

## ASSOCIATION OF APPLIED BIOLOGISTS

### FORWARD CONFERENCE PROGRAMME 2008/2009

- 19 November 2008 **The future of weed research in the UK**  
Home Grown Cereals Authority, London (CATE Group)
- 19 November 2008 **Applied aspects of aerobiology**  
Rothamsted Research, Harpenden (AM&B Group joint with British Aerobiology Federation)
- 25 November 2008 **Pollution from Pesticides: Point Source vs Diffuse**  
Harper Adams University College, Newport (Pesticide Application Group)
- 3 December 2008 **Residue reduction through biocontrol?**  
Peterborough (Biocontrol Group)
- 10-12 December 2008 **Biomass and Energy Crops III**  
Central Science Laboratory, York (CATE/PPCI Group)
- 16 December 2008 **Advances in Nematology**  
Linnean Society of London (Nematology Group)
- 10-11 February 2009 **Crop Protection in Southern Britain**  
East of England Showground, Peterborough (CATE Group Multidisciplinary)
- 2 March 2009 **Crop Protection in Vineyards**  
Plumpton College, Brighton (AAB/Joint with the Vineyards Association)
- 1-3 April 2009 **An International Conference - Advances in Virology**  
Harrogate International Centre, Harrogate (Virology Group)
- 7-8 April 2009 **The 2nd European Ramularia workshop - A new disease and challenge in barley production**  
University of Edinburgh (Multidisciplinary/Ramularia Group)
- 22-23 April 2009 **Advances in epidemiology and control of rusts**  
Science & Advice for Scottish Agriculture (AM&B Group)
- 19 May 2009 **Pesticide Application in Sport, Leisure & Amenity**  
SCI HQ, London (Pesticide Application)
- 2-4 June 2009 **Integrated Agricultural Systems: Methodologies, modelling and measuring SAC, Edinburgh (Multidisciplinary)**

Further information about the AAB and online booking for these conferences is available on the AAB website  
<http://www.aab.org.uk>



*President: Professor Peter J Lea, BSc, PhD, DSc*

**A 3 day conference**

**at Defra's Central Science Laboratory,  
Sand Hutton, York, UK**

**on 10-12 December 2008**

**PROGRAMME &  
BOOKING FORM**

**Biomass and Energy  
Crops III**



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# Biomass and Energy Crops III

10-12 December 2008

Defra's Central Science Laboratory, Sand Hutton, York

## Programme

(BASIS Points have been applied for)

### 10.40 Introduction and welcome - David Turley on behalf of AAB

#### Overview

*Session organizer: David Turley*

### 10.45 Keynote

#### Farming's New Energy Opportunity

PAUL TEMPLE (National Farmers' Union, Stoneleigh Park, Warwickshire, UK)

### 11.15 Technology and policy requirements in the drive towards improving efficiency

DAVID TURLEY (Central Science Laboratory, Sand Hutton, York, UK)

### 11.40 Fuelling the 9 billion – a new challenge for biotechnology and agriculture

WAYNE MARTINDALE (Sheffield Hallam University, Sheffield, UK)

### EU and regional case studies

*Session organiser: Mike Green*

### 12.05 Prospects of Grassland Use for Bio-energy Resource

K GÖDEKE (National Institute for Agriculture of Thuringia, Jena, Germany)

### 12.30 State and Development of Bioenergy in Ireland

DIETERICH BURKART (University College Dublin)

### 12.55 Lunch break & poster viewing

### 14.00 Willow Short Rotation Coppice (SRC) as a potential biomass energy crop in Orkney

GEOFFREY SELLERS (Orkney College, UHI)

### 14.25 Barriers to bioenergy development in England; experiences from the South West

P ADAMS (University of Bath)

### 14.50 The development of sustainable heat and power fuelled by biomass from short rotation coppice in Wales

JOHN VALENTINE (IBERS, Aberystwyth University, Ceredigion, Wales)

## Posters

### Short Rotation Willow Coppice as a Biomass Energy Crop in Orkney

F MCKENZIE (Agronomy Institute, Kirkwall, Orkney, UK)

### Cultivar and altitude effects on yield and other characters of SRC Willow in Wales

MAURICE HINTON-JONES (BBSRC, UK)

### Sorrel and reed canary grass in southern Norway

HENRIK KOFOED NIELSEN (University of Agder, Serviceboks, Grimstad, Norway)

### Reed Canary Grass - a versatile crop for Wales ?

S C LOWTHE-THOMAS (Cardiff University)

## 15.15 Tea

### Biomass for Anaerobic

*Digestion Session organiser: David Turley*

### 15.45 The promise of biomass for anaerobic digestion

HOWARD LEE (Hadlow College, Tonbridge, Kent, UK)

## Posters

### Sustainable production of biomass for energy

THOMAS PRADE & JAN ERIK MATTSSON (Swedish University of Agricultural Sciences)

### Energy crop management systems

*Session organiser: David Turley*

### 16.10 Development and comparison of optimised cropping systems for the production of energy plants under the variety of regional conditions in Germany ("EVA")

C STRAUSS (Thuringian Federal State Institute for Agriculture (TLL), Jena, Germany)

### 16.35 Growing SRC willow in genotype mixtures

ALISTAIR McCracken (Agri-Food & Biosciences Institute HQ)

### 17.00 Bioenergy production assessment at a regional level under different scenarios of resource exploitation

G RAGAGLINI (Land Lab, Scuola Superiore Sant'Anna, Pisa, Italy)

### 17.25 Growth and water use of *Salix viminalis*, *Populus trichocarpa* and *Eucalyptus gunnii* field trial plantation irrigated with secondary treated effluent

A SUGIURA (School of Applied Science, Cranfield University, Cranfield, Bedfordshire)

*Posters*

**Energy crop rotation fertilized with urban bio-fertilisers**

CHARLOTT GISSEN *et al.*, (Swedish University of Agricultural Sciences)

**17.50 End of 1st day**

**19.30 Conference Dinner at Kings Manor Refectory, York**

**Thursday 11th December 2008 – Day 2**

**08.30 Registration**

**Transport Biofuels**

*Session organizer: Elaine Booth*

**09.00 Effect of azoxystrobin dose rate on grain quality and alcohol yield in distilling wheat**

A WATSON (Harper Adams University College)

**09.25 Triticale as a low input cereal for bioethanol production: 1. Alcohol yields and processing quality of tritical varieties grown under UK conditions**

H DAVIS-KNIGHT (ADAS Centre for Sustainable Crop Management, Boxworth, UK)

**09.50 Developing wheat for biofuel markets**

DANIEL KINDRED (ADAS Boxworth, Cambridge, UK)

**10.15 Towards defining the optimal feedstock for a wheat biorefinery: co-production of arabinoxylans with bioethanol**

RICHARD WEIGHTMAN (ADAS Centre for Sustainable Crop Management, Boxworth, UK)

*Posters*

**The availability of biomass from marginal sources for biochar production in Suffolk–economics, sustainability and GHG balance**

ALFRED GATHORNE-HARDY *et al.* (Imperial College, London, UK)

**Prediction of bioethanol yield from wheat grain**

K AWOLE (Harper Adams University College, Newport, Shropshire, UK)

**Triticale as a low input cereal for alcohol production**

**II. Potential to reduce greenhouse gas emissions relative to bioethanol from wheat**

RICHARD WEIGHTMAN & H DAVIS-KNIGHT (ADAS Centre for Sustainable Crop Management, Boxworth, UK)

**10.40 Coffee**

**Breeding and evaluation of energy crops**

*Session organiser: Ian Shield*

**11.05 Overcoming barriers to crossing in willow (*Salix* spp.) breeding**

IAN SHIELD (Rothamsted Research, Harpenden, Herts, UK)

**11.30 Controlling for competition in neighbouring field plots in a Willow Trial**

W MACALPINE (Rothamsted Research, Harpenden, Herts, UK)

**11.55 Evaluation systems for cultivars of biomass species**

SIMON KIGHTLEY (National Institute of Agricultural Botany, Cambridge, UK)

**12.20 Breeding our way to a better future - a case study on Miscanthus**

JOHN CLIFTON-BROWN (IBERS, Aberystwyth University, Ceredigion, Wales)

**12.45 Lunch & Poster viewing**

**Biomass crop physiology and performance (session A)**

*Session organiser: Ian Shield*

**13.45 Modeling climate change impacts on yields of C3 bioenergy crops grown as short rotation coppice**

M AYLOTT (University of Southampton, Southampton, UK)

**14.10 Performance of miscanthus over 11 yrs**

A RICHE (Rothamsted Research, Harpenden, Herts, UK)

**14.35 A growth model for switchgrass to predict yield from site and climatic variables**

A RICHE (Rothamsted Research, Harpenden, Herts, UK)

**15.00 Over-winter yield decline in Switchgrass and Miscanthus**

SALVADOR GEZAN (Rothamsted Research, Harpenden, Herts, UK)

**15.25 Tea**

**Biomass crop physiology and performance (session B)**

*Session organizer: Angela Karp*

**16.00 The effect of the size of the cuttings planted on the subsequent performance of three contrasting willow cultivars for short rotation coppice**

IAN SHIELD (Rothamsted Research, Harpenden, Herts, UK)

**16.25 Influence of Planting Depth and Orientation on Sprouting of Willow Cuttings**

BURKART DIETERICH (University College Dublin)

**16.50 Physiological manipulation of rhizome fragments to improve the productivity of Miscanthus**

TREVOR HOCKING (University of Wolverhampton, Wolverhampton, UK)

**17.15 The Evaluation of UK seed production and quality of reed canary & switchgrass**

NICOLA YATES (Rothamsted Research, Harpenden, Herts, UK)

**17.40 End of day 2**

**Friday 12th December 2008**

**08.30 Registration**

**Biomass conservation and combustion considerations**

*Session organiser: David Stock*

**09:00 Conservation of *Miscanthus sinensis* × *giganteus* in bale form**

A NOLAN (University College, Dublin, Eire)

**09.25 Harvest losses and bale density in reed canary grass (*Phalaris arundinacea* L.)  
spring-harvest**

T LÖTJÖNEN (MTT, Finland)

**09.50 The influence of agronomic treatment on the combustion characteristics of some  
energy crops**

L I DARVELL (Energy & Resources Research Institute)

***Posters***

**Microwave processing as a green and energy efficient technology for the production of energy  
and chemicals from biomass and energy crops**

BRIGID LANIGAN (University of York)

**Biomass fuel specification and matching to conversion processes**

TJP BARRACLOUGH (Rothamsted Research)

**10.15 Coffee**

**Environmental aspects of biomass cropping (Session A)**

Session organiser: Angela Karp

**10.40 The effect on plant communities and associated taxa of planting short  
rotation willow coppice in Wales**

D A FRY

**11.05 Biodiversity and ecosystem impacts of Willow Short Rotation Coppice (SRC)**

R ROWE (University of Southampton, Southampton, UK)

**11.30 Soil water deficits and evaporation rates associated with *Miscanthus* in England**

JON FINCH (Centre for Ecology & Hydrology)

**11.55 Headlands around SRC plantations have potential to provide new habitats for  
plants and butterflies on farmland**

RUFUS SAGE (The Game & Wildlife Conservation Trust, Fordingbridge, Hants, UK)

**12:20 Lunch**

**Environmental aspects of biomass cropping (Session B)**

*Session organiser: Elaine Booth*

**13:20 Environmental impacts of short rotation forestry**

JAMES COPELAND et al. (Central Science Laboratory, York, UK)

**13.45 The use of Short Rotation Coppice poplar and willow for the bioremediation of  
sewage effluent**

A WERNER (Queen's University of Belfast, Belfast, UK)

**14.10 Comparative Analysis and Systematic Review of Life Cycle Assessments in the  
Bioenergy Sector**

Prof Peter Freer-Smith (University of Southampton, Southampton, UK)

***Posters***

**The biodiversity of established biomass grass crops**

J CLAPHAM (Cardiff University, Cardiff, UK)

**Environmental cost of biomass transportation: an assessment of greenhouse gas emissions  
during haulage of energy crops**

ESTHER AREIKIN (Central Science Laboratory, York, UK)

**Estimation of DOC fluxes under *Miscanthus* and *Lolium* pasture; effects of land use  
change.**

N SMYTH (School of Natural Sciences, Trinity College, Dublin)

**14:35 Discussion and conference roundup**

**15.00 Tea and Depart**

Registered Charity No. 275655

# BOOKING REQUIREMENTS

**Section ONE** (VAT Reg. No: GB 326 8075 49 - Charges are VAT inclusive).

Registration includes attendance at the conference, a copy of *Aspects of Applied Biology 90*, coffee, lunch and tea, and the conference dinner.

**WHOLE CONFERENCE REGISTRATION - (by 24 November 2008)**

AAB Members .....	£210.00	.....
AAB Members (retired option) .....	£150.00	.....
AAB Student Member .....	£100.00	.....
Non-members .....	£260.00*	.....
Student non members .....	£125.00*	.....
<b>Late booking surcharge (after 24 November 2008)</b> .....	£25.00	.....
Conference dinner for <b>accompanying persions only</b> .....	£45.00*	.....
(Conference dinner price is included for delegates)		
<b>TOTAL</b>		<b>£</b> _____

**Section TWO**

**Dietary Requirements**

Vegan	YES/NO	Vegetarian	YES/NO
No red meat	YES/NO	Wheat intolerant	YES/NO
Dairy intolerant	YES/NO		

**How did you learn of this conference?**

Printed flier	.....	Organisation noticeboard	.....
From a colleague	.....	AAB Website	.....
Via another Society	.....	Press/news article	.....
Email	.....	Other	.....

**Your Organisation**

Higher Education	.....	Research Institute	.....
Private Company	.....	Govt Org, e.g. Defra, PSD, CSL	.....
Private Individual	.....	Press	.....

**A charge of £25.00 will be made on any cancellations. No refunds will be given after 24 November 2008.**

The completed booking form should be returned as soon as possible with payment. Payment may be made by cheque (made payable to **AAB**) or by credit card (VISA, Mastercard or Delta). If payment is made by credit card, please complete below. Please send to: Conference Registration, AAB Office, c/o Warwick Enterprise Park, Wellesbourne, Warwick CV35 9EF, UK.

Expiry date: ..... / ..... Cardholder's Name: .....

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## ASSOCIATION OF APPLIED BIOLOGISTS

*President: Peter J Lea, BSc, PhD, DSc*

# Biomass and Energy Crops III

**10-12 December 2008**

**Defra's Central Science Laboratory, Sand Hutton, York**

### BOOKING FORM

SURNAME: ..... INITIALS: .....

TITLE (Prof/Dr/Mr/Mrs/Ms or other): .....

PREFERRED NAME FOR BADGING: .....

STATUS (Delete as appropriate): AAB Member/Retired Member/  
AAB Student Member/  
Non-Member\*/Student Non-Member\*

MAILING ADDRESS: .....

..... POST CODE: .....

Tel No: ..... Fax No: ..... E-mail: .....

**NOTES**

- STUDENTS. It is the Association's policy to grant reduced registration fees to students. This provision is subject to space being available and booking forms must be accompanied by a signed statement from the student's supervisor attesting that he/she is a full-time student. If students would like to apply for an AAB Student Travel Grant (travel within the UK only) please send your request in writing to the AAB Office. Forms are available on the AAB Web Page: <http://www.aab.org.uk>
- Conferences of the Association are private but visitors are most welcome. The publishing of reports of papers given at these conferences should only be done with the permission of the organiser and the authors of the papers concerned, who may require to see proofs before this permission is given.
- The Association would like to send you details of relevant conferences in the future. Please tick box if you do not want to receive these details
- Please note that photographs are sometimes taken at AAB conferences which we publish in our Newsletter to members.

**Where did you learn of this conference and/or receive details?**

Printed flier	<input type="checkbox"/>	Organization noticeboard	<input type="checkbox"/>
From a colleague	<input type="checkbox"/>	AAB/Website	<input type="checkbox"/>
Email	<input type="checkbox"/>	Via another Society	<input type="checkbox"/>
Press/news article	<input type="checkbox"/>	Other	<input type="checkbox"/>

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\*AAB full membership for 2008 is £49.00 and £24.50 for students  
For further details on membership contact the AAB Office