

GILLIAN GOODLASS (ADAS Gleadthorpe, Mansfield, UK)

**Farmyard manure, plant based organic fertiliser, inorganic fertiliser – which one?**

J RAUPP (Institute for Biodynamic Research, Darmstadt, Germany)

**Aspects of phosphorous fertilisation in organic farming**

EWALD SCHNUG (Institute of Plant Nutrition & Soil Science, Braunschweig, Germany)

**Improving green manure quality with phosphate rocks in Ontario Canada**

M M ARCAND (University of Guelph, Ontario, Canada)

**Control and use of bracken in organic systems: a series of experiments and field trials**

E DONNOLLY (c/o University of Aberdeen, Scotland, UK)

**Nitrogen transfer between clover and wheat in an intercropping experiment**

V A PAPP (SAC, Edinburgh, UK)

**Balancing soil nutrient availability on commercial organic farms**

JAMIE ROBERTSON (University of Aberdeen, Scotland, UK)

**The impact of ammonium based fertilisers on soil bacterial communities**

RICHARD YOUNG (Soil Association Scotland, Edinburgh, UK)

**Changes in light fraction soil organic carbon and moisture holding in an organic snap bean rotational system**

J OWEN (Atlantic Food & Horticulture Research Centre, Bouctouche NB, Canada)

**Soil sustainability in organic agricultural production**

S MAY-ROBERTS (University of Aberdeen, Scotland, UK)

**Improving supply and phosphorus use efficiency on organic farms**

ROBIN WALKER (SAC Aberdeen, Scotland, UK)

**Nitrous oxide emissions from organic farming: the importance of well-timed ley cultivation**

BRUCE BALL (SAC Penicuik, Scotland, UK)

# ASSOCIATION OF APPLIED BIOLOGISTS

*President: B R Kerry BSc PhD*

## In conjunction with COR - the Colloquium of Organic Researchers

**A three day conference**

**at Edinburgh Conference Centre,  
Heriot-Watt University, Edinburgh**

**on 18-20 September 2006**

**PROGRAMME and  
BOOKING FORM**

*What will organic farming deliver?  
COR 2006*



Association of Applied Biologists  
c/o Warwick HRI  
Wellesbourne, Warwick CV35 9EF, UK

Registered Charity No. 275655

Telephone: +44(0)1789 472020

Facsimile: +44(0)1789 470234

E-mail: [carol.aab@warwick.ac.uk](mailto:carol.aab@warwick.ac.uk)

<http://www.aab.org.uk>



# What will organic farming deliver? COR 2006

18 - 20 September 2006

## PROVISIONAL PROGRAMME

(BASIS Points have been applied for)

### MONDAY 18 SEPTEMBER 2006

09.30 onwards REGISTRATION

09.30 onwards Set up of posters

10.00-10.45 COFFEE

11.00-11.10 Introduction

PROFESSOR JOHN OLDHAM (SAC, Edinburgh, UK)

11.10-12.10 What can research deliver for organic farming?

DAVID ATKINSON (St Andrews Cathedral Aberdeen) & HUGH RAVEN (Soil Association Scotland)

12.10-14.00 POSTER SESSION – Multidisciplinary  
including buffet LUNCH

14.00-17.00 *Delivering Environment*

Session Organiser: ELIZABETH STOCKDALE (University of Newcastle-upon-Tyne, UK)

14.00-14.30 PLENARY PAPER

Can organic farming deliver natural heritage goals in the UK uplands?

CHRISTINE WATSON ET AL (SAC, Aberdeen, UK)

14.30-14.50 Sustainability assessment for organic farming – integrating financial, environmental and social benchmarking and policy indicators

NIC LAMPKIN (Institute of Rural Sciences, University of Wales, Aberystwyth, UK)

14.50-15.10 Life cycle assessment of Swiss organic farming systems

T NEMECEK (Agroscope FAL, Zurich, Switzerland)

15.10-15.30 Energy and environmental impacts of organic farming

A G WILLIAMS (Cranfield University, Beds., UK)

15.30-16.00 TEA

16.00-16.20 Indicator systems - resource use in organic systems

KAIRSTY TOPP (SAC, Edinburgh, UK)

16.20-16.40 10-year interdisciplinary monitoring of organic, stockless, vegetable rotations at Warwick HRI Kirton, South Lincolnshire, UK

ULRICH SCHMUTZ (HDRA, Ryton, UK)

16.40-17.00 DISCUSSION

17.00-18.30 POSTER SESSION – Multidisciplinary

18.30-19.30 DINNER

19.45-21.00 PUBLIC MEETING

Can organic farming take the lead in a post fossil carbon society?

Meeting co-ordinators: BOB REES (SAC, Edinburgh, UK) & HOWARD LEE (Hadlow College, Kent)

### TUESDAY 19 SEPTEMBER 2006

09.00-12.20 *Session 2: Delivering Health*

Session Organiser: DAVID YOUNIE (SAC, Aberdeen, UK)

09.00-09.30 PLENARY PAPER

Linking livestock production and human health – creating sustainability through farming

JOHN MACRAE (Rowett Industry, Bucksburn, Aberdeen, UK)

09.50-10.10 Behaviour of dairy cows on organic and non-organic farms

F. LANGFORD ET AL. (SAC, Edinburgh, UK)

10.10-10.30 Impacts of farming practice within organic farming systems on below-ground ecology and ecosystem function

ELIZABETH STOCKDALE (University of Newcastle-upon-Tyne, UK)

10.30-10.50 Population breeding for healthy wheat: from plot to farm

MARTIN WOLFE (Wakelyns Agroforestry, Suffolk, UK)

10.50-11.20 COFFEE

11.20-11.40 The employment benefits of organic farming

MIKE GREEN (Soil Association Scotland, Edinburgh, UK)

11.40-12.00 Organic farming – stewardship for food security, food quality, environment and nature conservation

EWALD SCHNUG (Institute of Plant Nutrition and Soil Science, Braunschweig, Germany)

12.00-12.30 DISCUSSION

12.10-14.00 POSTER SESSION – Multidisciplinary  
including buffet LUNCH

14.00-18.30 *Session 3: Knowledge transfers, sharing research, learning together*

Session Organisers: DAVID YOUNIE (SAC, Aberdeen, UK), CAREY COOMBS

(Soil Association Scotland, Edinburgh, UK) & CHRIS ATKINSON (SOPA, Edinburgh, UK)

14.00-14.30 Briefing and discussion ahead of excursion

14.30-18.30 Excursion to local producers and processors

Two alternative farm tours in the Lothians have been organised for delegates. Delegates are asked to indicate their preference on the booking form:

**Tour A: Organic dairy, beef and sheep production** - This tour will visit two organic units:

Hagbrae, Gorebridge, Midlothian (courtesy of Mr Andrew Lorrain Smith) is mixed dairy/cereals farm south-east of Edinburgh and Cairns, Kirknewton, West Lothian (courtesy of Mr & Mrs G Hamilton), is an upland beef & sheep farm with on-farm butchery and direct marketing.

**Tour B: Organic mixed crop/dairy production** - This tour will visit two organic units:

Chapel Farm, North Berwick, East Lothian (courtesy of Mr Graham Elder) has 100 ha organic land with mixed vegetables, potatoes, cereals, beans and beef and Hagbrae, Gorebridge, Midlothian (courtesy of Mr Andrew Lorrain Smith) is mixed dairy/cereals farm south-east of Edinburgh.

19.30 CONFERENCE DINNER  
followed by Ceilidh

WEDNESDAY 20 SEPTEMBER 2006

09.00-12.10 *Session 4: Delivering profit*  
Session Organiser: CHRISTINE WATSON (SAC, Aberdeen, UK)

09.00-09.30 **PLENARY PAPER**  
**Strategies for profitability: product, management and misinformation**  
GARETH EDWARDS-JONES (University of Bangor, UK)

09.30-09.50 **Constraints to the sustainability of a stockless arable rotation**  
BILL CORMACK (ADAS, Terrington St Clement, Norfolk, UK)

09.50-10.10 **Risk and economic sustainability of crop farming systems**  
L GUDBRAND (Norwegian Agricultural Economics Research Institute, Oslo, Norway)

10.10-10.30 **Social, environmental and economic elements of profit within a poultry agro forestry system**  
J O'BRIEN (Elm Farm Research Centre, Berkshire, UK)

10.30-11.00 **COFFEE**

11.00-11.20 **Barriers to the adoption of organic agriculture: an investigation using the theory of planned behaviour**  
CAROLINE HATTAM (SAC, Edinburgh, UK)

11.20-11.40 **The development of direct organic marketing chains in the UK**  
NATALIE GEEN (HDRA, Ryton, UK)

11.40-12.10 **DISCUSSION**

12.15 **LUNCH & DEPART**

POSTERS

RESEARCH APPROACHES

Session co-ordinator: BOB REES (SAC, Edinburgh, UK)

**Organic principles and research: what implications the new IFOAM principles of organic agriculture?**  
GARETH DAVIES (HDRA, Ryton, UK)

**Using agroecological zones to promote international collaboration in organic farming research**  
PAUL BURGESS (Cranfield University, Bedford, UK)

**Selected key results of the IBDF experiment and of other trials world-wide show the benefits and problems of agronomic long-term experiments**  
J RAUPP (Institute for Biodynamic Research, Darmstadt, Germany)

CROP

Session co-ordinator: ROBIN WALKER (SAC, Aberdeen, UK)

**Effect of bicropping on forage yield and quality of organic *Lupinus* spp./cereals wholecrops**  
W MAZO (Cirencester, UK)

**The challenge and potential benefits of perennial organic cropping systems - examples of organic top fruit**  
CHRIS FIRTH (HDRA, Ryton, UK)

**Innovation in organic vegetable growing**  
ANTON ROSENFELD (HDRA, Ryton, UK)

**Knowledge development for organic systems: an example of weed management**  
GARETH DAVIES (HDRA, Ryton, UK)

**Effects of organic fertilisers and compost extracts on organic tomato production**  
REZA GHORBANI (Ferdowsi University of Mashhad, Iran)

**The production and quality of organic cereals crops in SW England**  
STEVE RODERICK (Organic Studies Centre, Rosewarne, UK)

**How to select cereal varieties for organic farming: science and practice**  
STEVE HOAD (SAC, Edinburgh, UK)

**Sunflower under conventional and organic farming systems: results from a long-term experiment in central Italy**  
PAOLO BARBERI (Land Lab, Pisa, Italy)

**Sustainable production of organic wheat**  
Z E L HAIGH (Elm Farm Research Centre, Suffolk, UK)

**The identification and production of varieties that increase the value of oats as a profitable component of organic production**  
S M CLARKE (Elm Farm Research Centre, Berkshire, UK)

**Generating and evaluating a novel genetic resource in wheat in diverse environments**  
K E HINCHSLIFFE (Wakelyns Agroforestry, Suffolk, UK)

**Developing a participatory approach to seed production and varietal selection**  
H JONES (Elm Farm Research Centre, Berkshire, UK)

**The impact of nutrition on the metalome protein composition and end-use quality of wheat**  
D GODFREY (Rothamsted Research, Harpenden, UK)

**The legacy of stockless organic conversion strategies**  
DEBBIE SPARKES (University of Nottingham, Sutton Bonington, Leics, UK)

POLICY/ECONOMICS

Session co-ordinator: BOB REES (SAC, Edinburgh, UK)

**Five-year financial analysis of two commercial farms converting to organic status; 2000-2005**  
JAMIE ROBERTSON (University of Aberdeen, Scotland, UK)

**Attitudes and decision-making amongst Scottish organic farmers**  
CAROLINE BAYLIS & TONY CLAY (SAC, Aberdeen, Scotland, UK)

**Organic or local: what does each term offer to consumers?**  
S PADEL (University of Wales, Aberystwyth, UK)

**Market research study into the market penetration of Scottish organic produce**  
JAMES CLEETON (Soil Association Scotland, Edinburgh, UK)

**Financial performance of organic farming in England & Wales**  
N L LAMPKIN (Institute of Rural Sciences, Aberystwyth, UK)

### **Effects of European organic farming policies at sectoral and societal levels**

PIP NICHOLAS (Institute of Rural Sciences, Aberystwyth, UK)

### **Communicating with producers in Wales**

TONY LITTLE (Organic Centre Wales, Aberystwyth, UK)

## **SYSTEMS/ENVIRONMENT**

**Session co-ordinator: KEN DAVIES (SAC, Edinburgh, UK)**

### **The use of computer modelling to evaluate the agronomic, economic and environmental impacts of contrasting organic rotations**

FRANCIS RAYNS (HDRA, Ryton, UK)

### **The benefits of organic farming for climate change mitigation and adaptation**

AZEEZ GUNDULA (Soil Association Scotland, Edinburgh, UK)

### **Evaluation of sustainability in long term arable systems in Tuscany**

PAOLO MIGLIORINI (University of Florence, Firenze, Italy)

### **Agroecological and socio-economic sustainability evaluation of organic farming in Tuscany**

CHIARA CERTOMA (Scuola Superiore Sant' Anne, Pisa, Italy)

### **Development of Collembolans after conversion towards organic farming**

GEROLD RAHMANN (Institute of Organic Farming, Westerau, Germany)

### **Contribution of organic farming to conserve and improve biodiversity in Germany**

GEROLD RAHMANN (Institute of Organic Farming, Westerau, Germany)

### **The benefits of organic farming for biodiversity**

L R NORTON (CEH Lancaster, UK)

### **An integrated assessment of scale effects in alternative agricultural systems**

CHRIS FIRTH (HDRA, Ryton, UK)

### **Economic and environmental analysis of the introduction to legumes in livestock farming systems**

KAIRSTY TOPP (SAC Edinburgh, Scotland, UK)

### **Organic Farming and Agri-Environmental Stewardship Schemes in Devon**

A M SAMUEL (University of Plymouth, Devon, UK)

## **CROP PROTECTION**

**Session co-ordinator: GRAHAM RUSSELL (University of Edinburgh, UK)**

### **Biological control of white grubs with insect pathogenic fungi, *Metarhizium anisopliae* in Nepal**

YUBAK DHOJ (Tribhuvan University, Chitwan, Nepal)

### **Control of common scab of potatoes without the use of water**

A J HILTON (SAC, Edinburgh, UK)

### **Organic slug control using *Phasmarhabditis hermaphrodita***

ROBBIE RAE (University of Aberdeen, Scotland, UK)

### **Mixed cropping systems for biological control of weeds and pests in oil crops**

HANS MARTEN PAULSEN (Institute of Organic Farming, Westerau, Germany)

### **Disease control of sulphur induced resistance**

SILVIA HANEKLAUS (Institute of Plant Nutrition & Soil Science, Braunschweig, Germany)

### **The impact of kaolin particle film on leaf gas exchange in apple and blackberry**

L G RUSSELL (Prince Edward Island, Canada)

### **The potential for slug control with ferric phosphate**

ALAN HORGAN (Certis, Wiltshire, UK)

### **The development and potential for a granulovirus on codling moth (*Cydia pomonella*)**

ALAN HORGAN (Certis, Wiltshire, UK)

### **Growing organic cereals in Northern Ireland - disease and weed problems**

PETER MERCER (Agriculture & Food Science Centre, Belfast, UK)

### **Coloured mulch as a weed control technology and yield booster for summer savory**

ROBIN WALKER (SAC Aberdeen, Scotland, UK)

## **LIVESTOCK**

**Session co-ordinator: CHRIS ATKINSON (SOPA, Edinburgh, UK)**

### **Analysis of the relationship between the clover content of pasture and the polyunsaturated fatty acid profile of organic milk**

JAMIE ROBERTSON (University of Aberdeen, Scotland, UK)

### **Antibiotic resistance and organic farming practice**

COLIN NUNAN (Soil Association Scotland, Edinburgh, UK)

### **Can we feed pigs and poultry with 100% organic diets?**

S PADEL (University of Wales, Aberystwyth, UK)

### **Cleanliness of dairy cows on conventional and organic UK farms**

K A ELLIS (University of Glasgow, Scotland, UK)

### **Anthelmintic resistance and its implications for organic sheep farmers**

B M L McLean (ADAS Pwllpeiran, Aberystwyth, UK)

### **Using faecal egg counts to monitor internal parasites in organic sheep flocks in farm case studies**

STEVE RODERICK (Organic Studies Centre, Rosewarne, UK)

### **Have endangered sheep breeds an advantage in Organic farming?**

GEROLD RAHMANN (Institute of Organic Farming, Westerau, Germany)

## **SOIL**

**Session co-ordinator: BRUCE BALL (SAC, Edinburgh, UK)**

### **An assessment of nitrogen fixation by three spring-sown lupins and leaching under the next winter cereal**

D J HATCH (IGER North Wyke, Devon, UK)

### **Development of the FBC model to estimate the N available from fertility-building crops in organic rotations**

S P CUTTLE (IGER Plas Gogerddan, Aberystwyth, UK)

### **Effects of organic farming on the soil physical environment**

A PAPADOPOULOS (University of Nottingham, UK)

### **Making the most of soil nitrogen**