

# Assessing irrigation system performance and improving the agronomic benefits of turfgrass irrigation in golf

- A practical training seminar for course managers and greenkeeping staff

## WELCOME!

This training event will present some of the key findings for practitioners arising from the recently completed STERF funded research *“Engineering better irrigation in turf - quantifying impacts of application uniformity on turf quality in golf”*.

The event will have a strong practical focus mixing a series of short technical presentations with practical evaluation of an irrigation system and an outdoor session to discuss issues relating to system operation, irrigation scheduling and how to get the best out of your irrigation to optimise turf quality.

**BOOK EARLY!**  
Limited places available

20<sup>TH</sup> JUNE 2018  
Furesø Golf Club, Denmark



DANSK GOLF UNION



NIBIO  
NORSK INSTITUTT FOR  
BIOØKONOMI



# PROGRAM

WEDNESDAY 20<sup>TH</sup> JUNE 2018

## Furesø Golf Club

- 08:15 Registration and refreshments
- 08:45 Introduction and welcome, *Thomas Pihl*
- 08:50 Seminar intended learning outcomes and 5 min irrigation self-assessment, *Jerry Knox*
- 09:00 Understanding the fundamentals of irrigation system performance and management, *Jerry Knox*
- 09:30 Short update on STERF activities  
Irrigation impacts on turfgrass agronomy and playability, *Trygve Aamlid*
- 10:00 Simulating the impacts of irrigation performance on turfgrass growth and nutrient management, *Carlos Gómez Armayones*
- 10:30 Evaluating your irrigation system:  
Measuring uniformity and adequacy, *Jerry Knox*
- 11:00 Coffee break
- 11:15 Fieldwork on golf course including set up sprinkler evaluation on putting green, measuring soil moisture variability, discussing irrigation agronomy aspects and collecting irrigation data
- 12:30 Return to Clubhouse for lunch and refreshments
- 13:30 Participants calculate irrigation uniformity and adequacy using field data – feedback and Q&A
- 14:30 Feedback on 5 min irrigation self-assessment; participants develop their action plans, *Jerry Knox*
- 14:45 Open Question and Answer session.  
Participants complete evaluation feedback forms
- 15:00 Seminar closes and participants depart



## PRESENTATION OF SPEAKERS AND VENUE

**Thomas Pihl** has been the Head Greenkeeper at Furesø golf club since 2008 and has been a active part of the project “*Engineering better irrigation in turf - quantifying impacts of application uniformity on turf quality in golf*”.

**Furesø Golf Club** was established in 1974 and is today one of the largest golf clubs in Denmark with more than 1700 members. The club is housed on an old farm, situated in the beautiful surroundings between Birkerød and Farum in North Zealand. The club makes great efforts to protect and preserve nature.

**Jerry Knox** is Professor of Agricultural Water Management at Cranfield University (UK). He has an international reputation in the science, engineering and management of irrigation for both agriculture and sports turf, including assessing the relationships between water resources, drought impacts and the environment, and the sustainability of irrigation in the context of climate and regulatory change. He is Scientific Board Member for STERF and provides technical advice to the EU golf industry regarding irrigation and water resources.

**Trygve S. Aamlid** is Research Professor and leader of the Norwegian Institute of Bioeconomy Research (NIBIO)'s Turfgrass Turfgrass Research Group. He is also vice-chairman of the Scandinavian Turfgrass and Environment Research Foundation (STERF). Trygve has been the leader of several STERF projects, including projects focusing on environmental aspects such as nutrient and pesticide leakage and runoff from golf greens, deficit irrigation and soil water repellency, and evaporative demands of various turfgrass species at various mowing heights.

**Carlos Gomez Armayones** is an Agricultural Engineer from Cordoba University, Spain. His activity focuses on irrigation systems engineering, crop modelling and the study of the soil-plant-atmosphere water relationships. He is currently finishing his PhD at Cranfield University, working on the research project *Engineering better irrigation in turf: quantifying impacts of application uniformity on turf quality in golf*, funded by STERF. His research aims to assess the impacts of irrigation uniformity and irrigation strategy on turf growth, turf quality and the environment, as well as to provide industry guidelines for raising irrigation management standards including system maintenance and operation.

# PRACTICAL INFORMATION

## Registration & fee

The seminar is limited to 25 registrations

Please register and pay at:

<https://www.trippus.se/web/registration/Registration.aspx?view=registration&idcategory=AB0ILBBR0cOwXTU0Hrp1DtuCnIHOVK6fewOcg59dT7EcFlwe0ZXF9kqr5HT2duhvzFXzgM2NwVR&ln=eng>

The fee for attendance is 350 DKR

This includes morning refreshments, buffet lunch, soft drinks and afternoon cake. As well as copies of the technical presentations and handouts.

## Location

The seminar will be held at **Furesø Golf Club**,  
**Address:** Hestkøb Vænge 4, 3460 Birkerød, Denmark

## Accommodation

If you need a hotel room close to the venue we recommend

- **Hotel Schæffergården**, [www.schaeffergården.dk](http://www.schaeffergården.dk)
- **Hotel Comwell Holte**, [www.comwell.com](http://www.comwell.com)

## More information

For more practical information please contact  
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