

Thursday, September 22nd 2011

08.30 Registration desk open - Lobby

THEME 5: CLIMATE CHANGE

Chair: Rik Leemans

08.30 – 08.55 **KEYNOTE** – Haakzaal
Richard Bardgett, University of Lancaster, United Kingdom
Harnessing plant-soil interactions for the enhancement of carbon sequestration in soil

08.55 – 09.20 **KEYNOTE** – Haakzaal
Wim van der Putten, Netherlands Institute of Ecology, The Netherlands
Climate change and range expansion

09.20 – 10.00 Plenary discussion - Haakzaal

10.00 – 10.30 One minute poster pitches – Haakzaal

Presented posters:

Franz Bender: Symbiotic soil fungi reduce n₂o emissions from model grassland microcosms

Alberto Bernardi: Comparing ammonia volatilization and dry matter yield of fertilized crops with nitrogen and aluminosilicates

Karlijn Brouns: Decomposition of peat in lab experiments simulating summer drought

Timothy Cavagnaro: Using an arbuscular mycorrhiza defective tomato mutant shows increases in soil-plant nitrogen cycling

Wenfeng Cong: Soil carbon sequestration in intercropping agroecosystems

André Dias: Functional traits underpinning desiccation resistance among terrestrial isopods

Antonia Galvez: effect of the irrigation with wastewater on greenhouse gas emissions and fertility of amended soil

Cornelis-Jan van Groenigen: Soil C turnover under elevated CO₂: an integrative meta-analytic approach

Aldis Karklins: Carbon stock in 15-year-old forest stands planted on agricultural land

Roland Klefoth: Enriched 15N-N₂O tracing reveals the importance of soil moisture and bulk density for N₂O reduction

Imants Kukuls: The accumulation of the organic matter and the change of humification process following afforestation of abandoned farmland

Dirk Mallants: Possible impact of climate change on groundwater recharge and soil moisture budget

Francesca Bampa: The potential use of LUCAS database for the assessment of soil organic carbon

10.30 – 11.00 Coffee break – *Terraszaal and Wolfswaardzaal*

11.00 – 12.30 **PARALLEL SESSION**

2 workshops or masterclasses

11.00 – 12.30 – *Peter Kiela, Dick Brand, Margot de Cleen, Piet Otte and Sandra Boekhold*
Opportunities of subsoil use for dealing with climate change
Pomonazaal 1

Peter Kuikman
'Credits for carbon care' – from soil eco-system services to monetary value
Pomonazaal 2

2 sessions with 6 oral presentations

Session 5.1: Carbon stocks and carbon sequestration – Haakzaal

Chair: Herman Verhoef
(Free University Amsterdam)

11.00 – 11.15 *Feike Dijkstra*
The potential of agroecosystems to mitigate global warming under elevated CO₂: a review

11.15 – 11.30 *Zhiping Cao*
Organic Carbon Sequestration Processes Driven by Agricultural Soil Food Web

11.30 – 11.45 *Chris van Kessel*
Greenhouse Gas Emissions and Yield-Scaled Global Warming Potential of Major Cereal Crops

11.45 – 12.00 *Wim de Vries*
Modelling past and future impacts of changes in climate, nitrogen deposition, ozone and CO₂ exposure on carbon sequestration in European forests

12.00 – 12.15 *Annemieke Gärdenäs*
Knowledge gaps in soil carbon and nitrogen interactions - From molecular to global scale

Session 5.2: Tropical peatlands, Andosols, and Biochar – Peppelzaal 1 and 2

Chair: Karsten Kalbitz
(University of Amsterdam)

Keizo Hirai
Soil carbon stock and their changes following forest degradation in tropical monsoon forest in Southeast Asia

Susan Ward
Vegetation and warming effects on peatland carbon fluxes

Boris Jansen
Carbon stabilization mechanisms in Ecuadorian Andosols

Lewis Peake
Biochar amendment to improve soil properties and sequester carbon

Nele Ameloot
Greenhouse gas emissions from biochar amended loamy soils: a lab CO₂, CH₄ and N₂O emission experiment

12.15 – 12.30	<i>Reto Meuli</i> Evolution of soil organic carbon content in Switzerland over the last 25 years, 1985-2009	<i>Henk Wosten</i> Peatland restoration in Indonesia to mitigate CO2 emissions
12.30 – 14.00	Lunch with postersession – <i>Terraszaal and Wolfswaardzaal</i>	
14.00 – 14.30	Closing ceremony including a concluding address by the CRP Theme Coordinator - <i>Haakzaal</i>	