

# aabnews

-Is the understanding of physiology relevant to the future of  
plant breeding?

-Water and nitrogen use efficiency in plants and crops

-Advances in Nematology

-Crop Protection in Southern Britain

*"Loss of pesticides, such as to meet water quality legislation, would have a huge impact on crop yields and therefore profitability of UK farming"*

- James Clarke, ADAS Boxworth,  
Crop Protection in Southern Britain

+AAB WEBSITE RELAUNCH

+FOOD AND ENERGY SECURITY JOURNAL

+“AAB BIOLOGICAL CONTROL GROUP POLICY BRIEFING ON SUSTAINABLE CROP PROTECTION”

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## Letter from the President - New developments for the AAB

Dear Members,

These are exciting times for the Association. In this newsletter I want to update you on progress with three important developments.

### *New website*

The long-awaited, brand new website is going live this month. The outdated appearance and content of the old site has been swept away with the launch of the new site, which we hope you will find is a big improvement. Moreover, the development will be on-going as new pages are added, links to business and social networks are established and the site becomes increasingly interactive, allowing members to engage with the Association and other members across a range of activities. The layout of the new homepage is shown above, but please click on the site address ( [www.aab.org.uk](http://www.aab.org.uk) ) and see the real thing for yourself. We welcome your comments - positive or negative - plus any suggestions you may have for additional content.

Our aim is to make the website as informative and useful as possible to existing members, as well as attracting new members, especially PhD students.

The development of the new site has involved a lot of additional work for Carol and her team,

alongside all their normal tasks, and their efforts are gratefully acknowledged. If you have any comments on the site, please contact Claire Hartry (Claire@aab.org.uk.)

### *Launch of our new journal – Food and Energy Security*

The publication date for our new journal is planned for January 2012 and there will be a number of launch events over the coming months. The first of these will be at the Food Security: Crop Production and Resource Use Workshop in Beijing, China and the Biomass and Energy Crops IV conference in Illinois in September, introducing the journal to the US market. This will be followed by events in the UK and China, the latter being a key region for submissions to the publication. This innovative venture, to be published jointly by the Association and Wiley-Blackwell (subject to contract), will be on-line only with open access; the publication costs will be met by an article processing charge levied on each accepted article. This charge will be competitive with other open access journals in the market. Our Editor-in-Chief designate, Professor Martin Parry, who is Head of Plant Science at Rothamsted, is determined that this journal will become the sector-leader in Agriculture-

multidisciplinary. Please watch this newsletter and the website for more announcements relating to this development.

### *International Developments*

As outlined in the last Newsletter, the AAB is aiming to raise its international profile, to provide a professional service and support for the global community of applied biologists. In working towards this goal, the AAB will be organising more conferences in international locations, where possible in collaboration with local partners. While we have previously organised a number of conferences in Europe, this year will see the first full conference to be delivered in the US – Biomass and Energy Crops IV – organised jointly with the University of Illinois. This will be followed by more conferences in Europe and New Zealand and a ground-breaking meeting in China, planned for 2012–13. A key feature of these conferences will be sponsored attendance and travel grants for PhD students, to enable them to gain conference experience on an international stage. Please see the conference programme at the back of this Newsletter, together with announcements on the website, for further details.

- Best wishes, Trevor Hocking

## News from Council

AAB Council met on 16<sup>th</sup> March at Rothamsted. Council received reports from specialist groups and would like to highlight the excellent work of the Biological Control Group in developing their position paper: "Policy Briefing: towards sustainable crop protection in Europe". This paper now forms part of the policy output of the AAB and is held on the website. Council looks forward to the work of other specialist groups in developing policy papers in the future. Separately Graham Russell receives policy information requests and consultations through the Society of Biology - he then collates response from specialist groups and/or members before responding on behalf of the AAB. These often come out at short notice - so keep your eyes open for requests for information. To date, Graham (with your help) has done an excellent job in providing appropriate and timely responses and the AAB has a good reputation for action in regard to providing responses to the Society of Biology. Council approved applications for membership from 32 new applicants and noted the breadth of interest amongst applications for membership. We look forward to working with these new members in the months and

years to come.

Council received reports on publications. *Annals of Applied Biology* is currently in 4<sup>th</sup> place within its subject area. The journal has an average turnaround time from submission to final decision of 33 days. Also, we have brought publication of each issue forward by a month and are current publishing papers for the July 2011 issue accepted in March/April 2011. *Plant Biotechnology Journal* (a joint venture with SEB and Wiley-Blackwell) is in a strong position. The impact factor is solid and predicted to increase further. In house publication of the *Aspects of Applied Biology* continues effectively and the AAB is considering further development of *Aspects* as a special edition seminar series. The letter from the president provides an update on the progress with the new journal.

Council received the annual review of staff performance and development. We were pleased to see that all staff had met their objectives in 2010 and in some cases exceeded the targets expected. The Office has welcomed new staff to its team and we look forward to another good year of working together during 2011.

A major part of the meeting was concerned with further discussion and approval of the Association's

Strategy for 2011-12 i.e. during Trevor's presidency. The completed "Strategic Overview and Targets for 2011-12" will be made available to all members through the website.

Council briefly discussed the development of new specialist group / cross-cutting interest area for the Association in Education and Training. This will be discussed more fully at the July meeting. All members are invited to contribute to the shaping of the AAB's work in this new area of focus - please contact Elizabeth Stockdale (e.a.stockdale@ncl.ac.uk) before the end of June with any thoughts on how this work could be developed within the AAB. We have not determined the shape of this group in any sense and so we would welcome information on what is already covered well elsewhere, as well as gaps/opportunities for the AAB to provide support. This area will include work to raise the profile of the AAB with postgraduate research students.

Council highlighted the need to strengthen engagement with members and the wider community and would be delighted to see the vacant *Membership Officer* Council post filled - It's your Association, do get involved.

-Elizabeth Stockdale

# Ben Freer Photography

[www.benfreer.foliopic.com](http://www.benfreer.foliopic.com)

**A** AB member Ben Freer has kindly given the Association permission to use his photographs on our new website and newsletter. Here he introduces some of his work and how he developed an eye for stunning photography.

'I started taking pictures with a Kodak Brownie but only really got into it more seriously in the early 1980's. My enthusiasm increased another notch with the digital age as you can now tell instantly whether you have got the shot or not. Waiting for a film to be developed only to find

that most were awful was a tad dispiriting! Having said that I think my favourite camera was my old Zenith EM c. 1980 as I learnt most about how to take pictures with it; but I wouldn't be without my current Nikon D300!

'We asked in his years as a photographer, which experience has stood out the most. 'My best photographic experience to date is split between my recent trip to Greece to photograph wild flowers in the Taygotos mountains and the witnessing and recording of the QE2's last



visit to Southampton when I was one of the few photographers to capture her run aground as she sailed up the Solent for the final time!

And finally he told us about his best work. 'My favourite photograph has to be this one <http://benfreer.foliopic.com/gallery/early-morning-in-the-new-forest-1811/photo/long-pond-sunrise-134311/> large everything was right, the light, the lack of wind so the water was still and for once I managed to get the shot!' Visit his site to see more.

## Conference reports

### Is the understanding of physiology relevant to the future of plant breeding? University of Reading, UK, 7 December 2010

Crop physiologists are particularly adept at telling breeders what they have done, rather than identifying what they need to do, and the development of wheat over the last 50 years is no exception.

A detailed understanding of why a variety is successful is often used to identify what an ideal crop type or ideotype might look like. Such an understanding can be particularly useful for breeders when selecting from tens of thousands of breeding lines in the field each year. Examples of desired traits, associated with higher yields, have included short stature, improved storage capacity, improved radiation use efficiency, and larger, longer-lived canopies. Commercial varieties with some or all of these traits became available through the 1980s and 1990's.

Roger Sylvester-Bradley from ADAS, discussed how resultant increases in resource capture, use efficiencies, storage and partitioning, were instrumental in yield gains over recent decades. There is, however, significant debate as to how much further improvement in yield through these mechanisms is possible. Excessive emphasis on resource allocation to the grain can, for example, risk overlooking the importance of resource capture by, and functioning of, other organs.

Allocation of resources to the roots and stems: Sarah Clarke from ADAS described the development of a classic ideotype mechanical model for straw strength and root plate size. Absolute values for these varietal characters were given which could contribute to

the selection of lines for reduced risk of lodging. Increased straw strength and the consequent higher carbon resource allocation to the plant structural components reduce the risk of plants falling over particularly under high fertility.

Less resources in the stems and leaves: John Foulkes provided background to the collaborative work at The University of Nottingham questioning what is the greatest potential ratio of dry matter to the grain, compared to total above ground biomass (the Harvest Index: HI). The most recent increases in HI have been through a reduced allocation of resources to stems and leaf sheaths in favour of the

*How much variation is feasible within the UK breeding programme? And what environmental variation is predicted in the future?*

grain. Further improvements in grain number have involved investigations into the potential for increasing sink strength of the grain from introgressing the large ear CIMMYT type into UK breeding lines.

More resources to plant structural components: Tall, highly lignified and waxy plants decrease the incidence of disease, and exponentially increase the efficacy of fungicides. Mike Shaw from the University of Reading highlighted the trade-off between resource use for durable partial resistance through more resistant plant structural components, and grain yield.

#### *The trade off*

Height cannot be reduced without an effect on disease resistance; resources cannot be increased to the grain from the stem without

implications for lodging. Further complexities exist in reduced height genotypes through the effects of Rht (reduced height) alleles. Mike Gooding from the University of Reading described the detailed interactions between crop height, nitrogen uptake and utilisation efficiencies, the effects on flowering, heat stress tolerance and establishment. He demonstrated through the experimentation with Near Isogenic Lines of these different Rht genes that the optimum ideotype varies with year, with farming system and most importantly with the character under evaluation.

We are at the infancy of understanding these interactions.

Technology for targeted mutations (TILLING: Targeting Induced Local Lesions IN Genomes) uses a

reverse genetics approach to identify loss of function mutants which are useful for example, for modifying grain filling period by delaying senescence. This valuable technique described by Cristobal Uauy from the JIC, however is limited to genes of which the function is known, that is, very few.

There is scope for TILLING to have a significant contribution to breeding in the future; the molecular technique of Marker Assisted Breeding is now a key strategy for high throughput selection for disease resistance. However, there remains significant, under-developed variation in the UK wheat germplasm. Bill Angus from Limagrain (UK) Ltd highlighted how much of the variation in the UK wheat

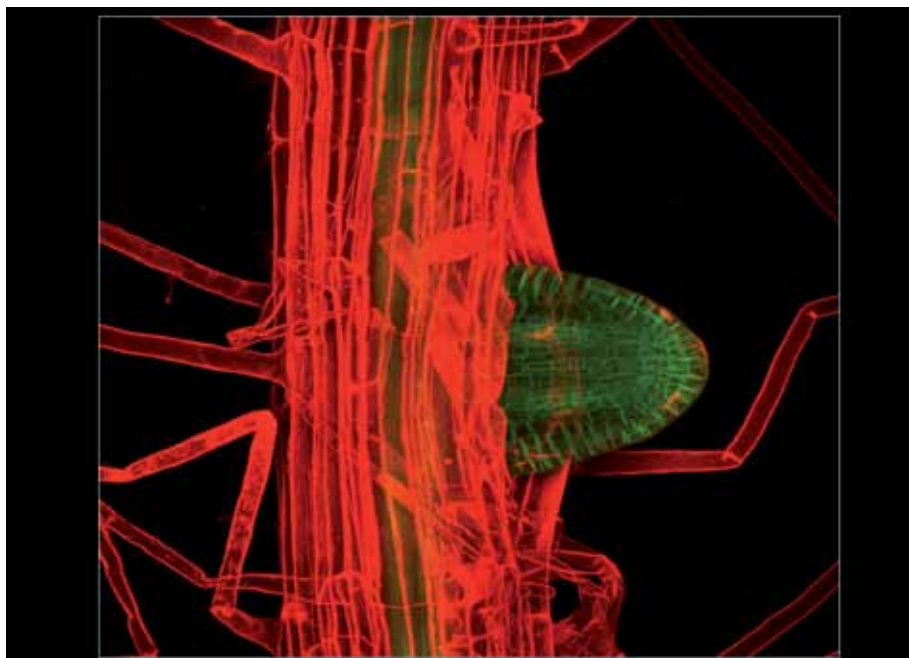
germplasm is under-exploited, and of unknown contribution to varietal performance in farmers field. He described how varieties need to fit into farmers' crop management. Cereals are being drilled earlier, but to date breeding developments have not exploited the lengthening of the early stages of crop establishment in terms of resource capture. These early drilled crops need to have later onset of reproductive development, to avoid frost damage, and a greater understanding of the genes controlling developmental responses to temperature, day length and vernalisation are essential. Further variation results from geographical location, farm management and climate: the genotype by environment interaction.

A detailed understanding of the existing variation needs to be justified in terms of genotypes for specific environments and the trade-offs which do, without doubt, exist. How much variation is feasible within the UK breeding programme? And what environmental variation is predicted in the future?

The difference in farm yields compared to Recommended List Trials is likely to be dominated by variations between arable fields; to include management, soil, system and climate. Is there a need to switch alliances to focus on the stability of production, compared to optimal yields under increasingly rare, optimal conditions?

The introduction of genetically modified crops may have a place in such a debate, but when breeding programmes have an enormous resource of under-exploited germplasm, of which the physiological basis is unknown, it could be argued that we should be focusing on the genes that are present in successful varieties, to improve the physiological basis of plant breeding.

*-Hannah Jones*



## Water and nitrogen use efficiency and plants and crops

The Olde Barn Hotel, UK, 15–16 December 2010

One only has to open the paper or look at news websites to see that the issue of food security and climate change are becoming headlines. Shortages of water and the cost of fertilizer are clearly going to be problems in particular. The idea for this meeting was to bring together people from plant science, crop science and agriculture to present work and spark some cross-disciplinary ideas and emphasise the need to draw solutions from different areas. Not an easy task but Prof Bill Davies from The Environment Centre at Lancaster University struck the right note with the plenary describing how crop improvement efforts in terms of drought and water use efficiency are now exploring the chemical regulation of growth, development and functioning. Using the example of China which is facing acute water shortages in many regions he described how this approach is already helping to achieve higher water use efficiencies in many parts of the world.

The goal of this meeting was no doubt helped by the diverse backgrounds of the delegates, not just in terms of discipline but geography, coming from Spain,

France, Morocco, Belgium, Sweden, Germany, Malaysia and UK. We are grateful to those who came long distances to contribute. We heard talks covering crops including UK cereals, African Bambara groundnut, biomass crops, potato, salad crops, oil seed rape and others. The level of systems analysed was also diverse from the molecular systems biology of individual plants, crop management to the impact of social changes in farming in China. On a scientific level this was therefore a fascinating opportunity to see how this topic affects food production and the environment and how each discipline has a part to play and some excellent discussion was initiated between and within groups in each session. The venue and catering was ideal for a conference of this size and the bar was definitely large enough! This type of inter-disciplinary meeting seems to represent a theme in AAB at the moment and I notice the upcoming 'systems approach to crop improvement meeting'. I hope these meetings continue to help to bring together plant and agricultural scientists towards common goals.

*-Erik Murchie*



WGT Corporate Travel is pleased to be able to provide a dedicated travel facility to all members of the Association of Applied Biologists, where not only will you benefit from exclusive savings on a wide range of products, but also a first class personal service.

No matter what your requirement is please do not hesitate to contact your dedicated travel expert, quoting: AAB/11, who will be able to offer advice and assistance in ensuring you obtain the most competitive fare available at the time of booking.

See below for a list of the many services we are able to provide:

- Scheduled Air Fares, Consolidated Air Fares, No frills carriers, Charter Airlines, Increased baggage allowance and special group fares with leading Airlines.
- Discounted hotel accommodation - UK and Worldwide
- Preferred status with all leading International Airlines including British Airways
- Rail travel - UK and Worldwide
- Discounted Car hire - UK and Worldwide
- Discounted Airport Car Parking & Airport Hotels - UK and Worldwide
- Coach Travel
- Airport Meet and Greet, Airport Transfers / Taxis
- Ferry Bookings
- Conference and Event Management specialist
- Emergency Helpline available 24/7 365 days

Please Contact your dedicated travel consultants, quoting AAB/11: Becki Turner or Tim Rouse on 0845 5050 175  
Email: becki@wgtsport.com - tim@wgtsport.com

## Advances in Nematology Linnean Society, London, 14 December 2010

The Linnean Society, Piccadilly was the venue for our annual "Advances in Nematology" one day conference which took place on the 14 December last year.

The meeting was well supported by our UK Institutes and Universities, with several International delegates from USA, Portugal, France, and Ireland. The invited keynote speakers were Soledad Verdejo-Lucas (IRTA, Barcelona, Spain) and Tom Moens (University of Ghent, Belgium). Soledad presented very interesting data on the use of Mi-resistant tomatoes for the management of root-knot nematodes. Tom, enthusiastically delivered his talk on "Nematodes and Ecosystem

functioning; Does (cryptic) species diversity matter?"

Students are always welcome at this meeting, often it's their first formal opportunity to present their research. A book voucher was the prize for the best student oral presentation, the winner was Ayano Sasaki-Crawley (Rothamsted Research), Ayano gave her talk on the "Behaviour of *Globodera pallida* in the rhizosphere of the trap crop *Solanum sisymbriifolium*".

Once again this was a very enjoyable meeting and I'm very pleased to report that everyone did get lunch, thanks to Becky's (Morgan) arrangements with our usual pub!!

-Barbara Pembroke

## Crop Protection in Southern Britain Cambridge, UK, 23-24 February 2011

Forecasting trends and planning for some major challenges in the future were key messages for delegates to take home from the 'Crop Protection in Southern Britain' conference. Organised by the Association of Applied Biologists (AAB) and supported by Bayer CropScience, NIAB TAG and BCPC, the event attracted over 90 delegates - an increase of over 30% on the previous conference. The first-class programme of 43 papers, including 3 invited papers, covered: grass weed and disease control in cereals, crop protection in oilseed rape and other broad-leaved crops and the impact of new legislation on pesticide use and cropping.

The opening session, chaired by John Cussans began with a paper from Dr Stephen Moss, Rothamsted Research, focussed on herbicide resistance in the UK. His paper gave an update on the status of key herbicide resistant weeds since 2005. Black-grass (*Alopecurus myosuroides*) is regarded as one of the most important herbicide resistant weeds in Europe. In 2005,

results from screening assays conducted between 2000 and 2004 revealed that resistance had been found on 2,085 farms in 31 counties in the UK. "It is not unreasonable to suggest that today, there are at least 16,000 farms in the UK with black-grass which is affected by some level of herbicide resistance and this has now spread to some 34 counties. Herbicide resistant grass-weeds now occur widely in all the main arable areas of England," said Dr Moss.

Similar trends are also emerging with Italian rye-grass (*Lolium multiflorum*). In 2005 herbicide resistant rye-grass was found in 324 farms in 28 counties, this has now risen to some 450 farms in 33 counties. Although resistance in rye-grass is not as significant as black-grass, the expectation is that it will continue to develop. Resistance has also been found in wild-oats, common poppy, scentless mayweed and groundsel. "Glasshouse screening assays have revealed resistance to mesosulfuron + iodosulfuron (e.g. Atlantis), the most widely used herbicide

for black-grass control. This is worrying especially as no new products, with new modes of action, are on the horizon. Small scale surveys can give a good indication of resistance trends, but molecular studies need to be done in conjunction with whole plant studies," advised Dr Moss. Having forecasted the trends, Roger Bradbury, Bayer CropScience outlined the need for well-defined resistance management and stewardship programmes to be put in place in order to maintain the usefulness of products such as Atlantis. Unless black-grass populations are very low, a pre-emergence product – to reduce populations – is to be recommended. Key stewardship messages include: correct use, integrating cultural control measures, applying with the adjuvant Biopower, using in sequence with an effective non-ALS herbicide (i.e. another mode of action) and monitoring weed control effectiveness. Adopting these measures will help to get the best out of the product and ensure effectiveness against black-grass in the future.

Anne-Sophie Walker from INRA in France initiated the disease control session by looking at the evolution of fungicide resistance in French populations of the economically important, yield reducing disease Septoria in wheat.

Stuart Knight, NIAB TAG, revealed that the performance of azole fungicides had fallen off since the mid 90's. With the uncertainty of new chemistry coming through the role in fungicide programmes remains crucial. It is vital that over-dependence on DMI fungicides (the triazoles and prochloraz) is avoided and that intelligent use is made of alternate chemical groups.

The conference concluded with a session on the impact of new legislation on pesticide use and cropping, chaired by Dr Colin Ruscoe, BCPC. Grant Stark, Chemicals Regulation

Directorate (CRD), set the scene by outlining the legislation that underpins the Thematic Strategy for Pesticides. The new Pesticide Authorisation Regulation comes into force in June 2011. Although the process remains largely unaltered from the existing one for product approvals, there are some significant changes in the principles that underpin the regulations, in particular assessment changing from risk based to hazard based, with comparative assessment and substitution of "less safe" products. How this is going to work in practice and what the impact will be is being clarified, but with the current review programme it will mean that the impact will largely start to be felt as products come up for review in 2015/2016 onwards.

"The directive on the Sustainable Use of pesticides is the first substantive piece of EU legislation governing the use of pesticides and comes into force in a number of stages from 2011 to 2020," explained Mr Stark. "The key objective is to raise standards across the EU member states. One of the features of this will be the need for each member state to develop National Action Plans to reduce the risk from pesticides and promote the use of low input systems."

"Most of the measures which form part of the National Action Plans already feature as part of existing very effective UK statutory and voluntary controls," said Mr Stark. "Our policy is to introduce any new legislation or regulatory processes only where absolutely essential. However there are a few areas where changes to the UK approach will need to be made to ensure that they are consistent with the requirements of the Directive." These changes include:

The establishment of a system of training and certification programmes to be in place by 2013:

- The introduction of a certificate of competence to sell pesticide

products from 2015;

- The requirement for application equipment to be tested more frequently from 2020;

- From November 2011, a permit to spray will be required from CRD for aerial spraying;

The Water Framework Directive will require some changes in order to comply with the requirements. "A lot of the measures outlined in the Directive are already taken by UK farmers, but some Member States will want to see a more regulatory approach being taken, but the UK Government will want to engage with the industry to have a cooperative approach to further minimise risks associated with pesticide use," advised Mr Stark.

"600 active substances have already been lost and pesticides are already highly regulated," said Janet Williams from Bayer CropScience, who provided the manufacturers' point of view. "The new legislation is a key issue for farmers, with the potential for further loss of active substances and products. This is particularly worrying given that with an increasing global population, there is a continuing need to keep weeds, pests and diseases in check to ensure good crop yields so that we can maintain both a staple food supply and a variety of crops."

Concluding the session James Clarke, ADAS Boxworth looked at the impact of changing pesticide availability. "Loss of pesticides, such as to meet water quality legislation, would have a huge impact on crop yields and therefore profitability of UK farming," he warned. "The potential loss of herbicides due to changing approvals legislation is also likely to have a significant impact in terms of increased yield losses. The consequence of this could be large increases in costs, reduced gross margins of 40% or reductions in yields such that the production of a specific crop may no longer be viable."

**NEW MEMBERS ELECTED 16  
MARCH 2011**

**Ms Linda Abrokwah**, Principal Technical Officer at CSIR-Crops Research Institute with a special interest in molecular biology and biotechnology

**Ms Camille Bedard**, working at KWS UK Limited with a special interest in plant protection and crop improvement particularly breeding

**Miss Jude Bennison**, An Entomologist specialising in biological control and IPM with special interests in biological control, cropping and the environment, nematology, pesticide application and virology

**Mr Gary Bradbury**, Company Agronomist at Barfoots of Botley Limited working on the development of supply sourcing for vegetables on a world wide basis, development of crop protection programmes with suppliers including IPM development and reduced pesticide residues with special interests in applied mycology and bacteriology, biological control, cropping and the environment, nematology, pesticide application and plant protection and crop improvement

**Dr Sarah Clarke**, Research Scientist in Crop Physiology with special interests in cropping and the environment, food systems, pesticide application and plant protection and crop improvement

**Dr Keith Davies**, Senior Research Scientist at Rothamsted Research with special interests in biological control and nematology

**Dr Tudor Dawkins**, Technical Manager at Certis Europe BV (UK) with special interests in applied mycology and bacteriology, biological control, cropping and the environment, food systems, nematology, pesticide application, plant protection and crop improvement, virology and especially crop protection

**Dr Anthony Flemming**, at Syngenta Bioscience, Jealott's Hill Research Centre with a special interest in nematology

**Mr Will Foss**, Agricultural Consultant at UAP with special interests in cropping and the environment, food systems, pesticide application and plant protection and crop improvement

**Dr Margherita Gioria**, Principal Investigator and Postdoctoral Researcher at the Agriculture and Food Science Centre, Dublin with special interests in biological control and cropping and the environment

**Mrs Tariere Giwa-Osagie**, Assistant Chief Scientific Officer with Raw Materials Research & Development Council, Nigeria with special interests in applied mycology and bacteriology, biological control, cropping and the environment, food systems, nematology, pesticide application, plant protection and crop improvement and virology

**Dr Oktay Gurkan**, Researcher at Ankara University, Faculty of Agriculture, Turkey with special interests in biological control, cropping and the environment, food systems and pesticide application

**Mr Adrian Harris**, Research Entomologist at East Malling Research with special interests in cropping and the environment, pesticide application and entomology

**Mr Tim Holt**, Herbicide product manager for Bayer CropScience UK with special interests in cropping and the environment, pesticide application and plant protection and crop improvement

**Ms Rosie Kittoe**, Ecotoxicology Specialist – assessing the risk posed by pesticides and biocides to non-target organisms in the environment with special interests in biological control, cropping and the environment, food systems, pesticide application and plant protection and crop improvement

**Mr Bob Knight**, Biological Control Consultant for Koppert UK with special interests in biological control, cropping and the environment and pesticide application

**Prof Babajide Matanmi**, Professor of Entomology at Obafemi Awolowo University, Nigeria with special interests in biological control, cropping and the environment and food systems

**Dr Jonathan Newman**, Head – Aquatic Plant Management Group at CEH Wallingford with special interests in biological control, pesticide application, plant protection and crop improvement, invasive species and weed ecology

**Mr Matthew Paterson**, Agronomist from Bishops Stortford with special interests in biological control, cropping and the environment, pesticide application and plant protection and crop improvement

**Ms Francoise Petter**, Assistant Director at OEPP-EPP0, Paris with special interests in applied mycology and bacteriology, biological control, cropping and the environment, nematology, pesticide application and virology

**Ms Mara Ramans**, Head of Variety and Seeds Delivery at FERA with special interests in cropping and the environment, food systems and plant protection and crop improvement

**Dr Hugh Roderick**, Postdoctoral Research Fellow at the Centre for Plant Sciences, University of Leeds with special interests in nematology and plant protection and crop improvement

**Miss Nidhal Sher Mohammed**, PhD Student at the University of Glasgow with special interests in cropping and the environment and pesticide application

**Mr Ron Stobart**, Head of Crop Research Communication at NIAB TAG, with special interests in applied mycology and bacteriology, biological control, cropping and the environment, food systems, pesticide application and plant protection and crop improvement

**Mrs Lynn Tatnell**, Research Scientist in Weed Biology at ADAS Boxworth with special interests in cropping and the environment, pesticide application and plant protection and crop improvement

**Dr Bill Thomas**, Research Scientist at The James Hutton Institute with special interests in cropping and the environment and plant protection and crop improvement

**Mr Mike Thompson**, Independent Agronomist from King's Lynn with special interests in applied mycology and bacteriology, biological control, cropping and the environment, food systems, nematology, pesticide application, plant protection and crop improvement, virology and agronomy

**Mr David Townley**, Agronomist at UAP with a special interest in pesticide application



**Ms Catherine Walker**, Final year PhD Student at Silwood Park, Imperial College London with special interests in biological control and pesticide application

**Ms Becky Ward**, Senior Technical Officer – Agronomy at PGRO, Peterborough with special interests in applied mycology and bacteriology, biological control, cropping and the environment, food systems, nematology, pesticide application, plant protection and crop improvement and virology

**Mr Nick Watson**, Corporate Services Development Manager at NIAB TAG with special interests in biological control, cropping and the environment, food systems, pesticide application and plant protection and crop improvement

**Mr Mark Webster**, Conservation Team Leader – carrying out practical management of sites with a special interest in vegetation management on nature reserves and other public green spaces

#### DEATHS

We regret to announce the following death:

Mr D Yeo, Truro, Cornwall

Under the guidance of Dr Toby Bruce (Rothamsted Research), the AAB Biological Control Group has written an AAB briefing document to provide authoritative guidance to policy makers. The document explores some of the implications of the Sustainable Use Directive (EC regulation 1107/2009) for European farmers, makes recommendations to policy makers and highlights the potential role of UK scientists in implementing the legislation. You can read it on the website or email [claire@aab.org.uk](mailto:claire@aab.org.uk) for a copy.

The briefing document was prompted by an open discussion at the 'Advances in Biocontrol' conference (17 November 2010). With the impending changes in European pesticide legislation and the implementation of the Sustainable Use and Water Framework Directives, there had never been a more important time to pool UK knowledge and expertise in novel methods



# “AAB Biological Control Group Policy Briefing on Sustainable Crop Protection”



of crop protection and pest management.

The overall objective of this conference was to explore means of providing alternatives to conventional chemical interventions in crop protection through integrated pest management (IPM) and integrated crop management (ICM) as well as classical biological control (CBC). The conference provided an ideal forum for young scientists, experienced researchers and practitioners to detach themselves from their usual day-to-day pressures and become totally immersed in the subject.

We selected 17 papers from those submitted. They included a wide range of biological control topics as well as other components of IPM, ICM and CBC. Each speaker was given a relatively short slot of 15 minutes with the brief to create an awareness of their research activities rather than to present detailed results. This format worked very well with

plenty of lively discussion.

In the longer term, we hope to create an annual gathering of the biocontrol community in the UK, thus paving the way for further interactions and collaborative ventures between delegates. With this thought in mind, we concluded with an open discussion exploring the best way to take the event forward. The delegates unanimously voted to make it an annual conference following a similar format to 2010.

In summary, the conference was both a financial and technical success. We believe that it is already filling an important niche for the biocontrol community in the UK and will become even more popular as this message reaches other people in the industry.

Finally, we would like to thank the main sponsors whose generous financial support helped to make the day such a great success; Fargro, HDC and Russell IPM.

*-Rob Jacobson*

## NOTICE OF NON AAB CONFERENCES

- 5th China Summit Forum on Industrial Biotechnology Developments.** 24-27 May 2011, China.
- RES 'Annual General Meeting.'** 1 June 2011. Herts, UK.
- Renewable Energy.** 1-4 June 2011. Bangkok, Thailand.
- European BC&E/ AAB '19th European Biomass Conference and Exhibition.'** 6-10 June 2011. Berlin, Germany.
- CropLife/University of Guelph 'Climate Change and the Implications for Plant Science.'** 7-8 June 2011. University of Guelph, Canada.
- 2011 International conference on power and energy systems (ICPES 2011).** 10 June 2011, China.
- Plant Biotechnology: Green for Good** 19 - 21 June 2011, Czech Republic.
- IUSS Soil interfaces in a changing world.'** 26 June-1 July 2011. Montpellier, France.
- Effective learning in the Biosciences: equipping students for the 21st century.** 30 June 2011, Edinburgh, UK.
- International Social insect genomics research conference.** 30 June – 02 July, China.
- 9th International conference on Asian agriculture and animals (ICAAA 2011).** 1 July 2011, Hong Kong, China.
- SEB 'Annual Meeting'** 1-4 July 2011. Glasgow, UK
- MMM3: meeting on mangrove ecology and management.** 2 July 2011, Sri Lanka.
- RES 'Insect Festival.'** 3 July 2011. York Museum Gardens, UK.
- BGS 'Summer Meeting 2011.'** 3-6 July 2011. Devon, UK.
- Botany 2011.** 9-13 July 2011. St Louis, USA.
- International Congress in Arabidopsis.** 22-25 July 2011. Madison, USA.
- International Botanical Congress.** 23-30 July 2011. Melbourne, Australia.
- International Association for Food Protection.** 21 July-3 August 2011. Milwaukee, USA.
- 2011 International conference on environmental and agriculture engineering (ICEAE 2011).** 29 July 2011, Changdu, China.
- ASP '52nd ASP Annual Meeting.'** 1-3 August 2011. San Diego, California, USA.
- NARA Institute 'The XV Congress on Molecular Plants - Microbe interactions.'** 2-6 August 2011. Kyoto, Japan.
- Americal Phytopathological Society.** 6-10 August 2011. Honolulu, USA.
- Plant Biology 2011 (American Society of Plant Biologists).** 6-10 August 2011. Minneapolis, USA.
- Bioprocessing facilities 2011 conference.** 8 August 2011, San Diego, USA.
- EGF 'Grassland Farming and Land Management in Mountainous Regions.'** 28-31 August 2011. Raumberg-Gumpenstein, Austria.
- International congress on applied biology.** 1 September 2011, Mashhad, Iran.
- SGM 'Autumn 2011 Conference.'** 5-7 September 2011. University of York, UK.
- Aberystwyth Institute of Science 'ISNH8 (Herbivores).'** 6-9 September 2011. Aberystwyth University, Wales.
- Agricultural Biotechnology International Conference (ABIC).** 6-9 September 2011. Johannesburg, South Africa.
- XIII International symposium on biological control of weeds.** 11 September 2011, Wai Koloa, Hawaii.
- The 19th International conference on environmental indicators (ISEI).** 11 September 2011, Haifa, Israel.
- CIMMYT '8th International Symposium on Mycosphaerella and Stagonospora Diseases of Cereals.'** 11-14 September 2011. Mexico City.
- 3rd symposium on environmental weeds & invasive plants, (intractable weeds and plant invaders).** 12 September 2011, Ticino, Switzerland.
- BES 'Annual Meeting.'** 12-14 September 2011. Sheffield, UK.
- 3rd meeting of IOBC working group Integrated Control of Plant Feeding Mites.** 13 September 2011, Cesky, Krumlov, Czech Republic.
- WCCA & FSD 'World Congress on Conservation Agriculture.'** 26-29 September 2011. Brisbane, Australia.
- International symposium on Plant Biotechnology towards Tolerance to stresses and Enhancing Crop Yield.** 28 September – 01 October 2011, India.
- BIT's 1st Annual Conference & Exhibition of petroleum green technology.** 19-22 October 2011, China.
- BIT's 1st Annual Conference & Exhibition of Environmental Biotechnology.** 19-22 October 2011, China.
- BCPC 'Global Crop World 2011.'** 31 October-2 November 2011. ExCel Centre, London, UK.
- Fifth international conference on sustainable development.** 23 November 2011, Benin.
- Sustainability through mimicry: Discovering a world of solutions inspired by nature.** 28 November 2011, Saudi Arabia.
- Bioasia 2012.** 9-11 February 2012, China.
- EuroSciCon Biofuels follow up event.** 10 February 2012, TBC.

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## AAB FORWARD CONFERENCE PROGRAMME

### 2011

- 15-16 June **Agricultural Ecology Research: its role in delivering sustainable farm systems**  
West Park Centre, Dundee (CATE Group, BES, Hutton Institute)
- 28-29 June **GM Crops: from Basic Research to Application**  
Rothamsted Research, Harpenden, Herts (PP&CI Group)
- 17-18 August **Workshop - Keeping pesticides out of water**  
Wageningen, the Netherlands (Pesticide Application Group) tbc
- 18-22 September **Working Group "Integrated Control in Protected Crops, Temperate Climate"**  
Norton Park Hotel, Sutton Scotney (IOBC Working Group)
- 21-24 September **Biomass and Energy Crops IV**  
Champaign, Illinois, USA (AAB Multidisciplinary/ University of Illinois)
- 12 October **New technologies for early pest and disease detection**  
The Olde Barn Hotel, Marston, Lincs (AM&B Group)
- 29 November **Biopesticides Conference**  
The Olde Barn Hotel, Marston, Lincs (Biological Control Group/ IBMA)
- 30 November **Advances in Biological Control**  
The Olde Barn Hotel, Marston, Lincs (Biological Control Group)
- 13 December **Advances in Nematology**  
Linnean Society of London (Nematology Group)

### 2012

- 10-12 January **International Advances in Pesticide Application**  
Wageningen, the Netherlands (Pesticide Application Group)
- 28-30 March **International Advances in Plant Virology**  
The Convention Centre, Dublin (Virology Group/ SGM)
- September **Flowering and Food Security**  
University of Reading, UK

Further details of our activities are available on the AAB website: [www.aab.org.uk](http://www.aab.org.uk)

**AAB Conference Services** are available to anyone in the scientific field. For further information or and informal chat contact Carol Millman at the AAB office: +44 (0)24 7657 4998. Email: [carol@aab.org.uk](mailto:carol@aab.org.uk)

