



President: Professor Peter Shewry BA, BSc, PhD, DSc

A two day conference

at the University of Leeds

on 19 - 20 June 2014



PROGRAMME and BOOKING FORM

Agronomic decision making in an uncertain climate



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Agronomic decision making in an uncertain climate

at the University of Leeds, UK

on 19–20 June 2014

In recent years unusual weather patterns in North West Europe indicate that we can no longer rely on a settled climate. In addition, plateauing of certain crop yields over the last 15 years may be, in part, a reflection of climate change. Hence, agronomic decision making can no longer follow time-honoured recipes. We need new approaches.

This conference will be themed around the agronomic management of key temperate crops, including cereals, oilseed rape, field vegetables and pasture/forage crops. In each case, we will review the challenges faced in practice over the last few seasons, try and identify what did and did not work in agronomic management and draw out lessons to improve the effectiveness of decision-making under climate uncertainty.

PROGRAMME

(9 BASIS points have been awarded as follows: 3 CP, 3 E, 3 PD)

THURSDAY 19 JUNE 2014

09:00 CONFERENCE REGISTRATION & COFFEE

10:00 WELCOME & INTRODUCTION
ROB CARLTON (Carlton Consultancy, Lyon, France)

Session 1: Changing Climate

10:10 *Invited speaker*
TITLE TBC
ROGER STREET (Environmental Change Institute (UKCIP), University of Oxford, Oxford, UK)

10:40 DISCUSSION

Session 2: Agronomic practice

10:50 **Sustainable agriculture under the impact of climate change (CC)**
NIKOLAI SVOBODA, MAXIMILIAN STRER & JOHANNES HUFNAGEL (Leibniz Centre for Agricultural Landscape Research, Müncheberg, Germany)

11:10 **Soil cultivation influences on organic spring wheat performance in contrasting weather**
A V VIJAYA BHASKAR, W PAUL DAVIES, NICOLA D CANNON & JOHN S CONWAY (The Royal Agricultural University, Cirencester, Gloucester, UK)

11:30 COFFEE

12:00 **Effect of seed rate, seed-bed fertiliser and foliar nutrition on crop establishment (winter oilseed rape)**

SYED SHAH & CARL FLINT (Agrii West, Cheltenham, UK)

12:20 **Use of micro-dams in potato furrows to reduce erosion and runoff and minimise surface water contamination through pesticides**

C OLIVIER, J-P GOFFART (CRA-W, Gembloux, Belgium), D BAETS (Bayer CropScience, Diegem, Belgium), D XANTHOULIS, N FONDER, G LOGNAY, J-P BARTHÉLEMY (ULG - Gembloux AGROBIOTECH, Gembloux, Belgium) & P LEBRUN (Fiwap, Gembloux, Belgium)

12:40 DISCUSSION

13:00 LUNCH

Session 3: Yields

14:00 *Invited speaker*

Arable crops: a future hobbled by misdirected policies

SEAN RICKARD (Sean Rickard Ltd, Independent Economic Analysis, UK)

14:40 **The Yield Enhancement Network: philosophy, and results from the first season**

ROGER SYLVESTER-BRADLEY & DANIEL KINDRED (ADAS Boxworth, Cambridge, UK)

15:00 **Can agriculture manage climate change effects? A modelling approach**

MAXIMILIAN STRER, NIKOLAI SVOBODA (Leibniz Centre for Agricultural Landscape Research, Müncheberg, Germany) & ANTJE HERRMANN (Kiel University, Kiel, Germany)

15:20 DISCUSSION

15:30 COFFEE

Session 4: Mitigation

16:00 *Invited speaker*

Balancing the needs for climate change mitigation and food security

PETER SMITH (University of Aberdeen, Aberdeen, UK)

16:30 **Assessment of GHG abatement cost in in European agriculture via increasing the share of rotations with legumes**

BENJAMIN DEQUIEDT (Climate Economics Chair, Palais Brongniart, Paris, France), JULIETTE MAIRE, VERA EORY, CAIRISTIONA F E TOPP, ROBERT M REES (Scotland's Rural College, Edinburgh, UK), PETER ZANDER, MORITZ RECKLING & NICOLE SHLAEFKE (Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany)

16:50 **The impact of weather on nitrous oxide emissions**

CAIRSTIONA F E TOPP (Scotland's Rural College (SRUC), Edinburgh, UK), KATE E SMITH, RACHEL E THORMAN, MASUMA CHAUHAN, DAN G MUNRO & ROGER A SYLVESTER-BRADLEY (ADAS, Cambridge, UK)

17:10 – 17.30 DISCUSSION

19:00 CONFERENCE DINNER

FRIDAY 20 JUNE 2014

Session 5: Disease control

09:00 **Exploring the factors influencing epidemic development of *Septoria tritici* in wheat and success of current control strategies**

MORAY TAYLOR, STÉPHANE PIETRAVALLE (Food & Environment Research Agency, York, UK), ALISON DANIELS, ANDREW FLYND (Bayer CropScience Limited, Cambridge, UK) & JUDITH TURNER (Food & Environment Research Agency, York, UK)

09:20 **Precision disease detection to enhance crop protection decisions in a changing climate**

JON WEST (Rothamsted Research, Harpenden, Hertfordshire, UK)

09:40 DISCUSSION

09:50 POSTERS (5 minute presentations)

Predicting timing of release ascospore of *Leptosphaeria* spp. to improve control of phoma stem canker on oilseed rape in the UK

AIMING QI, YONG-JU HUANG, MARTIN MALCOLM-BROWN, SITI NORDAHLIAWATE M. SIDIQUE & BRUCE D L FITT (University of Hertfordshire, Hertfordshire, UK)

Optimising N use on farm and minimising nitrate leaching - What do current recommendations miss?

MFTAH ALMADNI, JULIA COOPER & ELIZABETH STOCKDALE (Newcastle University, Newcastle Upon Tyne, UK)

Pesticide management in Scottish spring barley – insights from sowing dates

STACIA STETKIEWICZ (Scotland's Rural College, Edinburgh, UK; University of Edinburgh, Edinburgh, UK), FIONA BURNETT, CAIRISTIONA TOPP (Scotland's Rural College, Edinburgh, UK) & RICHARD ENNOS (University of Edinburgh, Edinburgh, UK)

Weed prevalence under organic and low-input cultivation systems

KAREN RIAL LOVERA, VIJAYA BHASKAR, PAUL DAVIES & NICOLA CANNON (The Royal Agricultural University, Cirencester, Gloucester, UK)

10:10 COFFEE & POSTERS

Session 6: Pollinators and Social Factors

10:45 **Weather-related declines of vulnerable moths (Lepidoptera)**

IAN SIMS (Syngenta International Research Centre, Berkshire UK), PETER VERDON (Regent's University London, London, UK) & PETER SUTTON, CAROLINE WILLETTS (Syngenta International Research Centre, Berkshire UK)

11:05 **Effects of abiotic stress and insect pollination on faba bean (*Vicia faba* L.) yield**

JACOB BISHOP, HANNAH E JONES, MARTIN LUKAC & SIMON G POTTS (University of Reading, Berkshire, UK)

11:25 DISCUSSION & CONFERENCE WRAP UP

12:00 LUNCH

13:00 CLOSE