5\textsuperscript{th} ETS CONFERENCE 2016

"Turfgrass – Towards sustainability and perfection for aesthetic, recreational and sports"

Conference program

June 5\textsuperscript{th} 2016

Evening (18-20h), Registration and Poster Placement

June 6\textsuperscript{th} 2016

8:30-9:30h – Registration and Poster Placement

9:30-10:15h – Convener, ETS Board President, Rector of the University of Algarve, Diretor of the Faculty of Sciences and Technology - Welcome speeches

10:15-12:15h – Turfgrass genetics and breeding

Chairman: Nektarios Panayiotis

- \textit{Genetic Improvement of Bermudagrass for Turf Quality and Sustainable Traits}, Yanki Wu, Justin Moss, Dennis Martin and Nathan Walker

- **Introduced brown patch disease resistance in transgenic tall fescue**, Binbin Zhou, Ana Bailey, C. L. Niblett, Hong Luo and Rongda Qu

11:00-11:30h – Coffee break

- **Associations between ploidy level and genetic diversity of bermudagrass as assessed by iPBS retrotransposon marker**, Cansu SIMSEK, Nedim MUTLU, Songul Sever MUTLU and Osman GULSEN

- **Breaking the apomictic barrier in Bahiagrass to enhance its aesthetic value**, Esteban Rios, Kevin Kenworthy, Ann Blount, Kenneth Quesenberry, Bryan Unruh, John Erickson, Fredy Altpeter and Patricio Munoz


12:30-14:00h – **LUNCH**

14:15-14:45h – **Keynote speaker**: José Monteiro (*Turf, mankind and landscape*)

14:45-16:30h – **Turfgrass and landscape**

**Chairman**: Marco Volterrani

- **Comparing four bermudagrass and five zoysiagrass cultivars under heavy use at kindergartens**, Yoshiaki Ikemura and Masayoshi Hastukade


- **The potential to increase delivery of multiple ecosystem services of urban grasslands**, Hans Martin Hanslin, Jörgen Wissman and Trygve Aamlid
- **Turf quality and species succession of Bermudagrass and Kentucky bluegrass mixtures**, Alessandro Menegon, Stefano Macolino, John H. McCalla, Filippo Rimi and Michael D. Richardson

- **Impact of different management practices on turfgrass quality, botanical composition, colour and growth of urban lawns**, Pavel Knot, Frantisek Hrabe, Stanislav Hejduk, Jiri Skladanka, Michal Kvasnovsky, Lucie Hodulikova and Iva Klusonova

- **Quality assessment of three warm-season turfgrasses growing on shallow green roof systems with different substrate depths**, Ntoulas N., Nektarios P.A., Kotopoulis G., Ttouolou Th. and Ilia I.

- **Golf courses as a part of urban lawns: results of interdisciplinary research on different aspects of extensively managed turfgrass areas from Nordic perspective**, Maria Ignatieva, Fredrik Eriksson, Tuula Eriksson, Pernilla Tidåker, Karin Ahrné, Jörgen Wissman, Håkan Marstorp, Christopher Poeplau, Thomas Katterer

16:30-17:00h – Coffee break

17:00-17:30h – **Keynote speaker**: Jason Kruse *(Maximizing turfgrass performance: a look at micronutrients and turf nutrition)*

17:30-18:30h – **Turfgrass for sports**

**Chairman**: Maria Strandberg

- **Putting Green Turfgrass Evaluations to Reduce Maintenance Costs and Improve Sustainability**, Kevin Morris and Guang Ling Gao

- **Economic and technical analysis in construction and maintenance for professional soccer fields**, Alberto Minelli, Alessandro De Luca, Rino Ghelfi, Laura Cevenini, Ilaria Pasini

- **Using turf colorants and pigments for potential long-term color of dormant warm-season grasses**, Grady Miller and L. B. McCarty

- **Potential Benefits of Using Pigment-Containing Product on Creeping Bentgrass and Hybrid Bermudagrass putting greens**, A.W. Gore, L.B. McCarty, C.E. Wells and S.B. Martin

18:30-19:00h – **Sponsors Space for short presentations**

**Chairman**: Maria Strandberg
- MESSINAGRO, Carlos Rodrigues

- SYNGENTA, Marcela Muñoz

20:00-21:30h – WELCOME COCKTAIL
June 7th 2016

8:30-9:00h – **Keynote speaker:** Richard Snyder (*Low-cost Urban ET Measurements and Estimates*)

9:15-10:45h – **Water management**

**Chairman:** Celestina Pedras

- *Modelling irrigation demand and value of water for golf in Europe*, Jerry Knox, Juan A. Rodriguez-Diaz, Dolores Rey, Javier Calatrava and Andre Daccache


- *Assessing evidence on the agronomic and environmental impacts of turfgrass irrigation management*, Carlos Gómez, Jerry W. Knox, Agnar Kvalbein and Trygve S. Aamlid

- *Improving Water Use Efficiency with Soil Incorporation of Organic Matter*, Clint Waltz and E. Bauske

- *Soil surfactants and trinexapac-ethyl improve turf quality and rooting characteristics of bermudagrass and seashore paspalum under deficit irrigation*, Matteo Serena, Marco Schiavon and Bernd Leinauer

10:55-11:25h – Coffee break (and poster space)
11:25-11:55h – **Keynote speaker:** Filippo Lulli (*Precision farming practices in sports turf management*)

12:00-12:45h – **Technology advances and turfgrass maintenance (mowing, fertilization, environment, certification)**

**Chairman:** Carlos Guerrero

- *Fertilizer Use Restrictions and Organic Lawn Care: Evaluation of Compost Tea, Compost Topdressing and Cultivation on Tall Fescue Color, Quality and Weed Encroachment*, Siqi Chen, Mark J. Carroll and Thomas R. Turner

- *Effects of nitrogen, phosphorus, mowing height and mycorrhiza inoculation on turf quality and competition against annual bluegrass (Poa annua) on pure red fescue (Festuca rubra) and mixed fescue / bentgrass (Agrostis sp.) golf greens*, Sara Calvache, Tatsiana Espevig, Erik Joner, Tina E. Andersen, Trond Pettersen and Trygve S. Aamlid


13:00-14:30h – **LUNCH**

14:45-15:15h – **Keynote speaker:** Tom Hsiang (*Conventional fungicides vs. disease resistance activators*)

15:15-16:45h – **Turfgrass pests (diseases, insects, weeds)**

**Chairman:** Maria Albertina Gonçalves

- *Management of Bentgrass Cultivars for Activated Resistance to Microdochium Patch (Microdochium nivale) Under Climate Change Conditions*, Sara Stricker, T. Hsiang, and A. Bertrand

- *A Nordic model for implementing Integrated Pest Management - collaboration between authorities and the turfgrass industry*, Agnar Kvalbein, Arne Tronsmo, Anne Mette Dahl Jensen, Karin Juul Hesselsøe, Trygve S. Aamlid and Maria Strandberg

- *Post-Application Irrigation Timing and Formulation Affects Azoxystrobin Retention in Hybrid Bermudagrass Clippings*, Matthew Jeffries, Travis Gannon and Fred Yelverton

- *Best Management Practices Effects on Anthracnose Disease of Annual Bluegrass*, James W. Hempfling, Bruce B. Clarke and James A. Murphy

- *Overseeding of fairways to reduce weed competition*, Anne Mette Dahl Jensen, Oliver Bühler, Agnar Kvalbein and Trygve Aamlid

16:45-17:15h – Coffee break (and poster space)

17:15-18:30h – **Turfgrass nutrition and physiology**

**Chairman:** Trygve Aamlid

- *Bermudagrass Dormancy Avoidance using a Commercial Microbial Concentrate*, Diego Gómez de Barreda, De Luca, V. and Moumini, M.A.

- *Plant colorants interfere with non-destructive color analysis*, Glen R. Obear, William C. Kreuser and Douglas J. Soldat

- *The effect of ice encasement and two protective covers on the winter survival of six turf grasses on putting greens*, Wendy M. Waalen, Tatsiana Espevig, Agnar Kvalbein and Trygve S. Aamlid

- *Influence a Single High Rate Nitrogen Application of Polymer Coated Urea on the Fate of Nitrogen*, Anthony Martin Petrovic and Jeffery Barlow

- *Carbon sequestration in Central Chile: The Effect of newly established Turfgrass Cover and its Relationship with Photosynthesis*, Alejandra Acuña, Luis Villalobos and Claudio Pastenes

18:30-19:30h – **ETS General Assembly**

20:30h – **GALA DINNER**
Poster Presentation

Turfgrass genetics and breeding
- **Gamma-ray Irradiation Improves turfgrass characteristics of St. Augustinegrass**, Mert ÇAKIR, Songul Sever Mutlu, Haris Djapo
- **Use of genotype by sequencing to develop a high density SNP-based linkage map in zoysiagrass**, Susana Milla-Lewis, H. McCamy Pruitt, Jeff C. Dunne, Brian M. Schwartz, Aaron J. Patton and Consuelo Arellano

Turfgrass and landscape
- **Seashore paspalum in the Mediterranean transition zone: phenotypic traits of twelve accessions during and after establishment**, Monica Gaetani, Marco Volterrani, Lisa Caturegli, Simone Magni, Claudio Leto, Salvatore La Bella, Teresa Tuttolomondo, Giuseppe Virga and Nicola Grossi
- **Golf course management strategies for improving biodiversity in naturalized roughs**, Cristina Pornaro, A. De Luca and S. Macolino
- **Multifunctionality in urban golf courses - a case study in the Stockholm area, Maria Strandberg**, S. Borgström and E. Andersson
- **Hard and Red Fescues suit the best for Alley grassing in fruit orchard in dry conditions**, Stanislav Hejduk and Kvasnovský, M.
- **Heavy metal leaching from adaptive green roof systems sodded with tall fescue**, Maria Kaltsidi, N. Ntoulas, G. Danezis, C. Georgiou and P.A. Nektarios

Turfgrass for sports
- **Managing Golf Greens: aligning golf green quality with resource inputs**, Stewart Brown
- **Evaluation of Key Methodology for Digital Image Analysis of Turfgrass Color**, Chenxi Zhang, Garland D. Pinnix, Zheng Zhang, Grady L. Miller and Thomas W. Rufty
- **Site-specific precision maintenance of sports turfgrass**, David Frade, Silva, J.R., Andrade, R. and Guerrero, C.
- **Evaluation and Improvement of Golf Course Management Online Classes**, Renata Mundim, Pamela Sherratt, David Gardner and Karl Danneberger
- **Turfgrass maintenance and management in soccer fields in Slovenia**, Miha Curk, Matej Vidrih, Žiga Laznik and Stanislav Trdan
Water management

- Reclaimed water use for turfgrass irrigation, Lídia Dionísio, Bueno, F., Gonçalves, M.A. and and Guerrero, C.

- Establishment and Nitrate Leaching of Three Warm-Season Grasses Irrigated with Tailored Water, Elena Sevostianova, Jennifer Skerker, Matteo Serena, Patrizia Rollo and Bernd Leinauer

Technology advances and turfgrass maintenance (mowing, fertilization, environment, certification)

- Can robotic mowing improve the quality of the lawn?, Nicola Grossi, Marco Fontanelli, Elisa Garramone, Andrea Peruzzi, Michele Raffaelli, Michel Pirchio, Luisa Martelloni; Christian Frasconi, Lisa Caturegli, Monica Gaetani, Simone Magni and Marco Volterrani

- Radiation Extinction within a Canopy of hybrid Bermudagrass, Marco Volterrani, Monica Gaetani, Nicola Grossi, Simone Magni and Lisa Caturegli

- Using digital image analysis and a green color chart to determine turfgrass color, Yoshiaki Ikemura and Masayoshi Hastukade

- Assessment the visual turfgrass quality by remote sensing techniques, Carlos Guerrero, Fernando Martins, Rui Lança, Helena Fernandez, Rita Andrade and Celestina Pedras

- Reseeding Interval Following Methiozolin (‘PoaCure’) Application, William J. Johnston and Charles T. Golob

Turfgrass pests (diseases, insects, weeds)

- An Investigation of Turfgrass as a Possible Route for Pollinator Exposure to Lawn-Applied Imidacloprid, James D. McCurdy, Jonathan M. Gunn and David W. Held

- A multiplex end-point PCR assay for the detection and identification of three species of Ophiostreptella that cause spring dead spot of bermudagrass, Juan F. Iturralde-Martínez, Francisco J. Flores, Alma R. Koch, Carla D. Garzon and Nathan R. Walker

- Ozone Application for dollar spot incidence reduction in a bentgrass golf green, Diego Gómez de Barreda and De Luca, V.

- Plant-parasitic Nematodes associated to the golf courses in Southern Portugal (Algarve), Albertina Gonçalves, Duarte, J., Dionísio, L. and Guerrero, C.

- Trichoderma gamsii as a biological control agent of turfgrass diseases, Luísa Coelho, Dionísio, L., Bueno, F., Reis, M., Duarte, J. and Guerrero, C.
- Microbiological products for control of Microdochium nivale on golf greens, Trygve S. Aamlid and Tatsiana Espevig

- Irrigation and soil surfactants affect abamectin distribution in soil, Travis W. Gannon, Matthew D. Jeffries, and Khalied A. Ahmed

- Entomopathogenic fungi for biological control of turfgrass diseases, Fran Bueno Pallero, Dionísio, L., Guerrero, C. and Neto, L.

- An Integrated Nutritional and Chemical Approach to Poa annua Suppression in Creeping Bentgrass Greens, Erik Ervin, N. Reams, X. Zhang, A. Boyd and S. Askew


- Observing the impact of fungicide applications on the phyllosphere microbial community, J.A. Roberts, J.R. Doherty, M. Botti-Marino, D.F. Ritchie and J.P. Kerns

Turfgrass nutrition and physiology

- Germination of Tall Fescue Caryopses Exposed for Long Term at Low Temperature, Antonio Pompeiano, Damiani C. R., Stefanini S., Vernieri P., Volterrani M. and Guglielminetti L.

- High-temperature effects on seed germination of fourteen Kentucky bluegrass cultivars, Maurizio Giolo, Antonella Dalla Montà, Erica Barolo, Fabio Ferrari, Roberta Masin and Stefano Macolino

- Estimated net ecosystem exchange (NEE) of turfgrass at different management intensities in a golf course in the province of Verona, Alberto Minelli, Daniele Zuffa, Laura Cevenini, Matteo Corradini, Ilaria Pasini and Marco Volterrani

- Contribution of grass clippings to turfgrass fertilization under four N levels, Guillaume Grégoire, Catherine Bajzak and Yves Desjardins

- Biogeochemical Cycling of Carbon and Nitrogen in Cool-Season Turfgrass Systems, Quincy D. Law and Aaron J. Patton

- Loss on ignition: a rapid and simple method to monitor soil organic matter content under different turfgrass covers grown in Central Chile, Alejandra Acuña and T. Karl Danneberger

- Experimental evaluation of golf courses grasslands as a CO₂ sink, Sara Muñoz Vallés, Diaz-Barradas MC, Cambrollé J, Guerrero C, Bueno Pallero FA, Dionísio L, Gonçalves MA and Neto L
June 8th 2016

Technical Tour

Herdade dos Salgados Golf
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08:00h – Technical tour departure (from NAU Salgados Palace)
08:15-10:15h – Herdade dos Salgados Golf Course
Thematic: Irrigation with treated wastewater. Located just close a natural pound the golf course is irrigated, since its construction with treated wastewater.
Water quality standards.
Maintenance program.
Short round tour visiting; irrigation lakes.
Wildlife.

Quinta da Ombria – Golf Course Construction
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10:30h – Departure to Querença, Loulé – Quinta da Ombria
11:30-13:30h – Visit of “Quinta da Ombria Resort” (landscape and golf course projects).
Thematic: Construction of the “Quinta da Ombria Golf Course”. Project view; landscape; soil mobilization.
Beginning of the golf course construction.
Landscape restoration.

14:00-15:30h – Lunch

Algarelva – (sod farm)
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16:00-17:30h – Visit to Algarelva
Thematic: Sod farm activity
Planting and maintenance programs.
Turfgrass products.

17:45h – Departure from Algarelva.