



DIE AKADEMIE  
FRESENIUS

*Where experts meet!*

12<sup>th</sup> International Fresenius AGRO Conference

# BEHAVIOUR OF PESTICIDES IN AIR, SOIL AND WATER

21 and 22 June 2010  
in Mainz (near Frankfurt)/  
Germany

## HIGHLIGHTS:

### Regulatory Issues

- Regulation (EC) No 1107/2009 – Commission update
- EU guidance in the fate area – EFSA update
- Exposure assessment for the national authorisation – Member State experiences
- Revision of the Drinking Water Directive
- Water Framework Directive and active management of substances

### Environmental Fate

- Challenges to acceptance of foreign field dissipation studies
- Metabolites and kinetics
- Guidance on aged sorption studies for pesticides
- Fate in soil and groundwater assessments
- Vegetative buffers for mitigating transport in runoff
- Progress on environmental spray drift

### Environmental Exposure and Risk Assessment

- Outline proposals for assessment of exposure of organisms in soil
- Uncertainty and pesticide fate model scenarios
- Update on ECPA's Advancing Intelligent Mitigation Project



## THE EXPERTS:

**Anne Alix** Ministry of Agriculture | **Sari Autio** Finnish Environment Institute | **Richard Allen** Bayer CropScience | **Aldos Barefoot** DuPont Crop Protection | **Pierre Benoit** French National Institute for Agronomical Research (INRA) | **Sabine Beulke** The Food and Environment Research Agency (FERA) | **Jos Boesten** Alterra | **Colin Brown** University of York | **Nadia Carluer** Cemagref | **Jan Cortvriend** European Commission | **Mark Egsmose** European Food Safety Authority (EFSA) | **Melanie Gross** wca environment limited | **Christophe Gustin** Monsanto | **Kalumbu Malekani** DuPont Crop Protection | **Christopher Leake** Bayer CropScience | **Andy Massey** Chemicals Regulation Directorate (CRD) | **Robin Oliver** Syngenta | **Christina Pickl** Federal Environment Agency (UBA) | **Wolfgang Reinert** European Commission | **Christian Stamm** EAWAG | **Jan van de Zande** Wageningen University | **Peter van der Keur** National Geological Survey of Denmark and Greenland (GEUS) | **Jan Vanderborght** Forschungszentrum Jülich | **Harry Vereecken** Forschungszentrum Jülich

# THE PROGRAMME

Get-Together on Sunday, 20 June 2010



Will you arrive on Sunday?  
Come into the hotel bar at 8 p.m. and meet other participants and experts in a relaxed atmosphere.

**Monday, 21 June 2010**

8.30 Registration & coffee

9.00 **Welcoming speech by the organisers and the chairperson**  
**Christopher Leake**, Bayer CropScience, Germany

## Regulatory Issues

9.10 **Regulation (EC) No 1107/2009 update**  
**Wolfgang Reinert**, DG SANCO, European Commission, Belgium

9.40 **EFSA update on the developments on EU guidance in the fate area**

- Opinions on emissions from protected crops (greenhouses and covered crops)
- Opinion for the revision of the persistence in soil guidance
- Updates and outcome from stakeholder consultations

**Mark Egsmose**, European Food Safety Authority (EFSA), Italy

10.10 **Updating of the environmental fate data requirements (Annex II and III)**  
**Andy Massey**, Chemicals Regulation Directorate (CRD), UK

10.30 Panel discussion

10.50 Coffee break

11.20 **Member States experiences with exposure assessment for the national authorisation – view from Finland**  
**Sari Autio**, Finnish Environment Institute, Finland

11.40 **Member States experiences with exposure assessment for the national authorisation – view from UK**  
**Andy Massey**

12.00 **Member States experiences with exposure assessment for the national authorisation – view from Germany**

- Principles of exposure assessment for groundwater and surface water
- Models (e.g. EXPOSIT and EVA)
- Consequences for national authorisation

**Christina Pickl**, Federal Environment Agency (UBA), Germany

12.20 **Member States experiences with the risk assessment and management in the e-fate area – view from a Mediterranean country**

- How to deal with refined risk assessment in ground/surface water and in dusts?
- Link with risk mitigation measures

**Anne Alix**, Ministry of Agriculture, France

12.40 Panel discussion

13.00 Lunch

14.30 **Revision of the Drinking Water Directive**  
**Jan Cortvriend**, DG Environment, European Commission, Belgium

15.00 **The Water Framework Directive (WFD) and its relevance to plant protection products – industry and authority side in the UK**

- Which plant protection products are covered by the WFD?
- How is a WFD EQS derived?
- Differences between WFD EQS and PPP registration methods and their consequences

**Melanie Gross**, wca environment limited, UK

15.30 **Aminomethylphosphonic acid (AMPA): a pesticide regulatory focus for a substance with multiple chemical origins**

- AMPA formation from detergents and its impact on the interpretation of pesticide monitoring data
- Impact of the origin of AMPA on the prioritization process under the WFD

**Christophe Gustin**, Monsanto Europe, Belgium

16.00 Panel discussion

16.20 Coffee break

## Environmental Fate

**Chairperson:**  
**Harry Vereecken**, Forschungszentrum Jülich, Germany

16.50 **Challenges to acceptance of foreign field dissipation studies in North America and Europe**

- Similarities in soil types, climatic conditions and crop in EU and NA
- Field dissipation study design
- Data to support site selection across OECD member states

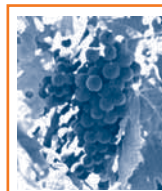
**Kalumbu Malekani**, DuPont Crop Protection, USA

17.20 **Classification of drift reducing technology and use of spray drift data**

- Spray drift research
- Drift reducing technology and its classification
- Use of spray drift data in authorisation procedure of PPP

**Jan van de Zande**, Wageningen University and Research Centre – Plant Research International, The Netherlands

- 17.50 Panel discussion
- 18.10 End of the first conference day
- 18.40 Departure time for the evening event



After the first conference day Akademie Fresenius would like to invite you to a leisurely evening on the vineyard Allendorf in the wine-growing region Rheingau – a perfect opportunity for talks and discussions with speakers and participants.

## Tuesday, 22 June 2010

### 8.30 Mechanisms of photolysis and their implications for the environmental fate of pesticides

- Mechanisms of photolysis
  - Understanding photolysis in natural waters and on soil
- Robin Oliver**, Syngenta, UK

### 9.00 The role and fate of pesticide metabolite in risk assessment

- Kinetics of formation in soil environments
- Participation to immobilization or leaching processes
- Coupling between the formation/disparition of these compounds

**Pierre Benoit**, French National Institute for Agronomical Research (INRA), France

### 9.30 Guidance on aged sorption studies for pesticides and their use in regulatory exposure assessments

**Sabine Beulke**, The Food and Environment Research Agency (FERA), UK

- 10.00 Panel discussion
- 10.30 Coffee break

### 11.00 Fate in soil and groundwater assessments – integrating laboratory and field results

**Aldos Barefoot**, DuPont Crop Protection, USA

### 11.30 Mass flux analysis of glyphosate and other major herbicides in a catchment of urban and agricultural land use

**Christian Stamm**, EAWAG, Switzerland

### 12.00 Vegetative buffers for mitigating pesticide transport in runoff – an overview

- Processes at work in vegetative filter strips
- Conditions of efficiency and consequences for positioning and sizing
- Modelling vegetative strips efficiency

**Nadia Carluer**, Cemagref, France

### 12.30 Implications of future climate change on pesticide leaching to surface waters and groundwater at catchment scale – A MIKE SHE/MACRO simulation approach

- MACRO parameterisation for two small catchments in Denmark

- MACRO model as upper boundary to MIKE SHE catchment scale model

**Peter van der Keur**, National Geological Survey of Denmark and Greenland (GEUS), Denmark

- 13.00 Panel discussion
- 13.30 Lunch

## Environmental Exposure

### Chairperson:

**Colin Brown**, University of York, UK

### 14.30 Outline proposals for assessment of exposure of organisms in soil

**Jos Boesten**, Alterra, The Netherlands

### 15.00 Uncertainty and pesticide fate model scenarios

- Impact of uncertainty about pesticide fate parameters
- Impact of the substance properties
- Interpretation of higher tier lysimeter and field studies considering uncertainty

**Jan Vanderborght**, Forschungszentrum Jülich, Germany

### 15.30 Update on ECPA's Advancing Intelligent Mitigation Project

**Richard Allen**, Bayer CropScience, USA

- 16.00 Panel discussion
- 16.30 End of the conference

## THE EXPERTS

**Anne Alix** has joined the Ministry of Agriculture in April after six years with the French Agency on Food Safety (AFSSA). At the ministry she will implement post registration monitoring and environmental surveys.



**Richard Allen** is Product Safety Manager at Bayer CropScience Research Triangle Park. He has 30 years experience of studying the fate and behaviour of pesticides in the environment as well as risk assessment and management.



**Sari Autio** is Senior Adviser at the Finnish Environment Institute in Helsinki. As team coordinator she is responsible for the environmental risk assessment of plant protection products.



**Aldos Barefoot** works for DuPont Crop Protection in the US.

# THE EXPERTS

## THE EXPERTS

**Pierre Benoit** has done his career at INRA. His main research interests are the interactions between sorption and biodegradation of organic contaminants in soil and the consequences on (bio)availability.

**Sabine Beulke** is working as a Senior Environmental Scientist at FERA. She has more than 10 years experience of research into the environmental fate and behaviour of pesticides.

**Jos Boesten** has been involved in research on pesticide fate in the environment since 1980. He has been a member of the EFSA PPR Panel since 2003. He is a senior scientific researcher at Alterra.

**Colin Brown** is Professor in Environmental Science at the University of York. He has 18 years' experience of research into the fate and effects of organic contaminants in the environment.

**Nadia Carluer** works in the non point pollution team, in the Fresh-water Systems, Ecology and Pollution research unit of Cemagref.

**Jan Cortvriend** is working for the European Commission in the Directorate Environment and is the desk officer in charge of the Drinking Water Directive.

**Mark Egsmose** is a Senior Scientific Officer in EFSA's Unit of Plant Protection Products and their Residues (PPR). He is actively involved in the revision of existing and development of new EU Guidance for Plant Protection Products.

**Melanie Gross** joined wca environment limited in the UK in 2007 after six years with the Environment Agency. She has many years of experience in environmental research and regulation.

**Christophe Gustin** has worked for Monsanto for 13 years. For the last five years he has worked as a manager in the regulatory affairs department in Monsanto's Brussels office with lately a specific focus on the glyphosate annex I renewal.

**Christopher Leake** is an Environmental Safety Manager at Bayer CropScience responsible for the areas of environmental fate, ecotoxicology and risk assessment. He has over 30 years experience in this area having worked in a number of countries.

**Kalumbu Malekani** is a Research Associate for Environmental Safety Assessment at DuPont Crop Protection. He currently manages environmental fate laboratory and field studies.



**Andy Massey** works for the CRD, where he is involved in environmental fate assessment of pesticides for registration purposes both at EU and UK national level.

**Robin Oliver** joined Syngenta in 2001 after ten years with Rhone-Poulenc and Aventis CropScience. For most of that time he has been involved in regulatory plant and soil metabolism work.

**Christina Pickl** works at the German Federal Environment Agency (UBA) since 2004. In the section „Plant Protection Products“ she is responsible for the environmental risk assessment and management.



**Wolfgang Reinert** is working for the European Commission in the sector of Directorate Health and Consumers and managing new active substances in the Review Process under Directive 91/414/EEC and Regulation (EC) No 1107/2009.

**Christian Stamm** has been working for the EAWAG since 2002. He is member of the Environmental Chemistry Department.

**Jan van de Zande** is Senior Researcher at the department of Field Technology Innovations at Wageningen University – Plant Research International.



**Peter van der Keur** is Senior Researcher at the Department of Hydrology at the National Geological Survey of Denmark and Greenland. He is involved in projects on pesticide leaching and climate change.



**Jan Vanderborght** is Head of the Research Group on Transport in Soils and Aquifers at the Forschungszentrum Jülich. In 2001 he began his career as researcher in the Institute for Agrosphere.



**Harry Vereecken** is Director of the Institute for Agrosphere within the Department of Chemistry and Dynamics of the Geosphere at Forschungszentrum Jülich.



## WHOM DO YOU MEET?

### Groups that should take part:

Managing directors, boards of directors, members of supervisory boards, managers and scientists in the fields of:

- environmental behaviour
- field inspection
- research & development
- legal & regulatory affairs
- registration
- ecotoxicology
- exposure & risk assessment
- monitoring & computer modelling

### Sectors that should take part:

- Agrochemical industry
- Research institutes from the area of agriculture, soil, hydrology and air
- Authorities (agricultural inspection offices, registration and control authorities)
- Water supply enterprises
- Professional associations

## THE ORGANISERS

AKADEMIE FRESENIUS is a joint venture of SGS Institut Fresenius GmbH and COGNOS AG, one of the leading private educational institutes in Germany. Akademie Fresenius organises national and international conferences and congresses on current topics from the economic and scientific sectors for both specialists and the industry. You can find details on upcoming and new events at [www.akademie-fresenius.com](http://www.akademie-fresenius.com)

SGS INSTITUT FRESENIUS conducts international projects with regard to the residues behaviour in crops, exposure for the applicant/farmer and development of genetically modified crops. Vast experience in analytical sciences and most recent analytical equipment is used to develop and validate methods relevant for the quality assessment of pesticide products and monitoring of the pesticide/metabolite residues at trace levels.

SGS INSTITUT FRESENIUS Agrochemicals Product Registration Services provides GLP compliant laboratory and field studies for the registration of agrochemicals, biocides and chemicals. [www.institut-fresenius.de](http://www.institut-fresenius.de)

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Take advantage of our conference – use it as a platform to present your products and services to a selected group of speakers and participants.

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Anna Forster  
Sponsoring and Exhibition  
Phone: +49 231 75896-73  
[aforster@akademie-fresenius.de](mailto:aforster@akademie-fresenius.de)



## REGISTRATION

12<sup>th</sup> International Fresenius AGRO Conference  
**BEHAVIOUR OF PESTICIDES IN AIR, SOIL AND WATER**  
21 and 22 June 2010 in Mainz (near Frankfurt)/Germany



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### HOW TO REGISTER

#### By web

[www.akademie-fresenius.com/1958](http://www.akademie-fresenius.com/1958)

#### By email

[mstratmann@akademie-fresenius.de](mailto:mstratmann@akademie-fresenius.de)

#### By fax

+49 231 75896-53

#### By mail

Die Akademie Fresenius GmbH  
Alter Hellweg 46, 44379 Dortmund/Germany

If you have any questions **regarding the organisation** please contact:



Monika Stratmann  
Event Organisation  
Phone: +49 231 75896-48  
Email: [mstratmann@akademie-fresenius.de](mailto:mstratmann@akademie-fresenius.de)

If you have any questions **regarding the programme** please contact:



Sabine Mummenbrauer  
Conference Management  
Phone: +49 231 75896-82  
Email: [smummenbrauer@akademie-fresenius.de](mailto:smummenbrauer@akademie-fresenius.de)

### PARTICIPATION

- Yes!** I would like to take part in the **12<sup>th</sup> International Fresenius AGRO Conference „Behaviour of Pesticides in Air, Soil and Water“**, 21 to 22 June 2010 in Mainz (near Frankfurt)/Germany.  
Fee: € 1,595.00 plus VAT per person. Event number: VK1958

### SPECIAL RATE

- Yes!** I am a representative of an authority or university and therefore eligible for a reduced fee of € 795.00 plus VAT per person (please provide evidence).  
The reduced fee cannot be combined with other rebates.

I would like to take part in the **evening event on 21 June 2010** (included in the above prices).

- Yes  No

### CONFERENCE DOCUMENTATION

- No!** Unfortunately, I am unable to attend. Please send me the complete conference documentation for € 295.00 plus VAT (hard copy and electronic version).

### EXHIBITION AND SPONSORING

- Yes!** Please send me information on **exhibition and sponsoring possibilities** during the event.

My Account Number is (if available): \_\_\_\_\_

Title, first name, name \_\_\_\_\_

Position \_\_\_\_\_

Department \_\_\_\_\_

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ZIP-code, city, country \_\_\_\_\_

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Date \_\_\_\_\_



Signature \_\_\_\_\_

Billing Address (only if different from the above address) \_\_\_\_\_

First name, name \_\_\_\_\_

Department \_\_\_\_\_

W E B

### TERMS OF PARTICIPATION AND PURCHASE:

The registration fee includes the **conference participation, complete conference documentation, lunch, coffee breaks, conference beverages** as well as the **evening event** on 21 June 2010. You will receive written confirmation of your registration. Upon receiving our invoice, please transfer the amount due without further deductions before the conference begins.

The price of the conference documentation includes a hard copy of the documentation as well as an access code to the secure Akademie Fresenius download area where you can download the complete conference documentation, including any subsequent updates, in electronic form – subject to the approval of the respective speakers. Both the documents and the secure access code will be dispatched around two weeks after the event and as soon as advance payment has been received.

### GROUP REDUCTIONS:

For joint bookings received from one company we grant a **15 % discount** from the third participant onwards.

### NO-RISK BOOKING:

**Written cancellations or transfers will be accepted free of charge** up to four weeks prior to the start of the event. After this date and up to a week prior to the start of the event we will reimburse 50 % of the registration fee. We cannot, unfortunately, provide refunds for later cancellations. **Please note that you can name a substitute free of charge at any time.**

### GENERAL TERMS AND CONDITIONS

By registering, you agree to our **General Terms and Conditions** as well as to our **Privacy Policy**. You can find our General Terms and Conditions on the internet ([www.akademie-fresenius.de/general-terms](http://www.akademie-fresenius.de/general-terms)) or receive them on request.

### PERSONAL DATA

The Akademie Fresenius will keep your personal data for the purpose of organising this event. We will under no circumstances use your data for commercial trade purposes. In signing this form you consent to our occasionally contacting you by **mail, email, fax or phone (please strike through if unwanted)** in order to provide you with further information from our company. You can, of course, withdraw your consent whenever you wish. Further information can be found at: [www.akademie-fresenius.de/dataprotection](http://www.akademie-fresenius.de/dataprotection).

### VENUE/CONFERENCE HOTEL

Atrium Hotel Mainz  
Flugplatzstrasse 44,  
55126 Mainz (near Frankfurt/Main), Germany  
Phone: +49 6131 491-0, Fax: +49 6131 491-128  
Email: [info@atrium-mainz.de](mailto:info@atrium-mainz.de)  
Web: [www.atrium-mainz.de](http://www.atrium-mainz.de)

We have reserved a **limited number of rooms** for our participants **at reduced rates** at the conference hotel. These rooms can be booked up to four weeks prior to the start of the event. Please book early and directly through the hotel quoting **“Fresenius”** as reference.