

ASSOCIATION OF APPLIED BIOLOGISTS

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



A two day workshop

at the Universitat Politècnica de
Catalunya, Barcelona, Spain

on 28-29 October 2014

PROGRAMME &
DELEGATE INFORMATION

**Developments in
hand-held application
techniques**

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WORKSHOP

Developments in hand-held application techniques

on 28-29 October 2014

**at School of Agriculture, Universitat Politècnica
De Catalunya, Barcelona, Spain**

The application of pesticides and biocides using hand held and manually portable equipment is often overlooked in favour of larger, seemingly more sophisticated equipment. This workshop offers a platform for discussion and demonstration of equipment and techniques often found in the horticultural and amenity sectors. Various physical and environmental factors may compromise the delivery and effectiveness of the treatment to the target. The workshop will focus on subjects such as:

- Operator and environmental safety
- Operator training
- Equipment performance testing, standards and maintenance.
- Application efficacy
- Novel systems

Working in conjunction with the University and local grower groups the technical aspects of the workshop will be supported by site visits and demonstrations of best practice and research in these areas.

PROGRAMME

(8 BASIS Points have been awarded as follows: 2 E, 4 AP, 2 HS)

Tuesday 28 October

12:20 WORKSHOP REGISTRATION

12:50 **INTRODUCTION**

(Prof. PAUL MILLER, AAB Pesticide Application Group Convener)

13:00 **The evolution of hand-held application techniques – 19th to 21st Century technology**

GRAHAM MATTHEWS & EVAN THORNHILL (Imperial College at Silwood Park, Ascot, UK)

13:30 LUNCH

14:30 **Research and inspection results of handheld application techniques**

DAVID NUYTTENS, JOHAN DECLERQ & DIETER FOUQUÉ (ILVO, Merelbeke, Belgium)

15:00 **EN ISO 19932 on requirements and test methods for knapsack sprayers**
ANDREAS HERBST (Julius-Kühn-Institut, Federal Research Institute for Cultivated Plants,
Braunschweig, Germany)

15:30 **TEA & POSTERS**

POSTER

Condition assessment of hand-held pesticide application equipment for greenhouse crops in Almería (Spain)

FRANCISCO PÁEZ (Instituto Investigación y Formación Agraria y Pesquera, Junta de Andalucía, Spain), VÍCTOR J RINCÓN, JULIÁN SÁNCHEZ-HERMOSILLA (Dpto. Ingeniería Rural, Universidad de Almería, Spain) & MILAGROS FERNÁNDEZ (Instituto Investigación y Formación Agraria y Pesquera, Junta de Andalucía, Spain)

16:15 **Spray drift of a handheld spray boom, a handheld shielded spray boom and a shield on the edge of the field**

JAN VAN DE ZANDE, JEAN-MARIS MICHIELSEN & HEIN STALLINGA (Wageningen UR-Plant Research International (WUR-PRI), Wageningen, the Netherlands)

16:45 **Evaluating sprayers: Some experience of testing manually operated compression and lever-operated sprayers**

EVAN THORNHILL & GRAHAM MATTHEWS (Imperial College at Silwood Park, Ascot, UK)

17:15 **DISCUSSION**

Wednesday 29 October

09:30 **WORKSHOP REGISTRATION**

10:00 **Techniques to reduce operator exposure with manual pesticide application techniques**

F J EGGA GONZALEZ (University of Almeria, Almeria, Spain) & C R GLASS (Eurofins Agrosience Services, Derby, UK)

10:30 **Tackling hazards associated with lever-operated knapsack sprayers; a case of illiterate farmers in Uganda**

AGGREY ATUHAIRE (Pesticide Use, Health and Environment (PHE) Uganda Project, Kampala, Uganda)

11:00 **COFFEE & POSTERS**

11:30 **Nozzle characterization of knapsack sprayers**

J LLOP, E GIL (Universitat Politècnica de Catalunya, Castelldefels (Barcelona), Spain) & P BALSARI (University of Turin - DiSAFA, Crop Protection Technology, Grugliasco (TO), Italy)

12:00 **Assessment of droplet size and spray patterns in different models of motorised knapsack sprayers**

PAOLO BALSARI, PAOLO MARUCCO & GIANLUCA OGGERO (University of Turin - DiSAFA Crop Protection Technology, Grugliasco (TO), Italy)

12:30 **Proposal of a new standard concerning functional parameters and safety requirements for motorised knapsack sprayers**

PAOLO BALSARI, PAOLO MARUCCO & GIANLUCA OGGERO (University of Turin - DiSAFA Crop Protection Technology, Grugliasco (TO), Italy)

13:00 **DISCUSSION**

13:30 **LUNCH**

14:00 *Optional Field Trip* - technical visit to one/two greenhouses near the Campus

14:00 Meeting of the Pesticide Application Group Committee

16:00 **DEPART**

AAB FORWARD CONFERENCE PROGRAMME

2014

- 28-29 October **Developments in hand-held application techniques**
School of Agriculture, Universitat Politècnica De Catalunya,
Barcelona, Spain (Pesticide Application Group)
- 19-20 November **Advances in IPM 2014**
Olde Barn Hotel, Marston, Lincs (Biocontrol & IPM Group)
- 25-26 November **Crop Production in Southern Britain - Precision Decisions for Profitable Cropping**
Peterborough Arena, Peterborough (CATE Group/AICC, AIC, BCPC, AHDB)
- 9-10 December **Challenges for Crop Production & Quality**
Annals of Applied Biology Centenary Conference
Rothamsted Research, Harpenden, Herts, UK (Multidisciplinary, *Annals* Board of Editors)
- 16 December **Advances in Nematology**
Linnean Society of London, Piccadilly, London (Nematology Group)

2015

- 31 March-2 April **Advances in Virology (in association with The Society for General Microbiology)**
ICC, Birmingham (Virology Group)
- 31 March-1 April **Improving Soil Health – Developing tools for land managers**
Olde Barn Hotel, Marston, Lincs (CATE Group)
- 27-28 May **Valuing long-term sites and experiments for agriculture and ecology**
Cockle Park farm, Newcastle University, Morpeth, Northumberland (CATE Group)
- 24-25 June **Getting the Most Out of Cover Crops**
Olde Barn Hotel, Marston, Lincs (CATE Group)
- 7-8 September **5th Symposium on Potato Cyst Nematodes**
Harper Adams University, Newport, Shropshire, UK (HAU/Nematology Group)

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