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International Turfgrass

The Newsletter of the International Turfgrass Society

January 2018

Survey to strengthen and improve International Turfgrass Society

by Dr. Maria Strandberg, ITS President
Scandinavian Turfgrass & Environment Research Foundation
Stockholm, Sweden

Please support us in the work to further strengthen and improve ITS (International Turfgrass Society) http://turfsociety.com by participating in this ITS survey and give us your feedback on how to improve services provided by ITS as well as the ITRC (International Turfgrass Research Conference).

The ITS Board of Directors is conducting a survey of members and potential members. This survey is to gather information to improve ITS as well as the International Turfgrass Research Conferences (ITRC) held at 4-year intervals. Specifically, we wish to (a) to allow the ITS board to further develop and improve ITS, (by improving the service to ITS members); (b) to involve the ITS members in this work; (c) to increase ITS membership.

The survey has 28 questions (mostly multiple choice) composed of five sections

- Section 1: Introduction
- Section 2: Your Background
- Section 3: ITS Membership Benefits (Newsletter, Website)
- Section 4: ITRC (research conferences) and publishing
- Section 5: ITS Membership Options

All answers will be anonymous.

The results will be tabulated (colourful graphs), and announced in a future ITS Newsletter, along with specific

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It is hard to believe another year has past. It has been an unusually cold winter in Oklahoma this season. Classes here recently resumed from holiday break and on the first day of class the University President received many tweets from students complaining that he should have cancelled classes because -15C/5F was too cold for the students! Anyway, I am curious to see this spring how well the warm-season grasses survived the cold temperatures.

Also, if you have any newsworthy stories or information for readers of International Turfgrass, I hope you will consider submitting an article for the next newsletter in May 2018.

I hope you enjoy the very good articles in this edition.

Sincerely,
Nathan R. Walker

In this Edition

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action items resulting from the findings.

The survey is available now and will remain open until the end of February 2018.

Please find the google forms survey at: https://docs.google.com/forms/d/e/1FAIpQLScPbFbz0bOSVdK6PUi-zoxLRaaYzOTzrSZah1uPGJoEOZNooA/viewform?c=0&w=1

For those, and only for those, who cannot access the google there is a version of the survey uploaded to the ITS website at: http://turfsociety.com/2017/171017_its_survey.doc Please fill this questionnaire out and send it to turfsocietyweb@gmail.com. Questions about this survey can also be sent to this email address.

We very much value your opinion and would like your thoughts on services provided by ITS as well as on the 2017 ITRC.

Thank you for your support.

The ITS board of Directors

Australasian Turfgrass Conference & Trade Exhibition 2018

25 – 28 June 2018, Wellington, New Zealand

by Mark Unwin

Australian Golf Course Superintendents Association

Kia ora - Welcome

Tipu Tahi - Growing Together

On behalf of the Australian Golf Course Superintendents' Association (AGCSA) and New Zealand Golf Course Superintendents' Association (NZGCSA) it is our privilege to welcome you to the inaugural Australasian Turfgrass Conference & Exhibition.

This event is the result of a number of years of work between the two associations and a strengthening partnership and commitment to the ongoing professional development and support of all those involved in Sports Turf Management. The theme of the conference is "Tipu Tahi - Growing Together".

Held annually, the Turfgrass Conference and Trade Exhibition is the largest turf trade exhibition in Australasia, showcasing the latest in turf management machinery, equipment, technology and products. Each year, Golf Course Superintendents and their teams join hundreds of Sportsturf professionals, greenkeeping staff, ground maintenance personnel, curators and depot crews who visit the trade show to browse, question and hear from the collected turf trade representatives. Don't miss this stunning opportunity to be involved!

We are thrilled to be hosting the inaugural Australasian Turfgrass Conference in the beautiful Capital of New Zealand, Wellington. The city is compact and walkable, creative and lively.

Register now as a sponsor or delegate and come be part of the Turfgrass tribe taking over New Zealand's Capital in June! For more information see http://www.atc2018.com/atc18

New turfgrass researcher and consultant at NIBIO, Norway

by Trygve S. Aamlid
Norwegian Institute of Bioeconomy Research's Turfgrass Group

Bert Sandell started at the NIBIO Turfgrass Research Center Landvik when Agnar Kvalbein retired on 1 Sep. Bert has a background as MSc in engineering and turf management at Swedish University of Agricultural Science. After ten years as international project manager, he was a superintendent and owner of a golf course for eight years, research assistant in Landscaping at SLU Sweden, franchise owner of DryJect Scandinavia and consultant with a mobile in-situ lab for physical analysis of golf greens and football pitches. He has also been working with cleaning of storm water and biofilters in rain gardens and developed testing methods for soil providers in Sweden. Among his special projects was the design of tee boxes aiming for water conservation at Golf National in Paris and the analysis of the bunker liners using capillary concrete.

At NIBIO Bert will be responsible for research into soil amendments, rootzone compositions and related aspects for turfgrass management. Sustainable drainage and irrigation practises are important areas that also have a strong impact for and integrated pest management, including efforts to minimize the risk for surface runoff and leaching of pesticides and fertilizers. As part of the NIBIO team, Bert will continue offering consultancy services for a wide range of turfgrass applications, and he will follow his predecessor in taking a special responsibility for dissemination of results through fact sheets, handbooks and popular articles to be published at www.sterf.org and elsewhere.

Bert moved from Gothenburg in Sweden to Grimstad on the Norwegian South Coast in August, and he has already become a member of the local golf club. One of the good things about Denmark, Sweden and Norway is that we understand each other's languages, which obviously makes such transitions smoother.

On behalf on NIBIO's turfgrass group, I am very pleased to welcome Bert as a colleague. Our group now includes Tatsiana Espevig, Pia Heltoft (currently on maternity leave, Wendy Waalen is her substitute) and myself in addition to technical staff. Together we look forward to interesting projects and continued collaboration with the Scandinavian and international turfgrass industry in years to come.

STERF / NIBIO Seminar and Handbook on Turfgrass Winter Stress Management

by Bert Sandell, Tatsiana Espevig, Wendy Waalen, and Trygve S. Aamlid,
Norwegian Institute of Bioeconomy Research's Turfgrass Group

More than 70% of golf courses in the Nordic countries suffer from winter-related turfgrass damage. The average cost for repair plus lost revenue in years with significant winter injuries amounts to at least €14 300 per golf course or – in total - €14 million for the five countries A four-year project on how autumn fertilization affects winter and spring performance of cool-season turf grasses used on golf greens was completed in 2017. The main findings and recommendations were presented at an international seminar in Oslo 9-10 Nov 2017.

The seminar covered many aspects of winter stress management of turfgrasses: Selection of species and varieties, winter preparations, actions taken in relation to removal of snow and/or ice during winter and re-establishment of high quality turf in spring. The research findings and the handbook Turf Grass Winter Stress Management, were presented at the seminar More than 90 participants from 10 different countries, including scientists, superintendents,

Continued on next page

Seminar participants.

industry representatives and consultants exchanged their experiences.

Speakers from six countries:

The invited speaker Eric Watkins (USA) covered aspects such as breeding for winter hardiness, plant microbe interactions, ice removal and, seed germination at low temperatures. Sigridur Dalmannsdottir, originally from Iceland but now working with forage grasses in Norway, touched on issues such as day length reactions and cold acclimation in a changing winter climate. The scientists from NIBIO's Turfgrass Research Group presented results from earlier and ongoing projects on turfgrass winter survival and the SCANGREEN variety trials.

This main focus of the seminar was on autumn fertilization and its effect on winter hardiness and spring green up. Important issues such increasing rates of nitrogen sulfur in autumn, shade, anoxia and winter diseases were studies in trials at NIBIO Apelsvoll and Landvik in Norway. Full-scale trials were conducted at one golf course in each of the Nordic countries during the autumn/winter 2016/2017: Keilir GC (ISL), Roskilde GC (DK), Tapiola GC (FIN), Kungliga Drottningholm GC (SE) and Hauger GC (NO). The superintendents from these golf clubs explained how the different fertilization practices affected the winter survival of their greens.

Major findings:

The winters in Nordic countries are a mix of several biotic and abiotic stress factors, among them are freezing, snow, rain, ice and snow moulds. Disease is the most damaging winter stress factor in the southern region of Scandinavia. In the northern zone, the increasing changes in temperature create problems with freezing, ice formation and de-acclimation. The type of damage very much depends on the location and amount of play in autumn at the golf course.

Major findings in the autumn-fertilization-project were:

- The highest N-rate (8.4 g N/m^2 from early September to early November) significantly increased microdochium patch in annual meadow grass (AMG; *Poa annua*) and creeping bentgrass (CB, *Agrostis stolonifera*). At Landvik, the low N-rate of 2.8 g N/m^2 resulted in less microdochium patch, better colour and better recuperative capacity in spring compared with no-N and high-N.

- At Apelsvoll, the green in 70 % shade had significantly more disease and less freezing tolerance than the green in full sunlight, but the tolerance to suffocation was not affected.

- Freezing tolerance (LT50) of AMG was not significantly affected by autumn fertilization. In CB there was a strong negative correlation between N rate and freezing tolerance.

- Losses in drainage water amounted to 4, 20 and 43 % of the N given in autumn at the rates of 2.8, 5.6 and 8.4 g N/m^2, respectively,

- Sulfur had no effect on freezing tolerance or microdochium patch at Apelsvoll. A normal S input (here defined as 17.5 % of the N input) gave less microdochium patch and better colour of both AMG and CB compared with no S and high S (159% of the N input) at Landvik.

Handbook and autumn fertilization calculator

In 'The Golf Course Managers' Handbook on Turf Grass Winter Stress Management', the recently retired NIBIO scientist Agnar Kvalbein and his co-authors summarize results and experiences from several research projects. The handbook has many practical recommendations enabling superintendents to find their own preferred solutions to local problems. Download the handbook at: http://www.sterf.org/Media/Get/2892/winter-stress-mgmt-handbook

Continued on next page

The handbook's general recommendations for autumn fertilization are:

- Use the same balanced mix of nutrients in autumn as the rest of the year.

- Adjust the N-rate in late August to achieve normal harvest of clippings in collectors. Normally this rate is 20-30 % lower than maximum rate given in June. Rough guidelines are 7, 5 and 3 kg N/ha/week in *Poa*, Creeping bent and Red fescue, respectively.

- Reduce the weekly fertilizer applications in a stepwise fashion until zero by the time the turf normally stops growing.

- Reduce the N-rate by 10-20 % if the risk of winter injuries is high due to shade, disease or no use of fungicides.

The recommendations have been incorporated into an 'Autumn fertilization calculator' that can be downloaded at: http://www.sterf.org/Media/Get/2891/autumn-fertilizer-calculator-ver-1-final

Priorities for further research:

Towards the end of the seminar, participants were split into groups to discuss needs for further research regarding winter stress management. The highest priorities were as follows:

1. Non-pesticide control of winter diseases (6 groups)
2. Winter covers and other ice control measures (3 groups)
3. Re-establishment stategies after winter damage, notably on old greens (2 groups)
4. Moss and algae control in mild winters (2 groups)
5. Correct use of fungicides (1 group).

The research programme was financed by Norwegian research council, STERF, Norwegian Golf Association and Golf industry partners

The 6th European Turfgrass Society Research Conference

by Dr. Claudia de Bertoldi
ETS Secretary, Italy

The European Turfgrass Society are pleased to welcome ETS members and other turfgrass specialists to the 6th ETS Conference 2018 in Manchester, United Kingdom.

The ETS organizes its scientific turfgrass conference every two years. Italy (2008), France (2010), Norway (2012), Germany (2014) and Portugal (2016) were the previous hosts of this international conference. The UK has been chosen to host the event in 2018, from 2nd-4th July 2018. The meeting venue is the Renaissance Manchester City Centre Hotel, a 4 star hotel situated in Deansgate in the heart of the city of Manchester, ideally situated for visitors to enjoy the many tourist attractions and retail facilities nearby.

The Organising Committee with Dr. Stewart Brown, as convener, is preparing this international congress under the theme: "Different Shades of Green" for the many, varied sports surfaces, and amenity facilities our industry encompasses. The UK has a long history association with turfgrass and boasts some of the most prestigious sporting venues in the world. Manchester itself, is home to two major Premiership football teams (Manchester United FC and Manchester City FC), a County Cricket Ground (Lancashire CCC) and has good rail and road connections to "England's Golf Coast" which has three Open Venues, Royal Liverpool GC, Royal Lytham & St Anne's GC and Royal Birkdale GC.

The ETS Conferences are the forum par excellence for scientists, consultants, companies and practitioners to discuss technical issues related with the study of turfgrass. Hosting the 6th ETS Conference 2018, it is our ambition to provide a forum to spread innovative applications for the benefit of the turfgrass industry promoting the exchange of information among turfgrass specialists from universities, official organisations and private companies.

We invite all turfgrass and amenity professionals to submit Extended Abstracts or Manuscripts to be considered for oral and/or poster presentations. Authors submitting full manuscripts can also submit these for publication in a special ETS Conference edition of Agronomy Journal (American Society of Agronomy).

The ETS Board and the Organizing Committee welcome abstracts and manuscripts from all disciplines. We support the study of turfgrasses for all uses: aesthetic, athletic, and recreational. Multidisciplinary studies within the fields of breeding, physiology, nutrition, turfgrass management, landscape, and the use of applied technologies are also welcome.

Main topics of the 6th ETS Conference 2018:

- Sustainable Turfgrass Management
- Turfgrass Nutrition & Irrigation
- Turfgrass Pests, Diseases & Weeds
- Grass Breeding
- Turfgrass Technology
- Amenity & Landscape

Please take note of the following DEADLINES for the submission of Extended Abstracts and full manuscripts:

Deadline for manuscripts and extended abstracts: **March 2nd 2018**

First review (extended abstracts and manuscripts) back to authors: **April 15th 2018**

Deadline to submit revised manuscripts and extended abstracts: **May 1st 2018**

Final decision on manuscripts and extended abstracts: **May 15th 2018**

The instructions for submissions can be seen here: http://www.turfgrasssociety.eu/ETSC_2018/abstract-submission/

For any further questions we kindly ask you to contact us at:
stewart.brown@turfgrasssociety.eu or info@turfgrasssociety.eu

Or visit the conference website: http://www.turfgrasssociety.eu/ETSC_2018/

Welcome to the 6th ETS Conference 2018 in Manchester, United Kingdom!

Sustainable green space in urban landscapes

By Maria Strandberg, ITS president
Stockholm, Sweden

One of the most powerful symbols of modern urban landscapes are the managed turfgrass areas or lawns. Turfgrass areas have a significant influence on the cityscape as one of the essential elements of green spaces and an important part of people's everyday lives. Most people in the Western world view managed turfgrass areas or lawns as a 'natural' and even compulsory element of the urban landscape. Today, managed turfgrass areas cover a significant part, up to 70%, of all green open spaces in urban and rural communities.

Urban landscapes are today home to the majority of the world's population, and according to the UN it is prognosed that 66% of the world's population will live in cities by 2050. Consequently, urban green areas are decreasing due to exploitation and the remaining green areas for recreation will be used by more people. The decreasing amount of green area per capita increases the demands on these areas to provide multiple ecosystem services. These general challenges require new strategies and solutions on how to plan, design and manage green space in urbanizing landscapes. Multifunctional urban green areas, for example, golf courses have a large, mostly untapped potential to provide ecosystem services in our future cities.

Many turfgrass areas such as golf courses, sport fields, landscaped amenity areas and public parks all provide an important social, environmental and economic resource for both urban and rural communities. These areas serve a multifunctional purpose, by offering valuable open spaces for recreation, helping to improve the health and quality of life for individuals, and when designed and managed appropriately, can enhance biodiversity and support regulatory targets for environmental protection. Conversely, where turfgrass management practices are inadequate or inappropriate, their services to society are reduced, and their impacts on the environment can be damaging and costly.

To meet the challenges of creating sustainable green space in our modern urban landscapes we must adopt an interdisciplinary and multi-actor approach, which allows us to exchange knowledge and experiences between different disciplines and stakeholders. In this case, the International Turfgrass Society could play a key role as a platform for international interdisciplinary collaboration and inspire us to identify gaps in knowledge, create new knowledge based on research and science and to make new knowledge easy accessible to end-users. All these aspects are necessary to increase positive and minimize negative environmental impacts of managed turfgrass areas in our modern cities.

For more inspiration I would like to recommend the new book "Lawn alternatives in Sweden - from theory to practice" based on the LAWN-project at the Swedish University of Agricultural Sciences, SLU. The book can be downloaded for free at https://www.slu.se/institutioner/stad-land/forskning/Landskapsarkitektur/projekt/lawn/

14th International Turfgrass Research Conference in Copenhagen July 11 - 16 2021 – Save the date!

By Maria Strandberg, ITS president, Sweden

The next International Turfgrass Research Conference will be arranged by STERF (Scandinavian Turfgrass and Environment Research Foundation) in Copenhagen 2021.

The conference will include keynote speakers, oral and poster presentations, industry networking opportunities, technical tours, social events and much more. New for ITRC 2021 is one-day programme for practitioners.

Scientific topics of interest may include: turfgrass establishment and management; turfgrass pests (diseases, weeds, insects et cetera); turfgrass physiology; turfgrass genetics and breeding; soil biology, chemistry and plant nutrition; soil physics and rootzone construction; sustainable water management; ecosystem services and biodiversity; information technology, education and communications.

Technical tours will introduce you in Nordic turfgrass research and development which is focusing on internationally important key areas. These include the pressures from government demands for greater environmental regulation, the increasing pressure on natural resources (notably water, energy and land), the emerging role of turf management in supporting ecosystem services and enhancing biodiversity, the continued need to promote integrated pest management, and the looming challenges posed by a changing climate, and urgent need to adapt.

The on-day programme for practitioners will strengthen the ambition to take a lead in making research results and new knowledge easy accessible to end-users and to provide support to implement changes, which is a prerequisite for achieving improvement in the sustainable management of turfgrass.

Copenhagen is the congress capital of Scandinavia, and its vibrant cultural heart. Copenhagen is also truly a green city surrounded by water and parks, with climate-friendly citizens to match. The ambitious green profile of the city has a clear goal: The City of Copenhagen aims to become the world's first CO2 neutral capital by 2025. Experience it for yourself. Swim in the clean waters of the city's harbour baths, stay in a sustainable hotel, eat organic, and ride the electric city bikes around the old maritime city.

Please join us in 2021 for the latest cutting-edge research in the turfgrass industry and stay to enjoy all that the Copenhagen area has to offer!

Please visit www.Itrc2021.org to continually get information about the conference.

For more information about STERF please visit www.sterf.org

Nordic turfgrass research.

Copenhagen the green capital.

Introducing Some of the New International Turfgrass Society Officers (term: 2017-2021)

Tobias Schmid
representing Switzerland

Tobias Schmid earned his M.S. degree in Agronomy from the Swiss Federal Institute of Technology in Zurich. Since 2005, he has been working as a senior seed purchase executive at Otto Hauenstein Seeds Inc. and acts as the key contact to leading Swiss and foreign research institutions, authorities, and organizations in the area of agronomy and turf. He has experience with DNA based turf disease identification systems in collaboration with Omya Microbiological Lab and Compo Expert, networks with key turf breeding companies of Europe, and is a regular lead of green roof courses. He is fluent in German, English, Spanish, and French and knows basic Italian and Romansh.

He enjoys community gardening, hiking and climbing. He is a member of the International Seed Federation and European Turfgrass Society.

Christian Sig Jensen
representing Denmark

Dr. Christian Sig Jensen is heading the European biotech- and turf research program at DLF. He received his PhD in Plant Molecular Biology from the Royal Veterinary and Agricultural University, Copenhagen in 2001 and has since then been engaged in molecular breeding of turf- and forage grasses at DLF.

During the past six years he has been in charge of implementing genomic selection in grass breeding and developing reliable marker systems for variety distinction. In the same period, he also developed the soil-free salt tolerance test that today constitutes a routine part of DLFs turf screening program. Lately, he has been heading a major Danish research consortium called RadiMax on root development in turfs, forages, and other crops. The consortium has built one of the largest root screening facilities, which is used to select plants for deeper rooting and superior performance under drought conditions.

Although Christian is fairly new to the turf society, he has already gained lot of experience in turf business with DLF's customers and consultants.

Stephen Alderton representing France

Stephen Alderton has worked in the Turfgrass Industry for nearly 40 years in the UK and France. He was responsible for developing Limagrain's turfgrass activities in France and setting up a network all around Europe and the Mediterranean basin. In the past he was responsible for the breeding programme in France and promoted strong links between the breeders and professional users. An enthusiastic supporter of the turfgrass industry he instigated the seed industries reply to the use of artificial turf and is a keen supporter of the value that the turfgrass industry contributes to the economy. Appreciating what the ITS did for the International Turfgrass industry he was one of the founders of the European Turfgrass Society. He enjoys the International aspect of the industry and the way that these International exchanges and sharing of information and experience can help solve local challenges. Latterly he has registered a patent for the method of calculating the carbon sequestration potential of different species of turfgrass and an advocate in general of the positive environmental effects of turfgrass. Based in France he is an active member of the French market and continues to promote turfgrass breeding as well as being very interested in the benefits that seed technology can bring to the end user.

Bruno Hedlund representing Sweden

Bruno Hedlund has been active in the golf sport for more than 40 years and has been on the Board of Directors of the Swedish Golf Federation for 12 years, with special interest in sustainable golf course development. Since 2014, he is acting Chairman for STERF, the Scandinavian Turfgrass and Environment Research Foundation and ten years ago he initiated the transformation of the regional Swedish foundation, to an international center of excellence in turfgrass science. He is also program co-ordinator, for the scientific area Multifunctionality and Biodiversity and holds degrees in chemistry, economy and marketing and studies for a Ph.D. in Medical Chemistry.

Professionally, Bruno Hedlund has been chief executive for different industrial research companies and institutes and is also member of several international scientific boards and committees. The challenge for the coming years is arranging the ITRC 2021 in Copenhagen.

INTERNATIONAL TURFGRASS SOCIETY
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PLEASE CHECK MEMBERSHIP TYPE DESIRED:

☐ Regular Membership Fee (2017-2021) $325.00 USD

☐ Sustaining Membership Fee (2017-2021) $1000.00 USD

☐ Student Membership Fee (2017-2021) $150.00 USD*

☐ Retired Membership Fee (2017 - 2012) $25.00 USD

PLEASE INDICATE METHOD OF PAYMENT:

☐ Check** ☐ PayPal

☐ Bank Wire Transfer, please contact j_r.james@syngenta.com for instructions & account information

* Student member must have confirmation letter from major faculty advisor.
** To avoid heavy collection fees, only checks from U.S. affiliated banks will be accepted.
Please make check payable to: *International Turfgrass Society*.

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ITRC 2021 14TH INTERNATIONAL TURFGRASS RESEARCH CONFERENCE

Visit the ITS Website here

Become a member here

Please send comments, feedback, and turfgrass news articles for future issues to the newsletter editor. If you know any non-members, new faculty, staff, and new personnel involved in turfgrass research who might be interested in joining ITS please forward their e-mail address to the newsletter editor and they will also receive the Triannual issues of International Turfgrass.

The deadline for submissions for the next newsletter is April 15, 2018