iCLIMATE
AARHUS UNIVERSITY INTERDISCIPLINARY CENTRE
FOR CLIMATE CHANGE

Invitation to the iCLIMATE Workshop

28 June 2021

Technologies for a Danish Zero Greenhouse Gas Emission Agriculture

Photo: Colourbox

Aarhus University iCLIMATE centre is organising a one-day national workshop on technologies to reduce greenhouse gas (GHG) emissions from agriculture. This workshop will gather scientists, actors and stakeholders from Danish institutions with knowledge and interests in developing technologies aiming at reducing GHG emissions from agriculture. The workshop will produce a catalogue of individual technologies and potential synergies in mitigating emissions from the entire agricultural production system.

Participants

- Early career and established scientists from Danish research institutions working in the field of zero GHG emission in highly productive agriculture.
- Actors and stakeholders from industry, farmer organizations, policy makers, and Governmental Agencies.

There is room for 100 participants at the workshop.

Venue:
Hotel Park, Viaduktvej 28, 5500 Middelfart, 200 m from the railway station.

Registration and submission of abstract
It is free to join the workshop, but registration is needed before 1 April 2021 via this link:
https://events.au.dk/zeaws

You can submit your half page abstract (plus one figure) for oral presentation to ZEA@agro.au.dk before 1 April 2021.

Aim
Denmark has the goal to reduce GHG emissions by 70% in 2030, relative to 1990, with a target of carbon neutrality in 2050. This ambition of carbon neutrality by 2050 is shared by the Danish agricultural businesses. The GHG emission from Denmark's agricultural sector (with LULUCF emissions included) exceeded 30% of the total national emission in 2018, but with business as usual, there will be no significant reduction until 2040. This calls for the exploration and implementation of new and *game-changing* technologies, agricultural management strategies, land uses and biomass processing chains that enable both reduced emissions and increased carbon uptake.

At this national workshop on 28 June 2021, we will present and discuss potential mitigation strategies for agriculture.

Researchers and entrepreneurs are invited to present technologies, management strategies and model tools to help reduce or eliminate GHG emissions from agriculture.

The workshop will be a forum for fruitful and constructive discussions, and based on the outcome, a preliminary catalogue of mitigation technologies will emerge.

22 – 24 February 2022 an international conference "ZEA - Zero Emission Agriculture" will be organized by iCLIMATE and hosted and financed by Novo Nordisk Foundation. Presenters at the national workshop in June 2021 will be encouraged to reflect on the dialogue at the workshop, revise their conceptual ideas, and distil them into abstracts for submission as oral or poster presentations to the committee of the international ZEA-conference.

Organizing committee
Coordinator: Professor Jørgen E. Olesen, Dep. of Agroecology, Aarhus University
Professor Sven G. Sommer, Dep. of Engineering, Aarhus University
Senior scientist Anne Winding, Dep. of Environmental Science, Aarhus University
Professor Søren O. Petersen, Dep. of Agroecology, Aarhus University
Nicholas J. Hutchings, Dep. of Agroecology, Aarhus University
Secretary Jytte Christensen, Dep. of Agroecology, Aarhus University

Contact persons:
Jytte Christensen, E-mail jytte.christensen@agro.au.dk.
Sven G. Sommer. E-mail; SGS@eng.au.dk.

Program
Five minutes presentation – followed up by 5 minutes discussion.

9:00 – 9:30; *Registration*

9:30 – 9:40: *Welcome*

Jørgen E. Olesen presents the scope of the workshop

9:40 – 10:40: *Mitigation of livestock emissions*
Presentations

10:40 – 11:00: Coffee break

11:00 – 12:00: *Mitigation of emissions from manure and fertilizers*
Presentations

12:00 – 13:00: Lunch

13:00 – 14:30: *Mitigation measures in crop production and agricultural land use*
Presentations

14:30 – 15:00: Coffee break and refreshment

15:00 – 16:00: *Whole system-based mitigation strategies – novel production systems*
Presentations

16:00 – 16:20: Refreshment

16:20 – 17:20: *System analysis and documentation at multiple scales*
Presentations

17:20 – 17:40: *Discussions and visions*
Chaired by Jørgen E. Olesen

18:00 – 20:00: *Dinner – Tapa's menu including one glass of wine, a beer, juice, soft drinks or Funen tap water*

During and after the dinner, the participants will be organized in groups, and are asked to brainstorm ideas for novel ZEA production scenarios. A key person will be asked to lead the discussions and capture the key issues.

At a final informal session, the key persons will present the outcome of the talks.

Instructions to presenters

Presentation of novel concepts and ideas for production, management and mitigation technologies are welcome.

New production systems and their effect on GHG emissions are valued.

In addition to presentation of the technology or concept, the abstracts (½ page + one figure) and presentations must include an estimate or guesstimate of:

- Challenges and opportunities for implementation (Need for incentives or regulation)
- Maximum GHG reduction potential,
- Side effects
- Impact on agriculture (cost, viability, immediate effect or effect on the long term etc.)

Submit your abstract (half page plus one figure) to this e-mail ZEA@agro.au.dk before 1 April 2021.