



EUROPEAN TURFGRASS SOCIETY

NEWSLETTER 03/2016

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5th ETS Conference

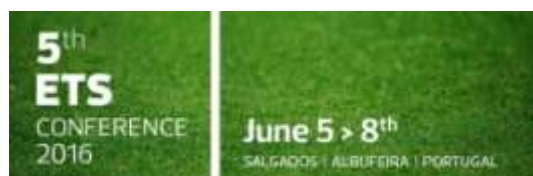
Turfgrass – Towards Sustainability and Perfection for Aesthetic, Recreational and Sports

<http://ets2016.ualg.pt>

SUMMARY

The 5th European Turfgrass Society Conference, a biannual meeting, was held at the Salgados Palace Hotel (Salgados, Albufeira, Portugal) between June 5th - 8th 2016, under the responsibility and organization of the University of Algarve.

The meeting aimed the share of knowledge, experiences, research results, data, ideas, services, products advertising, among researchers, turfgrass specialists, stakeholders, towards sustainability and perfection for aesthetic, recreational and sports lawns.



Stewart Brown (actual ETS President), **Nektarios Panayiotis** (former ETS President, 2012-2016), **Marco Volterrani** (first ETS President, 2008-2012)

Scientifically this meeting was divided in seven main topics:

- Turfgrass genetics and breeding
- Turfgrass and Landscape
- Turfgrass pests (diseases, insects, weeds)
- Technology advances and turfgrass maintenance
- Water Management
- Turfgrass nutrition and physiology
- Turfgrass for sports



Regarding the participation, although the economic problems that most of us are facing nowadays, 115 participants were involved in this scientific programme. These participants came from 21 countries, from Europe, America (North to South), Asia, Oceania and Africa.

The first two days were dedicated to plenary sessions where more than 80 oral communications and posters were presented and discussed in those seven thematic sessions. **The third day** was a technical tour where sustainability was the main focus, respectively 1) at a golf course which is totally irrigated with treated wastewater (The Herdade dos Salgados golf course), 2) at a golf course project approved after a long environmental study has been done (Quinta da Ombria, Loulé), and 3) at a Bermuda sod farm.

During the first two days, 5 keynote speakers delivered respectively 5 interesting talks:

- **José António Monteiro**, from the University of Algarve, spoke about turf, mankind and landscape;
- **Jason Kruse**, from the University of Florida, had his talk focusing the maximization of turfgrass performance, looking for micronutrients and turf nutrition;
- **Richard Snyder**, from the University of California Davis, gave his talk focusing water management through low-cost urban ET measurements and estimates;
- **Filippo Lulli**, from Turf Europe, showed how precision farming practices in sports turf management can help and solve new and old problems in football pitches, such as the French stadiums that are being used in the football European championship 2016;
- and **Tom Hsiang**, from the University of Guelph, who gave his presentation on disease resistance activators and its benefits.



5th European Turfgrass Society Conference attendees at Salgados Palace Hotel (Salgados, Albufeira, Portugal)



From left to right: **Nektarios Panayiotis** (former ETS Board President); **Paulo Águas** (Vice-Rector of the University of Algarve); **Carlos Guerrero** (Convener of the 5th ETS Conference); **Maria de Lurdes Cristiano** (Dean of the Faculty of Sciences and Technology of the University of Algarve)



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EUROPEAN TURFGRASS SOCIETY

ETS important communication from the 5th ETS Conference

On the second day, the ETS had its General Assembly where a new Board was elected. For the next four years, the actual ETS Board has the following members:

- Stewart **Brown**, Myerscough College (UK), President
- Anne Mette **Dahl Jensen**, University of Copenhagen (DEN)
- Claudia **de Bertoldi**, Turf Europe (ITA)
- Alessandro **De Luca**, Italian Golf Federation (ITA)
- Tatsiana **Espevig**, Norwegian Institute of Bio-Economy Research (NIBIO) (NOR)
- Carlos **Guerrero**, University of Algarve (POR)
- Bernd **Leinauer**, New Mexico State University (GER/USA)
- Fritz **Lord**, COMPO EXPERT (GER)
- Wolfgang **Praemassing**, DEULA Rheinland GmbH (GER)



7 of the 9 ETS Board elected members: Alessandro de Luca, Carlos Guerrero, Claudia de Bertoldi (Secretary), Stewart Brown (President), Anne Mette Dahl Jensen, Fritz Lord (Vice-President) and Wolfgang Praemassing.

To the former ETS Board, a special word: **Thank you for your commitment to the association.**

A special acknowledgment to Messinagro, Syngenta, Itelmatis, Novarelva, Bayer, Sapec, the Portuguese Foundation for Science and Technology, the Luso-American Development Foundation, and the Algarve Tourism Office for the financial support given.

The Convener,
Carlos Guerrero
June 2016



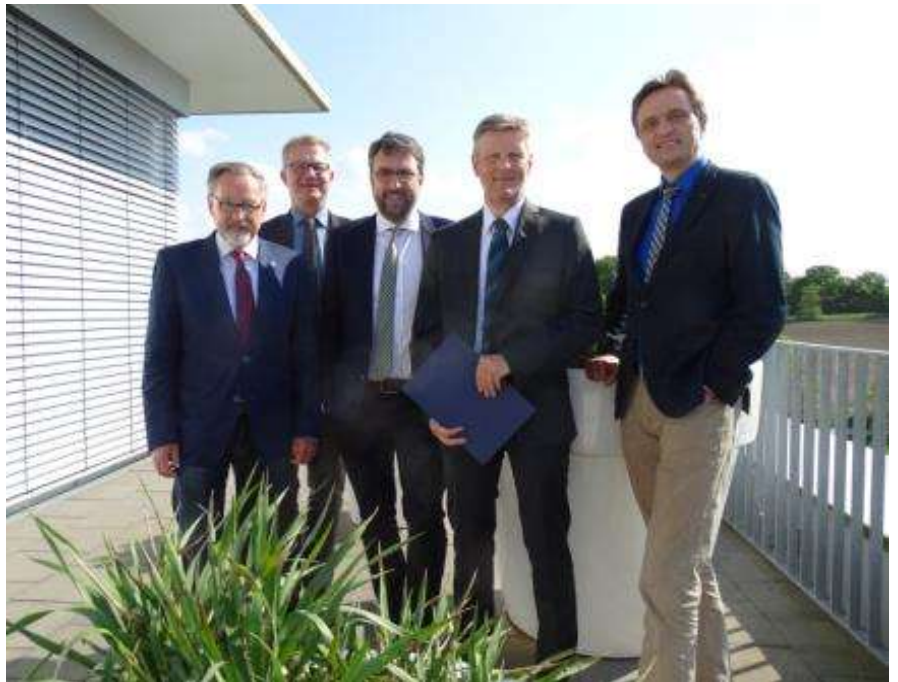
Turfgrass research started at the University of Applied Sciences in Osnabrueck, Germany

By Dr. Klaus Mueller-Beck
Honorable Member DRG
Klaus.mueller-beck@t-online.de

The procedure to introduce an Endowed Chair for "Sustainable Turfgrass Management" at the University of Applied Science in Osnabrueck, Germany is on a good way. In May 2016 the contract between the donator and the University was signed by the President of the German Turfgrass Society, Dr. Harald Nonn, and the President of the University, Prof. Dr. Andreas Bertram. The advertisement for the appointment procedure was published in June so that candidates could apply for this position.

Besides this practice the Faculty of Agricultural Sciences and Landscape Architecture of the University of Applied Sciences started in spring 2016 the first research project on turfgrass. Under the title "Development of a highly resilient sports turf construction type system using natural fiber armoring of the root zone layer", Patrick Lawson, Ph.D. and his team with Prof. Martin Thieme-Hack set up the first research plots as a pot trial. This research study is funded by the Federal Ministry of Economics and Technology, under the platform, „Central Innovation Program Middle Class (ZIM)".

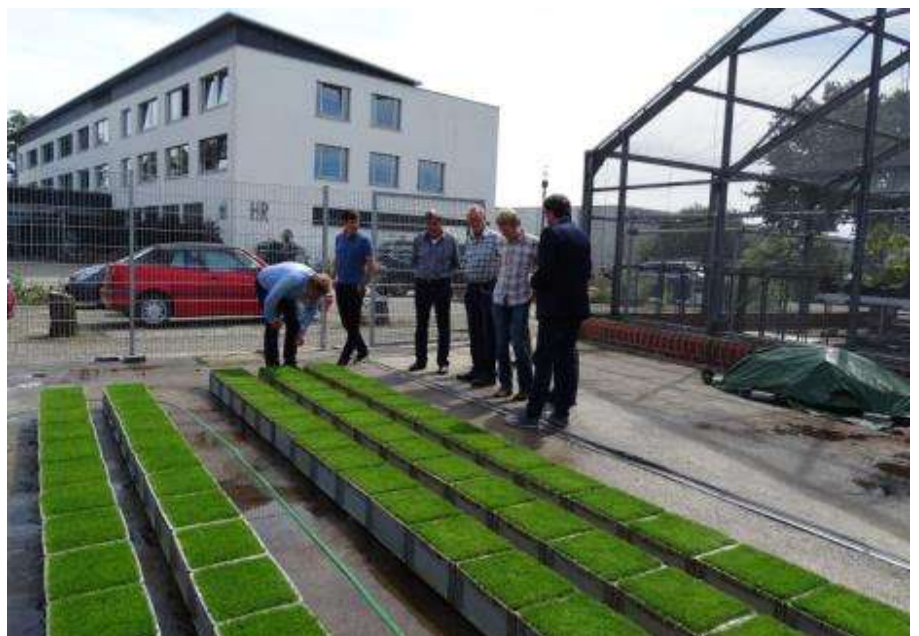
After the first results of the pot trials there will be installed a field test with the promising alternatives. The project deals with the development of a highly resilient root zone mixture for natural turfgrass soccer pitches. This design of a hybrid turf is characterized by a greatly improved durability of the turfgrass surface affected by an innovative and environmentally-friendly armoring of the root zone layer.



Picture: DRG

Members of the signing ceremony for the Endowed Chair „Sustainable Turfgrass Management" at the University of Applied Science in Osnabrueck, Germany:

(from right) Prof. Dr. Andreas Bertram, President University of Applied Science, Dr. Harald Nonn, President German Turfgrass Society, Prof. Martin Thieme-Hack, Faculty Landscape Architecture; Prof. Dr. Bernd Lehman, Vice President; Dr. Klaus Mueller-Beck, Honorable Member German Turfgrass Society.



Picture: K. Mueller-Beck.

Pot trials at University of Applied Science in Osnabrueck, to evaluate different Hybrid Root Zone Mixtures for soccer pitches.



Fachhochschule Osnabrück
University of Applied Sciences

Highlights from Nordic research on winter survival of turfgrass

By Agnar Kvalbein, researcher & consultant, NIBIO Turfgrass Research Group

Fifteen years have passed since Trygve Aamlid persuaded the directors of his agricultural research institute to establish golfgreen in the garden of Landvik research station. The institute has merged two times since then and changed name to Norwegian Institute of Bioeconomy Research (NIBIO). The group of turfgrass researchers and technicians counts seven and they are situated at two locations which represent Nordic inland and coastal climates. In this popular article I will bring some highlights from our research on turfgrass winter stress management, which is core activity for NIBIO Turfgrass Research Group.

Why winter stress research in Norway?

South and central Europe have climates that can be found in the US, which means that some of the results from the comprehensive US turfgrass research are applicable for European golf courses. But the Nordic capitals Oslo, Stockholm and Helsinki are all found on the latitude of 60 ° north, which place them on the map north of Scotland and at similar latitude as Anchorage in Alaska. We know there are several golf courses in Alaska, but sparsely turfgrass research is published from these latitudes in American literature.



Snow moulds are the most common winter injury in the southern part of Scandinavia. Annual meadow grass is very susceptible and hence depending on effective fungicides. Picture shows a putting green in Stockholm spring 2010. Photo: Agnar Kvalbein.



Ice kills golf greens in the northern part of Scandinavia where mild spells with rain and frozen greens makes the conditions very difficult. Photo: Oslo area January 2016, Guttorm Tuxen, Golf course manager.

Winter survival is the major concern for golf course managers at high latitudes, and Scandinavian Turfgrass and Environment Research Foundation (STERF) has funded several projects to enhance our understanding of winter stresses.

Last year we did a survey about winter damages on golf courses in all five Nordic countries (Iceland, Norway, Denmark, Sweden and Finland). We collected data about common autumn and winter maintenance practices, what kind of winter kill they face and what these injuries cost. (There is a lot of data to be analysed still. If you have a good student, this is material for a Master thesis). A preliminary conclusion is that biotic stress (most often caused by *Microdochium nivale*) is the main problem in Denmark and southern part of Sweden, while abiotic stresses dominate further north. The cost from winter damages is highest in Norway. This is not surprising given that the annual precipitation is more than double compared to the surrounding countries, and that mild winds from the Atlantic increase the risk for ice formation. Ice encasement kills more turf than any other stress in Norway, Iceland, Finland, and northern parts of Sweden.

What is winter stress?

What are the winter stresses? STERF's Turfgrass winter stress management R&D Programme gives an overview of the topic. Briefly, they can be categorized as 1) starvation (from darkness) 2) winter disease (most severe under snow covers on un-frozen ground) 3) Desiccation (combinations of radiation, wind, frozen ground, frost heave) 4) Suffocation (anoxia from ice encasement) 5) Photo-inhibition or bleaching due high to the combination of high light intensity and low temperatures in spring. When the turf is subjected to play during the winter, wear may also be mentioned as winter stress, but this is more an issue in districts where permanent frost and snow do not definitely close the golf courses for the winter.

Winter stress research

Evaluation of turf grass species and varieties

NIBIO has conducted several research projects addressing turf grass winter survival. First of all we have been testing commercial grass varieties for many years both under lawn, fairway and green conditions. Winter tolerance is one of the characters that have been evaluated. The results from the evaluation program are updated every year and published on www.scanturf.org. Different from most variety tests



This fairway made us ask: Did the fairway turf in the shallows (replaced by light annual meadow grass) die because of bad acclimation? Three years later we had results indicating that wet soil conditions in the autumn does not inhibit acclimation. Photo: Grini golf club, Oslo, Norway. Nov. 2011, Agnar Kvalbein.

in the US we do not apply fungicides. This is one of the reasons why the ranking can differ from other ranking lists. In the Nordic countries we grow several grass species on greens, and this has given us the opportunity to compare their winter stress tolerance over some years. We rank green grasses like this,

from high to low winter stress tolerance: velvet bent grass (*Agrostis canina*) = Chewings red fescue (*Festuca rubra* ssp. *commutata*) = prostrate meadow grass (*Poa supina*) > creeping bent grass (*Agrostis stolonifera*) = brown top bent (*Agrostis capillaris*) = slender creeping red fescue (*F. rubra* ssp. *litoralis*) > rough meadow grass (*Poa trivialis*) > perennial ryegrass (*Lolium perenne*) > annual meadow grass (*Poa annua*). There are considerable differences between varieties within some of these species. The term winter stress tolerance is not very precise and do not distinguish between the different stresses. We have discussed this more detailed in the short text "Grass species and varieties for severe winter climates" which is published as a part of STERF's new fact sheets about winter stress management.

A parenthesis

A curiosity is that we have seen smooth meadow grass (*Poa pratensis*) surviving in Norwegian golf greens on locations where the winter climate is very difficult. This is not in accordance with the turf grass literature. For the first time we included this species in the SCANGREEN variety trials seeded in 2015. So far it has a good coverage has so far survived 5 mm mowing very well (Photo) It seems that cool summer weather, long days and less rust disease gives much better conditions here than "home in Kentucky".

Winter acclimation

The genetic potential for winter survival can be studied through long term tests, but reaching the full potential is very much depending on good autumn acclimation.

Carbohydrates are stored in stems and crowns as energy reserves for a long period in darkness. This carbohydrate reserve, combined with the reconstruction of membranes and production of cryo-proteins, make the plants able to survive freezing temperatures. The acclimation also improves the resistance to winter diseases.



Shade reduce the acclimation of the grass plants and increase the risk of winter kill. A chain saw is probably one of the most efficient tools for turfgrass winter stress management. Photo: Norefjell golf club, October 2015, Agnar Kvalbein

Under the leadership of Tatsiana Espevig we performed several experiments in a four year project called "Turf Grass Winter Survival (TWS) in a changing climate". How environmental factors interfere the acclimation status of grasses was one of the topics. The other main question was how natural and artificial covers influence the winter survival.

One of our findings was that impeded drainage during the acclimation period from October to December did not affect either crown moisture content or freezing tolerance (LT50s). But bad drainage throughout the winter increased the winter kill from ice encasement.

Tanja also studied how turf grasses used on putting greens react to warm spells during the winter. Annual meadow grass was very easily de-acclimated, compared to the bent grasses and the fescues. Creeping bent grass acquired the highest freezing tolerance, but it also lost more of its acclimation during warm spells than velvet bent grass.

Winter protective covers

Canadian researchers have studied f protective covers on golf greens for many years, but this technique is in use only by 3% of Swedish golf courses. Testing the effect of ice encasement and some protective covers was a part of the TWS project. We found that velvet bent grass had superior tolerance to ice encasement and could survive more than 100 days under solid ice. At the other end of the scale was annual meadow grass. One month under ice killed this species.

All results from this project are not yet published, but you will find the results in a book of abstract from a seminar in October 2014. You can also find the presentations from this seminar [here](#).

Autumn fertilization

The effect of autumn application of fertilizer on winter survival has been discussed for some years. We conducted several full scale experiments with late autumn fertilization in 2010-11 and found only positive effects of this practice. In 2014 we set up experiments to test the effect of sulphate and three nitrogen rates on annual meadow grass and creeping bent grass. The study also included nitrogen leakage and effects of shade.

We have a lot of data from this two year project; field data from two locations and laboratory tests of freezing tolerance and resistance to snow mould and suffocation. We have not seen any effects of sulphate. We can conclude that shade reduces the winter stress tolerance of both grass species significantly. The effect of nitrogen rates in the autumn is more complex, but we hope to find an optimal rate which balances turf quality in the autumn, winter stress tolerance and spring performance. The coming winter we will perform full scale trials with three nitrogen levels at five golf courses in all Nordic countries. Hopefully this will confirm the results from the small-scale scientific experiments. Some preliminary findings were presented in STERFs yearbook 2015 at page 30. In this book you will also find information about a smaller project focusing on re-establishing greens after winter kill. This is another important aspect of winter stress management, and golf course managers who rarely experience this situation find it difficult to know where to start or what techniques to use.

In the autumn 2017 we will publish a handbook that sums up relevant research and experiences from the Nordic greenkeepers. Some of them have a lot of experience and are able to keep their greens alive through extreme winter conditions.



Wendy Waalen showshow difficult it is to re-establish partly dead greens after winter injuries. She now conducts a research project focusing on re-seeding. Photo, Mjøsén GC, June 2013, Agnar Kvalbein



"NEWS FROM ACROSS THE POND"



TPI Elects Officers and New Board Members

Contact: Jim Novak - Public Relations Manager
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847-649-5555
jnovak@TurfGrassSod.org

EAST DUNDEE, IL —JULY 2016

Turfgrass Producers International (TPI) has announced its 2016-17 officers and board of directors, effective July 1. The officers and new board members were elected during TPI's Annual Business Meeting Feb, 23 at the association's 2016 International Education Conference & Field Day in Houston, TX.

Linda Pittillo Bradley, co-owner of Turf Mountain Sod in Hendersonville, N.C., was elected President; Jimmy Fox, president of Evergreen Turf in Chandler, Ariz., was elected vice president, and Eric Heuver, president of Eagle Lake Professional Landscape Supply in Strathmore, Alberta, CANADA was elected secretary-treasurer.

Also elected to the TPI's board were Tim Wollesen, president/owner of [Sales Midwest, Inc.](#) in Olathe, KS, and Mark Tribbett of JB Instant Lawn, Inc. in Silverton, OR.

Continuing their service on the TPI board are:

- John Coombs, Sr. Coombs Sod Farms, LLC - U.S.A.
- Hugh Dampney, ECO Turf - ENGLAND
- Steve Griffen, Saratoga Sod Farm, Inc. - U.S.A.
- Randy Jasperson, Jasperson Sod Farm - U.S.A.
- Hank Kerfoot, Modern Turf - U.S.A.
- Will Nugent, (Past President) Bethel Farms - U.S.A.

2016-2017 TPI OFFICERS



PRESIDENT
Linda Pittillo Bradley
Turf Mountain Sod, Inc.
Hendersonville, NC



VICE PRESIDENT
Jimmy Fox
Evergreen Turf, Inc.
Chandler, AZ



SECRETARY-TREASURER
Eric Heuver
Eagle Lake Professional
Landscape Supply
Strathmore, Alberta, CANADA

NEW TPI BOARD OF TRUSTEE MEMBERS



Tim Wollesen
Sales Midwest, Inc.
Olathe, KS



Mark Tribbett
JB Instant Lawn, Inc.
Silverton, OR



TPI is comprised of turfgrass sod and seed producers, equipment manufacturers, suppliers and individuals involved in education and turfgrass-related research. Our members are represented in over 40 countries across the globe.

Turfgrass Producers Give Back to the Community

Turfgrass Producers International partners with Project EverGreen and Houston Habitat for Humanity to provide new lawns and landscaping.

By Jim Novak - Public Relations Manager
Turfgrass Producers International

Over 22,000 square feet of freshly harvested turfgrass sod found a home at six new residential properties in Houston's Harrell Park subdivision thanks to a joint effort by TPI, Project EverGreen and Houston Habitat for Humanity. The turfgrass was installed along with oak trees and an assortment of azaleas, boxwoods, gardenias and ferns. Mulch was also added around the homes to create landscape beds that complemented the new turfgrass, and created green spaces the new owners and their families could enjoy.

The sod was harvested during equipment demonstrations at TPI's Field Day at All Seasons Turf Farm in Brookshire, Texas. Thanks goes to the generosity of Irene Gavranovic Sipes and her husband Scott of the host farm and exhibiting members that included



Advanced Equipment Sales, Brouwer Kesmac, FireFly Equipment, Northwest Tillers, Progressive Turf Equipment, Redexim North America, Trebro Manufacturing and Trimax Mowing Systems.



The freshly cut turfgrass went from the farm to its destination and volunteers did the rest. Project EverGreen, a non-profit organization committed to preserving and enhancing green space in communities nationwide, and the Brickman Group, a highly respected landscape and management design firm, provided the landscape materials and labor. With the assistance of Habitat for Humanity and TPI volunteers, newly sodded lawns and more than 75 ornamental plants and trees were installed.

"Project EverGreen was proud to partner with TPI and Houston Habitat for Humanity to bring managed green spaces to these new homes and neighborhoods," said Cindy Code, executive director of Project EverGreen. "Lawns, landscapes and plants turn houses into homes and neighborhoods into communities. The end result is safer, healthier and more connected communities."

Melanie Stanton, executive director of Turfgrass Producers International who was on hand to help with the installation commented, "Our members are pleased to have had an opportunity to work with these two respected organizations and to be able to give back to the Houston community that hosted the TPI 2016 International Education Conference & Field Day."



On-site with sod ready for one of the six homes to be sodded. Left to right: Melanie Stanton, TPI's Executive Director; Angela Birch Cox, Development Director, Houston Habitat for Humanity and TPI members Hank Kerfoot; Ronni Zeigler; Jenny Carritt; David Bradley; TPI vice president Linda Bradley and TPI president Will Nugent.

She went on to say, "Natural grass lawns provide homeowners and neighborhoods with numerous environmental, economic, social and health benefits that are often taken for granted."

Ronni Zeigler, a TPI conference attendee from Ideal Turf, Inc. in Hanna, Illinois who extended her stay in Houston to volunteer her support commented, "Working with the Houston Habitat for Humanity through TPI affected me more than I anticipated. I'm always happy to give a helping hand, especially when I can spread the word and influence people's understanding about the benefits of natural grass. The lawn we installed put the final touch on a new home that's going to change someone's life. I felt honored to be a part of it and it put a smile on my face knowing a family would be enjoying and benefiting from all our hard work. I can't wait to do it again."

Project EverGreen reports that numerous research studies have shown that the presence of well-maintained green space in communities offer numerous social, economic and lifestyle benefits. Some of the benefits include:

- Trees, shrubs and turf remove smoke, dust and other pollutants from the air. One tree can remove 26 pounds of carbon dioxide annually.
- Natural grass recharges and filters groundwater supply and reduces storm water runoff
- Not only does your lawn release oxygen and absorb carbon dioxide, it lowers temperatures caused by soil and hard surfaces. Lawns can be 31 degrees cooler than asphalt and 20 degrees cooler than bare soil.
- Green spaces improve mental functioning and physical well-being. In fact, residents of areas with the highest levels of greenery were 40 percent less likely to be overweight or obese compared to those living in less green space.
- The proper placement of just three trees around a home reduces interior house temperatures, allow air conditioning units to run more efficiently and offer homeowners \$100 to \$250 in savings annually.
- *Smart Money* magazine indicated that consumers value a landscaped home up 11 percent higher than its base price.



Before and after photos illustrate the transformation that took place in less than a day.
ALL PHOTOS: Steve & Suz Trusty – *Turf News*

For more information on the benefits of lawns and helpful lawn care advice visit The Lawn Institute at <http://www.thelawninstitute.org/>



CONGRATULATIONS to David Doguet

Golf Digest Names David Doguet as Top Innovator & Influencer of 2016

By Jim Novak - Turfgrass Producers International

TPI member and Past President, David Doguet of Bladerunner Farms is listed among select individuals whose work could change the game of golf beyond recognition and in a good way according to Ron Whitten, a contributing writer for *Golf Digest*.

Whitten writes, "If the business of breeding better turfgrass is a turf war, no one is more competitive than David Doguet." He goes on to add, "Doguet has made zoysia golf's new super grass". Yes, zoysia, once characterized by quarter-inchwide blades that provided indestructible hairbrush lies but wouldn't green up until early summer and reverted to tan at first frost. Traditionally, the coarse grass was used only for tees and fairways in transition zone climates—where the winters were too cold for Bermuda and the summers were too hot for bentgrass. Never was it the ideal choice.

But Doguet's various crossbred strains, finer-bladed, more disease and insect-resistant and less thirsty have changed that. His latest creation, L1F zoysia, is a sensation. It has been chosen by Tiger Woods for the tees and green surrounds.

IN A RELATED STORY:

Rio de Janeiro's Department of Justice concludes Olympic Golf Course has increased local biodiversity — More than a 100 percent increase in vegetation and species following



According to an expert report by the State of Rio de Janeiro's Department of Justice, the construction of the Olympic Golf Course in Barra da Tijuca has contributed to the growth of local vegetation in the Marapendi area. Unveiled in November, the golf venue, assesses an expert study, ensured the return of different species of animals to a once degraded area.

The inspection was carried out in December last year at the request of a civil lawsuit filed by state prosecutors who questioned the environmental impacts of the project, and involved prosecutors, legal advisors and environmental specialists. The Rio 2016 Organizing Committee has monitored the changes in the region since the beginning of the work in 2013. Among the environmental benefits in the report are the 167% increase in vegetation, which led to a "positive cycle for fauna development". The report also indicates that 263 species are found in the area now – before the construction there were only 118 species

"The environmental gain in the region is visible. Besides the flora, which increased extensively, we can observe the different species of animals that have returned to the area. The report now provides a scientific stamp to what we had already observed"

C. Flores, Rio 2016 sustainability coordinator



JOBS, JOBS, JOBS



Graduate Assistantship at University of Georgia

The University of Georgia Department of Crop and Soil Sciences invites applications for a M.S. or Ph.D. student for a graduate assistantship in the area of turfgrass physiology. Research focus will be on abiotic stresses of warm season grasses such as drought or salinity stress. Emphasis will be placed on the characterization of plant responses to abiotic stresses and determining underlying mechanisms of stress tolerance by combining whole plant physiology and molecular biology. Potential to use advanced molecular biology techniques such as proteomic analysis or metabolite profiling to explore stress tolerances in turfgrasses as part of graduate research. Graduate assistants will have primary roles in the design, execution, and analysis of research projects with opportunities to present results at scientific meetings. Basic qualifications include a bachelor's degree in plant science, biology, or other related degrees. Other requirements including excellent written and oral communication skills, and a strong self-motivated work ethic are required. Previous experience in turfgrass or laboratory research is desired. Assistantships include waived tuition and a yearly stipend. Information about the department of Crop and Soil Sciences and the graduate program can be found at www.cropsoil.uga.edu/graduate/index.html. For additional application information and requirements for the graduate program visit www.cropsoil.uga.edu/graduate/admissions.html. For more information or questions about this position, interested applicants should contact Dr. David Jespersen via email at djesper@uga.edu.



Assistant Professor at Martin Department of Agriculture, Geosciences and Natural Resources, University of Tennessee

POSITION: Assistant Professor of Plant and Soil Science, full-time, twelve-month, tenure track.

EFFECTIVE DATE: January 1, 2017, or until filled.

QUALIFICATIONS: Earned Doctorate in Plant and Soil Science, or related field, with a strong background and interest in turfgrass management and horticulture. Individuals who are All But Dissertation (ABD) will be considered for this position. A strong interest and skills in undergraduate teaching and advising are essential. The applicant should have demonstrated abilities to communicate effectively and to work well with others. A desire to live in the local area and work with community organizations to strengthen university-community relations is a must. Developed skills in teaching and mentoring undergraduate students along with experience in recruiting and curriculum development are a plus. All applicants must be authorized to work in the U.S. on a long-term basis.



RESPONSIBILITIES: The position will be 75 percent teaching and 25 percent research/public service with duties administered by the Department of Agriculture, Geosciences and Natural Resources. Teaching responsibilities will include lawn and turf management, landscape management, ornamental plant identification and propagation, and other plant science courses. The successful candidate may teach courses in plant breeding, agricultural statistical analysis, and plant pathology. Opportunities exist for development of additional courses in the applicant's area of

expertise. Opportunities exist for conducting applied research in turfgrass management and ornamental horticulture.

SALARY: Commensurate with qualifications and experience.

THE DEPARTMENT: The Department of Agriculture, Geosciences and Natural Resources at UT Martin offers Bachelor of Science degree programs in Agriculture, Geosciences and Natural Resources Management. Concentrations in Agriculture include: Agricultural Business, Agricultural Science, Animal Science, Plant and Soil Science and Agricultural Engineering Technology. Concentrations in Geosciences include: Geology, Geography and Meteorology. Concentrations in Natural Resources Management include: Wildlife Biology, Park and Recreation Administration, Environmental Management and Soil and Water Conservation. Pre-professional programs are offered in Forestry, Agricultural Engineering and Veterinary Medicine. Current enrollment is 975 students with 28 full time faculty and staff members. The Department operates a 650-acre teaching complex to support faculty class and laboratory needs. As a part of this complex, the Department maintains a three-acre botanical garden that includes turfgrass demonstration plots and an experimental USGA specification bermudagrass putting green. Excellent relationships exist with the local sod, golf course and sports turf industries, University of Tennessee Cooperative Extension, and agricultural industries.

THE UNIVERSITY: UT Martin is one of four primary campuses of The University of Tennessee System. Located in northwest Tennessee, the campus has an enrollment of approximately 6,900 and a faculty of about 250. UT Martin has an established reputation as a superior quality undergraduate institution with programs of study leading to degrees in more than 65 specialized fields.

TO APPLY: Qualified candidates must apply online at:
<http://www.utm.edu/departments/personnel/employment.php> and click on faculty vacancies. Candidates will also need to attach a cover letter that addresses the requirements of the position; current curriculum vita; official transcripts of all college work; and names, addresses, phone numbers, and e-mail addresses of three references. Additionally, letters of reference are not required but may be sent to:

Dr. Wes Totten, Chair
Plant Science Search Committee
Department of Agriculture, Geosciences and Natural Resources
The University of Tennessee at Martin
Martin, TN 38238
Phone: (731) 881-7262; e-mail: wtotten@utm.edu

CLOSING DATE: Review of applications will begin on **October 15, 2016** and continue until a suitable candidate is identified.

UTM is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer. The University seeks to diversify its work force. Therefore, all qualified applicants, regardless of race, color, national origin, religion, gender, age, disability or Vietnam veteran status, are strongly encouraged to apply.



AGENDA OF TURFGRASS EVENTS



9 th Int. Symposium on Molecular Breeding of Forage and Turf	15-19 Aug 2016	Lanzhou (PRC)	http://caoye.lzu.edu.cn/lzupage/B20100603055108.html
4 th Biohydrology Conference	13-16 Sep 2016	Almeria (SP)	http://www.biohydrology2016.es
2 nd ETP "Farm Tour"	29-30 Sep 2016	Ginosa (IT)	www.turfgrassproducers.eu
TPI International Education Conference & Field Day	20-23 Feb 2017	Tampa, FL (USA)	http://www.turfgrasssod.org
13 th ITRC by ITS	16-21 Jul 2017	N. Bunswick (USA)	http://turfgrasssociety.com/itrc2017

If you know of a turfgrass-related event which should be included in the Agenda of Turfgrass Events, please contact the ETS Newsletter Editor at etsoffice@turfgrasssociety.eu with all relevant details.



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Deadline for submission of material for 04/2016 edition: **Oct. 15th**



The EUROPEAN TURFGRASS SOCIETY



The objectives of the **ETS** include the spread of innovative applications and encouragement of a holistic view of turf, particularly with respect to its influence on urban and environmental quality. This approach is significant as the founding members are representatives of a large industry that has global importance. We aim to:

- a)** Provide a forum for scientists, consultants, companies and practitioners to discuss technical issues related to the provision of turf surfaces.
- b)** Spread innovative applications for the benefit of the turfgrass industry, national and local government, and the European public. Encourage a systems-based approach to the study of turfgrass through multi-disciplinary groups working at different levels.
- c)** ETS considers turfgrass knowledge in the broadest sense, including its use in sport and leisure, its role in improving urban quality and its importance in the mitigation of environmental effects such as soil erosion.
- d)** Develop a strong ethos to promote sustainable, low input systems and solutions based on the conscious use of non-renewable resources.

Current ETS Board of Directors



Stewart Brown
Myerscough College (GBR)
ETS President

I have been working in the sports turf and amenity horticulture industry for over 30 years' and during this have managed many sports turf and landscape areas and facilities for several local authorities and government agencies.

Since entering education I have taught hundreds of students in a range of sports turf and management subjects. I am currently, Senior Lecturer in Sport turf Agronomy at Myerscough College, an associate college of the University of Central Lancashire. I am the Course Leader for the BSc Sports turf Science & Management and the MA Sustainable Golf Course Management ONLINE degrees.

I am a member of BIGGA, the GCSAA, and a Fellow of the IOG. I am also a Fellow of the Higher Education Academy. As an author I have published two books on sports turf subjects and numerous articles for professional and trade literature. My main areas of interest include golf course design and management, sustainability and resource management. I have Masters qualifications in both Horticulture and Parks & Green space Management. I am just completing a Professional Doctorate (DProf) with Anglia Ruskin University researching the efficacy of resource management and its impact on sustainability for golf greens.



Anne Mette Dahl Jensen
University of
Copenhagen (DKK)
ETS Board Member

Born 1965. M.Sc. in Biology 1992. Ph.D. in Biotechnology. Involved in grass research since 1998. Since 2006 employed

as a senior advisor in turfgrass at the University of Copenhagen.

Research areas: Establishment and maintenance of turfgrass areas - especially in relation to pesticide free weed maintenance and in relation to the evaluation of quality. Implementation of the EU directive on sustainable pesticide use in Denmark especially IPM. Turfgrass, its biology, physiology and growth. Grass endophytes, their interaction with the grass plant and the commercial use. Other responsibilities. Serve as an advisor in the university's counselling service unit (municipalities, golf courses etc.). Serve as scientific advisor for the Danish authority (The Danish Environmental Protection Agency) in relation to pesticide use on golf courses and amenity areas. Participates in the Danish Environmental Protection Agency advisory group in relation to the phasing out of pesticides in public areas. Teaching responsibilities at the University (Park maintenance) and extern teaching of greenkeepers etc.



Claudia de Bertoldi
Turf Europe Srl (ITA)
ETS Secretary and Treasurer

I received my BA in 2003, after an internship at North Carolina State University (USA) and I have completed my M.Sc (*Progettazione e Pianificazione delle Aree Verdi e del Paesaggio*) at University of Pisa (Italy) in 2006. My PhD (*Allelopathic interferences of plants*) was from S.

Anna School of Advanced Studies/Université de Fribourg (CH) in 2007-2010. I have been working as consultant at Pacini Company (Pisa – IT) for turfgrass production made in Tunisia during 2010-2012. Since 2013 I am employed by Turf Europe (Livorno – IT). I am actively engaged in landscaping and realization of gardens and turfgrasses for ornamental and sport use. Management of high-quality sport fields also through precision agriculture. Consultant for turf seeding in difficult zones (dumps and caves). Botanical censuses and visual tree assessment. Participation in R&D projects financed at European level. More than 15 publications, posters and presentations on conferences and meetings on turfgrass.



Tatsiana Espevig
Norwegian Institute of
Bioeconomy Research (NOR)
ETS Board Member

Born in 1976. Moved to Norway from Belarus in 2005. MSc from Byelorussian State Pedagogical Maxim Tank University, Minsk, Belarus in 1999. PhD from National Academy of Sciences of Belarus in 2004 (resistance to downy mildew in cucumber) and Norwegian University of Life Sciences in 2011 (winter hardiness and management of velvet bentgrass). Internship at Rutgers, The State University of New Jersey, New Brunswick, USA in 2009. Since 2006 employed by Norwegian Institute of Bioeconomy Research (NIBIO, former Bioforsk). Her research focuses on turfgrass pest management, winter stress and cultural practices. She also runs Disease diagnostic laboratory. Lecturer on several meetings and courses held by the national golf unions and greenkeeper associations in the Nordic countries. Supervisor for two MSc students. More than 100 reports, scientific and popular publications, posters and presentations on conferences and meetings on turf grass science.



Alessandro De Luca
Italian Golf Federation (ITA)
ETS Board Member

Degree in Agricultural Science at the University of Bologna (Italy). Diploma in Turfgrass Science at the Texas A & M University (USA). Head of the Green Section of the Italian Golf Federation, for which he also directs experimental activity and environmental projects. Teaching activity for Technical Centre of Italian Golf Federation, for CONI (Italian Olympic Committee) and for some Universities (Catania, Viterbo, Turin, Rome).

Consultant for private companies on planning, construction and maintenance of golf courses and sport fields. Author of books on turfgrass construction and management. Collaboration with several turf and golf magazines. related to the environment.



Fritz Lord
COMPO Expert (GER)
ETS Board Member

Study of horticultural science at Rhein University Geisenheim, M.sc. in soil science/entomology. Study of Agricultural Science at Humboldt University Berlin; M.Sc. in crop science, plant diseases; Ph.D at Humboldt University Berlin in phytopathology, antagonistic rhizobacteria (PGPR), soil borne pathogens (*Fusarium*). Since 2008 working for one of Europe's leading fertilizer manufacturer COMPO Expert in Münster, Germany. Responsible for the segment turf and public green, vegetation-technical

consultation, research and development, product management and education. Specialties/ experiences: soil-plant-microorganism interactions, bio stimulants, microbial fertilizer, turf nutrition and maintenance. Various publications regarding turf fertilization and maintenance (e.g. European Journal of Turfgrass Science, New Landscape). Teaching turf seminars for greenkeepers and groundsman in Germany and abroad. ETS member since 2008, board member of the International Turf Grass Society (ITS) since 2014. Further memberships: German Turfgrass Society (DRG), Greenkeeper Association of Germany (GVD), Austrian Greenkeeper Association (AGA), Förderkreis Landschafts- und Sportplatzbauliche Forschung (FLSF), Forschungsgesellschaft Landschaftsbau e.V. (FLL).

**Wolfgang Praemassing**

DEULA (GER)
ETS Board Member

Study of Agricultural Biology (University Diploma) at University of Hohenheim, 1991 Doctoral Dissertation (PhD) Promotion with Prof.

Dr. H. Franken, University of Bonn, subject: Soil physical Effects of Aeration on Turfgrass Soils, 2008.

Occupation and activities:

Agronomist and lecturer in Greenkeeper Education and Training for golf and sport sites at DEULA Rheinland GmbH, Education Center, Kempen. Member of editorial staff of "European Journal of Turfgrass Science". Member of expert committee of German Soccer League (DFL). Member of working group "Turf" at German Soccer Federation" (DFB). Member of working group "Water" at German Golf Federation. Member of board of directors "International Turfgrass Society" (ITS). Member of examination boards of Chamber of Agriculture Nordrhein-Westfalen Golf Course Greenkeeper and Head-Greenkeeper, Greenkeeper/Groundsmen Sport Sites, Competence of Pesticide application.

**Carlos Guerrero**

University of Algarve (POR)
ETS Board Member

Carlos Guerrero is graduated in Horticulture Engineering at the University of Algarve (Portugal). Has a M.Sc. in Soil Fertility and Plant Nutrition at the Agronomy Superior Institute, of the Technical University of Lisbon (Portugal) and a PhD in Environmental Agronomy at the University of Algarve (Portugal). Assistant Professor at the University of Algarve(Faculty of Sciences and Technology), is actually the Diretor of the Degree Program in Agronomy and was the Director of the Master Program in Management and Maintenance of Golf Courses between 2008-2010.

Teaches Soil Science in Landscape Architecture and Soil Science and Agriculture Machinery in the Agronomy. Is also specialized in groundwater and soil nitrate pollution and has experience on organic and compost uses in agriculture and turfgrass.

Actually is working on remote sensing for turfgrass maintenance purposes with unmanned aerial vehicles and multispectral sensors.

**Bernd Leinauer**

New Mexico State University (USA)
ETS Board Member

Dr. Bernd Leinauer is a Professor and Extension Turfgrass Specialist in the Extension Plant Sciences Department at New Mexico State University. He received his degrees (Master and Ph.D.) in Crop and Soil Science from Hohenheim University in Stuttgart, Germany. Before joining the faculty at New Mexico State University in 2000, he worked as a Research Associate in the Department of Crop and Soil Sciences at Michigan State University in East Lansing, MI. His extension and research program at New Mexico State University focuses on developing water management strategies for turf areas aimed at reducing the amount of (potable) water used for irrigation. These strategies include the screening for low water use,

cold and salt tolerant turf species and cultivars, irrigation with recycled and/or high saline water, modification of turfgrass root zones, mitigation of water repellency in root zones, and subsurface irrigation. The program has led to a successful international research collaboration with University of Padova, Italy that includes projects in both turfgrass and forage. Dr. Leinauer has authored and co-authored a book, a book chapter, nearly 70 scientific peer reviewed research papers, and almost 200 reports and abstracts. He was part of a group of NMSU researchers that received the United States Department of Agriculture's Outstanding Integrated Program Water Resources Team Award. In 2012, Dr. Leinauer received the College's Distinguished Research Award and in 2013 he was awarded New Mexico State University's Distinguished Career Award.