

SPORTS TURF MANAGER

... for safe, natural Sports Turf

WINTER 2002

VOLUME 15 • ISSUE 4

Good Turf Can Make Money!

TOM CLANCY REVIEWS THE 2002 ISC SCHNEIDERS WORLD FASTBALL TOURNAMENT

If you build it they will come. Tournaments are a pleasurable way to do a lot of work, provide great entertainment and if done properly, reap economic benefits for your community. To host successful tournaments, you need top notch facilities, good supporting organizations, numerous sponsors and many excellent volunteers.

One of the Kitchener Parks and Recreation staff suggested that we go after the International Softball Congress (ISC) World Fast Pitch Championship. We didn't have a suitable facility so we started researching and gathering facts. Eight years later we landed the tournament and had constructed a three diamond multi-purpose facility with 300 foot outfields.

Planning and Organization

We bid twice, once in 1995 and subsequently in 2000 for the 2002 tournament. You have to develop a strategy for bidding and work with local groups that know vital inside details and have an intimate knowledge of how the sport operates.



Tom Clancy, Tournament Chairman (right), and E.D. of the International Softball Congress Ken Hackmeister shaking hands on 'opening pitch' after two years of planning and contracts.

After considerable discussion, we bid \$48,000 (US) and signed a 10 page contract. The contract included 250 free room nights and 10 free vans for the 40 ISC Commissioners and umpires to travel around the area. It was a nine-day tournament. We also offered 20% of all profits over \$80,000 to go to the individual teams travel fund.

We attended the tournament the previous year in Eau Claire, Wisconsin and learned a lot about behind-the-scene de-

tails. It was helpful that the organizer was also head of Parks and Recreation and shared everything with us. We learned what to do and some things not to do – like sell food at event-style high prices. A hamburger at Eau Claire cost \$4 US and it wasn't even a good hamburger. They received many food-related complaints.

Once we were awarded the bid, we sat down and developed a Strategic Business Plan. This included listing the factors required to have a successful tournament, what could go wrong, budget items, etc. This was done in Febru-

ary, 18 months in advance of the tournament. We then developed an Event Plan with all the duties, tasks, who was responsible and the times for completion. That was a key step as it provided a "game plan" so everyone knew who was doing what and when.

At each bi-weekly Host Committee Meeting (of which there were 56), we looked ahead to the next three weeks and the tasks involved. The tournament required over 500... **continued on page 6**

In this 16 page issue of Sports Turf Manager, you'll find ...

Bringing you the latest from the Sports Turf Industry ...



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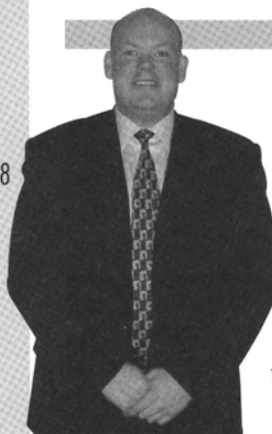
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Lee Huether is in the office from 9:00 a.m. to 2:00 p.m. Tuesday through Friday. The office phone number is (519) 763-9431. At other times, a message may be left on the voice mail system. Please include the vital information of name, telephone number with area code, and time of calling. The office may be reached at any time by faxing (519) 766-1704 or via e-mail.

The President's Desk

PAUL TURNER



Seasons Greetings...

Fall has passed us by and we're now shoveling the dreaded white stuff. However, let's be positive, in about 16 weeks spring will again be in the air!

Winter signals trade show time for our industry. Mark your calendars and register today! The Ontario Turfgrass Symposium (OTS) is January 21-23 in Toronto. It would be great to see a large turnout of our membership at this event.

You may be unaware of some behind-the-scene activities regarding the OTS. I would like to give you some brief details. The 2003 Symposium is exactly as in previous years, however for 2004, the Ontario Golf Superintendents' Association have decided that they are going to have their own specific golf specific show and thus are leaving the OTS group. We wish them well in their new endeavor.

The OTS group has expanded its partnership and will be hosting the 2004 conference in Toronto on January 20 and 21. As the old saying goes, *the show must go on!* We will be updating you with new details as they develop so stay tuned. This conference will cover all aspects of turf management and will feature many new speakers and exhibitors.

The STA's Annual General Meeting is January 22. Breakfast starts at 7:30 a.m. sharp and we hope to wrap up by 9:00 a.m. If you wish to attend, please register with Lee at the office.

It is with great regret I inform you that two long-time supporters and directors of the STA are stepping down. Michael Bladon, one of our founding members, is retiring after 15 years to pursue other avenues. Michael was one of the true visionaries in the industry and guided the STA to where it is today. He served as President, Past President, Director and Editor of the *Sports Turf Manager*. Believe me, we will miss his expertise immensely. I

would like to say thank-you on behalf of the Directors and the membership for all you have done. We wish you health and happiness in your new adventures. You will be sadly missed.

Bill Campbell is also stepping down after many years on the board. Having spent almost 50 years in the business, Bill brought a wide knowledge of the sod/turf industry. Bill, you too will be sadly missed. Your kind of industry knowledge is irreplaceable.

With two holes to fill on the board, we are excited to have three new nominations for 2003/2004. Jeff Stewart of the Town of Ajax, Jamie Worden of Turf Care Products and Gord van Dyk of the University of Toronto. Elections will be held at the AGM in January and we ask you to come on out and cast your vote.

As mentioned, with Michael Bladon leaving the board, we've decided to form an editorial committee for our newsletter rather than elect a single editor. This decision was based on the large number of hours it would take one individual to prepare the newsletter. Sharing these duties should make it easier for us to continue publishing a quality newsletter for the membership. The new committee is made up of Jane Arnett-Rivers, Andrew Gaydon, Lee Huether and myself.

Our expanded and re-designed web site is up and running. We welcome your feedback on how we can improve the site and what additional features you would like to see. Visit us at our new home at www.sportsturfassociation.com. Also a reminder to please update your address book - our new email address is info@sportsturfassociation.com.

I hope you all have a great winter season and look forward to seeing you at OTS. We will have more details on the new partnership for OTS 2004 and look forward to sharing those with you. The success of this venture will only be achieved if our membership throws all of its support behind the symposium. ♦

News Clippings

SOCCKER STADIUM PLAN IN THE WORKS FOR TORONTO

The Canadian Soccer Association, bankrolled by a grant of some \$625,000 from FIFA, has started work on plans for a 30,000-seat natural grass soccer stadium in central Toronto.

The FIFA grant money, announced recently, will be used for "design, investigation, economic, business modelling, architectural plans and so on," Kevan Pipe, chief operating officer of the Canadian Soccer Association, said from Ottawa.

"Will it get a shovel put in the ground? No, of course not. You're talking a multi, multimillion-dollar facility. But what it will do is provide all the legwork, all the rationale, all the analyses we are going to be putting together... to eventually see the construction of this facility."

There are still plenty of hurdles. The CSA still needs to arrange funding from three levels of government, plus the private sector and other organizations interested in using the facility.

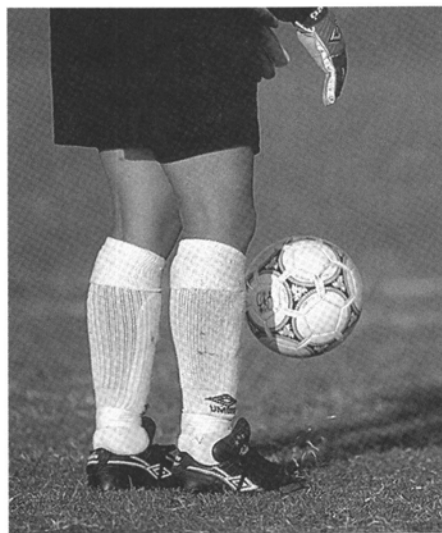
Still the grant is a step forward in the process.

"I'm delighted to hear it," Canadian men's coach Holger Osieck said. "It definitely gives us a good prospectus for the future, that's for sure."

Osieck has long campaigned for a new stadium in Canada's largest city.

"If we don't have it here, where else should we have it?" he asked.

The lack of a suitable facility outside of Edmonton's Commonwealth Stadium has long frustrated Canadian soccer officials. And Toronto has been virtually shut



out of the international soccer scene since Varsity Stadium went under the wrecker's ball.

The CSA, in announcing its intention Aug. 30 to go after 2007 women's World Cup, said a new soccer stadium was part of the bid.

The grant was issued under the world governing body of soccer's Goal Program, which benefits soccer associations around the world. It marks Canada's first participation in the program.

"This is one of a series of dominoes that continue to get knocked over," Pipe said of the grant. ♦

— *Canadian Press, The Record,*
November 7, 2002

Editor's Note: Three cheers for the CSA and FIFA for promoting and planning a natural grass stadium!

Seasons Greetings!

*from the Sports
Turf Association*

We would like to take this opportunity to thank all of our members, advertisers and sponsors for their support in 2002 and wish everyone a safe and prosperous New Year!

Odds and Ends

Welcome STA New Members

James Lazenby
York Region District School
Board, Newmarket, ON

Ian Haras
City of Guelph, ON

Quotes of the Month

Loyalty to the absent. One of the most important ways to manifest integrity is to be loyal to those who are not present. In doing so, we build the trust of those who are present. When you defend those who are absent, you retain the trust of those present.

Leadership is communicating people's worth and potential so clearly that they come to see it themselves.

Membership Plaques

Now available! Sports Turf Association Display Membership Plaque in executive engraved walnut. Just \$50 plus S&H. Contact Lee Huether at the STA office to order.

Spring 2003 Submissions

If you have something you'd like to submit for the next issue, please forward it to the STA office by February 7, 2003.

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.

Voice Your Opinion!

We appreciate all member feedback. To make this process easier, we have a form on our website, www.sportsturfassociation.com, under the "newsletter" link called *Weeds 'n' Blades*. Check it out!



Coming Events

MARK YOUR CALENDAR FOR A HAPPY & PROSPEROUS NEW YEAR

WINTER 2003

January 6-10

Cornell University
Turfgrass Management Short Course
Ithaca, NY
Information: (607) 255-1792

January 15-17

Landscape Ontario Horticultural
Trades Association
Congress 2003
Toronto, ON
Information: (905) 875-1805

STA HIGHLIGHT

January 21-23

Ontario Turfgrass Symposium
Regal Constellation Hotel
Toronto, ON
Information: (519) 767-5000
www.open.uoguelph.ca/OTS

STA HIGHLIGHT

January 22 (at the OTS)

STA Annual General Meeting
Regal Constellation Hotel
Toronto, ON, 7:30 am
Information: (519) 763-9431

February 3-28

University of Guelph
Turf Managers' Short Course
Guelph, ON
Information: (519) 767-5000

February 18, 25 & March 4

Guelph Turfgrass Institute
Pesticide Applicators Preparation Course, Guelph, ON
Information: (519) 824-4120 x 2501

February 25-28

Turfgrass Producers International
Mid-Winter Conference and Exhibition, Birmingham, England
Information: (847) 705-9898
www.TurfGrassSod.org

March 18-20

Atlantic Turfgrass Research
Foundation *Atlantic Turfgrass Conference & Trade Show*
Halifax, NS
Information: (902) 861-1922
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Contact the STA if you have an event you'd like to advertise in the next issue of the *Sports Turf Manager*.

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Cover Story Continued... The Positive Spin-offs of Good Turf

TOM CLANCY DISCUSSES PREPARATION FOR THE 2002 ISC SCHNEIDERS WORLD FASTBALL TOURNAMENT

... volunteers who helped with the myriad of tasks and duties. We sometimes didn't have enough and asked volunteers who were not on duty to help out several times.

Facility Basics

The facility has to be of a high standard. Between the fences, the players liked our clay infields and the quality of the turf. Our facility, the Peter Hallman Ball Yard, was once a low wet area with organic muck soils. That was all removed over a mild winter and replaced with 24 inches of gravel base and then 10 inches of sandy loam topsoil on top. This provided excellent drainage, the number one priority for tournaments and quality sports turf. With a good irrigation system, you can apply the correct amount of water needed according to the variable weather conditions.



A good facility also requires good seating and good lighting. We brought in six excellent 60-foot long trailers with seating for 300 fans each. Seating standards are easily available for most tournaments,

and will vary from one to another. Good food concessions are also a priority. Trained staff and volunteers are necessary to provide quality food quickly, safely, and efficiently.

We have an excellent two counter concession and brought in two additional trailers to serve grilled food. Draught beer was also available. Other requirements included an ISC tournament office, umpire change rooms, money counting facilities, and food and merchandise tents or booths. Medical services are necessary for all games to attend to injuries, massage therapy, taping sprains, etc. with access to medical clinics for more serious injuries.

Tournament Time

We played 115 games over nine days starting at 8:00 am and going to 12:00 am with games every two hours on two diamonds. Staffing was a huge task. Diamonds need to be raked, pitchers and batters boxes lined, raked, watered and tamped, and new foul lines put down prior to every game – all in 11 minutes. Three staff and volunteers were used each shift with two diamond groomers and a couple of extra workers so you could go to the other diamond if both games finished about the same time, which often happened.

The diamonds were groomed and soaked overnight by a crew who worked 11:00 pm to 7:00 am. In this way the diamonds could withstand the heat and heavy play demands. Heavy cleaning of the washrooms and stands was also conducted during the overnight hours.

Two staffing and volunteer priorities are garbage pickup and washroom cleaning and checking every two hours. This is one area we could hardly keep up with because of the volume of food sold and amount of

litter produced. We used the Walmart philosophy for our food sales, combining good quality and variety at a reasonable cost resulting in good value. We sold 800 pizzas, 4,000 slices of Mennonite pie with ice cream (for \$2.50 CDN), 700 sandwiches, fresh fruit, and of course hamburgers, hotdogs, french fries and *a lot* of beer.

In Retrospect

If you are considering a tournament, be sure to set up a web site. It provides good information regarding hotels, locations, prices, schedules, etc. and will save you time answering routine, repeated questions. We advertised our web site on every press release and in our numerous promotions. Many people now look for computerized access to information.

One of the major advantages of hosting tournaments is the resulting positive impact on your community. We estimated the benefits at over \$3 million dollars in primary spending for rooms, restaurants, gas, entertainment, etc. Area hotels came on board as sponsors and also provided us revenue for each room rented. They were pleased with the business and want to help again.

Our host committee was made up of nine "not for profit" community groups and the two cities. The profit realized is split among the groups and will support community sports initiatives which is a win/win/win scenario.

Our 2002 tournament was a huge success. We hosted over 42,000 people in nine days and made a profit of \$115,000. The players, fans and ISC personnel want to return which was our benchmark for a "well run" tournament. If they want to come back, we did our job. And they do.

It was hot! It was hard work! It was fun! It was rewarding! Try it. But ensure your turf and facilities are up to standard first and foremost. ♦

— Tom Clancy, Chairman, 2002 ISC Schneiders World Fastball Tournament

Integrated Pest Management-Plant Health Care Council Launched

CHRIS MARK SUMMARIZES THE GUIDING PRINCIPLES OF THIS NEW COUNCIL



Over the last several months, the Sports Turf Association has joined other industry associations to form the IPM-PHC Council. While this group is newly formed, there is much activity and energy going on at this time.

The mandate of this group is to encourage the responsible use of pesticides and the promotion and implementation of IPM strategies. An IPM Accreditation Program that would be industry wide is the primary goal of the IPM-PHC Council.

Ideally the IPM Accreditation Program would be at the provincial level under provincial regulation. The IPM Accreditation process will help reduce reliance on pesticides through the application of Integrated Pest Management and Plant

Health Care principles, with particular emphasis on:

- Cultural practices that promote optimum plant health
- Pest prevention
- Application of pesticides only when necessary
- Use of reduced risk products

Members of the Council include the Professional Lawn Care Association of Ontario, Landscape Ontario, Ontario Parks Association, Ontario Vegetation Management Association, International Society of Arboriculture, Structural Pest Management Association of Ontario, Ontario Golf Superintendents Association and Hydro One, to name a few.

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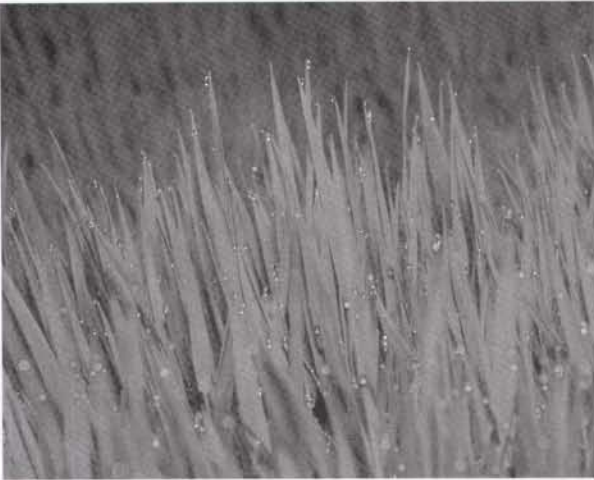
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The IPM Accreditation accredits companies and/or organizations that demonstrate commitment to the principles of IPM. The IPM-PHC Council will set standards for the accreditation procedure and make decisions on conferring and revoking accreditation privileges.

The IPM-PHC Council has met as a united group on several occasions and a great deal of the work is being undertaken by Landscape Ontario, most specifically by Ken Pavely. Governance issues such

The program would be self-funding with industry members contributing license fees, audit fees and exam fees. Companies that fail to meet the criteria established for IPM strategies, reduction targets, education outreach, and marketing would be disciplined and ultimately could lose their operators license. It is intended that employees of industry companies and municipalities can become IPM Accredited through passing an exam. The Council is entertaining the option of having Ridgetown College operate the IPM Accreditation Program with the IPM-PHC Council being an advisory board.

At this point, the IPM-PHC Council is a work in progress, but it is very important the group stay united and vigilant in its fundamental goal of IPM Accreditation at the provincial level. The STA, like many other industry groups, strongly advocates the responsible use of pesticides and IPM. Being a member of the IPM-PHC



as bylaws and a constitution are currently being finalized for approval at a future meeting. Each association will be able to have two representatives attend IPM-PHC Council meetings, but each association is entitled to only one vote.

The IPM-PHC Council would self regulate the industry by engaging third party auditors such as the Canadian Environmental Auditors to perform both desk-top and site inspections and audits. It is intended the auditor would report directly to the province (i.e. Ministry of Environment).

Council is aligned with the STA position in terms of supporting a stewardship of industries and partnerships.

As the IPM-PHC Council proceeds, we will continue to keep you informed. Please feel free to visit www.planthealthcare.ca or contact the IPM-PHC Council at 905-875-1805. ♦

Editor's note: Ken Pavely will discuss the state of IPM Accreditation and other items relating to the pesticide issue at the Ontario Turfgrass Symposium on Thursday, January 23, 2003.

Gone Walking...

by Michael Bladon

Well, it's that time. Time to go walking. As a founder of the Sports Turf Association, I have been involved since its beginnings in 1987. I have also been editor of the *Sports Turf Manager* on and off for nine years. It has been an adventure in faith – that such an association was needed, that it be professional in every way, that it educate the sports-related public, and always keep the athlete and his/her well being in the forefront. The Association has done all of this through seminars, field days, an annual conference, check lists and, of course, the *Sports Turf Manager*.

Guided by talented boards and much appreciated support from suppliers and distributors, plus the hiring of an executive manager, the STA has grown considerably. All of this in keeping with a vision that there was not only a need, but also that it would be affordable to the hands-on people in the industry.

So as I step down, I step out again in faith to "Realize the Dream by 2015" as a representative with the Bruce Trail Association. I challenge both the board and you our members to not sit on your laurels but be innovative and diligent in continuing to provide the best playing surfaces for the athlete at your venue.

I will still be around to help where needed and am still very interested in the Association's future. But, excuse me, I have to put on my hiking boots... ♦

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J. Robert Dippel

SEEDS

This final article of a three-part series will address allegations that pesticide exposure causes asthma, disruption of endocrine (hormone) systems, and neurological effects in children. Suggestions regarding exposure mitigation will be provided, as well as conclusions pertaining to the entire three-part series. References are footnoted in the text and are available on request from the Sports Turf Association. Parts I and II of the series were published in the previous two issues of the *Sports Turf Manager* and can be viewed online at www.sportsturfassociation.com.

Pesticide Exposure and Asthma

Many articles in the press have stated that pesticide exposure is responsible for an increase in the incidence of asthma in children. While the rate of occurrence of asthma, particularly among children, has been rising over the past decade, there is no definitive evidence that pesticide exposure contributes to the frequency of this disease^{10, 11}. The increase itself is somewhat confusing because physicians have long debated which symptoms warrant a diagnosis of asthma. In addition, awareness of the disease has grown which could account for a portion of the reported increase.

Research indicates that factors known to cause or exacerbate asthma are as follows: a family history of the disease, gender (males are more prone), and exposure to tobacco smoke, household dust, dust mites, cockroach integuments and feces, and damp environments^{10, 12}. Diet may also play a role. The fact that we have tightly sealed homes is an issue.

Recent research is suggesting that it is an underdeveloped immune system that is responsible for the development of asthma in children. Current thinking suggests that we are actually keeping our environments *too clean*. Challenges to the immune system early in life (exposures to viruses, bacteria, animal dander, dog

hair, dust, etc.) are required for proper development of the immune system¹³. Through the frequent use of antibiotics, and keeping our homes extremely clean, we may have prevented the immune systems of many children from developing appropriately.

Children from rural areas, where pesticides are commonly used, have a much lower incidence of asthma than children from urban environments^{14, 15}. Farm children are exposed to dander from pets and farm animals, as well as pollens, dust and dirt from an early age. There is no definitive evidence to indicate that pesticides increase the incidence of asthma in children. The use of pesticides may actually help to alleviate allergic reactions among individuals whose condition is made more serious by exposure to weed pollen.

Endocrine Disrupting Chemicals (Hormone mimics)

For the past decade, the news has been flooded with articles on endocrine disrupting substances and the havoc they are creating in the environment and potentially in our children; however, the scientific literature does not support effects in humans. Pesticides have been implicated in the media as endocrine disrupting substances. Almost everything, including the food we eat, contains natural chemicals that act like hormones.

The endocrine system is extremely sensitive and can even be affected by the amount of daylight received by the living organism. It will be extremely difficult to sort out what affects, and what doesn't affect, hormone systems because many things (natural and man-made) influence the endocrine system.

W.J. Waddell, an MD, professor, and Chair of the Dept. of Pharmacology and Toxicology at the University of Louisville School of Medicine, published a review of epidemiology studies and the effects of environmental estrogens and concluded "the data available at present do not lead



to the conclusion that endocrine-modulating substances account for worldwide trends in these epidemiological studies"³⁴.

While some researchers have hypothesized that pesticides act as hormones in the environment, a direct association at environmentally relevant concentrations has not been established. In addition, exposure to pesticides is extremely low in comparison with exposure to endogenous hormones such as 17-B estradiol and estrone, naturally occurring hormones such as estrogen (e.g. phytoestrogens in food such as cabbage), and therapeutic hormone supplementation (e.g. hormone replacement therapy and contraceptives); therefore, this hypothesis is unlikely. Wood and paper products also contain estrogenic substances of natural origin.

Dr. Stephen Safe, of Texas A&M, has authored many papers indicating that the endocrine modulating hypothesis is flawed^{35, 36}. His publications also point out flaws in the hypothesis that endocrine-disrupting industrial chemicals have caused a reduction in sperm counts among men.

The National Research Council (NRC) Report on "Hormonally active agents (HAAs) in the environment" concluded that prenatal exposure to HAAs may af-

fect development and nervous system development but more research is required³⁷. The report stated that data available are inadequate to assess whether exposure affects immune systems in humans and concluded that post-natal exposure to HAAs has been shown not to increase the risk of cancer in endocrine organs.

While more research is certainly needed on this controversial subject, the exposure incurred by applicators and bystanders to pesticides is so minimal that an association between pesticides and endocrine effects in humans is unlikely.

Pesticides and Neurological Effects in Children

A 1998 study conducted by Guillette et al. suggested that pesticide exposure causes effects on the developmental/neuromuscular function and fine motor skills in children³⁸. The authors studied children of two separate villages in Mexico – one located in an agricultural valley where pesticides were used frequently, and the other located in the foothills where ranch-

ing was practiced and pesticides were not usually sprayed.

There are many flaws in this study including lack of proof of the genetic similarity of the two populations studied and failure to conduct chemical analyses of food, water, environment, blood or urine to confirm pesticide exposure and to rule out the possible contribution of other contaminants such as PCBs which are known to cause neurological impairment.

The children of the two villages do appear to differ in terms of their fine motor skills and neurological development; however, the data do not prove that pesticide exposure is the cause of the difference. Eye exams were not even given to the participants. Guillette et al. did not collect samples to identify what substances the children were actually exposed to, nor did they attempt to adjust or identify confounding factors such as parental alcohol

and drug abuse, parenting skills, level of parental education, genetics, etc.

Exposure Mitigation

The best way to mitigate *occupational exposure* to pesticides applied to turf is to read and follow the label directions, apply the correct application rate, wear the recommended personal protective equipment (gloves, respirator, chemical-resistant coveralls, etc.), change respirator cartridges frequently, launder clothing daily and follow proper hygiene practices.

To reduce *bystander exposure* to pesticide treated turf, the recommended application rate should never be exceeded, spraying should never occur during conditions conducive to drift, surfaces must be dry before allowing contact with treated turf (obey re-entry intervals), and bystanders must not be allowed in the area when pesticides are being applied.

Pesticides are thoroughly tested prior to registration. Products that can't be used safely do not go on the stringent Canadian market.



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Conclusions (of this three part series)

Pesticides are thoroughly tested and the data are reviewed by the Canadian Pest Management Regulatory Agency (PMRA) prior to registration. Pesticide products that PMRA concludes have incomplete databases or that cannot be used safely are not granted registration and cannot be sold, imported, or used in Canada. Our country has the most stringent regulatory requirements in the world. Pesticides, like prescription drugs, *can* be used safely, provided label directions are followed. The recommended personal protective equipment should always be worn when handling and applying pesticides.

The benefits of using pesticides on turf include reduced potential for allergic reactions caused by weed pollen and insect stings and bites, positive health benefits associated with increased participation in outdoor sports such as soccer and golf, fewer sports injuries, reduced soil erosion resulting in less pollution of waterways etc., and the psychological benefits of improved aesthetics. The use of pesticides on residential property is a matter of personal choice which should be respected.

Reviews of sound, scientific, peer-reviewed data indicate that allegations suggesting occupational and bystander exposure to pesticides is associated with health effects such as asthma, cancer, endocrine disruption, developmental effects and neurological impairment in children, is currently *unfounded*. Unfortunately, the media's presentation of possible associations between pesticide use and health effects has served to create an irrational fear about pesticides among the general public.

As mentioned in Part 1 of this article, any pesticide ban approved by a municipality is a political decision based on emotion and not one based on sound science. This fact should be clearly communicated to the constituents of the municipalities involved. ♦

Editor's Note: The STA thanks Dr. Houghton for her informative article on Pesticide Exposure and Human Health. Our appreciation is extended to her for not only sharing her expertise but for all the time and energy spent in editing this information into three parts.

Weather watches, warnings & advisories from the Atmospheric Environment Service

For the safety of people and property, Environment Canada issues severe weather warnings, watches and advisories to the public via the media, weather outlets and Weatheradio Canada.

A *Weather Watch* alerts you that conditions are favourable for the development of severe weather. Watch the skies and listen for updated watches and possibly weather warnings.

A *Weather Warning* alerts you that severe weather is occurring or that hazardous weather is highly probable. Severe thunderstorm or tornado warnings may be issued less than one hour in advance. Other weather warnings may be issued six to twelve hours in advance.

A *Weather Advisory* means actual or expected weather conditions may cause general inconvenience or concern, but don't pose a serious enough threat to warrant a weather warning. An advisory may also be used when conditions show signs of becoming favourable for severe weather when the situation is not definite enough or too far in the future to justify a warning.

The following are some of the more common seasonal weather watches, warnings and advisories issued by Environment Canada. Note that criteria for warnings are established to meet local and regional needs and may vary slightly from region to region across Canada. Contact your nearest weather outlet to confirm criteria for your area.

Freezing rain warning. Expect slippery walking and driving conditions, and possible damage to trees and overhead wires due to rain freezing on contact to form a coating of ice. Avoid travel.

Wind warning. Expect winds blowing steadily at 60 km/h or more, or winds gusting to 90 km/h or more, for

at least one hour. Secure or put away loose objects such as outdoor furniture, put your car in the garage, and bring livestock to shelter. Definitely not a winter wonderland!



Blizzard warning. Expect snow or blowing snow, with a severe wind chill and visibility reduced to less than one kilometre, for four hours or more. Stock up on heating fuel and food. Stay indoors and wait out the storm.

Heavy snowfall warning. Expect a snowfall of 10 cm or more (15 cm or more in Ontario) in 12 hours or less. Travel could become hazardous.

Winter storm warning. Issued in Ontario when two or more winter conditions reach warning proportions (e.g. wind and snow, or freezing rain followed by heavy snowfall). Be prepared to cancel travel plans and stay indoors.

Wind chill warning. Expect very cold temperatures combining with wind to create outdoor conditions hazardous to human activity. Be prepared to stay indoors.

Cold wave advisory. Temperatures are expected to drop by 20°C or more within 18 hours. Dress warmly and check the weather forecast before travelling or venturing outdoors. ♦

To receive weather information when, where and how you want it, sign up for Environment Canada's free service e-Weather at:
www.weatheroffice.pyr.ec.gc.ca/e-weather/default_e.html

Creating “Fields of Dreams” that are Safe for Participants

DR. MITTELSTAEDT ADDRESSES SAFETY CONCERNS WITH SOCCER, RUGBY AND FOOTBALL FIELDS & FACILITIES

Turf is only one factor in the safety equation...

Soccer, rugby and football fields and facilities safety is an increasing concern in sports and athletics because of the alarming number of injuries being reported to the Consumer Product Safety Commission. This concern puts pressure on Field Operators, Turf Managers, Maintenance Supervisors and others to have safe playing fields.

A “field of dreams” is created from a consistent set of proven guidelines and safety standards to ensure consistency around the country. As opposed to synthetic or artificial turf fields, natural turf sports fields have a unique array of variable challenges because of the field conditions created by a multitude of environmental factors. Synthetic or artificial turf fields bear other challenges.

Turf is only one portion of the whole that makes a field safer. Hopefully, other researchers who also address turf field safety will outline the scope of clinical and scientific research into the standard guides or practices being developed for both natural and artificial turfs. This article addresses some of the other factors that make up the whole through the total plan/design process.

A planner should engage in various steps or phases in providing a sports field to create a safe environment for players as well as officials and spectators. The days of the makeshift open lawn must be forgotten or the injuries will continue to grow. The field and equipment used today is much more sophisticated and the influence of the player mind set and technology necessitates careful planning, designing and engineering processes to minimize the potential for injury prior to, during and after the game. All physical planning, designing and engineering is predicated on function dictates form.

Early in the development of a new field, the owner of the potential sports turf field

must apply sound and proven guidelines (which unfortunately are scattered throughout textbooks) in planning and designing or retain the best possible advice to reduce exposure to risks.

The planning process is often subject to analysis as a source for basic causes of injury which result in liability. For example, there is no complete list of such measures and the base norm for each cause of injury has not been compiled. Therefore, objective comparisons can not be made for the different types of fields. There is a composite list of ASTM specifications, ISO specifications, DIN specifications and others, with no cross comparisons available for objective analysis and decision.

The owner or operator of a field must in his/her designing/engineering process retain consultants who know and are responsible for the execution and implementation of the standards of *care* as well as *design* to reduce participant exposure to risks. They must be aware of the following guides:

Program

The *scale* or dominance of the larger environs that the field is within must influence reasonable supervision and surveillance. The *extent* and *intensity* of programs that will use the field will influence the type of turf.

Scale of Equipment

The user *age, sex and skill level group* must influence all equipment. The *type of game* being played must establish the field classification and boundaries. The *relationship* of fields and appurtenance and of facilities of one to another must be harmonious and complementary in encouraging and facilitating ball playing.

Field Turf

The turf surface can be synthetic (artificial) or natural. Synthetic materials can

be soft or firm; they can be piled, turfed, graveled or smoothed; they can be rolled, poured, paneled or sprayed. The ingredients of the turf can be rubber, polymer, pigment, PVC, thermset, thermosplastic, and a host of other new high tech materials. Synthetic products also have substrates which are of varied ingredients.

Synthetic or artificial turf has both pros and cons for players and operators. To the players, the top coats and shoe or footwear has interaction, surface disfigures or stays in place; the surface has a resiliency or non resiliency; the ball responds or bounces; the surface dries rapidly, has a cooling effect, is picturesque, affects ball speed, has traction or gives, and a host of other factors.

To the operator, the surface has to drain, be easily repaired, be durable, stable, and easily installed.

In addition, there are a variety of other test methods that are measured to compare topcoat and substrate ingredients. These include linear coefficient of expansion, tensile strength, elongation, moisture absorption, hardness range, compression set, temperature stability, compression properties, density, pile height, thickness, coefficient of restitution, abrasion resistance, flame resistance, coefficient of friction, thermal conductivity, oil resistance, ozone resistance, solvent resistance, liquid extends, water resistance, low temp resistance, colour retention, tear resistance and other criteria.

Natural turf has a corresponding attraction to players and operators. As a result, the former debate over concern goes on. In addition to the real or perceived preferential concerns there are corresponding technical factors that can be measured as evidenced in the artificial turf. In addition, the hardness, growing treatments, drainage, aerating, mowing, vacuuming and a host of other conditions applicable to a natural material must be reviewed. In es-

sence, a natural turf is not more resilient than artificial turf. However, it is perceived to be softer to the player.

Illumination

Lighting and the actual field lights are critical to safety. The illumination level for soccer is 20 footcandles for the field. The air should be checked for contaminants that can cause the reflector surface to change by increasing diffusion and decreasing total reflection resulting in less total light energy leaving the face of the light with less lumens. There should be no shadows on the field which may create unsafe catching, nor should there be any glare or irregular bright patches.

Lumen – a measure of light, much like a mile is a measure of distance.

Footcandle – one lumen of light spread over one square-foot of surface. In other words, a light level of 30 footcandles means that 30 lumens of light are being projected onto each square foot of playing surface.

All stanchions or poles should be out of the field of play. If because of space limitations they are in the outfield, they and any other obstruction should be super padded for impact attenuation of a crash encounter and a sufficient buffer or warning zone placed around the pole. There should be no other changes in grade around the pole that could create a tripping hazard.

Orientation

There are various thoughts as to the orientation of fields. It depends upon where the field is and the time the games are to be played.

Barriers

Throughout a field area and more particularly around the perimeter of the field, barriers are required for different purposes, i.e. security, isolation, enclosure, separation, noise abatement, wind screening, sun screening, pedestrian and vehicular traffic control along with protection. Each of these purposes must be kept in



mind when selecting the placement and type of barriers. However, the purpose is to prevent players from contacting obstructions and to prevent spectators from being hit by the ball.

The barrier should protect sideline spectators, bleacher spectators, players in player benches and pedestrians moving around the field. The barrier should be a minimum of six feet in height and without cross pipe or H beams that could be contacted by a player hitting or brushing against them. Outfield fencing netting should be placed on the field side of the post. Advertising boards placed on the fence should be outside the field of play.

Player Bench Space

The space set aside for players, coaches and others involved in the game must be a protected area. Often it is thought that dug-outs are open, however, because of the number of injuries, a shield of shatter proof glass or plastic is in front of seated players and the entrance from it to locker rooms or area beyond. The barrier should be at least at the six foot height from a standing person in the space.

Kicking Cage

The space for kicking practice should have perimeter barrier screening and screening around the area the ball is hit into – either a close-in net or a larger area. The screening should be doubled so that should a ball hit it and it gives with the impact, anyone standing or walking by the area will not be impacted.

The floor area should have a minimal pitch enough to run off any water and of a rough texture to provide foot transition. Appropriate warning signage should be displayed.

Dr. Arthur H. Mittelstaedt is Executive Director, Sports Field Safety Consultant of the Recreation Safety Institute. The Institute is a national and international association of experts and specialists in recreation, sports, play and related fields. Their mailing address is P. O. Box 392, Ronkonkoma, NY 11779, phone (516) 883-6399. ♦

Editors note: Dr. Mittelstaedt will be speaking at the 2003 Ontario Turfgrass Symposium. His session *Update on Sports Turf and Field Standards* is scheduled for Thursday, January 23, 2003.

Press Releases

NEWS FROM THE SPORTS TURF INDUSTRY... PLANT PRODUCTS SELLS DIVISION & TURF BIG ROLL BROCHURE ONLINE

Plant Products announces sale of Consumer Products Division

Brampton, Ontario. (October 8, 2002). Plant Products Co. Ltd. announced recently the sale of its Consumer Products Division to Nu-Gro Corporation. The sale of assets associated with this division, including the SMARTCOTE™ brand name, also includes a long-term supply agreement between Plant Products and Nu-Gro for all Nu-Gro's Consumer Water Soluble Fertilizer needs as well as a licensing agreement for the Plant-Prod® trade name in the Canadian consumer market.

Plant Products will remain Canada's primary supplier of fertilizer and pest control products to the Canadian Commercial Horticulture and Professional Turf Care industries. The Turf and Horticulture Divisions have now been consolidated under the leadership of Harold van Gool, who has been appointed Vice President, Sales and Marketing.

Plant Products leading brand of soluble fertilizer, distributed under the Plant-Prod® trademark, is sold worldwide. Remarking on the impact of the sale on Plant Products primary business segments, Mr. John Lewandowski, President of Plant Products, noted that "this will now allow Plant Products to devote more resources to our core strengths, the production of water soluble fertilizer and technology transfer for the commercial horticulture and turf markets."

Mr. David Watson, having built the Plant-Prod® and SMARTCOTE™ brands in the consumer marketplace with Plant Products, will continue his commitment to this marketplace, assuming new responsibilities as Category Manager/Fertilizers & Pesticide Products at Nu-Gro. "I'm pleased that Plant Products will continue to be the manufacturer, ensuring Plant-Prod®'s quality and consistency will be unchanged and reliable," said Mr Watson.

"The sale and supply agreement sets the stage for future growth for both Plant Products in our current professional markets, and also for Plant-Prod in the con-

sumer market," said Mr Lewandowski at the signing of the contracts. "Everyone on our management team is eager to capitalize on the operational benefits of this transaction and devote all our energies to serving our customers and making a world-class fertilizer."

For further information, please contact Plant Products Co. Ltd., President John J. Lewandowski, at 905-793-7000, email jlewandowski@plantprod.com or visit www.plantprod.com.

New "Turf Big Roll Installation Guide" available on TPI website

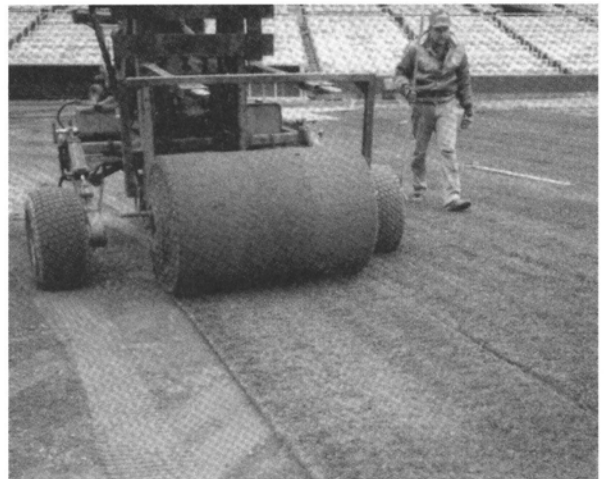
Rolling Meadows, IL – The "Turf Big Roll Installation Guide," a new brochure, is now available on the Turfgrass Producers International (TPI) website at www.TurfGrassSod.org as an electronic brochure. It can be downloaded and printed in full colour. The brochure – based on interviews with professional landscape contractors – provides an informative overview of the big roll sod installation procedures and a summary of the significant cost- and time-saving benefits to landscape contractors.

"Our purpose in creating this brochure is to help inform landscape contractors about the benefits they can gain from turf big roll installation," said Dave Dymond, TPI Board Member and Marketing Committee Chairman. "Big roll installation capability will allow contractors to increase their business by taking on any size job with half – or less – the number of workers required for standard roll installation of similar sized areas. And because big rolls are handled mostly by machines, there is considerably less physical labour involved."

Dymond added that, because the turf big roll installation benefits extend to the

customers of landscape contractors, TPI decided to present the "Turf Big Roll Installation Guide" on the public-access portion of the association's website. "We wanted it available to the widest audience possible to help everyone involved in turfgrass sod installation to make better decisions," said Dymond, "and this includes not only landscape contractors, but also their customers such as sports field managers, landscape architects, and builders of residential and commercial properties."

At the TPI website, the "Turf Big Roll Installation Guide" is offered in three PDF versions that can be downloaded and printed locally. Each PDF begins with an instructional page describing how to print the two-sided brochure and which PDF option is best suited for an inkjet, laser or commercial printer. To review, download and print the brochure, go the TPI website, click on "Pressroom," and then "Bro-



chures & Fliers." You'll see the "Turf Big Roll Installation Guide" listed first. Click on it and follow instructions to produce a two-sided, gate-fold, full-colour brochure.

Turfgrass Producers International is a 37-year old, independent, not-for-profit association of more than 1,200 turfgrass sod and seed producers, equipment manufacturers and suppliers, and various individuals involved in education and/or research, located in over 40 countries. ♦

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