migration, adult geese moult their flight feathers and grow a full new set over approximately 4 - 6 weeks. During moult young birds lose their down and grow their first set of flight feathers as well. Geese are vulnerable to predation during moult. Consequently, geese will form large moulting flocks on water bodies for protection. In addition, Canada geese exhibit high philopatry to nesting, migration and wintering areas allowing for perpetuation of distinctive subspecies. These traits have allowed biologists and managers the ability to create management programs targeting specific subspecies.

Geese form permanent pairs at 2 - 3 years. A pair will return to the female natal area to breed — some females set up nests in close proximity to their own hatch site. Geese may live greater than 20 years in the wild, particularly in urban settings where predation is low and forage is readily available.

Geese prefer to forage on tender grasses, but will take advantage of wetland vegetation, turfgrass, farm crops, and palatable ornamental vegetation. Geese generally clip the vegetation, but will also grub roots leaving an area denuded if grazing pressure is heavy.

## Distribution

Canada is home and native land to most stocks of Canada geese — at least for some part of their life cycle. Being naturally migratory, these birds are capable of extraordinary migrations. Depending on the subspecies, these trips can extend thousands of kilometres. Typically, an annual migratory pattern consists of nesting on northern breeding grounds, migrating south for the winter (making some stops along the way), wintering in southern latitudes and then returning north again. Geese are extremely site faithful and repeatedly use the same route and teach the route to their offspring. Each species has a different migratory pattern; however, migratory pathways do overlap, particularly at temporary stopover sites in the spring and fall. During these times, members of threatened stocks may mix on fields with members of stocks with no conservation concern—even problem stocks.



**Figure 1.** Canada goose nest with five eggs.

## Status

Understanding that there are 12 different subspecies of Canada geese provides the backdrop for understanding “status.” Here, the term applies to the conservation and legal status of goose subspecies—e.g. is there a conservation concern and how is that concern labelled.

For those who have experienced crop or field damage from unremitting flocks of Canada geese, it may seem difficult to believe that some stocks of Canada geese are of conservation concern — critically so — and they are being managed to sustain their numbers. In fact, the Bering goose subspecies (*B.h. hutchinsii*) was extinct by the early 1930’s caused by heavy predation by Arctic foxes and human exploitation.

In the early 1900’s many Canada goose populations experienced huge declines. Hunting, habitat loss, and introduced predators all contributed to declines that triggered awareness and conservation programs. Stochastic events also contributed to losses — the Dusky Canada goose suffered a huge loss in 1964 when an earthquake decimated the breeding colony on the Copper River Delta. This subspecies continues to be managed carefully to secure its sustainability.

The response to declining goose numbers was efforts to re-establish geese to native habitat and/or introduce stocks to new areas not previously inhabited by geese. For most stocks, the response has been more than successful.

### Example 1:

The Giant Canada goose was extirpated from much of its native range. Reintroduction from its native habitat has been so successful that translocations of birds outside of its original range have occurred to control nuisance populations inside its native range (mid-western United States). The result has been an over successful expansion of the population into Canada and the United States.

### Example 2:

Canada geese were introduced to parts of western Canada (e.g. Okanagan Valley; Southern Vancouver Island; Lower mainland,

British Columbia) in the 1960 - 70’s to provide sport hunting opportunities and increase wildlife viewing opportunities. Since then changes in habitat, urban expansion, and agricultural practices have resulted in exponential increases in these birds in non-native landscapes.

In both examples, as with many translocations of geese across North America, translocated geese and their progeny did not migrate. The groups established non-migratory resident populations in locations to which they were located. The full understanding of the inability to migrate is not complete; however, reasons likely stem from young geese/eggs being removed to a

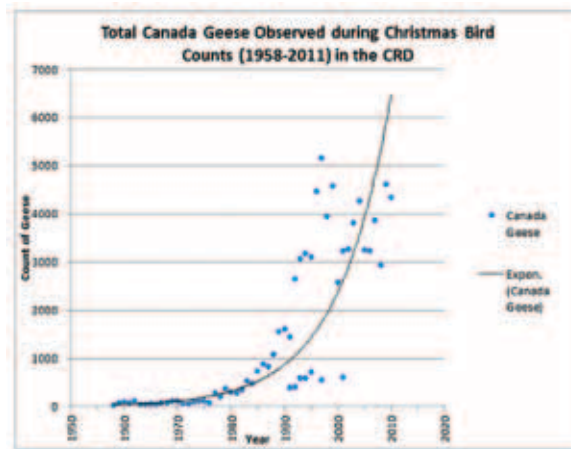


Figure 2. An example of exponential growth, typical of urban populations of Canada geese.

new location without the benefit of adult geese to initiate a migratory pattern. That is, young geese were moved to a new location, did not know where to fly, and no one was there to show them.

## Population Numbers

Environment Canada states that Canada geese have increased dramatically in abundance and geographic distribution during recent decades. By their estimate, at least 7 million Canada geese are present in North America. The population status of each subspecies is provided in the Migratory Birds Regulatory Report Series (see [www.ec.gc.ca/rcom-mbhr](http://www.ec.gc.ca/rcom-mbhr)). In many urban regions the population growth is exponential (e.g., the Capital Regional District on southern Vancouver Island, Figure 2).

## Management Issues

The arise of huge non-migratory resident goose populations is a relative new phenomenon, but has quickly risen to the top of “pest” problems for many turf, park, school, and farm operators in addition to a significant safety hazard for water reservoir and airport authorities.

Confounding the obvious economic and safety concerns associated with goose management is the responsibly to manage geese within the legislative framework and respect that some goose stocks still have conservation concerns (recall the Dusky geese). In addition, the general public may have substantial concerns with goose management that will need to be respectfully addressed.

## Regulatory Considerations

Prior to the consideration of any management program for Canada geese, it is likely that authorizations from the federal government and other levels of government will be required for management activities. Like all migratory waterfowl, geese are protected under the federal Migratory Birds Convention Act (1994) and pursuant Migratory Bird Regulations. This federal piece of legislation does not differentiate nuisance populations and ensures protection to all geese regardless of conservation status. Having stated that, the Canadian Wildlife Service (Environment Canada) provides authorizations for specific management and control activities which are helpful for mitigating conflict between people and geese. To facilitate goose management, Environment Canada has developed a series of handbooks to assist with management planning and best management practices (see [www.ec.gc.ca/mbc-com](http://www.ec.gc.ca/mbc-com)).

## Approaches to Management

To appropriately manage Canada geese and allocate resources for effective management several questions need to be addressed which can help form the basis of a Management Plan.

For example:

- 1) Define the problem—are the problem birds resident or migratory? Are the problem birds affecting a small area, (e.g. a field) or a larger area? (e.g. several towns)
- 2) Who are the impacted stakeholders?
- 3) What is an acceptable level of impact from Canada geese? (e.g. tolerance at a park may be higher than tolerance at an airport)
- 4) What is attracting the geese? (e.g. do people feed geese)
- 5) Are any tools in place to control geese? (e.g. hunting within regular hunting seasons)

In general, conducting goose management at the largest possible scale will be most effective so that geese are not bounced back and forth between jurisdictions; wasting resources (e.g., see [www.okanangangooseplan.com](http://www.okanangangooseplan.com) for an example of a collaborative goose management program in British Columbia).

### Summary

In general, the rise of the Canada goose population has come from changes on the landscape, and well-intentioned, but overly successful introductions of subspecies outside of their native ranges. The loss of migratory behaviour and decreased predation in urban environments has developed a robust population almost everywhere introductions were applied.

As a nation, we are suffering from uncontrolled growth of nonmigratory resident geese which need to be managed, but without disregarding native stocks that retain migratory patterns and are more self-regulating. In addition, we should aim to prevent the mixing of migratory stocks with non-migratory geese to ensure subspecies integrity remains intact. Using the tools that are available, under appropriate authorizations, we should humanely control and reduce population growth of introduced populations which were created under artificial conditions. Finding this balance is the conundrum that faces all managers—be it of geese, habitat or other green spaces. But by understanding the issues underlying management, we can move forward making successful and effective decisions. •

### References

Banks, R. C., C. Cicero, J. L. Dunn, A. W. Kratter, P. C. Rasmussen, J. V. Remsen, J. D. Rising, D. F. Stotz. 2004. *Forty-fifth supplement to the American Ornithologists' Union Check-list of North American Birds*. Auk 121:985-995

Environment Canada. 2010. *Handbook, Canada and Cackling Geese: Management in Southern Canada*. Canadian Wildlife Service. Environment Canada.

Mowbray, Thomas B., Craig R. Ely, James S. Sedinger and Robert E. Trost. 2002. Canada Goose (*Branta canadensis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu.bnaproxy.birds.cornell.edu/bna/species/682> doi:10.2173/bna.682



Non-migratory resident Canada goose nest on houseboat (District of West Kelowna, BC).



Non-migratory resident Canada goose nesting in planter (5th floor balcony), (Kelowna, BC).



The result of geese grazing on pasture.

National Audubon Society. 2012. Christmas Bird Count Results Data and Research. Available: <http://birds.audubon.org/christmas-bird-count> (Accessed June 2012).

### Additional Sources of Information

Okanagan Valley Goose Management Program: [www.okanangangooseplan.com](http://www.okanangangooseplan.com)

Environment Canada: <http://www.ec.gc.ca>

US Humane Society Canada Goose Egg Addling Protocol: [www.humanesociety.org/assets/pdfs/WILD\\_Goose\\_Egg\\_Addling\\_Protocol.pdf](http://www.humanesociety.org/assets/pdfs/WILD_Goose_Egg_Addling_Protocol.pdf)



# Weed Suppression in Turfgrass Using Different Species and Thicknesses of Leaf Mulch

Peter Purvis and Erica Gunn, *Guelph Turfgrass Institute, University of Guelph*  
Pam Charbonneau, *Ontario Ministry of Agriculture Food, Ministry of Rural Affairs*

Autumn is a nice time of year. The beautifully cool, crisp weather, the spectacular colours and falling leaves...yes, the seemingly endless hours of raking fallen leaves. Many of us still physically remove leaves from our turf each fall, putting them in bags or moving them onto the street for pick up. However, some municipalities are tightening their rules on curb-side leaf collection.

Mulching tree leaves is an alternative to raking and has many positive benefits for the turfgrass ecosystem. Research at Purdue University found that adding mulched leaves to turf increased soil microbial activity and organic carbon content but did not increase thatch levels, did not promote turfgrass diseases and did not negatively affect visual turf quality or colour (1). Experiments at Michigan State found that the addition of mulched maple and oak leaves promoted early spring green-up and reduced populations of common dandelion in turf (2). The City of Guelph and other

municipalities regularly mulch tree leaves in their parks and sport field complexes to manage their fallen leaves (Figure 1).

Turfgrass managers need effective, non-chemical methods for controlling weeds and promoting high quality soil and turf, particularly since the use of cosmetic pesticides is banned in many provinces and municipalities across Canada. This three year study examined the effectiveness of two thicknesses of mulched tree leaves and needles applied to control broadleaf weeds in established lawn-type turf. We also evaluated the overall turf and soil quality when mulched leaves were applied.

## Materials and Methods

- In October 2010, eighty plots (20 treatments x 4 replications; each plot 2 m x 2 m in size) were established on weed infested lawn-type turf at the Guelph Turfgrass Institute, Guelph Ontario.



**Figure 2:** Research plots at the Guelph Turfgrass Institute with applied tree leaf and needle mulch.



**Figure 3:** A plot containing a 5 cm depth of mulched ginkgo leaves.