

Turfgrass Producers International

E-Newsletter

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THE PIRATING OF LICENSED AND CERTIFIED GRASSES



Producers of licensed and certified turfgrasses spend years, if not decades, and a great deal of investment capital, to finance the research of the products they eventually develop, test and bring to the marketplace.

Like any entrepreneurial endeavor, developing new cultivars requires considerable cost and plenty of trial and error along the way. When researchers do create a new cultivar that's been time-tested, gone through numerous trials, extensive evaluations and has finally been proven to be successful; there's the tremendous cost related to promoting and marketing the product they have developed.

The investment in time, money and other resources is substantial. The royalties they charge for the products they bring to the market help to finance and support continuing research so they can strive to produce future grasses. The trait characteristics they are

looking for may offer any number of benefits, including but not limited to: enhanced drought tolerance, resistance to disease, reduced irrigation needs, greater salt tolerance, insect resistance, reduced fertilizer requirements, infrequent mowing, etc.

Extensive research, test plots, on-site evaluations, wide-ranging quality control measures, on-going inspections, on-site verification and a host of other procedures are often associated with licensing and certification.

Becky Grubbs, a doctoral student at the University of Georgia's (UGA) Crop and Soil Sciences Department, put another spin on licensed and certified turfgrasses, and it's a much more personal perspective. Regarding turfgrass research that results in innovative new products she commented, "Ultimately, a turf scientist's work is about building relationships.

Continued on next page



"Piracy discourages innovation, and it's innovation that not only drives our industry, it drives all industries."

- Tobey Wagner, president of Sod Solutions

"In turfgrass science, we do not grow food, and we do not grow fiber. We grow human experiences and human connections. We grow the soccer fields that children play on during the weekends, we grow the football fields that we love to visit every fall, we grow the parks that we spread blankets out on to watch fireworks, we grow the yards that we stand on in our bare feet, and we grow the golf courses that someone's grandfather plays on every Sunday. This university [UGA] has an impressive and undeniable legacy in growing these experiences."

Of course, UGA is but one of many universities who invest heavily in turfgrass research which is often funded by external grants from any number of organizations, agencies or foundations. Dr. Paul Raymer, professor plant breeding and genomics, who directs the turfgrass breeding and genetics research program at the UGA Griffin Campus, has stated that turfgrass breeding programs often work closely with scientists from a range of disciplines including stress physiology, weed science, plant pathology, entomology, and molecular genetics.

Raymer said, "From my perspective, pirating hurts the entire turf industry. The consumer loses because a pirated grass likely does not have all the attributes that the breeder spent years working to get into a single cultivar. The licensee loses because although he paid for a license to sell that grass, someone stole that right from him. Certainly the company/breeder loses vital support necessary to produce the next 'best ever' cultivar."

There are a good number of organizations, associations and government agencies in addition to universities that are in the mix, including but certainly not limited to the USGA (United States Golf Association), GCSAA (Golf Course Superintendents Association of America), EPA (Environmental Protection Agency), and USDA (United States Department of Agriculture), along with private companies and countless others who invest heavily in developing new grasses and rely of "licensed producers" who are selected in part because of their reputation, product quality and customer service.

In addition to providing their licensees with reliable products, they also provide educational, marketing, public relations and advertising support. The investment in time and energy is huge, but such efforts result in developing licensed and certified turfgrasses that provide sports field managers, golf course superintendents, landscape architects, contractors and homeowners with a wide

assortment of the finest turfgrasses in the marketplace. Products they can rely on and turfgrasses that meet exceptional quality standards.

The cost to undertake such research programs is substantial and the return, if any, through trial and error, can take years if not decades to recover the initial investment. For these many reasons, turf turfgrass pirates—individuals and companies who misrepresent a product or mislead the buyer, or who market exclusive cultivars without proper authorization, or who pass off less desirable products as licensed brands—aren't just cheating the individuals and companies who invested in developing the product, they are also misleading and cheating the end-user. They are cheating all of us and the industry we represent.

Tobey Wagner, president of Sod Solutions, has a great deal to say about the subject and is passionate when asked about piracy and its consequences. "Piracy discourages innovation, and it's innovation that not only drives our industry, it drives all industries. Everyone in the green industry, and especially those who rely on the integrity of products that are developed, grown, and beneficial to the end-user, should support companies that strive to be innovative. Piracy on any level or on any degree should not be tolerated. Piracy is stealing, it's unethical, and it's important that the turfgrass industry work together to project a professional image and not tolerate dishonesty in any aspect of our business. It's important that growers be united with respect to integrity and sustainability of the turfgrass industry and anything we can do to discourage piracy benefits all of us—from the customers we serve to the industry we represent."

Christian H. Broucqsault, Sod Solutions' vice president, marketing, expressed his thoughts on the issue of piracy as follows: "As long as there are unscrupulous people out there, piracy will be a problem, and the problems caused by pirates affect many people. In a never ending cycle, the parties harmed range from the end-user to the licensed sod farm to the patent and trademark holder to the entire research and development community and back again to the end user. Pirates cause a lose-lose situation for everyone."

David Doguet of Bladerunner Farms commented, "Piracy is a problem and it will only get worse as more licensed grasses become available."







"Plant breeding and selection for genes that can regulate important turfgrass traits, including reproductive processes and resistance to pests and environmental stresses, are needed to improve sustainability of the turfgrass industry."

- United States Department of Agriculture

James Prusa, director, golf courses and laboratory, and a monthly contributor to Asian Golf Business magazine, has addressed the growing concern of piracy numerous times and has stated that pirating of improved grass varieties can include:

- The actual theft of an improved, patented grass.
- The selling of a phony substitute or contaminated grass as an improved, patented grass.
- Damage to the reputation caused by turfgrass quality failures of the phony grasses sold under the improved grasses names.

Pirating is nothing new, as far back as 1987 in an article published in *Florida Green*, then a publication of the Florida Golf Course Superintendents Association (FGCSA), titled "A New Weapon Against Turfgrass Seed Pirates" the following was stated, "On the turfgrass market there has recently been widespread 'pirating' of patented seed varieties. Such illegal practices take the form of seed marketed in plain bags with the 'claimed' variety name simply stenciled on the front as opposed to the 'designer' bag used to package and market legitimate turfgrass seed."

The concern then and now is that piracy not only threatens seed marketers who stand to lose their patent rights, but research universities and entrepreneurial companies who lose their earned royalties, and by the turfgrass professionals who lose the integrity of the seed they have purchased.

The USDA has stated, "Plant breeding and selection for genes that can regulate important turfgrass traits, including reproductive processes and resistance to pests and environmental stresses, are needed to improve sustainability of the turfgrass industry. This includes turfgrass used for landscaping and for seed production systems that provide genetic resources for turfgrass."

The commitment and challenge of developing unique turfgrass varieties was touched upon by Dr. Dennis Martin, turfgrass extension/research specialist at Oklahoma State University (OSU), in an article titled, "Plant Patents and the Turfgrass Producer" (See *Turf News* Nov/Dec 2014—pages 77-78). Martin wrote:

"Turf producers may be growing, or considering signing up for licenses to produce proprietary varieties that offer improved performance and profitability over older varieties. Nearly all improved vegetatively propagated (sod, sprigs, plugs) turfgrass varieties commercialized today and most released over the last three decades are or were covered by some type of proprietary protection. Proprietary protection means that a person or entity has legal ownership of rights associated with producing, using, or selling the variety.

"As there is considerable expense in developing varieties, and often great uncertainty of return on investment, proprietary protection allows developers suitable time to use the new invention before it goes into the public domain which allows anyone to produce the variety. Investment in modern breeding programs in both private industry and universities continues to lead to an exciting pipeline of development of proprietary varieties from which growers can choose to be licensed for production."

Atlas Turf International Limited, one of the world's leading distributors of warm-season, licensed and certified turfgrasses has long promoted the importance of buying from reputable suppliers of licensed and certified grasses. Although their message is primarily intended for golf course owners, developers and superintendents, their message applies universally. They state:

Don't Be the Victim of Turfgrass Pirates—Get the REAL Thing

"Licensed and certified turfgrasses offer golf course owners, developers, and architects the very best in turfgrass technology. Research, quality control, and stringent inspections are all part of the licensing and certification process, ensuring the highest quality products available.

"Turfgrass pirates undermine this process by either stealing certified cultivars or passing off inferior grasses as branded varieties. Don't fall victim to these crimes. The consequences are great, ranging from contaminated grasses, introduction of disease to the project, ongoing and escalating maintenance problems, and damage to the reputation of the project and the parties involved.







"Over the twenty plus years that I have worked in the international market, I have seen examples of every kind of turfgrass piracy including actual turf being stolen and illegally resold, as well as inferior grasses being sold under a legitimate brand name and trademark." - John Homes, president of Atlas Turf

"Furthermore, when pirates steal turfgrasses, the development of new cultivars is threatened. The normal flow of royalties from sales back to patent holders is used to fund research for even better grasses in the future. Piracy puts this process in serious jeopardy."

Addressing the Issue—PIRACY

For obvious reasons, developers and licensors of licensed and certified grasses are hesitant to talk specifically about the action they take when their intellectual property is pirated. One source told us that they have pursued cases of infringement and filed lawsuits. Wagner reports that Sod Solutions has successfully enforced its patents and trademarks on several occasions though diligence and follow-up on reported suspicious activity. But he points out that it takes time and perseverance to properly investigate a potential infraction on a proprietary grass. "While pursuing a potential issue, care must be taken to not falsely accuse anyone or a particular company. A methodical planned process, persistence, and patience is required to successfully resolve issues. Relationships based on trust are crucial and information from other growers and related industry experts can help in getting the facts of a particular case," says Wagner. He adds, "It is highly recommended that legal counsel is attained to assist in pursuing a potential infringement."

Ken Morrow, vice president of The Turfgrass Group, stated, "In today's changing world, and because of the tremendous ongoing advancements in turfgrass research that are taking place, even if a turfgrass producer is not currently growing a licensed grass, it's only a matter of time before he or she will be a licensed grower."

What role can TPI members play in curbing piracy? Morrow's response, "I believe TPI members are the leaders in our industry and through their efforts of fostering a culture of professionalism it not only benefits them, it benefits our industry. If they believe there is an infringement of intellectual property I would encourage them to contact the licensor. If piracy is allowed to become common place it will destroy the ongoing effort for advancements in our industry and we will all suffer as a result."

Dr. Raymer commented, "One way we attempt to deal with piracy is through Plant Certification. At UGA we require that all patented grasses be sold as Certified turfgrasses. This means that the sod farm licensed to produce our patented grass is routinely inspected for offtypes, weeds, etc. If a problem is discovered during inspection, the sod farmer cannot dig grass from that sod field until the problem is corrected. Certification not only provides an extra level of quality assurance, it also provides a verification that the cultivar is "true to type," and that it comes from a properly licensed grower. So sniffing out pirates becomes much easier in the case of UGA patented grasses. If the grass sold was not certified ... it was pirated. In contrast, if the grass was certified by the Georgia Crop Improvement Association (GCIA) or by the International Turfgrass Genetic Assurance Program (ITGAP), its international counterpart, the buyer can be assured that it is NOT pirated; and is also assured that it is true to type, high quality, and that the grower is properly licensed to distribute that cultivar.

"We also strongly encourage golf course, sports field, and landscape architects to specify the use of Certified turfgrass cultivars. We believe this is one of the most effective ways to protect the integrity and reputation of our cultivars."

Atlas Turf President John Holmes, who currently serves as the vice president of the Asian Golf Industry Federation (AGIF) and leads the international committee of the Golf Course Builders Association of America (GCBAA), states, "The scope of piracy in the international market is difficult to quantify. The level of offense, however, is proportionate to the value a particular culture places on intellectual property—the less respect there is for the ownership rights of innovation, the greater the incidences of piracy.

"Over the twenty plus years that I have worked in the international market, I have seen examples of every kind of turfgrass piracy including actual turf being stolen and illegally resold, as well as inferior grasses being sold under a legitimate brand name and trademark.







"Even if a turfgrass producer is not currently growing a licensed grass, it's only a matter of time before he or she will be a licensed grower." - Ken Morrow, vice president of the Turfgrass Group

"Given the challenges of international litigation, I believe one of the best defenses against piracy is education. When all of the parties involved understand the consequences, piracy is revealed as a very poor decision all around. When pirated turfgrasses are used, the quality of the playing surface can be greatly diminished, additional pesticides are usually required to combat weeds and off-type grass contaminations, and for athletic fields, there is the definite possibility of an increase in injuries.

"Besides the financial ramifications, the reputations of everyone related to the project are at stake. We have worked diligently with golf course architects, golf course superintendents, sports field managers, construction companies, owners, and developers to reinforce this truth. Pirated turfgrasses are not only illegal but inferior. Working together, the complete team of professionals has the knowledge and influence to help end users understand this. A company motto at Atlas Turf is that 'strong foundations are built on smart choices.' Utilizing certified and licensed turfgrasses is definitely the smart choice.

"TPI members can help fight piracy by remaining vigilant in who they sell to overseas and making sure to follow the protocols set out by the patent holder. If there is any doubt about the legitimacy of a project, it is better not to sell to them than risk illegal proliferation."

Bill Carraway, vice president of marketing for The Turfgrass Group, addressed his concern candidly and honestly, "As a licensor or proprietor of any improved

turfgrass cultivar, not only are you promoting and selling innovation, you are committing to protect the integrity of that technology, as well as the financial investment of those that choose to buy into that technology. And yes, unfortunately we have had to deal with this type of theft. We've been forced to file legal actions which have taken us as far as federal court in pursuit of thieves. Legal action is a drain both emotionally and financially and it has cost us hundreds of thousands of dollars protecting our products and our grower partners. The harsh reality is those who choose to pirate improved turfgrass technology are almost always turfgrass producers. Yes, unfortunately some of the very folks we call our industry contemporaries are the very pirates that you are writing about. Very sad, but very true!"

So how do we, as an industry, come together to discourage and prevent piracy? The answer lies within ourselves. If you suspect wrong doing take it upon yourself to notify the licensor or the owner of intellectual property with whatever information you have so they have an opportunity to validate and confirm any such suspicions. If you have any reservations because you aren't a licensee of a certified or licensed grass at the present time, you might want to heed the words of Ken Morrow who offered this reality check—"Even if a turfgrass producer is not currently growing a licensed grass, it's only a matter of time before he or she will be a licensed grower."



THANK YOU!

TPI'S FACEBOOK PAGE CONTINUES TO GAIN FOLLOWERS

To visit the TPI Facebook page click on the graphic to the left or go to https://www.facebook.com/TurfgrassProducersInternational.

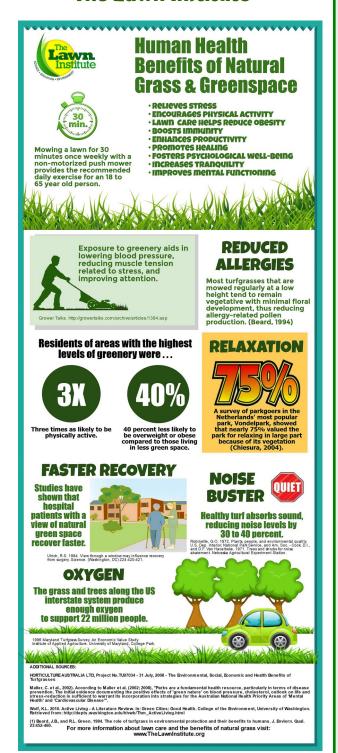
You don't have to be a Facebook subscriber to visit the page. If you are already a Facebook subscriber, be sure to click **LIKE**.







NEW infographic from The Lawn Institute



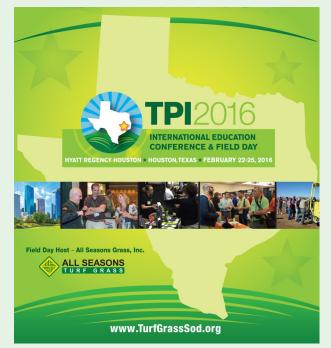
To download INFOGRAPHICS go to:

http://www.thelawninstitute.org/pages/helpful-hints-from-the-lawn-institute/

TPI2016

INTERNATIONAL EDUCATION CONFERENCE & FIELD DAY

HOUSTON, TEXAS ★ FEBRUARY 22-25, 2016



ADVANCE REGISTRATION

deadline is February 8th

HOTEL RESERVATION
Deadline is January 30th



http://www.turfgrasssod.org/publisher/events/2012/10/30/international-education-conference-and-field-day







Sure, we're nearby competitors but . . .



A heartfelt story of how one TPI member came to the aid of another in a time of need.

You never know when a slip-up will happen to you and your business—and if you'll need the help of a competitor to soften the blow. Playing nice in the small business sandbox, especially in times of your competitors' need or crisis, will only help you in the long run. In order for you and your business to succeed, you need your industry as a whole to succeed, too

By supporting your competitors, you are growing the environment in which you both need to thrive, attracting more potential customers, and in turn creating more opportunities for the both of you. Even if you have a direct competitor that is very similar to the products or services you provide, chances are the volume or demand will need to be shared at some point—and in being on good terms, that "rival company" may send those clients to you.

No, I'm not saying you should allow yourself to go bankrupt in favor of helping your peers reach their goals—what I mean is that it only takes a few small gestures to create a longstanding partnership, or at least respect, between you and your competitors.

- Megan Broussard

By Jim Novak

Each year, on the fourth Thursday in November, the celebration of Thanksgiving takes place in the United States. During this national holiday family and friends gather together to express thanks for a loving family and supportive friends.

For Charlie Oliver and his wife Elsie of Oliver Sod Farms in Macomb, Michigan, Thanksgiving 2015 was memorable for several reasons. A few days after the holiday Charlie suffered a heart attack, and on top of that, there were numerous orders to be filled and sod to be harvested.

There was another problem too, Charlie's brother Ron who handles the farm's nursery business had a dilemma on his hands. Ron knows the family's nursery business inside and out, but he was unfamiliar with operating the farm's Trebro harvester and he needed a helping hand. The following morning, as Charlie waited anxiously in the



hospital for test results he made an emergency phone call to fellow TPI member, and his competitor, Gary Kogelmann of nearby Kogelmann's Creek-Side Sod Farm.

Charlie's conversation with Gary was brief, "I'm in a jam. I had a heart attack last night. I need some help." Gary told Charlie to get off the phone, listen to his doctor, get some rest, and not to worry. Gary then got in contact with Charlie's brother Ron and had him contact his brother-in-law Mike Jagoda for help. The Kogelmann's weren't harvesting sod themselves so Gary knew Mike was available to help out the Olivers.

For the next five days Mike was at the Oliver farm, operating their Trebro Autostack, harvesting their sod, and helping to fill their orders.

Charlie and his brother Ron deeply appreciated the helping hand from the Kogelmann's. "We've always tried to be good neighbors and help each other out with deliveries or filling orders, because that's what good neighbors do. We were very fortunate thanks to Gary and Mike," says Ron.

The Oliver's have a great deal to be thankful for; Charlie's doing fine with his follow-up therapy. He's recovering back on the farm, and he's especially grateful to the Kogelmann family for being there during a time of need. When we spoke to Charlie his thoughts on the matter were from the heart and somewhat emotional, "I'm not a mushy guy . . . but you know . . . they were wonderful to help us out. They really were."



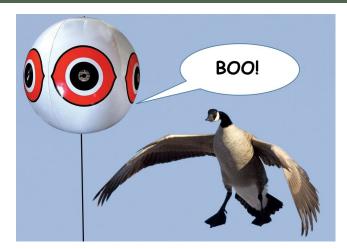


MGEORGIA The EYES have it!

The University of Georgia's new Athens Turfgrass Research and Education Center has some colorful balloons floating above their little pond and some folks are wondering why? It seems the balloons are there for no other reason than to scare off the geese who used to frequent the pond.

Turfgrass researchers relied on water from the pond to irrigate the research plots of turfgrass at the site. But when they began using the pond for irrigation, they found the water was heavily contaminated with geese droppings. The nutrients in the droppings allowed algae to flourish, and that made it tough to monitor experiments such as what's the ideal nutrient balance for new varieties of turfgrass that are being researched at the facility.

Like most birds, geese rely more on vision than on their other senses to avoid danger, and so visual stimuli can be effective. Commercially available eyespot balloons are large, helium-filled balloons with large, eye-like images. It seems that large colored spots on three sides of any helium balloon can suggest eyes to geese.



We're not sure how anyone could reach that conclusion unless they had a one-on-one conversation with one of the geese, but it seems to work.

The balloons are periodically relocated to confuse the geese. This environmentally friendly and harmless effort seems to have scared off the geese, and at a cost of around \$15 per balloon, with a tether and helium it appears to have been a very cost effective solution.

CONGRATULATIONS



When the Huron County Manufacturing Association (HMA) held their annual Excellence Award ceremony last November they handed out twelve awards to various manufacturers located within Huron County, Ontario. We have since learned that Progressive Turf Equipment was recognized with two Awards:

- Employer of the Year
- Manufacturer of the Year

The HMA Manufacturer of the Year Award winner was chosen from all of the award category nominees, as the manufacturer most exemplifying the highest level of manufacturing excellence over the past year.



In 2013, Progressive Turf Equipment was presented with the Innovative Product, and Corporate Citizenship awards.

Upon receiving the award Progressive stated the following: "We thank our employees for their hard work and their dedication which has resulted in this recognition. We also congratulate all of the nominees and winners and extend a thank you to our fellow HMA members."





CALIFORNIA ANNOUNCES FIRST SYNTHETIC TURF SCIENTIFIC ADVISORY PANEL MEETING

OEHHA Office of Environmental Health Hazard Assessment

Dear Turf Industry Friend,

The first Synthetic Turf Scientific Advisory Panel Meeting is scheduled to be held on Monday, February 8, 2016. The meeting will be held in the Coastal Hearing Room at the CalEPA Headquarters building, 1001 I Street, Sacramento, CA. It will begin at 10:00 a.m. and will last until all business is conducted or until 5:00 p.m. You are encouraged to attend in person, if you are able to do so. Alternately, The Panel meeting will be webcast and is open to the public.

The Synthetic Turf Scientific Advisory Panel is a group of expert scientists (see listing below) that have been invited by the Office of Environmental Health Hazard Assessment (OEHHA) to provide scientific advice on OEHHA's Synthetic Turf Study. The Panel will meet during the study to advise OEHHA on study plans, and interpretation and reporting of study results.

The study will assess the potential health impacts associated with the use of synthetic turf and playground mats

made of crumb rubber. OEHHA will focus on identifying chemicals that may be released from synthetic turf from indoor and outdoor fields throughout California, and estimating exposures to users of synthetic turf fields. OEHHA will also explore the feasibility of a future biomonitoring or personal monitoring study of people using synthetic turf fields to more directly measure exposure to chemicals that may be released from synthetic turf and playground mats.

Details of this Panel meeting, including agenda and briefing materials will be posted at a later date. If you have any questions, please contact Dr. Jocelyn Claude at (916) 323-4763 or locelyn.Claude@oehha.ca.gov.

Sincere regards,

Melanie Stanton

Executive Director
Turfgrass Producers International

Synthetic Turf Scientific Advisory Panel Members

Edward Avol is a Professor of Clinical Preventive Medicine, Keck School of Medicine, University of Southern California, and has expertise in exposure assessment and acute/chronic respiratory and cardiovascular effects of airborne pollutants in populations at risk including children, athletes, and subjects with compromised lung function. He was the Deputy Director of the Children's Health Study and is a key investigator in multiple ongoing investigations of the effects of environmental exposures on human health. He is the co-Director of the Exposure Assessment and Geographical Information Sciences Facility Core in the National Institute for Environmental Health Sciences (NIEHS), supported Southern California Environmental Health Sciences Center, co-Director of the Exposure Assessment and Modeling Core in the NIEHS/US Environmental Protection Agency, supported Children's Environmental Health Center, and is the principal investigator on several National Institutes of Health and regionally funded studies to assess the association of air pollution with children's respiratory and cardiovascular health. Professor Avol is also actively involved in the centers'

community outreach efforts, particularly with regard to the health and air quality impacts of the Los Angeles/Long Beach Port expansions. Professor Avol received his M.S. from the California Institute of Technology.

John Balmes is a Professor of Medicine at the University of California, San Francisco and the Chief of the Division of Occupational and Environmental Medicine at the San Francisco General Hospital and the Director of the Human Exposure Laboratory. He is also a Professor of Environmental Health Science at the University of California, Berkeley and the Director of the Northern California Center for Occupational and Environmental Health and the Center for Environmental Public Health Tracking. His research focuses on the adverse respiratory and cardiovascular effects of air pollutants including ozone, tobacco smoke and particulate matter. He received his M.D. from the Mount Sinai School of Medicine and completed a residency in Internal Medicine at Mount Sinai Hospital and a fellowship in Pulmonary Medicine at Yale University.

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Synthetic Turf Scientific Advisory Panel Members cont'd

Deborah Bennett is an Associate Professor in the Department of Public Health Sciences at the University of California, Davis. Her research is focused on the fate, transport, and exposure of chemicals. She uses field and modeling studies to assess and predict exposure to particulate matter and organic compounds in indoor and outdoor environments. Dr. Bennett received her B.S. in Mechanical Engineering from the University of California, Los Angeles and her M.S. and Ph.D. in Mechanical Engineering from the University of California, Berkeley.

Sandy Eckel is an Assistant Professor in the Division of Biostatistics, at the Keck School Medicine, University of Southern California. Her research is on statistical methods and applications in environmental epidemiology, exhaled breath biomarkers, and clinical trials for pediatric brain tumors. She completed her Ph.D. in the Department of Biostatistics at the Johns Hopkins Bloomberg School of Public Health.

Amy Kyle is on the faculty in Environmental Health Sciences at the School of Public Health at the University of California, Berkeley. Her recent research focuses on cumulative impacts, chemicals policies, persistent and bioaccumulative chemicals, children's environmental health, biomonitoring, and air pollution standards.

Dr. Kyle serves as a leader of the Research Translation Core of the Berkeley Superfund Research Program funded by the National Institute for Environmental Health Sciences. She previously served as an Associate Director of the Berkeley Institute for the Environment. She has served in senior positions in environmental protection in the State of Alaska working on a wide range of environmental, health, and natural resources issues. She has served on a variety of advisory groups focused on children's health and environmental disparity, including for the US Environmental Protection Agency, World Health Organization, Centers for Disease Control and Prevention, and National Academy of Sciences. Her M.P.H. and Ph.D. in environmental health sciences and policy are from the University of California, Berkeley and B.A. in environmental sciences is from Harvard College.

Thomas McKone is an international expert on exposure science and risk analysis. He retired from the position of senior staff scientist and Division Deputy for Research at Lawrence Berkeley National Laboratory and as a Professor of Environmental Health Sciences at the University of California, Berkeley, School of Public Health, but continues to work at both institutions.

Dr. McKone's research interests are in the development, use, and evaluation of models and data for human-health and ecological risk assessments and in the health and environmental impacts of energy, industrial, and agricultural systems. He has authored 160 journal papers, has served on the US Environmental Protection Agency Science Advisory Board, worked with several World Health Organization committees, served on many California state advisory panels, and has been a member of fifteen U.S. National Academy of Sciences committees. He is a fellow of the Society for Risk Analysis and a former president of the International Society of Exposure Science. Dr. McKone earned a Ph.D. in engineering from the University of California, Los Angeles.

Linda Sheldon is an international expert in exposure assessment. She retired from the position of Associate Director for Human Health in the US Environmental Protection Agency's National Exposure Research Laboratory. Her research focuses on measuring and modeling how chemicals move through the environment and how people, particularly children, come in contact with these chemicals in their everyday lives, as well as the associated health hazards. She has served on advisory committees for international and national research centers and on workgroups for the World Health Organization in the area of exposure assessment. She earned her Ph.D. in environmental chemistry from the University of Michigan.





CELEBRATION PLANNED TO MARK THE 150TH ANNIVERSARY OF CANADA'S CONFEDERATION.

MANDERLEY TURF TO SUPPLY SOD FOR CANADA'S "PICNIC ON THE BRIDGE" IN 2017



PHOTO: Ken Kaminesky

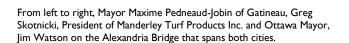
Ottawa Mayor Jim Watson and Mayor Maxime Pedneaud-Jobin of Gatineau announced a new joint initiative as part of the year-long celebrations to mark the 150th anniversary of Canada's confederation.

On July 2, 2017, the iconic steel truss structure that spans the Ottawa River between Ontario and Quebec will be transformed into a grassy haven for a Canadian first – the Interprovincial Picnic on the Bridge.

To create an authentic picnic atmosphere the Alexandra Bridge will be adorned with fresh sod donated by Manderley Turf Products, Inc. Following the event in 2017, the sod will be donated to local community organizations. "Ottawa and Gatineau are two cities that form one community," said Mayor Watson.

In 2017, we will celebrate together and I invite all Canadians to join in the memorable experiences to be enjoyed on both sides of the Ottawa River, as well as over it.

"When we approached the Ottawa 2017 Bureau with an offer of support, we never imagined that we would get to deliver such an innovative and inspiring tribute to Canada's 150th birthday. We are very proud to be a part of it," said Greg Skotnicki, President of Manderley Turf Products Inc.



Bobbi Faulkner, Manderley Turf's marketing department manager commented, "Not only is this a great event for Ottawa and Gatineau, but for the sod industry overall. This event will provide high visibility nationwide and will provide us with a national platform and opportunity to educate Canadians on the numerous and often unknown benefits of choosing sod."

The picnic-on-a-bridge idea was inspired by a similar event in Sydney, Australia.









WEST COAST TURF GOES TO SUPER BOWL 50 AT LEVI'S STADIUM



West Coast Turf is once again making its presence known at the Super Bowl. This will mark the eighth time that the world's most illustrious game will be played on sod provided by West Coast Turf.

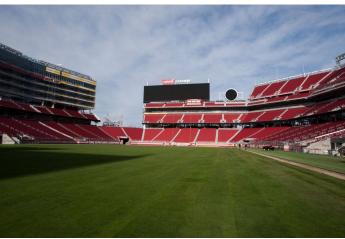
75,000 square feet of West Coast Turf's exclusive blend of hybrid bermuda/rye turfgrass sod was grown at their northern California, Livingston facility. It was shipped 117 miles to Santa Clara's Levi's Stadium and installed by West Coast Turf and NFL personnel. The specially grown natural turf was cared for at West Coast Turf's farm for over eighteen months.



A new process involved an intricate "layering technique," allowing for the development of an extensive root system, and is a vast improvement over traditional sod.



"In the past conventional sod was good enough, because it just had to hold up for the game. Now, that isn't enough. The sod needs to be prepared to handle the game and Super Bowl pregame and halftime shows. The stage they use for the halftime show takes about 500 people to roll on and off the field. We can't have ruts. That results in a safer field, and player safety is paramount. It is an exceptionally heavyduty product," said West Coast Turf's vice president of sales and marketing, John Marman. "We have treated this field with a lot of TLC for a long time--it has its own blankets, rain tarps, special diet—you name it we've done it. This turfgrass has been designed and developed for an event as significant as the Super Bowl, and the events leading up to it," Marman said. "We believe that this type of product will become more prevalent in today's stadium facilities which handle multiple in season entertainment events requiring a more resilient surface with a quicker turn-around. This turf can take the wear and tear."



Super Bowl 50 Sod by the Numbers:

- · Rolls= 40' x 3.5'
- · 140 sq. ft. rolls, 536 total rolls
- · Weight 2500 lbs./roll and 1,337,500 lbs. total weight
- 75,000 total square feet
- 2" thick
- 24 truckloads
- · 117 miles from Livingston to Santa Clara, CA
- Grown for 18 months
- West Coast Turf's 3rd decade sodding Super Bowls







Grow your business become a member of TPI.

The turfgrass industry is constantly changing, from new innovations in equipment that maximize production and reduce labor costs, to new varieties of turfgrasses that are more drought tolerant, offer greater resistance to disease and require less irrigation. Keeping abreast of these opportunities along with ongoing research and legislative issues is no easy task. Perhaps that's why a growing number of turfgrass producers worldwide realize that if they want to stay up-to-date with changes in the industry, learn what's new in the marketplace, and have unlimited networking possibilities with their peers, there's one association they can turn to - **Turfgrass Producers International**.

TPI is a trade association serving individuals and businesses engaged in the research, growing, harvesting, and marketing of turfgrass sod and related products. TPI is dedicated to providing our members with the tools, resources, education and networking opportunities that will keep them informed about new research, product innovations, improved practices, and environmental issues that will enhance their knowledge and help them maximize potential business opportunities.

The scope of TPI's commitment is all inclusive:

- Advance the turfgrass sod industry worldwide through the promotion of improved practices, the professional development of our members and enhancement of the environment.
- Promote the general welfare of the turfgrass sod industry.
- Encourage adherence to high business standards and practices.
- Educate consumers, key decision makers and government legislators and agencies about the environmental benefits of natural grass.
- Represent our members before government and public/private organizations whose activities may have an impact on our industry.

TPI's Membership Campaign encourages all members to promote our great organization to potential members. TPI represents: Purpose, Expertise, Support, Education and Commitment.

Go to www.TurfGrassSod.org and click on the Become a Member tab or wherever you see the **Together We Grow Stronger** logo for more information on how you can help TPI GROW STRONGER.

- Serve as an advocate for our members and the industry.
- Build awareness and ensure that accurate information about the environmental, social, economic and health benefits of turfgrass is communicated effectively.
- Collaborate with other green industry associations, organizations and related businesses in developing standards that will benefit our industry.
- Work closely with TPI member Working Groups, Committees and Task Forces as a means of obtaining insightful input, valid recommendations and creative ideas from the membership.
- Through education and research, encourage the improvement of lawns and sports turf.
- TPI's foundation, The Lawn Institute, funds turfgrass research and education and serves to disseminate information about proper lawn care and related turfgrass sciences to homeowners, educators, green industry professionals, the media, students, etc.

TPI provides you with an opportunity to:

- Network with fellow turfgrass producers worldwide.
- Have unparalleled access to industry information.
- Save money on many business services.
- Promote your business with a wide variety of sales and marketing tools.
- AND MUCH MORE!



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