

Advisory Committee on Pesticides Annual Report 2014

Department for Environment, Food and Rural Affairs
Health and Safety Executive



acp



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Chairman's Foreword

It's my pleasure to present my first annual report as Chair of the Advisory Committee on Pesticides. I was appointed to the post towards the end of 2014 and am looking forward to working with all parties involved in this important activity. It is essential that people and the environment are protected from the adverse impacts that can result from the use of some pesticides, whilst ensuring society continues to derive the significant benefits which can accrue from responsible use of these agents.

You will see from this report that the Committee has provided advice to Government on a range of issues. It is apparent that the Committee and regulators exert control of pesticides on the basis of sound science. The regulatory regime is managed, reviewed and developed by experts dedicated to ensuring that they are used safely.

ACP recognises that there are those who believe the control regime to be too precautionary and therefore denying society the benefits of new and existing chemistry. Likewise, there are those who hold the view that the current regime exposes people and the environment to unnecessary risks and would like the controls strengthened. We always listen to those who bring scientifically-persuasive evidence to improve our understanding of the issues we consider.



Our Committee has always, and will continue to work hard to ensure the ACP maintains access to an appropriate range of specialist expertise and acts as a 'critical-friend' to those involved in pesticide regulation. Our focus is to help enable safe and sustainable pesticide use through appropriate scientific scrutiny.

Three members retire from their roles on the Committee at the end of 2014. John Cocker, Caroline Harris and Stephen Waring have been valued colleagues playing key roles contributing to the Committee's understanding of complex issues. We thank them for their contribution and appreciate the time they made available to support the ACPs activities. Thanks also go to those Committee members who took on responsibility for Chairing meetings until my appointment was confirmed – you will be a hard act the follow. We are sure you will find this report an interesting and informative summary of the Committee and our work. If you have any questions about this report and/or our activities please get in touch with our Secretariat whose contact details can be found on page 14.



William Cushley

Chairman, Advisory Committee on Pesticides

Role of the ACP

We are currently a Non-Departmental Public Body providing independent scientific advice to Ministers and Governments (including those in the devolved administrations) on the authorisation of pesticides in the UK and on other matters related to the control of pests more broadly. Our Terms of Reference are set out in Annex I. These will be reviewed if we are reconstituted as an Expert Committee, which we expect to happen in 2015.

A list of our members can be found at Annex II. Our Committee contains a mix of expertise. Some of us are academics working in specialist areas of study relevant to assessing the risks and benefits of pest control. Others are members appointed to consider issues from a public perspective. We also include those with practical experience of pesticide use in the farming and amenity sectors amongst our numbers.



Members are appointed following open public recruitment. We are appointed as independent individuals, not representing any particular interest. In line with the [Nolan principles](#) on public life we have declared any aspects of our work that may be perceived to present a potential conflict of interest. Members also work in accordance with the ACPs [Code of Practice](#). At our meetings we declare and describe any potential conflict of interest.

We seek to operate as transparently as possible, publishing minutes of our deliberations and holding regular open meetings. Due to the commercially confidential nature of some of our deliberations, however, it is necessary to assess carefully the amount of information we put into the public domain.

Our work in 2014

This report reflects the position at the end of 2014.

Day-to-day work regulating pesticides is conducted by the Health and Safety Executive (HSE). Those who wish to place pesticides products on the market must obtain an authorisation to do so. Authorisations are granted by the HSE following careful evaluation of data demonstrating that use of the product will not harm human health or have unacceptable effects on the environment. Legally enforceable restrictions are placed on the way products must be used (for example, amount applied, timing of application, need for operators to wear protective clothing, buffer zones to protect watercourses, etc) to ensure there is no harm to human health or unacceptable effects on the environment. These controls are derived from an EU-based regime for controlling pesticides.



Scientific understanding and technology are advancing continually and it is important that the regime for regulating pesticides responds to this. The Experts on the ACP help Government to determine how the range of controls on the authorisation and use of pesticides should deal with any emerging issues. We also have to recognise the science does not always deliver conclusive answers to every question, so we also provide advice that enables Government to make informed, evidence-led and science-based decisions on, for example, complex or novel uses of pesticides.



Our activities were broadly divisible into three categories

Firstly, where we considered and/or advised upon a range of studies which have or will help to improve understanding of the impact of pesticide use on human health and/or the environment. These included:

- A review of data from a range of human health monitoring programmes. We noted that the findings were consistent with previous years. Many incidents of exposure/presumed exposure were reported with no health effects identified. We noted that there were a relatively small number of cases in which there were some identifiable short-term effects and that these largely resulted from splashes when operators were handling products. The data are largely reassuring but improvements are necessary to better detect the longer-term effects of exposure to pesticides. We also noted the small number of fatalities that resulted from deliberate ingestion of products. The data are largely reassuring but improvements are necessary to better detect the longer-term effects of exposure to pesticides.
- The outcome of a major R&D study into the pesticide exposure of those living close to fields. This study suggested that such residents were not subject to a greater degree of exposure than others and that the UK regulatory risk assessment exposure provided a sufficiently conservative estimate of their exposure.
- A research study into pesticides and Parkinson's disease; a statement by the Committee for Toxicology on long term neurological, neurophysiological and psychiatric effects of low-level exposure to organophosphates in adults; an 'Environmental Health Atlas of the UK'; a literature review of respiratory diseases associated with pesticide exposure. Information of this type was helpful in improving our overall understanding of the current state of knowledge and potential impact of pesticide use.

Secondly, we also provided advice on the authorisation of pesticide products. These included:

- Products containing active substances being authorised for the first time in the UK (for example, *Bacillus firmus* on carrots, etofenprox for use on oilseed rape and streptomyces on various protected crops). We noted HSEs assessment of the risks associated with proposed use in these cases and concurred with their assessment that authorisations could be granted.
- Applications for authorisation of products to deal with emergency situations (thiamethoxam on oilseed rape; methiocarb-treated oilseed rape seed; diquat in aquatic situations; and chloropicrin as a soil sterilant). We advised that authorisation could be granted subject to strict conditions being imposed on the way these products were used in all cases, except in the case of the treated oilseed rape. In this case we concluded that risks to the environment outweighed the advantages from use of this product (advice we confirmed when considering the implications of importation of this product);



- Products containing an active substance where authorisation had previously been withdrawn (isoproturon (used in conjunction with diflufenican) on cereals). We advised that authorisation for use could be granted provided risks to the aquatic environment were managed through the imposition of a very restricted period of use.

We also chose a small sample of all authorisations granted by HSE and reviewed these to help ensure that their work is conducted

to an appropriate standard. Our 2014 review indicated that the Executive was working in accordance with legal requirements and guidelines and that regulatory decisions were soundly-based and well-documented.

Finally, we provided advice to/received updates from Government bodies on a range of other matters, including:

- Our proposed reconstitution as an Expert Committee, we undertook to work closely with Government on our updated Terms of Reference.
- A review into the potential immunotoxicology of pesticides, we undertook a peer review role for HSE who are working on a project under contract to the European Food Safety Authority (EFSA).
- A proposed Defra consultation on measures to reduce pesticide pollution of drinking water bodies, we provided advice on practical issues associated with policy proposals.



- Responding to Defra's consultation on the National Pollinators Strategy, we highlighted the role of the pesticide regulatory process in protecting the health of pollinators.
- Reports of bodies such as Pesticides Residues in Food Expert Committee and the Pesticides Forum, these indicate that pesticides are being used in a more sustainable fashion and that residues in foodstuffs are not a concern for human health.
- Product stewardship of second-generation anticoagulant rodenticides, we noted that continued authorisation of products may depend on successful delivery of industry stewardship activities.

Annex I

Terms of Reference

Under section 16(7) of the Food and Environment Protection Act 1985, ministers have established the Advisory Committee on Pesticides to give them advice, either when requested to do so or otherwise, on any matters relating to the control of pests in furthering the general purposes of Part III of the Act.

The general purposes of Part III of the Food and Environment Protection Act are that the provisions of that part of the Act shall have effect:

- (i) with a view to the continuous development of means:
 - (a) to protect the health of human beings, creatures and plants;
 - (b) to safeguard the environment; and
 - (c) to secure safe, efficient and humane methods of controlling pests;

and

- (ii) with a view to making information about pesticides available to the public.

Under section 16(9) ministers are required to consult the Advisory Committee:

- (i) as to regulations which they contemplate making;
- (ii) as to approvals of pesticides which they contemplate giving, revoking or suspending; and
- (iii) as to conditions to which they contemplate making approvals subject.

Annex II

Members

Chair

Professor William Cushley is Professor of Molecular Immunology at the University of Glasgow. His research interests are in B cell development in health and disease. He has wide experience of scientific bodies having lately been Chair of the Board of Trustee Directors of the Babraham Institute in Cambridge. He is also currently Chair of Health & Life Science review Panels for the European Science Foundation. Bill was appointed to the ACP in 2014

Members

Dr Gary Bending is a Reader in Environmental Science in the School of Life Sciences at the University of Warwick. He specialises in understanding processes which control the fate of pesticides in the environment. This is his second year on the Committee

Dr John Cocker is a biochemist and Head of Biological Monitoring at the Health and Safety Laboratory, Buxton, Derbyshire. This is his final year on the Committee.

Mr Richard Davis is a retired Director of HSEs Chemicals Regulation Directorate, and a graduate in plant pathology. This is his third year on the Committee

Ms Jennifer Dean is a barrister, and is the ACP lay member for consumer affairs. This is her fifth year on the Committee.

Dr Martin Hare is a Principal Lecturer at Harper Adams University and is Chair of its Research Degrees Standards Committee. He is an active researcher in pesticide efficacy, and this is his third year on the Committee.

Dr Caroline Harris is Principal Scientist and Co-Director of the Centre for Chemical Regulation and Food Safety, Exponent International Ltd, Harrogate, North Yorkshire. This is her final year on the Committee.

Professor Tom Hutchinson is an expert in the ecotoxicology of amphibians, birds, fish, invertebrates and aquatic plants. He is Associate Professor in Ecotoxicology at the University of Plymouth. This is his second year on the Committee.

Mr Philip Jackson is a self-employed health and safety consultant, and is the ACP lay member for environmental issues. This is his fifth year on the Committee.

Professor Edward Lock is Industrial Professor of Toxicology at Liverpool John Moores University. This is his third year on the Committee.

Dr Chris Morris is a Senior Lecturer at the Medical Toxicology Centre at Newcastle University. He is also a member of the Dementia and Neurodegenerative Diseases Group and the Complex Genetics and Pharmacogenetics Research Group at the University. This is his third year on the Committee.

Professor Keith Palmer is Professor of Occupational Medicine with the University of Southampton. His areas of special interest include the causes, clinical management and prevention of illnesses associated with work. This is his third year on the Committee.

Professor Richard Shore is a vertebrate ecotoxicologist and Head of Site at the Centre for Ecology & Hydrology (CEH) at Lancaster. He is a senior researcher investigating the environmental impacts of contaminants, and has an Honorary Chair at Lancaster University. This is his third year on the Committee.

Professor Andy Smith is Director of the Medical Research Council's (MRC) Toxicology Unit Integrative Toxicology Training Partnership based at the University of Leicester and Honorary Professor in Cancer Studies and Molecular Medicine. This is his third year on the Committee.

Professor Rod Blackshaw was recently the Director of the Centre for Agricultural and Rural Sustainability at Plymouth University. He has extensive experience working as an applied entomologist and soil ecotoxicologist. His research interests predominantly lie in integrated pest management and soil zoology. Rod was appointed to the Committee in 2014.

Dr Stephen Waring is Consultant in Acute Medicine and Toxicology, York Hospitals NHS Trust, and Honorary Senior Lecturer in Clinical Pharmacology, Hull/York Medical School. This is his final year on the Committee.

Dr Simon Wilkinson is a lecturer at the Medical Toxicology Centre, University of Newcastle Upon Tyne. He researches into routes of exposure to harmful chemicals, especially dermal absorption and metabolism. This is his third year on the Committee.

Fees and reimbursement

Members of the ACP are not salaried staff but do receive a fee for attendance at meetings. They are not paid if they do not attend meetings, although they receive a preparation fee if they comment in writing.

Chair's fees

Attendance fee £180
Preparation fee £45

Deputy Chair's fees and members' fees

Attendance fee £142
Preparation fee £36

The Chair and Members also receive reimbursement of reasonable actual travel and subsistence when attending meetings.

The ACP is assisted in the committee by the following officials:

Departmental assessors

Departmental assessors are officials who receive and endorse the advice/recommendations supplied by the ACP to ministers on behalf of their department. Where appropriate they are responsible for seeking the views of their minister on the advice from the ACP.

Departmental assessors as at 31 December 2014

Mr David Williams	Department for Environment, Food and Rural Affairs (Defra)
Mr Robin Foster	Health and Safety Executive (HSE)
Dr Jackie Hughes	Science and Advice for Scottish Agriculture (SASA)
Dr Paul Holley	Department of Health
Mr Paul Tossell	Food Standards Agency (FSA)
Mr Martin Williams	Welsh Assembly Government (WAG)
Dr Stephen Jess	Agri-Food and Biosciences Institute Northern Ireland (AFBINI)

Departmental advisers

Departmental advisers are officials with specialist expertise who can advise the ACP.

Departmental advisers as at 31 December 2014

Mr Arwyn Davies	Defra
Mr Mark Wilson	Defra
Mr Dave Bench	HSE, CRD
Miss Sarah Shore	HSE, CRD
Dr Steve Fairhurst	HSE, CRD
Mr Rob Mason	HSE, CRD
Mr Ian Travers	HSE, CRD

Dr Chris Snaith	HSE
Ms Margaret Wade	HSE
Mr Barry Maycock	FSA
Dr Paul Whitehouse	Environment Agency
Dr Alastair Burn	Natural England

ACP Secretariat
Secretary

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Secretary
c/o ACP Secretariat
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Annex III

Declarations of interest

Name	Nature of interest	Name of companies	Current/ former interest
Chair			
Prof. Bill Cushley	None		
Deputy Chairman			
Prof. Keith Palmer	None		
Members			
Dr Gary Bending	BBSRC and NERC CASE PhD studentships; Syngenta providing stipend uplift and a top-up for consumables, travel and subsistence: 1. NERC Open CASE award funding Mark Day (2011-2015) 2. BBSRC Industrial CASE award (Rebecca Southwell (2013-2018)	Syngenta	Current
Prof. Rod Blackshaw	None		
Mr Richard Davis	None		
Ms Jennifer Dean	None		
Mr Derek Finnegan	None		
Dr Martin Hare	Co-supervisor of two PhD students with funding from Syngenta	Syngenta	Current
Prof Tom Hutchinson	University of Plymouth receives funding from BBSRC, DECC, Defra, Environment Agency, EPSRC, European Commission, Food Standards Agency, Natural England and NERC for a wide range of research projects.	University of Plymouth - Employer since August 2013.	
	Scientific consultancy.	DEFRA – Personal appointment as Science Leader for UK-Japan Research Collaboration on Endocrine Disrupters in the Aquatic Environment (funded via CEFAS project C5046 from 1 October 2013 to 31 March 2015).	
	Invited workshop speaker at RSA January 2015 conference.	Regulatory Science Associates Ltd (RSA Ltd)	
	Invited workshop speaker at CEFIC LRi June 2015 conference.	European Chemical Industry (CEFIC)	
	Honorary Chair	Brunel University	Current
	Honorary Chair	University of Exeter	Current
	Honorary Fellow	Plymouth Marine Laboratory	Current

Name	Nature of interest	Name of companies	Current/ former interest
Mr Philip Jackson	None		
Prof Ted Lock	I have given them the benefit of my experience on methods for monitoring renal injury in vitro and in vivo. Discussed with them the toxicological consequences of oxidative stress	Syngenta	Current
Dr Chris Morris	None		
Prof Richard Shore	Project Leader of the Centre for Ecology & Hydrology's multi-funded Natural England Predatory Bird Monitoring Scheme (PBMS)	Scottish Natural Heritage (SNH) Royal Society for the Protection of Birds (RSPB) Scottish Environment Protection Agency (SEPA) Natural England (NE) Defra Campaign for Responsible Rodenticide Use (CRRU)	Current
	Project Leader for Natural Environment Research Council (NERC) Knowledge Exchange grant "WILDCOMS" that encourages and facilitates knowledge exchange between stakeholders. Grant finished 2014 but WILDCOMS network still active	Multiple stakeholders which may include pesticide companies	Current
	Member of Expert Panel on field monitoring to assess potential for pesticide bioaccumulation	FMC Corporation	Current
	Member of project board of a Bayer and Syngenta funded CEH project investigating the exposure and effects of pollinators to neonicotinoid pesticides	Bayer Syngenta	Current
Prof Andy Smith	None		
Dr Simon Wilkinson	None		

Annex IV

ACP Sub-groups

Environmental Panel

The Environmental Panel is responsible for providing advice to the Advisory Committee on Pesticides on issues related to the environmental fate and behaviour and ecotoxicological effects of pesticides.

Terms of reference

To advise the ACP on the environmental fate and behaviour of pesticides, effects on non-target organisms (other than man) from the use of pesticides and also on related problems put to it by the ACP or departments. To draw the attention of the ACP, or the regulatory departments as appropriate, to any matter concerning environmental impact of pesticides which, in the opinion of the Panel, requires further investigation.

Membership (as at 31 December 2014)

Chairman

Prof Richard Shore Centre for Ecology and Hydrology, ACP

Members

Mr Philip Jackson Health and Safety consultant, ACP

Ms Jennifer Dean Barrister, ACP

Mr Phil Grice Natural England

Dr Kevin Brown Environmental consultant

Prof Anthony Hardy University of York

Dr Nick Sotherton Game & Wildlife Conservation Trust

Dr David Arnold Cambridge Environmental Solutions

Dr Alastair Burn Natural England

Dr Gary Bending University of Warwick, ACP

Prof Tom Hutchinson University of Plymouth, ACP

Prof Colin Brown University of York

Observers

Dr Jackie Hughes SASA

Dr Alastair Burn Natural England

Chris Moore Environment Agency

Mr Grant Stark HSE

Mr Mark Clook	HSE
Mr Adrian Dixon	HSE
Mr Chris Walton	HSE
Mr John Chadwick	HSE
Mr Dave Bench	HSE

Technical Secretary	
Dr Jo O'Leary Quinn	HSE

The panel did not meet in 2014.

Medical and Toxicological Panel

The Medical and Toxicological Panel advises the ACP and departments on toxicological and medical problems put to it. It draws attention to the ACP and/or departments of any matter concerning the impact of pesticides on human health, including exposure of operators which, in the opinion of the Panel, needs further investigation. It also advises the departments on the development and application of toxicological test methods.

Membership (as at 31 December 2014)

Chairman

Vacancy

Members

Dr John Cocker	Health and Safety Laboratory, ACP
Ms Jennifer Dean	Barrister, Lay Member ACP
Dr Caroline Harris	Exponent, ACP
Mr Philip Jackson	Health & safety consultant, Lay Member ACP
Prof Ted Lock	John Moore's University, ACP
Dr Timothy Marrs	Independent consultant
Dr Chris Morris	Newcastle University, ACP
Prof Keith Palmer	University of Southampton, ACP
Prof Andy Smith	University of Leicester, ACP
Dr Stephen Waring	Consultant in Acute Medicine & Toxicology, ACP
Dr Simon Wilkinson	University of Newcastle, ACP

Departmental representatives

Mr Martin Williams	WAG
Mr David Thomas	WAG

Mr Barry Maycock	FSA
Dr Jackie Hughes	SASA
Dr Mike Taylor	SASA
Mr Dave Bench	HSE

Representative organisations

Dr Richard Billington	Crop Protection Association (CPA)
Dr Phil Botham	Syngenta
Dr Rick Hartley	National Association of Agricultural Contractors
Dr Gai Murphy	BCPA

Secretariat

Mr Scott Samuels	HSE, CRD
Mr Mike Costigan	HSE, CRD
Dr Ian Dewhurst	HSE, CRD
Mr Paul Hamey	HSE, CRD

The Panel did not meet in 2014.

Working Party on Pesticide Usage Surveys

Membership (as at 31 December 2014)

Chairman

Mr Grant Stark	HSE
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Members

Mr David Garthwaite	Food and Environment Research Agency
Dr Jackie Hughes	SASA
Dr Stephen Jess	AFBINI
Mr Mike Lole	ADAS
Dr Peter Gladders	ADAS
Dr Sarah Cook	ADAS
Ms Liz Turner	CPA
Dr Peter Marsden	Drinking Water Inspectorate

Technical Secretary

Miss Tracey Ware	HSE, CRD
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The Working Party continued to oversee delivery of the 2013/14 programme of surveys. Members were responsible for collecting

and analysing pesticide usage survey data and preparing and publishing reports detailing findings on a range of crops.

The Working Party did not meet in 2014.