



*AAB President: Prof. Peter Shewry BA, BSc, PhD, DSc*



**ASSOCIATION OF APPLIED BIOLOGISTS**

**REPORT OF THE TRUSTEES  
& FINANCIAL STATEMENTS  
FOR 2013**

**NOTICE OF  
ANNUAL GENERAL MEETING**

**11 September 2014**

**THE ASSOCIATION OF APPLIED BIOLOGISTS**  
(Registered Charity No. 275655)

The Annual General Meeting of the Association will be held at the Food Innovation Building, Harper Adams University, Newport, Shropshire TF10 8NB at 13:10 on 11 September 2014. The draft minutes of the Annual General Meeting held in 2013 are attached together with the Report of the Trustees, Financial Statements and a list of new members of the Association elected in 2013.

Charity registration number: 275655

**ANNUAL GENERAL MEETING AGENDA**

- 1 Apologies for absence
- 2 Minutes of the Annual General Meeting held at the Sophi Taylor Building, NIAB Innovation Farm, Impington, Cambridge on 7 October 2013 and matters arising
- 3 Report of the Trustees for 2013 (excluding the Financial Report)
- 4 Financial Report for 2013
- 5 Membership fees and Subscriptions for *Annals of Applied Biology* for 2015
- 6 Trustees for 2015 – Nominations from Council

*Officers for election:*

President	Prof. P R Shewry
Vice President	Prof. W Davies
General Secretary	Dr E A Stockdale
General Treasurer	Mr M J May
Meetings Treasurer	Mr C R Glass
Programme Secretary	Prof. N G Halford
Membership Officer	Vacancy
Publications Officer	Prof. R Kennedy

- 7 *Conveners to be approved:*

Applied Mycology and Bacteriology	Dr J West
Biological Control	Prof. T Bruce
Cropping and the Environment	Dr R Carlton
Food Systems	Dr R Binks
Nematology	Dr M Back
Pesticide Application	Prof. P C H Miller
Plant Physiology and Crop Improvement	Dr M F B Dale
Virology	Dr S MacFarlane

- 8 Appointment of Auditors for 2015
- 9 Any Other Business

**The Association of Applied Biologists**

Annual Report and Financial Statements  
for the Year Ended 31 December 2013

Clere's Ltd  
Chartered Certified Accountants  
G.N.House  
119 Holloway Head  
Birmingham  
B1 1QP

**The Association of Applied Biologists**  
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The following pages do not form part of the statutory financial statements:

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**The Association of Applied Biologists**  
**Reference and Administrative Details**

<b>Charity name</b>	The Association of Applied Biologists	
<b>Charity registration number</b>	275655	
<b>Principal office</b>	AAB Office Warwick Enterprise Park Wellesbourne Warwickshire CV35 9EF	
<b>Registered office</b>	AAB Office Warwick Enterprise Park Wellesbourne Warwickshire CV35 9EF	
<b>Trustees</b>	Prof. T J Hocking, Publications Officer	(resigned 31 December 2013)
	Prof. P R Shewry, President	
	Dr. E A Stockdale, General Secretary	
	Dr. J Knight, General Treasurer	(resigned 31 December 2013)
	Prof. M A J Parry, Publications Officer	(resigned 1 January 2013)
	Dr. G Russell, Programme Secretary	(resigned 1 January 2013)
	Dr. C R Glass, Conferences Treasurer	
	Prof. S P Cummings, Applied Mycology & Bacteriology	
	Mr. B D Turley, Cropping and the Environment	(resigned 1 March 2013)
	Dr. J Pickup, Nematology	(resigned 31 December 2013)
	Mr. S E Cooper, Pesticide Application	(resigned 31 December 2013)
	Prof. N G Halford, Programme Secretary	
	Dr. S A Macfarlane, Virology	
	Dr. W Martingdale, Food Systems	(resigned 1 September 2013)
	Mr. T Bruce, Biological Control	
	Prof W Davies, Vice-President	(appointed 1 January 2013)
	Dr R Carlton, Cropping and the Environment	(appointed 1 March 2013)
	Dr L Terry, Food Systems	(appointed 1 September 2013) (resigned 31 October 2013)
	Dr M Finlay Dale, Plant Physiology and Crop Improvements	(appointed 1 January 2013)
	Dr. R Kennedy, Publications Officer	(appointed 1 January 2014)
	Mr. M May, General Treasurer	(appointed 1 January 2014)
	Dr. M Black, Nematology	(appointed 1 January 2014)
	Prof. P Miller, Pesticide Application	(appointed 1 January 2014)
	Dr. R Binks, Food Systems	(appointed 1 November 2013)

**The Association of Applied Biologists**  
**Trustees' Report for the year ended 31st December 2013**

**The Association of Applied Biologists**  
**Reference and Administrative Details**

<b>Chief executive officer</b>	Mrs. C A Millman
<b>Solicitors</b>	Martineau Johnson St. Phillips House St. Phillips Place Birmingham B3 2PP  Shakespeares Solicitors Bridgeway House Bridgeway Stratford-upon-Avon Warwickshire CV37 6YY
<b>Bankers</b>	Barclays Bank plc South Warwickshire Group of Branches 150 The Parade Leamington Spa Warwickshire CV32 4A
<b>Accountant</b>	Clere's Ltd G.N.House 119 Holloway Head Birmingham B1 1QP
<b>Investment Advisor</b>	Lloyds TSB Private Banking Limited 50 Grosvenor Street London W1K 3LF
<b>Independent Financial Advisers</b>	Cherwell Asset Management The Old Granary Shotteswell Oxon OX17 7HU
<b>Insurance Brokers</b>	Stackhouse Poland Exchange House Station Road Liphook Hampshire GU30 7ER  Access Insurance 1 Regent Street London SW1Y 4NW

The trustees present their report with the financial statements of the charity for the year ended 31 December 2013. The trustees have adopted the provisions of the Statement of Recommended Practice (SORP) 'Accounting and Reporting by Charities' issued in March 2005.

**STRUCTURE, GOVERNANCE AND MANAGEMENT**

**Governing document**

The charity is controlled by its governing document, a deed of trust, and constitutes an unincorporated charity. The trust is an unincorporated trust, constituted under Laws of Association revised December 1977 and is a registered charity, number 275655

**Recruitment and appointment of new trustees**

All Trustees of the Association must be members of the Association of Applied Biologists. Trustees of the Association of Applied Biologists include the Honorary Officers of Council (the President, the President-elect, who shall normally succeed the President, the General Treasurer, the Meetings Treasurer, the General Secretary, the Programme Secretary, the Membership Officer, the Publications Officer plus any other person designated as an Honorary Officer at the Annual General Meeting) together with the Convenors of the Association's Specialist Groups. The Convenors are notified to the Annual General Meeting. The other Honorary Officers are elected at an Annual General Meeting. In the case of an unfilled position, trustees may be co-opted to office but must be elected at the following Annual General Meeting. The President of the Association of Applied Biologists will serve a maximum period of two years as President. The President-Elect will serve a maximum period of two years as President-elect.

Convenors are elected by members of the Group (at the last meeting of the year preceding the year of office) and may serve for up to six consecutive years, subject to annual re-election (a term of office for Convenors is deemed to be three years).

**Induction and training of new trustees**

Potential Trustees of the Association of Applied Biology will be given copy of Association's Laws and copies of any other key documents relevant to the Charity or post.

The booklet 'Responsibilities of Charity Trustees' published by the Charity Commission gives a complete guide to the responsibilities of Charity Trustees and will be issued to all new Trustees who are expected to read it.

Trustees of the Association of Applied Biologists are expected to read the Laws of the Association of Applied Biologists, additional information provided by the Association and the booklet 'Responsibilities of Charity Trustees'.

A 'job description' of each Trustee post will be given to each new Trustee upon appointment. It is the responsibility of each post holder to review and update their particular job description by the end of October each year. Any changes are to be agreed by Council at its last full meeting of the year.

New trustees will be given an induction session with the Executive Officer and/or a serving Trustee of the Association.

**Organisational structure**

The business of the Association is conducted by a Council of Members.

Council shall consist of the Honorary Officers; President, President elect, General Secretary, General Treasurer, Chairman of the Editorial Boards, Membership Officer, Programme Secretary and Meetings Treasurer together with convenors of the AAB Specialist Groups.

**Wider network**

Affiliations were maintained with the Institute of Biology, the Foundation for Science and Technology and the Association of Learned and Professional Society Publishers. The Association has a Memorandum of Understanding with the European Society for Agronomy.

**Risk management**

**The Association of Applied Biologists**  
**Trustees' Report for the year ended 31st December 2013**

The trustees regularly review major operational and business risks to the charity and take such steps as are needed to mitigate them. The trustees believe that the current reserves are adequate in the light of those risks.

**OBJECTIVES AND ACTIVITIES**

**Objectives and aims**

The Object of the Charity is to 'promote the study and advancement of all branches of Biology and, in particular, but without prejudice to the generality of the foregoing) to foster the practice, growth and development of applied biology, including the application of biological sciences for the production and preservation of food, fibre and other materials and for the maintenance and improvement of the earth's physical environment'.

**ACHIEVEMENT AND PERFORMANCE**

**Charitable activities**

**Income & Expenditure**

The global financial situation has shown a degree of stability and improvement in comparison to recent years, which is encouraging from the perspective of the societies' investments. The Association continues with the long-term objective of operating with a neutral or slightly positive net movement in funds within a sustainable business plan, which includes investment expenditure. The results of this year, which has seen first full year of publication of the Food and Energy Security Journal (FESJ), has resulted in an operating deficit of £22,991 (before investment gains/losses) and compares against a budgeted deficit of £29,790. Publications continue to be a major income stream with income received for The Plant Biotechnology Journal delivering £18,732 against £17,512 for 2012. Income received for Annals (£70,645 compared to £74,967 for 2012) was higher than budgeted (£60,737) as the expected fall in back sales was much less than expected. The investment required in FSEJ was also smaller than budgeted (£8,532 compared to £15,731) but it is still expected to be some years before the investment in this journal starts to make a return to the Association.

Governance costs (£92,005) have increased slightly this year compared to 2012 (£86,706) as a result of staffing levels returning to normal for most of the year. The meetings programme generated a loss of £15,758 against a budgeted loss of £2,094; the unfortunate loss was mainly the result of cancellations charges for two conferences in particular, which failed to attract the budgeted number of resident delegates. Measures are now in place to reduce this risk in the future. Some sponsorship donations are for the *Annals* Centennial and other conferences taking place in 2014.

The investment portfolio produced an unrealised gain of £40,768 which shows a continued improvement as the world financial system recovers.

**Balance Sheet**

The Association's assets have increased by £17,182 over the past year. The value of cash and investments has risen during the year from £457,085 to £488,266 as a result of the activities mentioned above. The net current assets are reduced compared to last year at a positive value of £39,993, down £16,621 from last year. As always, funds may be drawn from the portfolio of quoted investments as required and without undue delay to bolster the Association's working capital, however, it is hoped that this can be avoided over the next 12 months which will hopefully provide some further time for the investments to recover some of their value.

**Future Developments**

**2014**

The forecast for 2014 predicts a significantly smaller operating deficit than was achieved in 2013 at £15,385.

**Forecast of Expenditure for 2014**

**The Association of Applied Biologists**  
**Trustees' Report for the year ended 31st December 2013**

The overall objective of the Trustees is to ensure a sound financial footing for the Association into the future enabling it to pursue its charitable aims and objectives. The review of strategic targets with a view to achieving a sustainable financial situation continues. All avenues of appropriate activities will be explored with the aim to increase revenue through running meetings for the Association and for others, seeking to expand membership and the continued tight control of operational expenditure with the aim of minimising overhead costs. The investment in the FESJ should hopefully start to generate income within the next few years and start to repay the investment.

**Proposed Membership Fees for 2015**

The trustees' goal of raising a third of the general administrative costs from membership fees remains in place. However, bearing in mind the financial restrictions being faced by members it is proposed that membership is held at the same level as last year. The Council proposes fees for 2015 of £55, for the Ordinary membership, £20 for Student members and £27.50, for Retired membership. The discounts of £3 for Ordinary and £1.50 for Student and Retired members will be retained for those who pay by direct debit and, providing the subscription is received before the start of the year to which it applies, for those who pay by cash, cheque or credit or debit card.

**Proposed members' subscription rates for 'Annals' for 2015**

The Council proposes that the members' subscriptions are left unchanged for 2015 at £73.50 for the printed version, £61.10 (including VAT) for the online only version and £95.24 (including VAT) for the combined print and online subscription.

**FINANCIAL REVIEW**

**Statement of Trustees' Responsibilities**

Charity law requires the Trustees to prepare financial statements for each financial year that give a true and fair view of the state of affairs of the Charity and of the surplus or deficit of the Charity for that period. In preparing those financial

statements, the Trustees are required:

- ◆ to select suitable accounting policies and then apply them consistently;
- ◆ to make judgements and estimates that are reasonable and prudent; and
- ◆ to prepare financial statements on the going concern basis unless it is inappropriate to presume that the Charity will continue its activities. The Trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Charity and to enable them to ensure that the financial statements comply with the requirements of the 'Accounting by Charities - Statement of Recommended Practice' ('Charities SORP').

**Reserves Policy**

To respond to the need for long-term financial stability we have approved a reserves policy which is set out here. A core purpose of the Association is to promote the study and advancement of Applied Biology. This obligation brings with it the need to ensure that the charity has sufficient funds over the short to medium term to continue to operate. To achieve this, the Association must achieve a sufficient positive annual operating contribution, or have sufficient reserves to call upon, to continue operations. The main features of the Association's reserves policy are as follows:

- ◆ they are an inherent part of the Association's risk management process. The need for reserves will vary depending on the Association's financial position and our continuous assessment of the many risks the Association faces at a particular time
- ◆ the need for reserves will be assessed as part of our strategic planning.
- ◆ reserves exist either to provide short-term protection against downward fluctuations in annual revenues, or to provide

long-term strategic financial support for future projects as has been carried out in the recent past with the *Plant Biotechnology Journal*

**The Association of Applied Biologists**  
**Trustees' Report for the year ended 31st December 2013**

◆ the reserves policy balances the need to maintain long-term reserves against the need for short-term spending on our core purpose

This reserves policy will be reviewed annually to ensure it accurately reflects the circumstances of the Association and the views of the Trustees.

**Investment Policy and Performance**

There are no restrictions on the Association's power to invest. Its investment portfolio is managed by Private Banking Lloyds TSB, whose performance the trustees review. It is the Association's policy to avoid high risk investments.

**ON BEHALF OF THE BOARD:**

Prof. P R Shewry - Trustee

1st September 2014

**The Association of Applied Biologists**  
**Statement of Financial Activities for the Year Ended 31 December 2013**

	Unrestricted Funds	Restricted Funds	Total Funds 2013	Total Funds 2012
Note	£	£	£	£
<b>Incoming resources</b>				
Incoming resources from generated funds				
Investment income	2	9,023	-	9,023
Investment income				8,994
Incoming resources from charitable activities	3	228,366	-	228,366
Incoming resources from charitable activities				265,409
Other incoming resources	4	6,000	-	6,000
Other incoming resources				320
Total incoming resources		<u>243,389</u>	<u>-</u>	<u>243,389</u>
Total incoming resources				<u>274,723</u>
<b>Resources expended</b>				
Charitable activities				
Charitable activities	5	174,335	1,447	175,782
Charitable activities				198,779
Governance costs	8	91,193	-	91,193
Governance costs				86,706
Total resources expended		<u>265,528</u>	<u>1,447</u>	<u>266,975</u>
Total resources expended				<u>285,485</u>
Net outgoing resources before transfers		(22,139)	(1,447)	(23,586)
Net outgoing resources before transfers				(10,762)
<b>Transfers</b>				
Gross transfers between funds				
Gross transfers between funds		-	-	-
Gross transfers between funds				-
Net outgoing resources before other recognised gains and losses		(22,139)	(1,447)	(23,586)
Net outgoing resources before other recognised gains and losses				(10,762)
<b>Other recognised gains/losses</b>				
Gains on investment assets				
Gains on investment assets		40,768	-	40,768
Gains on investment assets				28,817
Net movements in funds		18,629	(1,447)	17,182
Net movements in funds				18,055
<b>Reconciliation of funds</b>				
Total funds brought forward		408,450	22,568	431,018
Total funds brought forward				412,963
Total funds carried forward		<u>427,079</u>	<u>21,121</u>	<u>448,200</u>
Total funds carried forward				<u>431,018</u>

The notes on pages 9 to 17 form an integral part of these financial statements.

**The Association of Applied Biologists**  
**Balance Sheet as at 31 December 2013**

		2013		2012	
	Note	£	£	£	£
<b>Fixed assets</b>					
Tangible assets	12		3,854		4,831
Investments	13		404,353		369,573
			<u>408,207</u>		<u>374,404</u>
<b>Current assets</b>					
Debtors	14	74,929		68,292	
Cash at bank and in hand		<u>83,913</u>		<u>87,512</u>	
		158,842		155,804	
<b>Creditors: Amounts falling due within one year</b>	15	<u>(118,849)</u>		<u>(99,190)</u>	
<b>Net current assets</b>			<u>39,993</u>		<u>56,614</u>
<b>Net assets</b>			<u>448,200</u>		<u>431,018</u>
<b>The funds of the charity:</b>					
<b>Restricted funds</b>			21,121		22,568
<b>Unrestricted funds</b>					
Unrestricted income funds			<u>427,079</u>		<u>408,450</u>
<b>Total charity funds</b>			<u>448,200</u>		<u>431,018</u>

The financial statements have been prepared in accordance with the Financial Reporting Standard for Smaller Entities (effective April 2008).

Approved by the Board on ..... and signed on its behalf by:

.....

The notes on pages 9 to 17 form an integral part of these financial statements.

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

**1 Accounting policies**

**Basis of preparation**

The financial statements have been prepared under the historical cost convention and in accordance with the Statement of Recommended Practice 'Accounting and Reporting by Charities (SORP 2005)', issued in March 2005, the Financial Reporting Standard for Smaller Entities (effective April 2008) and the Charities Act 2011.

**Fund accounting policy**

Unrestricted income funds are general funds that are available for use at the trustees' discretion in furtherance of the objectives of the charity.

Restricted funds are those donated for use in a particular area or for specific purposes, the use of which is restricted to that area or purpose.

Further details of each fund are disclosed in note 18.

**Incoming resources**

Investment income is recognised on a receivable basis.

Income from charitable activities includes income recognised as earned (as the related goods or services are provided) under contract.

**Resources expended**

Liabilities are recognised as soon as there is a legal or constructive obligation committing the charity to the expenditure. All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to the category.

Charitable expenditure comprises those costs incurred by the charity in the delivery of its activities and services for its beneficiaries. It includes both costs that can be allocated directly to such activities and those costs of an indirect nature necessary to support them.

Grants payable are payments made to third parties in the furtherance of the charitable objectives. Where the charity gives a grant with conditions for its payment being a specific level of service or output to be provided, such grants are only recognised in the SoFA once the recipient of the grant has provided the specific service or output.

Grants payable without performance conditions are only recognised in the accounts when a commitment has been made and there are no conditions to be met relating to the grant which remain in the control of the charity.

Provisions for grants are made when the intention to make a grant has been communicated to the recipient but there is uncertainty about either the timing of the grant or the amount of grant payable.

**Governance costs**

Governance costs include costs of the preparation and examination of the statutory accounts, the costs of trustee meetings and the cost of any legal advice to trustees on governance or constitutional matters.

**Irrecoverable VAT**

Irrecoverable VAT is charged against the category of resources expended for which it was incurred.

**Fixed assets**

Individual fixed assets costing £50 or more are initially recorded at cost.

**The Association of Applied Biologists**

**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**Depreciation**

Depreciation is provided on tangible fixed assets so as to write off the cost or valuation, less any estimated residual value, over their expected useful economic life as follows:

Fixtures, fittings and equipment                      25% straight line basis

**Investments**

Fixed asset investments are included at market value at the balance sheet date.

Realised gains and losses on investments are calculated as the difference between sales proceeds and their market value at the start of the year, or their subsequent cost, and are charged or credited to the statement of the financial activities in the period of disposal.

Unrealised gains and losses represent the movement in market values during the year and are credited or charged to the statement of financial activities based on the market value at the year end.

**Operating leases**

Rentals payable under operating leases are charged in the statement of financial activities on a straight line basis over the lease term.

**Pensions**

The charity operates a defined contribution pension scheme. Contributions are charged in the statement of financial activities as they become payable in accordance with the rules of the scheme.

**2 Investment income**

	Unrestricted Funds £	Restricted Funds £	Total Funds 2013 £	Total Funds 2012 £
Income from listed investments	9,023	-	9,023	8,951
Interest on cash deposits	-	-	-	43
	<u>9,023</u>	<u>-</u>	<u>9,023</u>	<u>8,994</u>

**The Association of Applied Biologists**

**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**3 Incoming resources from charitable activities**

	Unrestricted Funds £	Restricted Funds £	Total Funds 2013 £	Total Funds 2012 £
<b>Conferences</b>				
Appeals and donations	18,250	-	18,250	8,500
Income	<u>98,233</u>	<u>-</u>	<u>98,233</u>	<u>129,809</u>
	116,483	-	116,483	138,309
<b>Publications</b>				
Income	82,346	-	82,346	96,953
<b>Membership Fees</b>				
Income	<u>29,537</u>	<u>-</u>	<u>29,537</u>	<u>30,147</u>
	<u>228,366</u>	<u>-</u>	<u>228,366</u>	<u>265,409</u>

**4 Other incoming resources**

	Unrestricted Funds £	Restricted Funds £	Total Funds 2013 £	Total Funds 2012 £
<b>Other income</b>				
Appeals and donations	6,000	-	6,000	306
Other income	<u>-</u>	<u>-</u>	<u>-</u>	<u>14</u>
	<u>6,000</u>	<u>-</u>	<u>6,000</u>	<u>320</u>

**5 Details of charitable activities**

	Activities undertaken directly £	Grant funding of activities £	2013 £	2012 £
Conferences	132,240	1,597	133,837	136,265
Publications	21,496	-	21,496	42,401
Membership Fees	<u>20,449</u>	<u>-</u>	<u>20,449</u>	<u>20,113</u>
	<u>174,185</u>	<u>1,597</u>	<u>175,782</u>	<u>198,779</u>

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**6 Grantmaking**

	Grants to institutions £	Grants to individuals £
Conferences	150	1,447

The support costs associated with grant making are £0.

**7 Grants to institutions**

Name of Institution	Activity	£
Grants payable - institutions	Conferences	150

**8 Governance costs**

	Unrestricted Funds £	Restricted Funds £	Total Funds 2013 £	Total Funds 2012 £
Employment costs	47,632	-	47,632	45,758
Establishment costs	15,858	-	15,858	13,129
Depreciation of tangible fixed assets	3,604	-	3,604	3,517
Costs of obtaining investment advice	4,739	-	4,739	4,401
Communication Costs	2,629	-	2,629	3,799
Management Expenses	12,031	-	12,031	12,117
Miscellaneous Expenses	7,770	-	7,770	6,574
Overheads Recharged	(6,911)	-	(6,911)	(7,630)
Auditors' remuneration	3,000	-	3,000	2,750
Legal and professional costs	841	-	841	2,291
	91,193	-	91,193	86,706

**9 Trustees' remuneration and expenses**

No trustees received any remuneration during the year.

All sixteen of the Charity's trustees are entitled to be reimbursed for travelling and subsistence expenses, actually and necessarily incurred on the business of the Charity. The total amount of expenses paid during the year totalled £943.41 (2012 £3,204.64).

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**10 Net outgoing resources**

Net outgoing resources is stated after charging:

	2013 £	2012 £
Depreciation of tangible fixed assets	3,604	3,517

**11 Employees' remuneration**

The average number of persons employed by the charity (including trustees) during the year, analysed by category, was as follows:

	2013 No.	2012 No.
Charitable activities	3	3
Governance	1	1
	4	4

The aggregate payroll costs of these persons were as follows:

	2013 £	2012 £
Wages and salaries	114,916	117,467
Other pension costs	5,558	5,743
	120,474	123,210

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**12 Tangible fixed assets**

	<b>Fixtures, fittings and equipment £</b>
<b>Cost</b>	
As at 1 January 2013	55,714
Additions	2,627
As at 31 December 2013	<u>58,341</u>
<b>Depreciation</b>	
As at 1 January 2013	50,883
Charge for the year	3,604
As at 31 December 2013	<u>54,487</u>
<b>Net book value</b>	
As at 31 December 2013	<u>3,854</u>
As at 31 December 2012	<u>4,831</u>

**13 Investments held as fixed assets**

	<b>Listed investments £</b>
<b>Market value</b>	
As at 1 January 2013	369,573
Revaluation	40,735
Additions	7,033
Disposals	(12,988)
As at 31 December 2013	<u>404,353</u>
<b>Net book value</b>	
As at 31 December 2013	<u>404,353</u>
As at 31 December 2012	<u>369,573</u>

Investment assets can be further analysed as follows:

	<b>UK £</b>	<b>Overseas £</b>
Listed investments	314,005	90,348
	<u>314,005</u>	<u>90,348</u>

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**14 Debtors**

	<b>2013 £</b>	<b>2012 £</b>
Trade debtors	23,476	16,516
Other debtors	45,303	47,790
Prepayments and accrued income	6,150	3,986
	<u>74,929</u>	<u>68,292</u>

**15 Creditors: Amounts falling due within one year**

	<b>2013 £</b>	<b>2012 £</b>
Trade creditors	15,827	19,199
Taxation and social security	13,555	10,050
Other creditors	86,719	64,533
Accruals and deferred income	2,748	5,408
	<u>118,849</u>	<u>99,190</u>

**16 Pension scheme**

**Defined contribution pension scheme**

The charity operates a defined contribution pension scheme. The pension cost charge for the period represents contributions payable by the charity to the scheme and amounted to £5,558 (2012 - £5,743).

There were no outstanding or prepaid contributions at either the beginning or end of the financial year.

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**17 Related parties**

**Controlling entity**

The charity is controlled by the trustees.

**18 Analysis of funds**

	At 1 January 2013	Incoming resources	Resources expended	Transfers	Other recognised gains/losses	At 31 December 2013
	£	£	£	£	£	£
<b>General Funds</b>						
General Fund	408,450	15,023	(91,343)	54,181	40,768	427,079
Publications	-	82,346	(15,295)	(67,051)	-	-
Conferences	-	116,483	(132,240)	15,757	-	-
Membership	-	29,537	(20,449)	(9,088)	-	-
Investment in New Journal	-	-	-	-	-	-
Promotional Expenditure	-	-	(6,201)	6,201	-	-
	<u>408,450</u>	<u>243,389</u>	<u>(265,528)</u>	<u>-</u>	<u>40,768</u>	<u>427,079</u>
<b>Restricted Funds</b>						
Visting Overseas Lecturers	6,084	-	-	-	-	6,084
Graduate Research Students	16,484	-	(1,447)	-	-	15,037
	<u>22,568</u>	<u>-</u>	<u>(1,447)</u>	<u>-</u>	<u>-</u>	<u>21,121</u>
	<u>431,018</u>	<u>243,389</u>	<u>(266,975)</u>	<u>-</u>	<u>40,768</u>	<u>448,200</u>

**The Association of Applied Biologists**  
**Notes to the Financial Statements for the Year Ended 31 December 2013**

..... continued

**19 Net assets by fund**

	Unrestricted Funds	Restricted Funds	Total Funds 2013	Total Funds 2012
	£	£	£	£
Tangible assets	3,854	-	3,854	4,831
Investments	404,353	-	404,353	369,573
Current assets	148,842	21,121	158,842	155,804
Creditors: Amounts falling due within one year	(129,970)	-	(118,849)	(99,190)
Net assets	<u>427,079</u>	<u>21,121</u>	<u>448,200</u>	<u>431,018</u>

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

	General Fund 2013	General Fund 2012
	£	£
<b>Incoming resources</b>		
Incoming resources from generated funds		
Investment income	9,023	7,819
Other incoming resources	6,000	320
Total incoming resources	<u>15,023</u>	<u>8,139</u>
<b>Resources expended</b>		
Charitable activities	150	95
Governance costs	91,193	86,706
Total resources expended	<u>91,343</u>	<u>86,801</u>
Net outgoing resources before transfers	(76,320)	(78,662)
<b>Transfers</b>		
Gross transfers between funds	<u>54,181</u>	<u>67,900</u>
Net outgoing resources before other recognised gains and losses	(22,139)	(10,762)
<b>Other recognised gains/losses</b>		
Gains on investment assets	<u>40,768</u>	<u>28,817</u>
Net movements in funds	18,629	18,055
<b>Reconciliation of funds</b>		
Total funds brought forward	408,450	390,396
Total funds carried forward	<u><u>427,079</u></u>	<u><u>408,451</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Publications 2013	Publications 2012
	£	£
<b>Incoming resources</b>		
Incoming resources from charitable activities	82,346	96,953
Total incoming resources	<u>82,346</u>	<u>96,953</u>
<b>Resources expended</b>		
Charitable activities	15,295	15,797
Total resources expended	<u>15,295</u>	<u>15,797</u>
Net outgoing resources before transfers	67,051	81,156
<b>Transfers</b>		
Gross transfers between funds	<u>(67,051)</u>	<u>(81,156)</u>
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	-	-
Total funds carried forward	<u><u>-</u></u>	<u><u>-</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Conferences 2013	Conferences 2012
	£	£
<b>Incoming resources</b>		
Incoming resources from charitable activities	116,483	138,309
Total incoming resources	<u>116,483</u>	<u>138,309</u>
<b>Resources expended</b>		
Charitable activities	132,240	134,995
Total resources expended	<u>132,240</u>	<u>134,995</u>
Net outgoing resources before transfers	(15,757)	3,314
<b>Transfers</b>		
Gross transfers between funds	<u>15,757</u>	<u>(3,314)</u>
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>-</u>	<u>-</u>
Total funds carried forward	<u><u>-</u></u>	<u><u>-</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Membership 2013	Membership 2012
	£	£
<b>Incoming resources</b>		
Incoming resources from charitable activities	29,537	30,147
Total incoming resources	<u>29,537</u>	<u>30,147</u>
<b>Resources expended</b>		
Charitable activities	20,449	20,113
Total resources expended	<u>20,449</u>	<u>20,113</u>
Net outgoing resources before transfers	9,088	10,034
<b>Transfers</b>		
Gross transfers between funds	<u>(9,088)</u>	<u>(10,034)</u>
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>-</u>	<u>(1)</u>
Total funds carried forward	<u><u>-</u></u>	<u><u>(1)</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Investment in New Journal 2013	Investment in New Journal 2012
	£	£
<b>Resources expended</b>		
Charitable activities	-	19,580
Total resources expended	<u>-</u>	<u>19,580</u>
Net outgoing resources before transfers	-	(19,580)
<b>Transfers</b>		
Gross transfers between funds	-	19,580
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>-</u>	<u>-</u>
Total funds carried forward	<u><u>-</u></u>	<u><u>-</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Promotional Expenditure 2013	Promotional Expenditure 2012
	£	£
<b>Resources expended</b>		
Charitable activities	6,201	7,024
Total resources expended	<u>6,201</u>	<u>7,024</u>
Net outgoing resources before transfers	(6,201)	(7,024)
<b>Transfers</b>		
Gross transfers between funds	<u>6,201</u>	<u>7,024</u>
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>-</u>	<u>-</u>
Total funds carried forward	<u><u>-</u></u>	<u><u>-</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Visting Overseas Lecturers 2013	Visting Overseas Lecturers 2012
	£	£
Net movements in funds	-	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>6,084</u>	<u>6,084</u>
Total funds carried forward	<u><u>6,084</u></u>	<u><u>6,084</u></u>

This page does not form part of the statutory financial statements.

**The Association of Applied Biologists**  
**Statement of financial activities by fund Year Ended 31 December 2013**

..... continued

	Graduate Research Students 2013	Graduate Research Students 2012
	£	£
<b>Incoming resources</b>		
Incoming resources from generated funds		
Investment income	-	1,175
Total incoming resources	<u>-</u>	<u>1,175</u>
<b>Resources expended</b>		
Charitable activities	1,447	1,175
Total resources expended	<u>1,447</u>	<u>1,175</u>
Net movements in funds	(1,447)	-
<b>Reconciliation of funds</b>		
Total funds brought forward	<u>16,484</u>	<u>16,484</u>
Total funds carried forward	<u><u>15,037</u></u>	<u><u>16,484</u></u>

This page does not form part of the statutory financial statements.

**Minutes of the Association of Applied Biologists' AGM at NIAB Innovation Farm, Cambridge  
on 7 October 2013**

The AGM was opened by the AAB President, Prof. Peter Shewry at 1.15 pm.

1. *Apologies for absence:*

John Bleasdale, Richard Glass, Simon Leather, Jeff Moorby & Jeremy Sweet

2. *President's Report*

The President asked for approval for the minutes of the Special General Meeting and the Annual General Meeting held on 3 October 2012 (both proposed by N Halford and seconded by T J Hocking).

The President gave thanks to retiring officers: M A J Parry (Publications Officer), G Russell (Programme Secretary), and N Halford (Convenor of the PP&CI Group). T J Hocking has taken over as Publications Officer for 2013, and will be replaced by R Kennedy in 2014. W Davies (President-Elect) will take over as President from January 2015. The President gave his thanks to the current Treasurer, Jon Knight who has been in this role for several years. The Association has recruited a new Treasurer - Mike May who has agreed to be co-opted into the role until the end of 2013 and will take over officially in January 2014. For the centenary of *Annals* - special reviews and editorials will be published in each issue to celebrate this important publication's milestone, and a conference on The Future for Sustainable Agriculture will be held during the year.

There have been some changes in the AAB Office – Luke Fabian left at the end of July, and Claire Hartry returned from maternity leave at the end of August, but working only 20 hours per week. John Andrews has joined the team to replace Russell Millman as Conference and Editorial Administrator, who will be staying on for 2 days per week until the end of the year. The President commented on the lack of a Membership Officer – this has been a long term vacant post.

He reviewed the interaction with other learned societies – this had been carried out and considered a good exercise, but nothing is currently being pursued in this area.

3. *Treasurer's Report*

This was presented as per J Knight's (Treasurer) report in the financial statements (read out by K Byrd).

The financial report was agreed by members present (Proposer: M A J Parry; Seconder: N Halford).

The vote for membership fees at £55 for members, £20 for students and £27.50 for retired members was proposed by M A J Parry and seconded by M J May. The President reminded members that a £3 reduction (£1.50 for students and retired members) would be applied to applications received before 31 December. The vote for *Annals* subscriptions was proposed by M A J Parry and seconded by M J May.

4. *Nominations for Council*

These were agreed by members (Proposer: M A J Parry, Seconder: Jon West).

5. *Appointment of Auditors*

A question raised whether they were needed, but K Byrd advised members that the technical advice on Charity Accounts we receive is excellent and good value for money. The members agreed to the appointment of Clere's of Birmingham as the Association's auditors (Proposer: M van den Driessche; Seconder: M A J Parry).

6. *Any Other Business*

There was no other business.

Approved as a true record \_\_\_\_\_

Date .....



I am sure that all retiring Presidents of the AAB look back with surprise at the speed with which the two year term has passed, with perhaps a little regret that more has not been achieved. However, the Association is a venerable organisation with well-established systems which serve its members well and evolution rather than revolution is more appropriate. In this context I am pleased with the progress which we have made in developing and implementing our strategy, and in particular in the increased recognition that the future of the Association will depend on our ability to attract and involve younger scientists. This is a particular concern of my successor, Bill Davies, who has innovative plans to engage

with this cohort of scientists.

I am pleased that two key positions on Council have been filled, with Mike May taking over from Jon Knight as Treasurer and Roy Kennedy as Publications Officer- both are long term supporters of the Association. I recognised the contribution of Jon as Treasurer in my report for 2013 and would like to reiterate this. In particular, I would like to thank him for continuing in the role while we sought a successor, despite increased pressure in his “day job”. Similarly, I would like to thank Trevor Hocking for his work as Publications Officer. I would also like to welcome Mathew Back and Paul Miller as Conveners of the Nematology and Pesticide Application groups, respectively. The major event for our publications has been the centenary of the Annals of Applied Biology. The Annals is an integral part of the activities of the Association and a major contributor to the Association’s income. The journal has recognised this landmark in a series of Centenary Reviews and Editorial, which look back at key publications in the journal and forward to new challenges. The Association is also recognising the occasion with a Centenary Conference to be held at Rothamsted Research in December, with a line-up of high profile speakers addressing “Challenges for Crop Production and Quality” in the 21<sup>st</sup> Century. I would like to thank Jari Valkonen for his work as Editor-in-Chief for the past 6 years and to welcome Simon Leather who will take on this role in January after being a Senior Editor since 2005. Of our other publications, the Plant Biotechnology Journal continues to make excellent progress under its new Editor Henry Daniell (University of Pennsylvania) while Martin Parry and his Associate Editors are working hard to establish Food and Energy Security in the highly competitive market of open access on-line journals. Finally, the Association has continued with its excellent and wide reaching programme of scientific meetings, including a workshop in mainland Europe (Dust Emissions from Seed Drills) at the Julius-Kühn Institute in Berlin, Germany in February 2013, with more European conferences planned for 2014. I would like to recognise Carol Millman and her colleagues at Wellesbourne for their smooth operation of the Association’s activities and to thank them personally for their help over the past two years. I would also like to welcome John Andrews who has joined the team at Wellesbourne with particular responsibility for conference administration. The Association continues to have a strong international presence, particularly in Europe, although it was decided that this should not be reflected in any changes in the name or status of the Association. It is also recognised that the organisation of conferences outside the UK places extra pressure on the AAB office and requires efficient local organisation.

Finally, I would like to thank my colleagues on Council, particularly Trevor Hocking, Elizabeth Stockdale and Jon Knight, for their help and advice, and Carol and her colleagues in the office for their efficient support and understanding as I have settled into my new role.

*Peter Shewry*

## FINANCIAL REPORT FOR 2013

This report can be found on pages 3-4.

### MEMBERSHIP

A total of 144 new members of the Association were elected by Council during the year (see Appendix 2). The total of fully paid-up members and Honorary members on 31<sup>st</sup> December 2013 was 765 – 11 more than the year before. The number of Honorary members at the end of the year was 15, 15 being the maximum permissible under the Laws.

### PUBLICATIONS

#### *Annals of Applied Biology*

The Association is the owner of *Annals of Applied Biology* which is published by Wiley-Blackwell. *Annals* continues to do well, and in 2013 there were more than 107,231 full text downloads (up from 93,881 in 2012), to *Annals of Applied Biology*. The total number of pages published was 892, comprising 78 papers (62 in 2012). The number of papers submitted in 2013 is holding steady at 408, against 407 submitted in 2012. The most downloaded article, *The potential of beneficial microorganisms in agricultural systems* by Andrews *et al.*, was accessed 1,852 times. The impact factor for 2013 eased a little to 1.955 (2.147 in 2012), but should increase with the plans, which are in hand for the *Annals of Applied Biology* centenary, in 2014.

#### *Plant Biotechnology Journal*

The Association is the joint owner of the *Plant Biotechnology Journal* along with the Society for Experimental Biology and Wiley-Blackwell. The first issue of the journal was published in 2003 and since then the profile of the journal has risen steadily. In 2013 the journal published 9 issues, totalling 1143 pages (104 articles). The impact factor also slipped in 2013 to 5.677 (6.279 in 2012). There was a 19% increase in Full Text Downloads between 2012 and 2013. *Plant Biotechnology Journal* is now available in 4,386 institutions worldwide via the Wiley-Blackwell license and in 5,217 institutions in the developing world via philanthropic initiatives.

#### *Food and Energy Security*

The Association, along with Wiley-Blackwell, launched its new online-only journal, *Food and Energy Security* in 2012. In 2013 the journal published 3 issues, totalling 236 pages (18 articles). For a limited period, AAB Members will be able to publish in *Food and Energy Security* for a publication fee of £500 (previously £1200). In 2013 the Editorial Board increased its handling editors to 23.

#### *Aspects of Applied Biology*

The following volumes of *Aspects of Applied Biology* were published to accompany scientific conferences held during the year.

*Aspects 116: Acrylamide, furans and other food-borne contaminants, from plant science to food (from 2012) chemistry*

*Aspects 118: Environmental Management on Farmland*

*Aspects 119: East Malling Centenary - Fruits and Roots: A Celebration and Forward Look*

*Aspects 120: Positive Plant Microbial Interactions: Their role in maintaining sustainable and natural ecosystems*

*Aspects 121: Rethinking Agricultural Systems in the UK*

#### *Descriptions of Plant Viruses*

*Descriptions of Plant Viruses* is published as a CD Rom and online. This is an invaluable information tool for all those involved with the identification of plant viruses, including students, teachers and researchers. It is unique in the breadth of the information that it covers.

#### *Newsletter*

Three issues of the Newsletter were published in 2013. The newsletter includes update reports from Council, conference reviews, book reviews, lists of new members, together with their interests, and other reports of similar interest.

### SCIENTIFIC CONFERENCES

A total of 685 delegates attended the conferences in 2013 compared to 711 in 2012 and 835 in 2011, and the average number of paying delegates was 62 compared to 61 in 2012 and 46 in 2011. Details of the full scientific conference programme for 2013 are given below:

Title of Conference	Group	Date	No. delegates
Farming System Design – UK Workshop	Cropping And The Environment/NIRes	06 Mar	8
Crop Resource Use Efficiency and Field Phenotyping	Plant Physiology and Crop Improvement	25-26 Mar	53
Dust Emissions from Seed Drills	Pesticide Application / JKI	14-15 Mar	37
Environmental Management on Farmland	Cropping And The Environment	23-25 Apr	68
International Advances in Plant Virology	Virology	25-27 Sept	74
Crop Breeding over 10,000 years	Cropping And The Environment / NIAB	7 Oct	21
IPM: Pushing Back the Frontiers	Biological Control and IPM	15-16 Oct	86
Fruits and Roots: A Celebration and Forward Look	East Malling Research/ AAB	6-7 Nov	123
Positive plant microbial interactions: their role in maintaining sustainable agricultural and natural ecosystem	Applied Mycology & Bacteriology	2-3 Dec	29
Advances in Nematology 2013	Nematology	10 Dec	49
Rethinking Agricultural Systems in the UK	BES Agricultural Ecology, Forest Ecology & Computation Ecology Groups / AAB	18-19 Dec	137
		TOTAL	685

### AAB SPECIALIST GROUP REPORTS

#### *Applied Mycology & Bacteriology*

Convener – Stephen Cummings

Group members – Julia Cooper, Neal Evans, Neil Havis, David Kenyon, Caroline Orr, Keith Thomas, Jon West

The group recruited two new members during 2013 – Julia Cooper from the University of Newcastle and Caroline Orr from Teeside University

*Positive Plant Microbial Interactions in Relation to Plant Performance and Ecosystem Function* conference  
– 2-3 December 2013

Plant pathology features strongly in many agronomy conferences typically with a focus on major plant diseases. Less obvious, perhaps, are the beneficial consequences of many microbes. The fourth AAB conference on Positive Plant Microbial Interactions held in December 2013 outlined a broad range of these benefits.

Example benefits presented typically involved soil microbiology and how its diversity affects plant health and productivity. In some cases this is a result of natural processes and variation and in others by deliberate supplementation with specific microbes. One overall hypothesis is that a broad profile of microbes has direct benefits to plants and also may actively combat disease pathogens. Another is that specific microbes may be used to target crop protection and specific disease resistance.

To some extent this mirrors the prevailing experience of prebiotic and probiotic concepts in human and animal health whereby beneficial microbes counteract harmful microbes so minimising the propensity for disease. Maintaining suitable soil conditions to actively promote microbial populations requires appropriate management in providing suitable nutrient sources. Actively amending soil with microorganisms is a more targeted approach – and, like probiotic diets, may need to be attuned to specific soil conditions or regularly supplemented.

At the conference reports were presented covering these approaches and illustrating specific conditions which affect the diversity of soil microbes and of how targeted addition may manage disease and improve productivity. In some cases, as in the difference between conventional and organic soil management, microbial diversity may not guarantee positive benefit. Microbial profiles can, however, correlate with important soil indices such as nutrients and pH which may vary with past soil history, weather patterns or with hydration. The distribution of nematode pests in banana plantations in Nigeria is another example of how management regimes directly affect disease.

Application of selected microbes with the potential to enhance plant productivity and health was noted in a range of presentations. Examples were presented on how fungal root endophytes enhance barley growth and demonstrate biocontrol activity, how endophytic bacteria associate with mycorrhizal fungi and how competition between species of *Fusarium* may reduce disease incidence. Identifying suitably effective microbes is not easy. Screening is difficult and time consuming and may need high throughput protocols to be commercially attractive. In some cases addition of by-product amendments may be effective and cheap but be less assured.

The mechanisms of positive microbial action were discussed at the conference and presentations covered a range of detailed molecular and cell biology applications including metagenomics of soil, control of ethylene production, transformation of apoplastic effectors and triggering procedures of plant immunology.

Knowledge of how specific microbes interact will allow targeted amendments to be made. Practical applications of specific microorganisms to commercial crops were reported at the conference for barley, wheat, strawberries, peanut, lettuce and broccoli.

A broad and general conclusion to the conference was that detailed studies and specific effects do need to satisfy an agronomic relevance test including rigorous trials at multiple sites and involving commercial partners to achieve acceptable rigor. This need has sound prospects for future development and considering the work presented here routes from academic study to practical application are visible and attainable.

### **Biological Control & Integrated Pest Management**

Convener – Toby Bruce

Group members – David Chandler, Rosemary Collier, Rob Jacobson, Phil Morley, Dick Shaw, Paul Sopp, Phil Walker, Dale Walters, Xiangming Xu

Co-opted members – Richard Glass, Roma Gwynn

The group recruited two new members during 2013 – Paul Sopp and Dale Walters. The group organised two conferences on 15/16 October back-to-back:

### *IPM: Pushing back the frontiers & Biopesticides*

There can be no doubt that the EU Sustainable Use Directive will impact on everyone involved with crop production and crop protection in the UK over the next few years. The overall objective of the Directive is to ensure that pesticides are used sustainably by reducing the risks and impacts of use on human health and the environment and encouraging the development and introduction of integrated pest and disease management (IPM). In short this will mean the replacement of broad spectrum pesticides with alternative approaches and techniques. The Directive requires the general principles of IPM to be implemented by professional pesticide users by 1 January 2014. In reality, this can only be achieved by the cropping sectors that were already using IPM when the Directive was announced. The UK's National Action Plan (NAP) for the implementation of the Directive has been prepared by the Chemicals Regulation Directorate (CRD) with strategic oversight by Defra.

Given the urgency for the implementation of the NAP, there can never have been a more appropriate time to draw together and pool the expertise of people currently involved with IPM. The Association of Applied Biologists (AAB), which has over 280 members with a special interest in IPM, organises an annual gathering of the IPM community at which policy makers, experienced researchers, young scientists and practitioners can detach themselves from their usual day-to-day pressures and totally immerse themselves in the subject. The recent 2013 conference, entitled 'IPM: Pushing back the frontiers', was organised in partnership with the International Biocontrol Manufacturers' Association (IBMA) with the specific aim of addressing issues associated with the implementation of the UK's NAP. The event attracted over 90 delegates from many different backgrounds.

There is a common misconception that IPM is simply an alternative term for biological control but this could not be further from the truth. While biological agents often provide the backbone of an IPM programme, they also draw on cultural and physical techniques, all integrated with target specific chemical pesticides and biopesticides. A total of 20 speakers described the development and implementation of a wide range of techniques including opportunities for genetic modification, conventional plant breeding, incorporation of plant extracts and semiochemicals, optimising the use of parasites and predators, and novel methods of distributing biopesticides. Several speakers considered methods of integrating such techniques with conventional pesticides. In addition, Dr Steve Ellis and Dr Sarah Kendall (ADAS) clearly illustrated the importance of understanding economic damage thresholds and explained why doing nothing is often the best financial option. Abstracts of all the technical papers are available via the AAB and HDC websites.

There were several open discussion sessions during the conference at which delegates debated issues relating to the implementation of the NAP. There is little doubt that this annual AAB conference has become the primary IPM event in the UK.

### ***Cropping and the Environment***

Convener – Rob Carlton

Group members – Nigel Boatman, Ken Davies, Andy Evans, John Purslow, Jonathan Storkey, Elizabeth Stockdale, Kairsty Topp, Peter Taylor

The group recruited a new member – John Purslow during 2013.

Cropping and the Environment organised three conferences/workshops during the year: Farming Systems Design – UK Workshop, Environmental Management on Farmland, and Crop Breeding over 10,000 years; Lessons for current and future challenges.

*The Farming Systems Design Workshop* in Newcastle on 6 March 2013 discussed the need for a core group of researchers to focus on the analysis and design of farming systems in the UK. While many existing organisations and groups in the UK see farming systems as part of their remit there is no umbrella group or united voice for farming systems research. A group such of this would have a number of roles including networking, influencing the research agenda, highlighting and building consortia for funding opportunities, data and resource sharing (experimental/analytical). The group would need to be both interdisciplinary and cross a range of agricultural systems and scales. The remit could encompass a

wide variety of traditional land uses but also be forward looking e.g. vertical farming. We propose that this would be a working group under the AAB but liaising with BSAS/BES/AES/BSSS/Permaculture Association/Farm Woodland Forum/IAGRE and others as appropriate. The group does not need a formalised structure but one model that was suggested was using the format of the UK Weed Liaison group. The group's first activity would be to run a discussion session at the Rethinking agricultural systems in the UK conference in September with the purpose of thinking about UK based activities and opportunities to link into the European Community of Practice launched by ESA. An excellent presentation was given by Dr Pablo Tittone of Wageningen University.

*Environmental Management on Farmland* was held from 23-25 April at Forest Pines Hotel, nr Brigg, N Lincolnshire. The conference had a good selection of offered papers including several from Europe, and the quality was generally good to excellent. In view of the timing, there was a lot of interest in the development of future agri-environment schemes. Farmer attitudes also had a higher profile than in previous conferences.

Delegates attended from a good range of organisations including a number from mainland Europe. There was strong representation from Defra and Natural England, who are in a position to make use of information presented in designing future schemes.

The venue was excellent. Conference rooms were of a good size, food was very good, rooms were very comfortable and hotel staff were helpful. Employing professional technicians to deal with audio-visual equipment worked well with no hitches – that was definitely worth doing.

The conference went well with no significant problems. Communication with the AAB office was good. Russell Millman, who was the main contact, responded promptly to queries and rapidly provided requested information.

Generally most speakers and the programme as a whole kept to time. Speaker slots appeared to be about right for the content – there was usually time for a question or two at the end of each talk as well as discussion periods. Meal periods were about right to allow meals to be completed without undue time pressure.

The general feeling at the conference was positive and the indications were that the delegates found it useful and interesting. Several who had to leave early expressed regret that they could not stay longer. There was a good level of engagement in the discussions, including the final discussion at the end.

*Crop Breeding over 10,000 years; Lessons for current and future challenges* was held at the National Institute of Agricultural Botany conference centre at Impington, Cambridge on 18 September 2014.

The evolution of crops reflects the evolution of human cultures and their responses to new environments and new edaphic and climatic challenges. The consequent changes in crop genomics is of considerable interest, but of further interest is whether we can utilise this knowledge to assist in overcoming current and future problems of coping with edaphic and climatic changes, whilst achieving greater sustainability commensurate with diminishing resources, for example of water and nutrients.

A greater understanding of past changes in crops and how they occurred may help modern researchers source cropping lineages and develop strategies to assist in these aims.

This conference incorporated the AAB Annual General Meeting, which included a discussion on ideas on how to engage with early-career scientists.

### **Food Systems**

Conveners – Wayne Martindale, Richard Binks

Group members - awaiting invitation; co-opted members – Richard Glass, Elizabeth Stockdale

There was little activity at the beginning of 2013 with the *Diet for Sustainability – Eat, Drink, Be Ready* conference due to be held at Rothamsted Research on 16 May being cancelled. The existing Convener resigned and after advertising the position in AAB News, Dr Richard Binks was appointed as the new Convener. Richard has been working to recruit new members to the group and will be organising at least one conference in 2015. The group would welcome applications to join the group.

### **Nematology**

Convener – Matthew Back

Group members – Steve Edgington, Ivan Grove, Sue Hockland, Thomae Kakouli-Duarte, Rosa Manzanilla-Lopez, Barbara Pembroke, Jon Pickup, Tom Prior

The Nematology Group consists of a range of researchers from government, academia, and private consultancy. The group meets at the AGM which is held at the 'Advances in Nematology' meeting in London. At our last meeting on the 10th December 2013, Jon Pickup stood down as convener after completing his term. Matthew Back was elected as the new convener and Steve Edgington was co-opted as a group member. Sue Hockland has continued to support the group with the organisation of the Advances in Nematology meeting. In January 2014, Jon Pickup was co-opted as a group member. This year the group is holding an additional meeting at the University of Reading (29 October 2014) to discuss forthcoming conferences and nematology related initiatives.

*Conferences arranged during 2013*

Advances in Nematology, 10 December 2013: Linnean Society, Piccadilly, London

*Future Conference Programme*

5<sup>th</sup> International Symposium of Biofumigation, 9-12 September 2014: Harper Adams University, Shropshire

Advances in Nematology, 16 December 2014: Linnean Society, Piccadilly, London

4<sup>th</sup> Symposium on Potato Cyst Nematode Management, September 2015: Harper Adams University, Shropshire.

### **Pesticide Application**

Convener – Simon Cooper

Group members – Paolo Balsari, Philip Carpenter, Richard Glass, Ben Magri, Colin Mountford-Smith, Tom Robinson, Bill Taylor, Jan van de Zande

Co-opted members – Bill Jones, Paul Miller

Studies linking bee deaths to seed treatments, including the neonicotinoids, provided the background to a two-day workshop held in Germany in March 2013 and attended by a total of 37 delegates. Dust emitted from pneumatic seed drills operating with treated seed has been identified as an important component of bee contamination and this workshop considered all of the aspects relating to this problem. A combination of oral papers and posters addressed issues that included the risk of dust formation with different seed treatments, the distribution of pesticide in different dust size fractions, the results from field trials assessing downwind dust drift deposits and concentrations and the effects these had on bees, the quantities of dust emitted from seed drills and ways in which this could be reduced, the development of standardised tests for seed drills to assess the risk of dust emissions and computer modelling approaches to predicting dust transport and deposition.

Another important activity for the Group in 2013 was the preparation for the International Advances in Pesticide Application (IAPA) conference that will be held in January 2014. The Organising Group met on two occasions to review plans, papers and the publication for this international conference and a session on dust emissions to, follow on from the March workshop, was also included.

Planned activities for 2014 include the IAPA conference and a workshop on hand-held applicators to be held in Barcelona in October – partly to assess the potential for holding the 2016 International conference at a venue in Barcelona.

### **Plant Physiology & Crop Improvement**

Convener – Finlay Dale

Group members – Roxanna Bonyadi, Nigel Halford, Huw Jones, Erik Murchie, Richard Weightman

The PP&CI group organised Crop Resource Efficiency and Field Phenotyping which was held on 25-26 March 2013 at Belton Woods, Grantham, Lincs. This conference was intended to address two current issues in crop science and food security, notably that there is an increasing need to improve the

efficiency with which crop plants utilize mineral nutrients, light and water to increase sustainability, feed a growing human population and prevent excessive expansion of agricultural areas. This requires further understanding of the mechanisms by which crops and plants utilize these resources at different scales, from cell to organ to field to farm. Furthermore we need to exploit existing germplasm and discover new traits by rapidly screening them for new traits – phenotyping. Field phenotyping has been around for a long time (e.g. in breeding) but here we explore how automation and mechanization can be combined with the physiology of resource use.

On the first day we had some revealing talks by established crop physiologists (Jose Araus, John Foulkes, Eric Ober) setting the scene in terms of the problems that need to be overcome and progress made so far. We learned how consideration of management and disease is essential (Daniel Kindred, Shane Kennedy, Mike Grimmer). We moved to some specific leaf level processes with Tracy Lawson explaining her innovative technique for simultaneous measurement of PSII processes with IR thermography for water use efficiency. We had high quality talks from post docs and PhD students (Ian Smillie and Anisha Parmar).

On the second day we moved to techniques for field phenotyping and here we combined physiology with field phenotyping as an interdisciplinary challenge with revealing talks on remote sensing by Christian Knoth and Andy French moving through to resource use again (Sarah Kendall, Bill Thomas, Roger Sylvester-Bradley, Alison Karley). There was some diversity with Aryo Feldman describing an interesting C4 screen he carried out at the Rice Research Institute in the Philippines. Cutting edge techniques for root and shoot phenotyping were covered by Sacha Mooney (X-ray tomography for root imaging in 3D), John Doonan (National Plant Phenomics Centre) and unmanned aerial vehicle viewing of crops (Andy French and Christian Knoth). A stimulating set of posters rounded off the talks well.

The goal of this meeting was to get leading people involved with crop physiology to interact with people developing cutting edge phenotyping technology that could be extended and innovated for field purposes. In doing this we were pleased to get such strong and lively input from manufacturers (Phenospex, Photos Systems Instruments, ADC). Delegates could ask technical questions about the equipment involved. Given the positive discussions that went on during the 2 days and the complimentary feedback I have had, I think we succeeded. I hope that this format can be repeated, as the phenotyping ‘train’ moves ahead in the coming years.

### **Virology**

Convener – Stuart MacFarlane

Group members – Adrian Fox, Maruthi Gowda, George Lomonosoff, Joel Milner, Rene van de Vlugt, John Walsh, Thierry Wetzl

The group holds an international conference every 18 months, and in 2013 the *International Advances in Plant Virology* took place in Norwich on 25–27 September. The group also took the opportunity of everyone being together at the conference, to hold their annual group meeting at the same time. The scientific content of the conference was very good, with three international quality invited speakers, and a very good spread of postdoctoral and PhD-level speakers. The un-themed meeting format encouraged speakers from thirteen different countries to present a broad range of talks.

Plans are underway for the next conference which will be held in March 2015 in Birmingham in conjunction with the Society for General Microbiology.

### **WEBSITE**

AAB had previously relaunched its website in 2011 and this is now substantially populated. It details forthcoming events for other organisations as well as promoting our own conferences and workshops. The development is on-going with new pages being added, links to business and social networks (including Facebook and Twitter, where we now have over 400 followers), and the site has become increasingly interactive, allowing members to engage with the Association and other members across a range of activities.

### **DONATIONS AND SPONSORSHIP**

The Trustees would like to extend their grateful thanks to the following organisations/individuals that provided financial donations or sponsorship total, together with further support during the year.

Dr Elizabeth Gray (Donation left in her Will)	£5,000.00	
British Ecological Society (Ecology group)	£1,500.00	Environmental Management on Farmland
British Ecological Society (Ecology group)	£4,500.00	Rethinking Agricultural systems in the UK
British Ecological Society (Forest ecology group)	£2,000.00	Rethinking Agricultural systems in the UK
BASF The chemical company	£750.00	IPM: Pushing Back the Frontiers
BCP Certis	£750.00	IPM: Pushing Back the Frontiers
Fargro	£750.00	IPM: Pushing Back the Frontiers
HDC	£750.00	IPM: Pushing Back the Frontiers
Koppert Biological Systems	£750.00	IPM: Pushing Back the Frontiers
Russell IPM	£750.00	IPM: Pushing Back the Frontiers
Syngenta Bioline	£750.00	IPM: Pushing Back the Frontiers
A G Thames	£5,000.00	Fruits and Roots
Anonymous	£1,000.00	FES and Annals Centenary conference (£500 each)
<b>TOTAL</b>	<b>£24,250.00</b>	

### **AFFILIATIONS TO OTHER SOCIETIES**

Affiliations were maintained with the Society of Biology, the Foundation for Science and Technology and the Association of Learned and Professional Society Publishers. The Association has a Memorandum of Understanding with the European Society for Agronomy.

**ELECTION TO SPECIALIST GROUP COMMITTEES FOR 2014**

Nominations are sought for vacancies on some of the AAB Specialist Group Committees. The present composition of each Group Committee can be seen overleaf. The nominations, duly seconded and accompanied by the consent of the nominees, should be sent to the Executive Officer, Carol Millman, at the AAB Office to arrive not later than 14<sup>th</sup> November 2014. Please note there are currently no vacancies in the Pesticide Application group.

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**ASSOCIATION OF APPLIED BIOLOGISTS  
(This form may be photocopied)**

**We wish to nominate Mr/Mrs/Miss/Ms/Dr/Professor\*** .....

.....

**for the committee of** .....**Group**

<b>Proposed by</b>	<b>Seconded by</b>
<b>Signed</b> .....	<b>Signed</b> .....
<b>Address</b> .....	<b>Address</b> .....
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.....	.....
.....	.....

**\*Delete as appropriate**

\*\*\*\*\*

**Consent to nomination**

**I agree to the nomination for the committee of** .....

**Signed** .....

**Address** .....

.....

..... **Date** .....

**SPECIALIST GROUP COMMITTEES AS AT SEPTEMBER 2014**

**Applied Mycology and Bacteriology:**

- J West (Convener) (2016 1<sup>st</sup> term)
- J Cooper (2016)
- N Evans (2014)
- N Havis (2014)
- D Kenyon (2014)
- C Orr (2016)
- K Thomas (2014)

**Biological Control:**

- T Bruce (Convener) (2014 1<sup>st</sup> term)
- D Chandler (2014)
- R Collier (2014)
- R Jacobson (2014)
- P Morley (2016)
- R Shaw (2014)
- R Shaw (2014)
- P Sopp (2016)
- P Walker (2014)
- K Walters (2016)
- X Xu (2014)

**Cropping and the Environment:**

- R Carlton (Convener) (2015 1<sup>st</sup> term)
- N Boatman (2014)
- D H K Davies (2014)
- K A Evans (2014)
- J Purslow (2015)
- E A Stockdale (2016)
- J Storkey (2016)
- P Taylor (2014) – AICC Rep.
- K Topp (2015)

**Plant Physiology and Crop Improvement:**

- M F B Dale (Convener) (2015 1<sup>st</sup> term)
- R Bonyadi Pour (2015)
- N Halford (2015)
- E Murchie (2014)

**Nematology:**

- M Back (Convener) (2016 1<sup>st</sup> term)
- S Edgington (2016)
- I Grove (2016)
- S Hockland (2015)
- T Kakouli-Duarte (2015)
- R Manzanilla-Lopez (2015)
- B Pembroke (2014)
- J Pickup (2016)
- T Prior (2014)

**Pesticide Application:**

- P C H Miller (Convener) (2016 1<sup>st</sup> term)
- P Balsari (2014)
- P I Carpenter (2014)
- S E Cooper (2016)
- C R Glass (2013)
- B Magri (2014)
- C Mountford-Smith (2015)
- D Stock (2014)
- W A Taylor (2015)
- J van de Zande (2015)

**Food Systems:**

- R Binks (Convener) (2015 1<sup>st</sup> term)

**Virology:**

- S MacFarlane (Convener) (2015 2<sup>nd</sup> term)
- A Fox (2014)
- M N Gowda (2014)
- G Lomonosoff (2014)
- J Milner (2016)
- R A A van der Vlugt (2014)
- J Walsh (2015)
- T Wetzel (2014)

# AAB FORWARD CONFERENCE PROGRAMME

## 2014

- 9-12 September **5<sup>th</sup> International Symposium of Biofumigation**  
Harper Adams University, Newport, Shropshire, UK  
(HAU/Nematology Group)
- 11 September **Association of Applied Biologists AGM**  
AAB Members and their Guests only  
Harper Adams University, Newport, Shropshire, UK
- 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**  
ICC, Birmingham (Virology Group)
- 31 March-  
1 April **Improving soil health – developing tools for land managers**  
Olde Barn Hotel, Marston, Lincs (CATE Group)
- 24-25 June **Getting the Most Out of Cover Crops**  
Olde Barn Hotel, Marston, Lincs (CATE Group)
- September  
(TBC) **5<sup>th</sup> Symposium on Potato Cyst Nematodes**  
Harper Adams University, Newport, Shropshire, UK  
(HAU/Nematology Group)

Association of Applied Biologists, Warwick Enterprise Park, Wellesbourne, Warwick CV35 9EF, UK

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