

ANNUAL REPORT & Statement of Accounts 2009 / 2010

**Agri-Food and Biosciences Institute
Annual Report and Accounts
For the year ended 31 March 2010**

Laid before the the Northern Ireland Assembly
under the Agriculture (Northern Ireland) Order, 2004
by the Department of Agriculture and Rural Development
on 15th August 2011

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Agri-Food and Biosciences Institute

AFBI Headquarters,

18a Newforge Lane,

Malone Upper

Belfast

BT9 5PX

Northern Ireland

or email: info@afbini.gov.uk.

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Foreword from the Chair

I am delighted to introduce the Annual Report and Accounts for the Agri-food and Biosciences Institute (AFBI) for 2009/10.

The AFBI Board has met monthly throughout the year, with Board meetings held at AFBI's various sites, a strategy that has helped the Board to continually improve and develop its understanding of the diverse and complex range of activities delivered by the institute in support of its customers, including of course DARD, AFBI's sponsor department and main customer.

Delivering the highest standard of scientific support to DARD is a key priority and AFBI has delivered this whilst also effectively delivering ambitious efficiency savings. The maintenance of an effective emergency response capability for Northern Ireland's agri-food sector remains one of AFBI's critical roles, this scientific support being vital in assisting the DARD Minister in responding to real and potential animal, plant and food safety threats.

AFBI, in its fourth year, has continued to develop and mature as an Institute. Our staff have maintained the very highest standards of animal and plant disease and food safety surveillance on behalf of the local agri-food industry and consumers, work that has helped maintain the disease free status of Northern Ireland produce. They have sustained the institute's position as a world leading centre of excellence for agri-food and biosciences research, delivering new knowledge and scientific understanding that has helped ensure that Northern Ireland's agri-food sector has been kept at the forefront of innovation and global developments. Our staff have also continued to develop a commercial focus that has helped AFBI to successfully commercialise new technologies and generate revenues that now account for approximately 20% of the institute's income.



During the year, three members of the AFBI Board retired from their posts. I would like to take this opportunity to thank Dr Christine Kennedy, Mr Nicholas Mack and Mr John McKinley for their support and significant contribution to the AFBI Board during their time in office. I would also like to welcome four new members to the Board, Mr Seamus McCaffrey, Mr Trevor Hinds, Mrs Hilda Stewart and Mr Alan McKeown. Our new

Board members bring a mix of experiences and skills that will make a valuable contribution to the Board and the institute and I look forward to working with them in the years ahead. I would also like to thank Dr Michael Hollywood and Mr Kieran Campbell for agreeing to remain with the Board for a further one year.

Whilst public sector spending cuts will bring pressures upon AFBI, I am confident that given the progress of the institute to date, the hard work and dedication of AFBI's staff and the dedication and support of the Board, AFBI will continue to grow and develop in the year ahead.

A handwritten signature in blue ink, which appears to read 'S. Hogan'. The signature is stylized and includes a long horizontal line extending to the right.

Mr Seán Hogan
AFBI Chair

Chief Executive's Report

I am pleased to present my report for the Agri-Food and Biosciences Institute (AFBI) for 2009/10.

Our overall aim continues to be the efficient delivery of high quality scientific services and advice to our wide range of local, national and international customers. In the past year our staff have further developed the institute's position as a world-leading centre of scientific knowledge, expertise and capability in the sphere of agri-food and biosciences and we have continued to capitalise on our strengths for the benefit of the institute, our customers and the wider Northern Ireland economy.

As our primary customer, DARD accounts for approximately 80% of our revenue and during 2009/10, AFBI continued to provide DARD with statutory testing, surveillance and scientific advice in relation to animal and plant disease and food safety threats. This support enabled DARD to comply with national and EU obligations in regard to disease surveillance and also ensured that the integrity of Northern Ireland's agri-food industry was again robustly protected. AFBI also continued to maintain an effective local emergency response capability across a range of disciplines and expertise for DARD, the agri-food sector and other local and national public bodies.

AFBI continued to provide a sound research base for DARD in 2009/10 with 106 DARD funded R&D projects being delivered, a significant proportion of these being co-funded by industry and other funding bodies. The research undertaken by AFBI on behalf of DARD provided a sound evidence base that underpinned DARD policy whilst also delivering a rich source of innovation that is vital to maintaining the competitiveness of the local agri-food sector.



During the past year our staff continued to develop new business with commercial clients in the private and public sector, both locally and internationally. Our scientific staff initiated 24 new collaborative projects with companies and clients worth approximately £950,000. AFBI staff also participated in many international R&D networks and carried out commercial work for customers in North and South America, Europe and Asia.

As part of our strategy for developing collaborative links, the institute signed Memoranda of Understanding (MoUs) with several important strategic partners, including University College Dublin and the New Zealand Institute for Plant & Food Research. In August 2009, a delegation from AFBI signed a MoU with the Shanghai Academy of Agricultural Sciences (SAAS). This followed the signing of a MoU with the Chinese Academy of Agricultural Sciences (CAAS) in December 2008. The relationship with both SAAS and CAAS has further developed with both Chinese institutes having agreed to fund student and staff exchanges with AFBI.

In the year ahead we will work to develop opportunities for further international cooperation to the mutual benefit of AFBI and its international partners, and to access scientific capability through these formal agreements for the benefit of AFBI and its customers. These agreements significantly increase the knowledge base available to the local industry through its contact with AFBI, as well as creating the potential to generate significant income from collaborative R&D and other opportunities.

During the year, the DARD Minister officially opened refurbished facilities at AFBI Hillsborough. The £4.8m project included the refurbishment of conferencing facilities at the site, the latter being funded by the endowment

fund held by the former Agricultural Research Institute for Northern Ireland (ARINI). These new facilities have already been used for several high profile events within the local agri-food and rural development sector. This investment follows on from a £2.9m investment in the Environment and Renewable Energy Centre at Hillsborough that was officially opened in January 2009. During 2009/10, DARD also supported the refurbishment of laboratories at AFBI's Stormont site.

The pressure on public sector finances will no doubt bring significant challenges for AFBI in the incoming year. However, I am confident that the continued hard work and dedication of AFBI's staff will enable the institute to remain strong and continue to provide the highest standards of support to all of our customers and stakeholders in the agri-food sector and wider economy.

A handwritten signature in black ink, appearing to read 'S Kennedy', with a stylized flourish at the end.

Dr Seamus Kennedy MVB PhD MRCVS FRCPath
Chief Executive Officer

Annual Report

and Statement of Accounts 2009-2010

Management Commentary

Scope

The Agri-Food & Biosciences Institute presents its accounts for the financial year ended 31 March 2010. The Institute was formed on 1 April 2006 with the amalgamation of the Department of Agriculture and Rural Development (DARDNI) Science Service division and the Agricultural Research Institute of Northern Ireland, which was a separate Non-Departmental Public Body (NDPB) funded by DARD. AFBI is established under the Agriculture (Northern Ireland) Order, 2004, as a DARD NDPB.

Accounts Direction

The accounts have been prepared under the Accounts Direction given by the Department of Agriculture and Rural Development, with the approval of the Department of Finance & Personnel, in accordance with the Agriculture (Northern Ireland) Order 2004.

Vision

To be an internationally recognised and successful centre of excellence for scientific research and services within the sphere of biosciences.

Our Mission

AFBI's mission is to deliver effective, high quality scientific services in the bio-sciences field to local, national and international public and private sector customers.

Corporate Objectives

1. To sustain and grow our business spectrum.
2. To deliver high quality, cost-effective scientific, economic and emergency response services to our customers.
3. To be the preferred partner or contractor in our delivery of local, national and international scientific services.
4. To maintain the necessary skills and resources to be able to provide services, including an emergency response that meets the agreed requirements of customers.
5. To seek to continually improve the management of our business and deliver services which are value for money.

AFBI has an important role in assisting DARD to achieve its objectives. DARD's objectives are:

Objective 1:

Improving performance in the market.

Objective 2:

Safeguarding animal, fish and plant health.

Objective 3:

Maintaining and investing in the environment.

Objective 4:

Building a successful rural economy and society.

AFBI supports DARD's objectives by delivering:

- statutory, analytical and diagnostic work;
- research and development;
- specialist scientific advice;
- an emergency response capability in the context of animal and plant disease outbreaks and other emergencies in the food and environment areas.

Funding

AFBI is an NDPB sponsored by DARD and is funded through Grant-in-Aid. The Grant-in-Aid is voted in DARD's Estimate and is subject to Assembly control. AFBI's current and capital expenditure form part of DARD's Resource DEL and Capital DEL respectively. AFBI also raises funds through receipts generated in the course of its operating activities. In 2009/2010 the grant-in-aid amounted to £41.4m (2008/2009: £44.1m).

Relationship with DARD

AFBI's main point of contact with DARD is the Sponsor Branch (ASB) in the department. Regular meetings are held with the Sponsor Branch where matters relating to corporate governance, performance measurement, budgets, financing and accountability matters are discussed.

AFBI's responses to the quarterly monitoring rounds and Comprehensive Spending Reviews are all routed through ASB.

Relationships with Other Government Departments and Agencies

AFBI has signed Service Level Agreements to provide services to DCAL and FSA NI. It also does a significant body of work for DEFRA and its agencies and NDPBs.

Relationships with Educational Establishments

AFBI continues to co-operate on projects with both local universities and has also developed close working relationships with universities and institutions in the Republic of Ireland, Scotland, India, China and the United States of America.

Marketing

AFBI has also embarked upon strengthening its marketing team in order to enable it to look for wider markets for its specialist services and expertise and to widen and strengthen its income stream. It has also taken part in a trade mission organised by Invest NI to the USA and ensured attendance at trade fairs both in Northern Ireland and in the Republic of Ireland.

Performance

Table below is summary of outturns against 2009 / 2010 targets

Target	Objective	Assessment of Achievement
1	To sustain and grow our business spectrum.	
	to achieve £10.5m of non-DARD income by 31 March 2010;	<i>Target met</i>
	to develop, and obtain AFBI Board approval, by 31 August 2009 for a 3-year marketing plan (2009/10 to 2011/12).	<i>Partially achieved</i> Our review indicated that a commercialisation plan was prepared in March 2009. This plan identified the requirement for external consultative support to develop a marketing plan for the Institute. We noted that an external service provider was appointed and a project plan was prepared. Our review indicated that the projected timeframe for completion of the marketing plan is August 2010.
	to develop, and communicate, a customer management framework by 31 August 2009.	<i>Partially achieved</i> We understand that the customer management framework will be developed as part of the work in developing AFBI's marketing plan. We understand that this work should be completed by August 2010.
	to have an agreed Memorandum of Understanding ("MoU") and Work Programme with DARD, by 30 September 2009.	<i>Partially achieved</i> Our review identified that as at July 2010, discussions with the Department in relation to the MoU are ongoing. We understand that the MoU will comprise service level agreements and a work plan for the services to be delivered to the Department. Our review indicated that AFBI has identified the range of services and associated costs. The summary of the services and associated costs have been issued to the Department for agreement prior to AFBI progressing the MoU. We understand that the anticipated date for the completion of the MoU is August 2010.

Target	Objective	Assessment of Achievement
	to increase income from non-UK customers by £0.5m (around 7%), by 31 March 2010.	<i>Target met</i>
	To have a business case for a Rewards to Staff Scheme agreed by DARD and ready for issue to DFP by 30 April 2009.	<i>Target met</i>

Target	Objective	Assessment of Achievement
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2 To deliver high quality, cost-effective scientific and economic services to our customers.

	to finalise an AFBI Estates Strategy by 31 December 2009;	<i>Target met</i>
	the newly-appointed Training Development Officer will draw up a staff training plan for consideration by AFBI SMT, by 30 June 2009;	<i>Partially achieved</i> Our review indicated that the training analysis was issued to staff for completion on 13 April 2009. Our review identified that a series of focus groups were facilitated with staff on the completion of the training analysis. At the time of our review we were advised that the Training Manager was in the process of compiling the results of the training analysis with an anticipated completion date of August 2010. We understand that the results will be formally presented to the Senior Management Team.
	to review and assess the specialist scientific equipment across AFBI to determine its fitness for purpose and to identify future needs, by 31 August 2009.	<i>Target met</i>

Target	Objective	Assessment of Achievement
3	<p>To be the preferred partner or contractor in our delivery of local, national and International scientific services.</p>	
	<p>to have 3 new agreements for collaborative partnerships, by 31 March 2010;</p> <p>to conduct a market analysis of the public sector and the agri-food private sector in NI to identify their requirements for the next three years and establish potential for additional provision by AFBI, by 30 November 2009;</p> <p>to have 100 scientific papers accepted for publication in the refereed scientific literature, by 31 March 2010.</p>	<p><i>Target met</i></p> <p><i>Target met</i></p> <p><i>Target met</i></p>

Target	Objective	Assessment of Achievement
4	<p>To maintain the necessary skills and resources to be able to provide services, including an emergency response, that meets the agreed requirements of customers.</p>	
	<p>to identify 4 specialist information and/or training events in emergency response and to ensure these are attended by appropriate AFBI staff, by 31 March 2010;</p> <p>to begin work (which may extend into 2010/11) on developing a computer-based model to assist the identification of skills and resources required for AFBI's response to a range of possible emergencies, by 31 March 2010;</p>	<p><i>Target met</i></p> <p><i>Deferred business target</i> Our discussions with the Acting Head of Corporate Services confirmed that this business target had been "dropped", in consultation with the Senior Management Team, due to changes in priorities.</p>

Target	Objective	Assessment of Achievement
	<p>to develop an over-arching Business Continuity Plan and Business Continuity Policy in order to maximise our capability to respond to potential business disruptions during emergencies, by 31 August 2009;</p> <p>to analyse, review and report our response to the dioxin emergency in 2008/09 to identify the potential for increased efficiency and effectiveness in a future emergency, by 31 October 2009;</p> <p>to review and develop a plan to test our Contingency Plan in order to test our capability to respond to potential emergencies, by 31 October 2009.</p> <p>to further progress an expenditure appraisal for a new animal pathogen laboratory to SAPO4 standard by 31 March 2010;</p>	<p><i>Partially achieved</i> A Business Continuity Policy was developed and approved by the Board in February 2010. Our review identified that the Business Continuity Policy was subsequently subject to a quality assurance process undertaken by DFP's Delivery and Innovation Division ("DID").</p> <p>A major impact assessment was subsequently undertaken in November 2009 to assist in the preparation of a Business Continuity Plan and a first draft of a Business Continuity Plan was produced in March 2010. It is anticipated the final draft of the Business Continuity Plan will be completed by August 2010. We understand that a steering group will be established and that a post created with responsibility for taking this matter forward.</p> <p><i>Target met</i></p> <p><i>Partially achieved</i> This target relates to the formal review of plans in respect of emergencies. At the time of preparing this report, July 2010, we were advised that the results of the foot and mouth emergency plan exercise completed in March 2010 were currently being compiled.</p> <p><i>Target met.</i></p>

Target	Objective	Assessment of Achievement
5	<p>To seek to continually improve the management of our business and deliver services that are value for money</p> <p>to achieve efficiency savings within the Comprehensive Spending Review of £1.42m.</p> <p>to manage absenteeism to ensure we achieve less than 8.5 days per annum per whole time equivalent, by 31 March 2010;</p> <p>to implement the new accounting system Account NI by 30 April 2009;</p> <p>to ensure that costing system is aligned to operate effectively with Account NI, by 31 Dec 2009.</p>	<p><i>Target met</i></p> <p><i>Unable to validate</i> We understand that NISRA was unable to provide the Institute with the 2009/10 financial year outturn against the absence target due to ongoing issues relating to the accessibility of data held on HR Connect. Our review identified that Management subsequently attempted to measure the level of absenteeism for the 2009/10 year using the management information reports available from HR Connect. Our review and discussions with Management identified issues relating to the accuracy and completeness of this data. On this basis, the data would require substantial administrative resources to calculate the outturn against the target.</p> <p><i>Target met</i></p> <p><i>Partially achieved</i> <i>Our review and discussions with Management indicated that work in relation to the development of the costing system is ongoing. As part of our recent Internal Audit of Budgetary Control and Management Information (report dated 18 June 2010), we noted this ongoing work. We understand that the principal changes which will be required to the existing costing system will relate to the use of project based expenditure, staff salary costs and the inclusion of information relating to staff time (which will be separately extracted from AFBI's time and task recording system ("TTRS")).</i></p>

Target	Objective	Assessment of Achievement
	to introduce and manage an enhanced management system for the timely invoicing, receipt, monitoring and reporting of cash income from commercial customers, by 31 May 2009.	<i>Not achieved</i> Our discussions with Management indicated that this target was not achieved due to the ongoing difficulties with Account NI.
	to implement IFRS in line with the DFP implementation plan, by 31 March 2010.	<i>Target met</i>
	to maintain expenditure within resource limits and to agreed budgets.	<i>Target met</i>
	to produce unqualified accounts for 2008/09.	<i>Target met</i>

1.3 AFBI Board

AFBI is managed by a Board which has responsibility for providing strategic leadership for the organisation, ensuring that it fulfils the delivery objectives set by the Department of Agriculture and Rural Development (DARD) and for promoting the efficient and effective use of staff and other resources by AFBI.

The main responsibilities of the Board are:

- to ensure that AFBI meets its agreed objectives and targets as set by the DARD Minister, and set down in the Management Statement and Financial Memorandum;
- to provide strategic leadership in the formulation of AFBI's strategy for the discharge of its responsibilities, taking account of the Minister's and DARD's priorities, as outlined in the science and technology strategies and in Service Level Agreements (SLAs) set by DARD and other AFBI customers;
- to ensure that effective arrangements are in place to provide assurance to DARD and the Minister on risk management, governance and internal control;
- to communicate AFBI's strategy and services to stakeholders in NI and beyond;
- to understand and articulate science and research and development needs and advise the Chief Executive on drawing these requirements into the formulation of a strategic plan for AFBI;
- to oversee AFBI's functions, including encouragement of the highest standards in the disbursement of finance, and the efficient and effective use of staff and other resources throughout AFBI;
- to represent AFBI to its key audiences, for example industry, academic institutions and other research providers, locally, nationally and internationally;
- to engage with the Minister and DARD on matters pertaining to the work of AFBI and its strategic direction and input to the overall DARD strategic objectives;
- to identify and assess current and future developments in the agri-food and rural economy sector, and to recommend opportunities to expand into new markets and innovations to meet customers' needs.

Role of the Chairperson of AFBI

The Chairperson is responsible to the Minister. The Chairperson ensures that AFBI's policies and actions support the wider strategic policies of DARD and that AFBI's affairs are conducted with probity. The Chairperson shares with other AFBI Board members the corporate responsibilities set out in the Management Statement and Financial Memorandum (MSFM), and in particular for ensuring that AFBI fulfils the aims and objectives set by DARD and approved by the Minister. The Chairperson shall also set performance measures for the board corporate and individual board members.

Board Members

Members are appointed in accordance with the Office of the Commissioner for Public Appointments (OCPA) NI Code of Practice. The terms of appointment of members are for either two or three year periods, with the Chair appointed for four years. The Chair receives an annual remuneration of £24,970 and is expected to commit approximately 40 days per annum to the post. The Deputy Chair receives £10,405 and has a commitment in the region of 20 days per annum. Members are expected to commit in the region of 15 days per year and receive £3,745.

Completion of Term of Office

The following completed their term of office on 31 March 2010.

Mr Seán Hogan (Chairperson)

Dr Christine Kennedy

Mr Nicholas Mack

Mr John McKinley

Dr Michael Hollywood

Mr Kieran Campbell

Board Re-Appointments and New Appointments

The DARD Minister announced the re-appointment of Mr Seán Hogan, as Chairperson for a further four year term and Dr Michael Hollywood and Mr Kieran Campbell for a further one year period.

Four new Board members, named below, were also appointed to take office on 1 April 2010:

Mr Seamus McCaffrey

Mr Trevor Hinds

Mrs Hilda Stewart

Mr Alan McKeown

In 2009/2010 the members were:



Chairperson Mr Seán Hogan lives in Newry. He is a Masters graduate from Queen's University Belfast in Organisational Management, is a Fellow of the Chartered Management Institute, the Institute of Marketing

Management, the Institute of Directors and the Royal Society of Arts, Commerce and Manufacturers. Mr. Hogan is a current board member of the Northern Ireland Transport Holding Company and a former member of the Warrenpoint Harbour Authority. He is also a former Chairman of Newry & Mourne Health & Social Services Trust and a director of the Southern Health & Social Services Board. He has recently been appointed as the Chairperson (Designate) of the new Education and Skills Authority.



Deputy Chairperson Professor David McDowell lives in Carrickfergus. He has a PhD from the university of Ulster and is a Chartered Biologist. Professor McDowell is currently the Head of Food Microbiology at the University of Ulster. He is also Chair of the Advisory

Group, ProSafebeef and Vice-Chair of the Safefood Scientific Advisory Committee, a voluntary position.



Mr. Kieran Campbell lives in Newry. He has an MSc in Corporate Leadership and is a Chartered Accountant with 20 years experience in senior finance and management roles. He is currently a principal within a property development and

investment business.

Mr Campbell is also a member of the Warrenpoint Harbour Authority.



Dr. Michael Hollywood lives in Belfast. He holds a PhD in Atomic Physics, from Queen's University. Dr Hollywood is a self-employed management consultant. He was formerly Head of Scientific Research at the Gallaher Ltd Group.



Dr Christine Kennedy lives in Donaghadee. She has a PhD from the University of Ulster. She is a partner with her husband in a dairy and beef farm. She serves as an Independent Assessor for the Office of

the Commissioner for Public Appointments (OCPANI) and for management consultants PricewaterhouseCoopers. She has just become an accredited Independent Assessor for OCPA GB. Dr Kennedy holds numerous voluntary positions, including membership of the UFU's board and is Chairman of the Board of Governors of Donaghadee Primary School. She is at present a member of the DARD Review of Decisions Panel and was on the Oversight Committee for the Rural Development Programme and chaired the Panel responsible for the Appointment of Focus Farms in the Diversification Section. She has previously held a number of public appointments. Recently she was appointed a Local Director for the NFU Mutual Insurance Company. She was awarded an OBE for services to the NI Dairy Industry and Agriculture.



Mr Nicholas Mack lives in Newcastle. He has an MSc in Agricultural and Rural Policy and over 20 years experience in rural development in Scotland, the Republic of Ireland and Northern Ireland. He was previously the Director of the Rural Development Council's

(RDC) Policy and Innovation Research Unit and is now a freelance consultant. Mr Mack has recently been appointed as a Board Member of the Planning Service.



Professor Grace Mulcahy lives in Co Wicklow. She qualified as veterinary surgeon from University College Dublin (UCD), from where she subsequently gained a PhD. She is currently Professor of Veterinary Medicine Microbiology and Parasitology at UCD and is a

Foundation Diplomate of the European College of Veterinary Parasitology. Professor Mulcahy is also a member of the Veterinary Council of Ireland, a voluntary position.



Mr John McKinley lives in Ballycastle. He has a BAgr and Postgraduate Certificate in Education from Queen's University; completed a Business Start Up programme through the University of Ulster and a Corporate Manager programme with the Industrial

Development Board. Mr McKinley runs his own beef and sheep farm and is also a consultant in food products, marketing, tourism and environmental projects.



Professor Stewart McNulty lives in Belfast. He qualified in veterinary medicine from Trinity College, Dublin, from where he also gained a PhD. Professor McNulty retired as Chief Veterinary Research Officer with DARD Science Service in 2001. He is currently a member

of the Health Promotion Agency Board, NI, a voluntary position.



Mr James Noble lives in Newtownards. He has an MSc from Queen's University and several qualifications in dairying. Mr Noble has previously held a number of public appointments and is currently a Board Member of the Livestock and Meat Commission and Chairman

of the Northern Ireland Transport Holding Company Pension Trustees.



Mr John Rankin lives in Newtownards and has run his own dairy farm for over 40 years. He is a former President of the Ulster Farmers Union and a former ARINI Trustee, a voluntary position. He is a Chairman of NFU Mutual NI Regional Advisory Board and

has recently retired as a member of the Agricultural Wages Board.



Mr Michael Walker lives in Newtownabbey. He has an MSc from Queen's University and is a Fellow of the Royal Society of Chemistry (RSC). He holds the RSC's Masters degree in Food, Drugs and Water. He is a self-employed consultant on food

and water issues, civil and criminal litigation. Mr Walker has held a number of public appointments in recent years and is currently a member of the NI Food Advisory Committee of the Food Standards Agency.

Board Sub-Committees

There are two sub-committees of the Board.

Remuneration Committee

The remuneration committee is a non-executive advisory committee whose role is to advise the Chair of the AFBI Board in respect of remuneration of the Senior Executive Officers. Whilst, the terms and conditions of employment and remuneration of AFBI employees are within the overall NICS terms and conditions of employment any proposed changes within this overall framework will be subject to review by the Remuneration Committee. During the year, the membership of the remuneration Committee was

Non-executive chair

Professor David McDowell

Non-executive director

Dr Christine Kennedy

Non-executive director

Mr Kieran Campbell

Audit and Risk Committee

The Audit Committee advises the Board and Accounting Officer on issues of risk, internal control, governance and any material items affecting the accounts. The Audit and Risk Committee is a sub committee of the AFBI Board and is an independent advisory committee with no executive functions. During the year, the membership of the Audit and Risk Committee was

Audit Committee

Non- executive chair

Dr Michael Hollywood

Non-executive director

Mr John Rankin

Non-executive director

Mr Kieran Campbell

Other Attendees

Head of Internal Audit

DARD Internal Audit

Northern Ireland Audit Office

AFBI Sponsor Branch

Chief Executive Officer, AFBI

Head of Corporate Services, AFBI

Head of Finance Branch, AFBI.

1.4 Management Board

The executive board of the Institute were as follows:

Chief Executive Officer	Dr George McIlroy ¹
Acting Chief Executive Officer	Dr Seamus Kennedy ²
Deputy Chief Executive Officer	Dr Sydney Neill ³
Deputy Chief Executive Officer	Dr Michael Camlin
Deputy Chief Executive Officer	Dr Robin Boyd ⁴
Acting Deputy Chief Executive Officer	Dr Arthur Gilmour
Acting Deputy Chief Executive Officer	Dr David Bryson ⁵
Acting Head of Corporate Services	Mr Joel Ferguson ⁶

¹ Dr George McIlroy was absent on long term sick leave from 30 November 2009. He subsequently retired on medical grounds on 19 April 2010.

² Dr Seamus Kennedy was appointed Acting Chief Executive Officer and Accounting Officer on 16 December 2009.

³ Dr Sydney Neill was on long term sick leave during the year and subsequently retired on 31 May 2010.

⁴ Dr Robin Boyd was temporarily promoted as Acting Deputy Chief Executive Officer in charge of the Corporate Services Division (incorporating both the Chief Executive's Office and the Business Support Unit) until 25 May 2009 when he was substantively promoted to that grade. He subsequently retired on 4 January 2010.

⁵ Dr David Bryson was Acting Deputy Chief Executive from 15 December 2008 to 31 August 2009. He reverted to his substantive grade on 1 September 2009 and commenced a subsequent acting up period from 11 January 2010 when Dr Seamus Kennedy was appointed Acting CEO.

⁶ Mr Joel Ferguson was appointed acting Head of Corporate Services from 12 December 2009 in view of the impending retirement of Dr Robin Boyd.

The Management Board meets at least monthly with a standing agenda covering resources, operational management, health and safety and business development. The minutes of these monthly meetings are available on AFBI intranet.

Role of the Accounting Officer

AFBI's Chief Executive is designated Accounting Officer for the NDPB by the Departmental Accounting Officer and as such is accountable to Northern Ireland Assembly for AFBI's use of resources as set out in the Management Statement/Financial Memorandum (MSFM). In particular, the Accounting Officer shall ensure that:

- AFBI's strategic aims and objectives support DARD's wider strategic aims and current PSA objectives and targets;
- the financial and other management controls applied by DARD to AFBI are appropriate and sufficient to safeguard public funds and for ensuring that AFBI's compliance with those controls is effectively monitored ('public funds' include not only any funds granted to AFBI by the Assembly but also any other funds falling within the stewardship of AFBI);
- the internal controls applied by AFBI conform to the requirements of regularity, propriety and good financial management; and
- any grant-in-aid to AFBI is within the ambit and the amount of the Request for Resources and that NI Assembly authority has been sought and given.

Details of Significant Interests Held by the Management Board Members

The Management Board Members do not hold any other directorships or any other significant interests which may conflict with their management responsibilities.

1.5 Financial Matters

Remuneration of Auditors

The auditors have not been instructed to undertake any non-audit work.

Financial Results for the Year

AFBI's operating cost statement shows a net operating cost of £43,383k (2008/09: £40,632k). Within this net position AFBI raised income of £10,775k (2008/09: £13,368k). Service level agreements are agreed with FSANI and DCAL securing funding in these important areas of work. AFBI presented monthly financial reports to the AFBI Board and reviewed expenditure against budget at the Senior Management Team Meetings to ensure that AFBI's expenditure did not exceed its budgeted resources.

At the year end of the net assets of AFBI is £6,526k (at 31 March 2009: £7,227k).

Treatment of Pension Liabilities

The treatment of pension liabilities is described in the accounting policy Note 1 on page and under the heading of Civil Service Pensions in the Remuneration Report on page .

Events Since the End of the Financial Year

There have been no significant events since the end of the financial year which would affect the results for the year or the assets and liabilities at the year end.

AFBI continues to face price increases in energy and other costs. In order to meet the continuing pressure on payroll costs, AFBI has started work on the business case for a redundancy scheme to be put in place.

Discussions with DARD have also commenced to identify those areas of work which could cease. The impact of these factors requires AFBI to realise increased income from other commercial sources and to increase the efficiency of its operations. AFBI is committed to widen its funding base and increase its level of funding year to year.

AFBI is developing a marketing strategy to maximise AFBI's commercial revenues and maintain and enhance its customer base.

AFBI continues to develop its relationship with funding bodies, including the EU, in order to realise significant new sources of funding through these agencies.

1.6 Other Matters

Career Development

AFBI continues to promote opportunities for career development internally and during the course of this year a total of 49 staff have achieved promotion in a wide range of disciplines and grades.

One of AFBI's strategic objectives is to grow and sustain a high performance business through attracting and developing talented people.

In support of this objective, AFBI has recently established its own Learning and Development Unit which will provide expert advice on learning and development opportunities covering the diverse range of skills required across the organisation.

This Unit also administers AFBI's Assistance to Study programme which has provided support for 33 staff this year in their pursuit of professional qualifications specific to AFBI's business.

Recruitment

AFBI continues to develop its workforce in line with its business aims which has resulted in a total of 210 new appointments this year, covering grades across the scientific, administrative and industrial disciplines. This number reflects both permanent and temporary appointments.

Work Experience

AFBI is committed to providing work experience opportunities for students at all levels to assist them in developing the key skills required to be successful in today's working environment.

5 students were appointed through AFBI's Work Placement scheme and each was afforded the opportunity to develop key work-related skills through a relevant, supervised work placement programme. Work experience was also given to circa 20 students covering a range of areas within AFBI.

Environmental

AFBI has taken a number of initiatives in the area of waste reduction on the various sites and new procedures have been introduced to dispose of waste more efficiently.

AFBI also appointed an external consultant to look at energy usage at its Newforge site. The recommendations made by the consultant have been incorporated in the Assets Strategy. AFBI has successfully completed the initial registration requirements in respect of Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES) and plans to complete the registration process by September 2010 as required under the rules of the scheme. Implementation of this scheme will assist AFBI in reducing its carbon footprint.

Social

AFBI does not have a policy covering corporate and social responsibility.

Internal Audit

An independent firm of auditors continue to provide Internal Audit services to the AFBI Accounting Officer and provides senior management and the AFBI Audit and Risk Committee with assurances of the adequacy of AFBI's systems of internal control and risk management.

The DARD Internal Audit unit also carries out audits of AFBI to provide assurances to the DARD Accounting Officer, DARD Sponsor Branch and the DARD Audit and Risk Committee that AFBI complies with the terms of the Management Statement and Financial Memorandum and other relevant legislative requirements.

Risk Management

AFBI has a risk management strategy and associated risk registers subject to scrutiny by the Institute's Internal Auditors. Risks are reviewed monthly at a divisional level and reported monthly on an exception basis to the SMT and the AFBI Board. The Corporate Risk Register is reviewed quarterly by the Audit and Risk Committee and Internal Audit reviews the risk management process every year.

Performance Assessment of the AFBI Board

Arrangements are in place for an annual self assessment exercise by the AFBI Board to review and refine the objectives of the Board. The Chair of the AFBI Board also sets targets for the AFBI Board and assesses the performance of the individual Board members on behalf of DARD Sponsor Branch. The Performance of the AFBI Chair is assessed by DARD Sponsor Branch.

Compliance with HM Treasury Code of Good Practice on Corporate Governance

AFBI complies with the HM Treasury Code of Good Practice on Corporate Governance and generally complies with the Combined Code on Corporate Governance 2003.

All the directors of the AFBI Board are non-executives and the Audit and Risk Committee and the Remuneration Committee chairs and members are all non-executives.

Supplier Payment Policy

AFBI is committed to the Better Payments Practice Code as set out in Annex 4.6 of Managing Public Money and is subject to the Late Payment of Commercial Debt Regulations 2002.

AFBI shall comply with the British Standard for Achieving Good Payment Performance in Commercial Transactions (BS 7890). DAO (DFP) 12/08 refers. Payment is regarded as late if it is made outside the agreed terms, or 30 days after the receipt of a valid invoice where no terms are agreed. In response to the current economic position, the Department for Business Enterprise and Regulatory Reform (BERR) announced in October 2008 that the

Central Government was committed to paying businesses in 10 days.

Account NI managed to pay 56% (2008/2009 92.5%) of the invoices on AFBI's behalf in accordance with the agreed terms or within 10 days.

Security of Personal Data

AFBI is committed to the safeguarding of personal data and has set in place appropriate measures to ensure its security. Detailed information has been made available to staff on the intranet site on the type of information which is considered to be private data and how it should be handled. All members of staff have been advised that it is their personal responsibility to ensure that any document with sensitive information, including personal data, is appropriately secured and to ensure that, and in the case of data held electronically, appropriate access controls are put in place to prevent unauthorised access, whether accidental or deliberate, by others.

Disabled Employees

It is the Institute's policy to give equality of opportunity when considering applications from disabled persons. The institute complies with all existing legislation in respect to its disabled employees and has recently completed a Disability Action Plan.

Equality of Opportunity

The Institute's policy is to give all eligible persons an equal opportunity for employment and advancement on the basis of their ability, qualifications and aptitude for the work.

Employee Involvement

AFBI maintains regular communications and contact with staff and managers through meetings, team briefings, seminars, bulletins and postings on the intranet. It also has well established arrangements for formal consultation with recognised Trade Union representatives on all significant developments affecting staff.

Health and Safety

AFBI complies with all relevant Health and Safety legislation and where practicable with all Health and Safety best practice. AFBI has team of dedicated Health and Safety advisers and a system of health and safety committees throughout the institute.

Audit of Accounts

The financial statements are audited by the Comptroller and Auditor General for Northern Ireland. As Head of the Northern Ireland Audit Office, he and his staff are wholly independent of the institute and findings are reported to Northern Ireland Assembly.

The annual fee for the audit of financial statements for 2009/2010 was £40,000 (2008/2009: £30,000).

Disclosure of Information to the Auditor

All information deemed by the auditor to be relevant to their investigations is made available. The Chief Executive, as AFBI's Accounting Officer, has taken all steps to make himself aware of any relevant audit information and to establish that the auditors are aware of that information and have access to it.

Annual Report

and Statement of Accounts 2009-2010

**AFBI
Science**



AFBI Activities in 2009/10

AFBI is committed to delivering the highest standard of support to its customers in the public and private sector. Whilst DARD remains AFBI's largest single customer, income from other sources now accounts for approximately 20% of AFBI's revenue. This commercial income is earned from work delivered to a wide range of private and public sector clients, locally and internationally. It also includes income from the commercial exploitation of AFBI's Intellectual Property (IP) and income from AFBI's farming activity.

On behalf of DARD, AFBI's main activities include:

- **Animal and plant disease surveillance and monitoring food safety.**
- **Maintenance of emergency response capability.**
- **R&D that underpins policy and delivers innovation to the local agri-food sector.**

AFBI also delivers R&D for other parts of government, as well as commercially focused services and R&D delivered to private sector customers. Most analyses are accredited to ISO17025 and all R&D is certified to ISO9001.

The types of work undertaken by AFBI on behalf of its clients are outlined below and in the pages that follow.

Animal and Plant Disease Surveillance and Monitoring Food Safety:

AFBI delivers statutory testing, surveillance and scientific advice in relation to animal and plant disease that ensures that the integrity of Northern Ireland's agri-food industry is robustly protected.

AFBI's statutory analytical and diagnostic work plays a critical role in ensuring that Northern Ireland complies with obligations under National and EU legislation and also helps to maintain Northern Ireland's disease free status, thereby defending the export base of Northern Ireland's agri-food sector.

Specifically, AFBI works with DARD and other local government departments to:

- Facilitate rapid diagnosis and control of major animal disease outbreaks.
- Detect changing animal disease patterns and the emergence of new diseases.
- Detect animal diseases and infections posing a risk to human health.
- Help ensure the safety of our food on behalf of consumers.
- Maintain Northern Ireland's high plant health status.
- Support DARD in fish stock assessments.

During 2009/10 AFBI delivered these functions through the:

- Provision of analytical testing to monitor the freedom of Northern Ireland food producing animals from notifiable and exotic diseases and from illegal concentrations of veterinary drugs.
- Statutory testing services on a range of food products, environmental samples and animal feed components.
- Analytical services relating to shellfish monitoring, fish monitoring and national surveillance programmes in food chemistry.
- Statutory activities associated with the legislative control, market release and innovative exploitation of varieties of the primary commercial plant species in Northern Ireland.
- Statutory and advisory diagnostic tests for scheduled crop pests, Potato Cyst Nematodes, bees, seed diseases, forest pests and diseases and potato wart and viral diseases.
- Surveys to monitor plant pests, weed and disease incidence, fungicide resistance and pesticide usage.
- Assessment of marine commercial fish stocks.

Maintenance of Emergency Response Capability

As well as undertaking surveillance work on behalf of DARD to detect potential threats to public and animal health and the agri-food economy, AFBI has a critical role in supporting DARD in responding to and dealing with any major or potentially major threat that is detected. AFBI's emergency response capacity helps to minimise losses to the local agri-food sector during such incidents.

When such events arise, AFBI provides rapid scientific and technical response with the immediate availability of specialist skills and resources. AFBI delivers specialist advice as well as analytical and diagnostic support to help manage and control the threat detected.

Research and Development for Government

AFBI provides programmes of R&D in support of DARD and other local government organisations, as well as national and international public bodies and private sector companies.

The R&D that AFBI delivers to DARD and its public sector customers helps to underpin government policy by providing the evidence to inform decision making, whilst also delivering innovative solutions that help maintain the viability and competitiveness of the local agri-food sector.

AFBI's research base has added value in helping to maintain the scientific expertise that underpins emergency response capability.

Commercially Focused R&D and Services

AFBI delivers commercially focussed R&D on behalf of a wide range of private sector clients locally, nationally and internationally. Examples of AFBI's commercially focused R&D include:

- Development of added value products for the agri-food sector.
- Improvements in agri-food production and processing technology, including the development of cutting edge diagnostics for the animal health sector.
- Identification of vaccine candidates and the development and testing of vaccines and anti-viral and anti-bacterial products and treatments.
- Support for the development of renewable energy technologies.

AFBI also delivers additional commercial services on behalf of clients in the public and private sectors. Examples of the commercial services delivered by AFBI on behalf of its public and private sector clients include:

- Analytical and advisory/diagnostic service for Northern Ireland's agri-food industry.
- UK testing centre for the distinctness, uniformity and stability (DUS) for new varieties of herbage crops.
- UK National List Trials for all the major grass, clover and cereal crops and potatoes
- Provision of a specialist analytical and diagnostic service to the Northern Ireland horticultural industry.
- Seabed mapping for offshore installations, including off-shore wind projects.
- Provision of a specialised disease diagnostic service for veterinary practitioners, poultry organisations and fish farmers in Northern Ireland.

AFBI's research has also been successfully commercialised for the benefit of AFBI as well as the local, national and international agri-food sector and the local economy. In recognition of the significant potential for delivering innovative, added value products from AFBI's research base, the Department of Business, Innovation and Skills (BIS) awarded AFBI £990k in 2008/9 for a 3-year project to build commercialisation capacity within the organisation. AFBI Innovations was established as a result to support AFBI scientific staff in commercialising their research.

AFBI Structure

AFBI has 3 main scientific divisions and a specialist agri-food and rural economics branch.



Agriculture, Food and Environmental Science Division (AFESD)

AFESD delivers statutory testing of food products as well as undertaking basic, strategic and applied research relevant to achieving efficient and responsible practices in sustainable farming, food, fishing and aquaculture, whilst conserving and enhancing the terrestrial and aquatic environments and thus supporting Northern Ireland's rural economy. AFESD has five branches, these being, Agriculture, Agri-environment, Fisheries and Aquatic Ecosystems, Food Chemistry and Food Microbiology.

Applied Plant Science and Biometrics Division (APSBD)

APSBD undertakes statutory testing functions as well as basic, strategic and applied research in the plant sciences which, taking into account implications for the environment, aim to underpin sustainable economic growth and development in the countryside of Northern Ireland. AFESD also provides a professional statistics and ICT support service for AFBI as a whole. APSBD has three branches, these being Biometrics and Information Systems, Crops, Grassland and Ecology and Plant Health and Environmental Protection.



Veterinary Sciences Division (VSD)

VSD undertakes statutory testing and surveillance as well as basic, strategic and applied research in animal health and food safety which aims to underpin sustainable economic growth and development of the agri-food industry in Northern Ireland. VSD has 5 branches, these being Bacteriology, Chemical Surveillance, Disease Surveillance and Investigation, Immunodiagnostics and Virology.



Agricultural and Food Economics Branch (AFEB)

AFEB is a specialist unit within AFBI that provides a strategic socio-economic modelling, knowledge transfer and decision support service for a wide range of customers in government, NGOs and the private sector, nationally and internationally.

Corporate Services Division (CSD)

CSD includes AFBI's Human Resources, Finance, Corporate Governance, Estates and Commercialisation units.

The sections that follow provide a brief overview of the services and capabilities of AFBI's 14 scientific branches by Division, together with some of the notable achievements of each Branch during 2009-10.

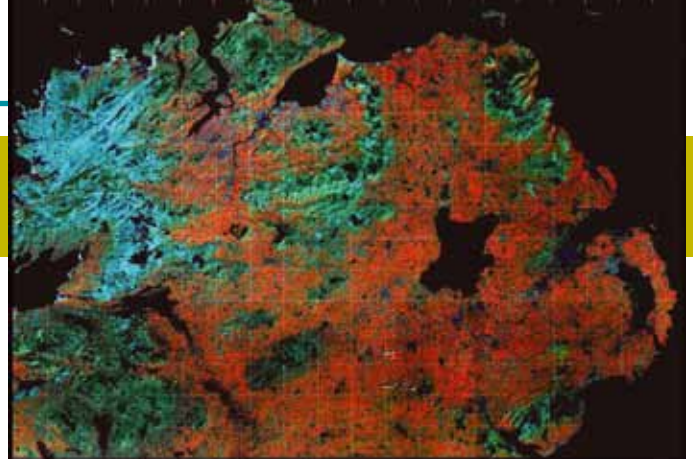
Agri-Environment Branch (AEB) specialises in land and nutrient management issues around making appropriate and efficient use of resources, while protecting the environment. The integrated research effort covers the impact of nutrients used by agriculture on air, soil and water quality.

Key Services and Capabilities

- Defining water quality targets in catchment studies.
- Improving nutrient management and soil fertility within intensive grassland based systems.
- Monitoring eutrophication of surface waters in Northern Ireland and apportioning the contribution of agriculture to nitrogen and phosphorus losses.
- Part of a UK long-term ecosystem monitoring and research network (Environmental Change Network) designed for the detection, interpretation and prediction of long-term environmental change, in order to help mitigate and adapt to climate change.
- Expertise on land use modelling using geographic information systems (GIS) and assessing temporal trends in soil fertility.
- Expertise in stable isotopes (^{15}N) to investigate nitrogen transformations in soils to lead to improved fertiliser and manure management.
- Evaluating management options to lower greenhouse gas emissions (nitrous oxide) from fertiliser and soil.
- Evaluating the long-term effects of organic manures on soils.

Key Customers/Sectors

Research within the Branch is primarily undertaken for the Department of Agriculture and Rural Development (DARD) and other Government organisations to provide a sound, scientific basis for government policy on agriculture and the environment. The objectives of the research are strongly influenced by legislation, at an EU and national level, adherence to which is critical to maintaining national and international markets for Northern Ireland produce.



AEB also worked with stakeholders within the Lough Melvin catchment to develop an evidence-based catchment management plan (CMP) to improve water quality. AEB are currently involved in the establishment of a follow-on project aimed at implementing the CMP in the near future.

Key Achievements in 2009-10 Year

- Main research programmes on nitrogen, phosphorus, soil quality and nutrient management, were progressed through 19 DARD funded research projects and 20 external research contracts.
- Maintained international collaboration with Institutes in China, Germany, Czech Republic, USA and Ireland.
- Provided important scientific advice to Government in Northern Ireland on issues relating to redefining the less favoured area boundaries, nutrient use by agriculture, climate change and eutrophication.
- Won support from INTERREG IVB North-West European Regional Development Fund, to support new research areas to help Northern Ireland meet its commitments under the Nitrates Directive.
- In association with AFBI colleagues and UK collaborators, successfully bid for DEFRA contracts to improve the UK inventory of greenhouse gas emissions from agriculture.

Branch Contact:

Catherine.Watson@afbini.gov.uk

Tel: +44 (0) 2890 255 353

Fax: +44 (0) 2890 255 005

The principal focus of AFBI's Agriculture Branch is scientific research to underpin sustainable livestock and land-based renewable energy systems.

Our research is conducted at the 310-hectare AFBI Hillsborough farm with its specialised experimental facilities including the Environment and Renewable Energy Centre. Agriculture Branch resources are increasingly used also in collaborative studies with AFBI colleagues, particularly on those with cross-cutting agri-environmental themes but also on animal health, food quality, soil chemistry and alternative crops. 'On-farm' trials are an ongoing feature of several of the research programmes, creating and sustaining strong interest amongst producers and processors and helping to further promote the timely uptake of valuable research findings by the industry.

Key Services and Capabilities

Extensive range of facilities and scientific expertise in designing and conducting scientific studies related to sustainable livestock production systems.

Environment and Renewable Energy Centre to evaluate the relative merits of biomass and biofuel crops, anaerobic digestion and other renewable energy technologies. Accredited laboratory facilities for the analysis of commercial feed and forage samples.

In addressing the research objectives of DARD and our other customers, Agriculture Branch provides a sound, scientific basis for government policy on agriculture and the environment and also underpins commercial development in the agri-food private sector.

Key Customers/Sectors

The main customers of Agriculture Branch include:

- Local, European and international government organisations such as DARD and DEFRA.
- Non-government funding bodies such as AgriSearch.
- Local and international commercial companies.

Key Achievements in 2009-10 Year

Landmark events on the Hillsborough site during the year included the opening of the restored West Courtyard staff accommodation block by Michelle Gildernew MP MLA, Minister for Agriculture and Rural Development. The district heating loop, fuelled by biogas generated by bio-digestion of farmyard slurries and by combustion of cultivated biomass, provided important new research data and at the same time resulted in significant savings on purchased energy for the entire AFBI Hillsborough operation.

A series of leading technical events held during the period included:

- The Northern Ireland Pig Event organised in association with CAFRE and the UFU.
- AgriSearch technical seminar for livestock specialists entitled 'From beef production to consumption'.
- Technical seminar on renewable energy for the Irish Bioenergy Association.
- Three on-farm research events held in association with AgriSearch.

During the period, 17 publications in refereed high impact scientific journals were published with a further 8 in-press and 16 submitted for publication. Presentations were given to over 100 industry groups.

Agriculture Branch successfully bid for DEFRA contracts in collaboration with other key research institutes, to improve the UK national inventory for greenhouse gas emission factors from livestock.

Income from farm, laboratory services and contract research totalled £1.7 million.

Branch contact:

Alistair.Carson@afbini.gov.uk
Tel: +44 (0) 28 9268 2484
Fax: +44 (0) 28 9268 9594

AFBI's Fisheries and Aquatic Ecosystems Branch (FAEB), carries out R&D, monitoring and technology transfer, in support of the sustainable management of fisheries and aquatic resources in Northern Ireland.

The Branch undertakes a programme of work centred on four main themes, these being marine fisheries stock assessment, biological oceanography and marine environmental monitoring, coastal zone science and Freshwater fisheries stock assessment and catchment management.

Key Services and Capabilities

FAEB scientists are acknowledged experts in a wide range of fields, including fish population dynamics, ecosystem structure and function, oceanography, environmental monitoring, benthic ecology and fish genetics.

- Laboratory facilities/services include marine chemistry analyses, fish ageing, phytoplankton identification and a molecular ecology laboratory equipped for DNA analysis of tissue samples.
- A 53m research vessel (R.V. Corystes) is equipped with state of the art technology, including multibeam sonar for seabed mapping, together with a range of specialised fish survey equipment and a sophisticated Remotely Operated Vehicle (ROV).
- A network of strategically placed environmental sensing moorings provides near-real-time remote monitoring of environmental conditions in our sea loughs and adjacent seas.
- Freshwater fisheries science capability includes lake and deep river surveys, while electro-fishing teams provide regular scientific surveys of the status of fish in Northern Ireland's rivers. The Branch is available to respond to freshwater pollution incidents.

Key Customers/Sectors

Our customer base is particularly wide, comprising:

- Local, national and European government with fishery and environmental responsibilities.
- Local and international fishery agencies and organisations.



- Stakeholders (including the fishing industry).
- Angling associations, local authorities and private companies/environmental consultants.

Key Achievements in 09-10 Year

- Marine fisheries continued to address the core regulatory stock assessment programme, complemented by a well-focused R&D programme, including projects on herring surveys and gear trials, carried out in partnership with the fishing industry. Both these areas have yielded important new information, which will contribute to future sustainability of Irish Sea fisheries.
- Provided key scientific evidence in support of policy development for managing commercial salmon fisheries around our coasts. AFBI also played a key role at national and international levels in the development of the European Commission's European eel recovery plans.
- High resolution seabed mapping has been identified as a potential growth area for the Branch, with new funding secured and a new inter-departmental/agency seabed mapping group being set up to strategically co-ordinate marine resource mapping requirements for Northern Ireland (NI).
- Marine resource assessment work during the past year, underpinned regulations for the harvest of wild seed mussel for use in aquaculture and on the development of a new fishery for cockles in Belfast Lough.
- A specific initiative, which AFBI is leading jointly with CEFAS, seeks to establish a Western Shelf Oceanographic Observatory, to integrate the various oceanographic/ environmental monitoring and research programmes across a wide range of UK and other institutions.

Branch Contact:

Walter.Crozier@afbini.gov.uk
 Tel: +44 (0) 2890 255 472
 Fax: +44 (0) 2890 255 004



AFBI's Food Chemistry Branch (FCB) provides statutory testing of food products in order to comply with National and EU legislation. The Branch also delivers innovative R&D, analytical and diagnostic services. The Branch supports Northern Ireland's agri-food industry through added value product development and its testing programmes help protect Northern Ireland consumers and the environment.

Key Services and Capabilities

The three main scientific areas are:

- Food safety and environmental sustainability.
- Eating quality of foods.
- Food function and nutritional quality.

Specialist expertise includes meat science, flavour chemistry, texture and colour analysis, sensory evaluation and consumer assessments, nutritional properties of dairy fats, nutritional biochemistry, radionuclides and advanced analytical chemistry including statutory analyses of food and environmental samples.

Key Customers/Sectors

As well as fulfilling the statutory obligations placed on DARD by EU and National legislation, FCB also provides an emergency response capability for DARD and other government organisations.

Food Chemistry Branch brought in substantial funding from the NI food industry and from other funding bodies in the UK, ROI and internationally.

Food Chemistry Branch plays an important role in technology transfer, the provision of specialist training courses and postgraduate training through the supervision of PhD students and visiting students.

Key Achievements in 09-10 Year

New legislation required AFBI to develop new methods to analyse contaminants in food and environmental samples. Improved methods were developed for pyrethroids, heavy metals, organic contaminants and for acrylamide in meat. Most analyses are accredited to ISO17025 and all R&D is certified to ISO9001.

A project on residual pesticide levels in apples and potatoes, supported by the Food Standards Agency, answered questions about the behaviour and fate of mixtures of pesticides during storage, processing and cooking. Several studies were conducted on different aspects of the eating quality of beef, lamb and poultry. These were funded by Northern Ireland companies, the English Beef and Lamb Executive and Meat and Livestock Australia. These studies shed light on many aspects of meat eating quality, consumer requirements and potential methods for predicting eating quality.

Sustained interaction with Northern Ireland industry in the area of meat quality, its prediction and on flavour formation in meat. This interaction led to commercial R&D projects.

A sensory evaluation service was provided to a number of large and small food and drink companies to British Standard methods, using trained taste panels, untrained lay panels or consumer panels.

Research was conducted on factors affecting the nutritional quality of the foods produced in Northern Ireland, including cheese, yoghurt, milk, oilseeds, red and white meat, grass, silage and animal feed concentrates.

Branch Contact:

Linda.Farmer@afbini.gov.uk

Tel: +44 (0) 2890 255 342

Fax: +44 (0) 2890 255 009

AFBI'S Food Microbiology Branch (FMB) supports the competitiveness of Northern Ireland's agri-food industry through the provision of high quality innovative R&D, analytical and diagnostic services and expert advice.

Key Services and Capabilities

- Analytical services include statutory testing of food, water and animal feed to comply with Northern Ireland and EU food safety and hygiene legislation. Most of these services are accredited to ISO 17205:2005.
- Research is focussed on (i) the isolation, identification and typing of foodborne pathogens such as *Campylobacter*, *Mycobacterium avium* subsp. *paratuberculosis*, *Mycobacterium bovis*, *Salmonella* spp., pathogenic *E. coli*, *Listeria* spp. and *Clostridium botulinum* and (ii) survival and growth of pathogens in food processing environments. All research is accredited to ISO 9001:2008.
- Expertise in monitoring hygiene of meat processing plants.
- Expertise in novel food processing methods, especially the use of high hydrostatic pressure.
- Specialist facilities for high pressure processing of foods available for client product development work and as a Toll processing facility.
- Specialist containment level 3 laboratory.

Key Customers/Sectors

The main customer for statutory testing services is local Government in Northern Ireland.

Surveys on the microbiological safety of foods are undertaken on an all-island basis on behalf of public bodies.

Commercial contracts, using specialist Branch expertise and services, are conducted on behalf of industry (local, national and international). In 2009-10 these included contracts with clients from the dairy, meat, poultry, seafood, fruit and vegetable sectors.



Key Achievements in 09-10 Year

- Improvement in food hygiene within the Northern Ireland, GB and Irish primary meat production industries is an important work area within the Branch. Projects included the monitoring of blown vacuum pack spoilage of beef due to *Clostridium estertheticum*. Over 4,000 samples were tested in 2009-10 and specialist advice was provided in regard to control measures.
- Research continued on the survival kinetics of *Mycobacterium bovis* and *M. avium* subsp. *paratuberculosis* (MAP) during the manufacture and ripening of raw and pasteurised milk cheeses. These projects were funded by the Food Standards Agency and the EU.
- Method development for the isolation and characterisation of *Campylobacteraceae* gave promising results which could have practical benefit in identifying these pathogens in food processing environments.
- Thirty different companies used the high pressure facility during 2009-10, processing over 40 different foods. Research into the microbiological quality of pressure-treated foods complemented the commercial work done with industry. Examples included *Clostridium botulinum* challenge testing studies on pressure-treated cooked meats.
- Other processing methods were investigated including the use of high pressure homogenisation for improving the microbiological quality of fruit juices and the development of chemical decontamination techniques for sprouted seeds.

Branch Contact

Arthur.Gilmour@afbini.gov.uk
 Tel: +44 (0) 2890 255293
 Fax: +44 (0) 2890 255009

Applied Plant Science and Biometrics Division (APSD)
Biometrics and Information Systems

Biometrics & Information Systems (BIS) Branch provides an integrated statistical and IT development service in support of AFBI line-of-business IT systems. The Branch also provides co-ordination of central AFBI services for quality assurance, and data access and security requirements. BIS works with a range of external customers as described below.

Key Services and Capabilities

Statistical advice and assistance with the design of experiments and surveys. The Branch also supports the analysis of experimental and survey data and the interpretation and reporting of results.

Statistical methodologies include the use of linear, generalised linear and mixed models, the development of models for prediction and forecasting, time series, repeated measures and multivariate analyses, epidemiological and sensory evaluation studies and applications of sampling theory. All analyses meet the ISO9001 quality assurance standard.

Computing and Information services include the development of web and Windows based applications for the agri-food industry, underpinned by sound statistical methodology, online questionnaires and surveys, IT solutions for the efficient and secure management of scientific data and management of AFBI IT systems including Intranet and Internet websites, LIMS and GIS.

General services include statistical and IT training courses at both introductory and advanced levels, implementation of AFBI's ISO9001 quality management system and co-ordination of AFBI responses to FOI and EIR requests.

Key Customers/Sectors of Branch

DARD and other Public Sector Organisations, internal clients, farmers and the agri-food industry.



The PiGIS development team pictured with Minister for Science, Technology, Innovation and Natural Resources, Conor Lenihan at the Irish Times All-Island Innovation Awards in association with InterTrade Ireland.

Key Achievements in 09-10 Year

- Various awards for the award-winning Pig Grading Information System (PiGIS) that provides pig producers with detailed statistical and benchmarking information on their data. Now seeking commercial licensee to exploit internationally.
- Co-ordinated extension of AFBI's ISO9001 scope to include all major scientific activities.
- Phenotypic database developed to combine slaughter data with APHIS data for NI beef industry.
- Comparison of TB test results from government and private vets using a generalized linear mixed model.
- Application of hyper-spectral imaging to tenderness of meat samples as a means of predicting eating quality.
- Analysis of NI arable and orchard crop pesticide usage surveys, and the Farm Business Survey.
- Development of computer application to survey and summarise consumers' preferences for farm landscapes.
- Application of novel spatial analysis techniques to estimate NI timber production.
- Developed various web-based software systems deployed to support AFBI internal business processes.

Branch Contact

David.Kilpatrick@afbini.gov.uk

Tel: +44 (0) 2890 255209

Fax: +44 (0) 2890 255208

AFBI's Crops, Grassland and Ecology Branch (CGE) conducts R&D in plant breeding, plant testing, horticulture, agronomy, trees, environmentally sensitive farming practices, alternative land uses and diversification options.

Key Services and Capabilities

- Statutory plant and seed testing facilities.
- Plant breeding programmes for ryegrass and potatoes.
- Research to support local mushroom and apple industries.
- Renewable energy and bioremediation using short rotation coppice.
- Recommended lists for cereals, potatoes and ryegrasses.
- Industry support directly and through CAFRE.
- Excellently equipped field stations at Loughgall and Crossnacreevy.
- Agri-environment monitoring and upland ecological research.
- Alternative land use systems.

Key Customers/Sectors

- Statutory work for DARD, including agri-environment scheme monitoring, also research that informs DARD policy and the provision of specialist advice
- Commercial crop breeders, locally and internationally
- Local mushroom and apple industries as well as grassland and cereal farmers
- Other government departments and CAFRE advisors.

Key Achievements in 09-10 Year

A Widely acclaimed 5th All Ireland Mushroom Conference – "Survive & Thrive" was opened by Minister Michelle Gildernew MP MLA on 21st May 2009 and showcased the most recent findings from the AFBI mushroom R&D programme. The event brought together growers, scientists and suppliers from across Ireland and clearly demonstrated the ongoing benefits of Industry/Science partnerships.

Recently released AFBI/Barenbrug-bred perennial ryegrass varieties Dunluce, Malone and Tyrella, have proven immensely popular



on local farms, providing high yields of quality forage. A further development during the past year has been the increased testing of AFBI-bred grasses in two main trial sites in Aberdeen and Evesham, thereby improving the chances of finding varieties which are well adapted to farming conditions in GB.

The Branch delivered its annual programme of trials on first early, second early, maincrop and salad potato varieties. Six first early varieties were included in a trial in the Comber area. Bulking up, i.e. earliness of yield, is an important attribute of first early varieties and this was determined by harvesting on two occasions during early growth. Quality characters for table use, crisping and chipping were assessed.

CloverCheck (in conjunction with CAFRE) provided a weekly prediction of clover contribution to swards across the province. Recent research has greatly improved the precision of the growth estimates. At a conference on "Trees cut Carbon" co-organised by AFBI, the carbon storage properties of silvopastoral systems were highlighted.

The novel apple fruit trellis system had excellent fruit bud set across all treatments. Work has commenced on a comprehensive 3-year programme to monitor the impact of DARD's Agri-environment schemes on biodiversity.

Branch Contacts:

Jim.McAdam@afbini.gov.uk
Tel: +44 (0) 2890 255324
Fax: +44 (0) 2890 255003



AFBI'S Plant Health and Environmental Protection Branch (PHEP), conducts research into crop protection, plant product analyses and issues arising from the impact of agriculture on the environment. There is a broad range of scientific expertise aligned with the disciplines of plant pathology, plant physiology, entomology, nematology, microbiology, plant physiology, electron microscopy and molecular biology. Staff members provide statutory and non-statutory disease diagnosis and provision of specialist technical advice to policy-makers, industry and legislators in the area of plant and animal health.

Key Services and Capabilities

- Agri-environment monitoring for pesticide usage.
- Renewable energy and bioremediation using short rotation coppice.
- Research to enhance plant health status of field and horticultural crops.
- Pest control strategies including predators, parasitoids and insect vectors.
- Abiotic and biotic crop management protocols.
- Development of plant nano-materials for functional applications.

Key Customers/Sectors

- Statutory testing, R&D and specialist advice for DARD.
- Local agriculture, horticulture and forestry.
- Amenity turf sector – football & golf clubs.
- Food, biomaterials & agrochemical industries.
- Other government departments and CAFRE advisors.

Key Achievements in 09-10 Year

GM testing. EU legislation specifies the permitted levels of genetically modified (GM) material in imported maize and soya based animal feed. To comply with EU regulations,

and on behalf of DARD's Quality Assurance Branch, PHEP Branch currently tests samples of animal feed for the presence of unapproved GM material. This work ensures that Northern Ireland complies with EU regulations.

Plant stress. Increasingly, environmental factors (temperature, soil, water, pest and diseases) are affecting plant growth. PHEP Branch are testing a range of organic materials which may enhance the growth of crops and turfgrass in difficult growing conditions.

Working with a number of UK and Irish commercial companies, low input solutions to reducing the impact of biotic and abiotic environmental stress are being developed.

Grass biorefining. A new research programme on the biorefining of forage crops and grasses was initiated to develop protocols for converting materials including fresh grass or silage, into valuable feedstock constituents for the industrial and manufacturing sectors in Northern Ireland.

Control of rushes in environmentally sensitive areas (ESAs). A 3- year project in Fermanagh has shown that the use of a "weed-wiper" is more effective than traditional cutting methods at keeping soft rush (*Juncus effusus*) under control and does not reduce biodiversity. North South Network. Safefood is a North-South body responsible for the promotion of food safety on the island of Ireland. A *Cryptosporidium* network and facilitator for 'horticultural food safety' has been agreed and AFBI will lead the network (2010-2015).

Pesticide usage: Following a comprehensive review of pesticide usage monitoring in the UK by the Chemicals Regulations Directorate, AFBI retained a contract to monitor pesticide usage in Northern Ireland's agriculture and horticulture.

Branch Contact:

Shekhar.Sharma@afbini.gov.uk

Tel: +44 (0) 2890 255248

Fax: +44 (0) 2890 255007

AFBI'S Bacteriology Branch delivers statutory, R&D, diagnostic and commercial work to a wide range of customers from both the terrestrial and aquaculture production sectors. The Branch also supports the work of other Branches within the Veterinary Sciences Division. The main focus of the Branch is on pathogens that are notifiable, zoonotic or both.

Key Services and Functions

- Statutory testing for a range of notifiable and/or zoonotic bacterial pathogens including *Mycobacterium bovis* (bovine TB), *Brucella abortus* (brucellosis), salmonellosis, leptospirosis and *Mycoplasma* species of cattle, sheep, goats and poultry.
- Statutory testing for a range of notifiable diseases of fish and shellfish, alongside R&D, commercial and diagnostic activities with partners in Ireland, UK, Norway and Chile.
- Diagnosis, surveillance and R&D on botulism in cattle.
- OIE reference laboratory for Leptospirosis, providing advice, training, diagnostics and commercial testing.
- Provision of Cattle Health Scheme to accredit herds free of Johne's diseases, leptospirosis, BVD and IBR viruses.
- DNA parentage testing of cattle.
- Epidemiology of infectious diseases, with particular emphasis on TB.
- Recognised expertise on mycobacterial diseases of cattle, underpinned by an extensive R&D programme addressing genetic aspects of pathogen and host, large and small animal models and immunology and diagnostics. This is delivered on behalf of national and local customers.
- Provision of media and monoclonal antibody services commercially and within AFBI.

Key Customers/Sectors

- Statutory testing for terrestrial and aquaculture species on behalf of DARD
- Range of R&D funding providers, including DARD, EU, DEFRA, Wellcome Trust, BBSRC, Science Foundation Ireland, InvestNI, Marine Institute and Research Council of Norway.



- Diagnostic services provided to agri-food industry (both terrestrial and aquatic)
- Commercial services provided to companies in the pharmaceutical, nutritional and diagnostic sectors.

Key Achievements in 09-10 Year

- Statutory testing for brucellosis and salmonellosis was delivered in line with agreed targets, and additional key performance indicators established in year for TB culture were also met.
- Formulation of a position paper for DARD making recommendations on future R&D funding in support of control and eradication of TB.
- Continued success in attracting external funding, with 5 new externally funded projects awarded on TB, botulism and fish diseases and successful delivery of current portfolio of projects, resulting in a large number of publications, presentations and technology transfer articles. In addition, the branch was awarded funding for 4 separate innovative product development projects by AFBI Innovations and also delivered R&D to a customer funded by Enterprise Ireland.
- Development and implementation of molecular strain typing tools for *Br abortus* on behalf of DARD.
- Continued generation of income from diagnostic and commercial testing, particularly by the Salmonella and Fish Diseases Units, including provision of a ring test to diagnostic laboratories in Chile on behalf of the Chilean Fish Health Authorities.

Branch Contact:

Stanley.McDowell@afbini.gov.uk

Tel: +44 (0) 2890 525749

Fax: +44 (0) 2890 519432



The Chemical Surveillance Branch (CSB) is located at AFBI's Veterinary Sciences Division at Stormont, Belfast. CSB provides high quality statutory and analytical services to its customers alongside innovative world leading R&D. CSB is the UK National Reference Laboratory (NRL) for residues of a wide range of veterinary drugs (providing both screening and confirmatory analyses) and for marine biotoxins. Tests are carried out for residues of licensed veterinary drugs and illegal compounds in meat products from food of animal origin and in animal feeds. Bivalve molluscs, e.g. mussels and oysters, from NI waters are monitored for the presence harmful toxins. This work is supported by strategic research that has resulted in the development of novel analytical methods for a wide range of compounds.

Key Services and Functions.

- Statutory random and targeted surveillance of agricultural commodities for the presence of residues of licensed veterinary drugs and illegal compounds (ISO-17025 accredited).
- Statutory monitoring of shellfish for the presence of marine biotoxins (ISO-17025 accredited).
- Undertaking to provide our customers with R&D solutions (ISO 90001 accredited).
- Investigating the causes of chemical residues in NI Agri-food and providing solutions for the local industry.

Key Customers/Sectors

CSB provides scientific services to the NI and UK government, testing meat under the UK National Surveillance Scheme. In addition to this Scheme, CSB assists its customers to carry out supplementary testing programmes.

These are undertaken to assure the safety of NI produce and to support the industry in NI, which is heavily dependent on exports (~80% of product being exported from NI). Animals sampled under the NSS are not detained, but EU and UK law requires that non-compliant results are investigated and appropriate measures taken to identify and exclude non-compliant livestock, and their products, from the food chain. The marine biotoxin unit undertakes the monitoring of shellfish on behalf of NI and UK public service customers and undertakes end product testing on behalf of Northern Ireland producers. Its duties as National Reference laboratory (NRL) extend its customer base to the European NRLs and the Community Reference Laboratory. As partner in two European projects, CSB has established links with the key international centres for marine biotoxin research.

Key Achievements in 09/10 Year

- CSB met its targets for all major testing programmes in veterinary drug and shellfish toxin testing.
- As part of a European consortium, CSB has been successful in obtaining funding through the INTERREG programme for the project PHARMATLANTIC.
- Continued programme of method development and external accreditation.
- Successful participation in international proficiency testing programmes.
- CSB continued to provide an analytical service, antibody and specialised reagent production, for external customers complimenting the statutory testing schemes supporting exports from NI.
- Provision of laboratory training for international partners.

Branch Contact:

Glenn.Kennedy@afbini.gov.uk
Tel: +44 (0) 2890 525651
Fax: +44 (0) 2890 525626

AFBI's Disease Surveillance and Investigation Branch (DSIB) undertakes animal disease surveillance on behalf of DARD. This work is undertaken at AFBI's Stormont and Omagh laboratories. A large volume of diagnostic submissions facilitates surveillance for epizootic, notifiable and zoonotic diseases and the monitoring of changing patterns in endemic diseases. Private veterinary practitioners, poultry organisations and fish farmers that submit samples for testing are charged for diagnostic work and this contributes to the cost of operating surveillance on behalf of DARD.

DSIB issues laboratory reports on all diagnostic submissions to customers, and produces a quarterly animal disease surveillance report for DARD. These reports are also published in the Veterinary Record and on the AFBI website so that private veterinary surgeons are aware of current trends in animal diseases in Northern Ireland.

Key Services and Functions

Statutory functions

The Branch carries out statutory work such as the confirmatory diagnosis of BSE, scrapie and tuberculosis, and investigation of suspected outbreaks of epizootic viral diseases such as avian influenza, Newcastle disease and swine fever. It also performs forensic examinations in support of DARD investigations of fraud.

Commercial work. Most of the blood testing carried out under the commercial AFBI Cattle Health Scheme is undertaken in the Branch. Similar testing is also carried out for commercial companies on a contract basis. R&D. Staff in DSIB provide support to research projects based in other VSD branches and participate in externally funded R&D on anthelmintic resistance of livestock parasites.

Key Customers/Sectors

DARD, private veterinary practitioners and livestock owners.



Key Achievements in 09-10 Year

- First NI case of malignant catarrhal fever in a Sika deer detected.
- Identification of increased incidence of paramphistomosis in cattle and sheep.
- Identification of cases of a new and emerging disease - idiopathic haemorrhagic diathesis of calves.
- First European isolate of H1N1 2009 influenza A virus in pigs.
- Case description of Insulin-dependent diabetes mellitus in a yearling bull persistently infected by BVDV.

Branch Contact:

Frank.Malone@afbini.gov.uk

Tel: +44 (0) 2890 525 816





AFBI's Immunodiagnostic Branch provides high throughput testing programmes for a wide range of animal diseases that have or could have a significant impact on the local agri-food sector. These include Brucellosis, BSE, scrapie, Aujeszky's Disease, avian viral and mycoplasma diseases, and a range of more exotic diseases (e.g. enzootic bovine leucosis and avian influenza).

The Branch works closely with its customers, including DARD and provides expert advice in addition to providing an extensive testing programme. The work of Immunodiagnosics Branch supports animal health and helps maintain national, EU and world-wide trade in animals and animal products from Northern Ireland.

Key Services and Functions

- Provision of testing (DARD and commercial) for important animal and poultry diseases
- Provision of automated high throughput testing for cattle brucellosis and BSE
- Provision of advice to customers on animal disease testing
- Development of improved serological tests for animal and poultry diseases
- Antigen and antiserum production
- Contingency planning for major epizootic disease outbreaks

Key Customers/Sectors

- DARD is a key customer. DARD is the regional Competent Authority charged with implementing Community Law in relation to Animal Health and Welfare.
- Other important customers include veterinary practitioners, farmers, agri-businesses and commercial companies.

Key Achievements in 09-10 Year

- Support of DARD strategic plan for eradication of brucellosis. In particular, Branch staff have worked closely with DARD Veterinary Service in high risk areas to prevent disease breakdowns. The Branch has also contributed to ongoing investigations of fraud.
- Support for DARD in demonstrating brucellosis disease status of sheep flocks and feral goats in areas of high disease risk.
- Support of DARD and industry strategic policy for the eradication of Aujeszky's Disease Virus resulting in the achievement of EU Annex II status for Northern Ireland.
- The TSE surveillance programme successfully identified an animal from the human consumption category which was BSE positive. All parts of this animal were destroyed without entering the food chain.
- Successful contingency planning for serological testing for pandemic H1N1 influenza in support of the Department of Health.
- Ongoing support to DARD and industry, demonstrating freedom of disease from important animal and poultry pathogens.

Branch Contact:

Alastair.Douglas@afbini.gov.uk

Tel: +44 (0) 2890 525 813

Fax: +44 (0) 2890 525 750



Veterinary Sciences Division (VSD)

Virology

The work of Virology Branch is aimed at improving the diagnosis and control of viral diseases and to provide emergency response for the diagnosis of major disease threats to livestock to protect the Northern Ireland Agri-Food Industry. The Virology Branch has an excellent range of skills and expertise in virus growth and detection in cells and tissues, molecular virology and virus and vaccine immunology. The Virology Branch has an extensive R&D and international collaboration portfolio with global contacts on viral diseases in animals with a proven track record in diagnostic test and vaccine development.

Key Services and Expertise

- Molecular detection for major viral diseases (e.g bluetongue virus, avian influenza and newcastle disease).
- Molecular virology (including qPCR, sequencing, primer design and recombinant DNA protein expression)
- Investigate new disease syndromes of potential viral etiology with the aim of developing new control measures.
- Virus characterisation (Electron microscopy morphology, genome and protein structure)
- Classical virus isolation in tissue culture systems and eggs
- Development of diagnostic tests (e.g PCR, ELISA and nano-particle)
- Efficacy testing of anti-viral agents
- Immunology profiles (diagnostic and vaccine immunology)
- Viral pathogenesis studies
- Nano-particle diagnostics and nano-particle vaccines
- Immunohisto-chemistry and immuno-fluorescence tests
- Production and supply of viruses, viral antigens and virus-specific monoclonal and polyclonal antibodies
- Production of recombinant DNA-expressed antigens
- Vaccine development: immunology and efficacy testing of vaccines.
- Specialist advice on the transport of dangerous goods (including pathogens).

Key Customers/Sectors

The Virology Branch supplies a key service to DARD as part of its contingency plan and emergency response for epizootic disease threats. Additionally the Virology Branch carries out R&D for government and commercial companies, with significant funding from national and EU funding programmes.

The R&D is aligned to support the NI Agri-Food sector and involvement in the international scientific community allows access to information on new and emerging disease threats (e.g. West Nile Virus) that are a result of changing climatic conditions.

Key Achievements in 09-10 Year

- In September 2009 the Virology Branch was involved in the molecular confirmation that the human "swine flu" pandemic (H1N1) 2009 virus (pH1N1) had entered the NI pig population. This was the first report within Europe that the pandemic virus had entered European pigs.
- The Virology Branch also saw the successful completion two large EU framework projects, AFRISK (Molecular diagnostics of African swine fever) and FluTest (molecular diagnostics for avian influenza and associated viruses).
- The Virology Branch continued its collaborations with Teagasc on nano-particle vaccines and Teagasc funded a further PhD studentship to work on bluetongue virus (BTV).
- There was expansion in new business areas in the testing of disinfectants and supply of advice and reagents for quality control testing by commercial organisations. Nano-particle work also expanded with the introduction of new technologies for the characterisation of viruses, vaccines and nano-particle diagnostic probes.

Branch Contact:

Michael.Welsh@afbini.gov.uk

Tel: +44 (0) 2890 525642

Fax: +44 (0) 2890 525773



The agri-food and rural resource sectors operate in an increasingly complex open market and policy-driven environment and the pressing issues currently facing European agriculture and rural areas will require policy instruments that may be radically different from those of the past thirty years.

AFBI's Agricultural and Food Economics Division (AFE) has an established reputation for providing high quality research and knowledge transfer that is recognised regionally, nationally and internationally. AFE undertakes strategic and applied socio-economic research that provides rigorous evidence that underpins decision making in the policy, NGO and private sectors.

The socio-economic research programme encompasses:

- Sustainability of Agri-Food Systems
- Environment and Climate Change
- Rural Development
- Policy Impact Analysis

Key Services and Expertise

AFE expertise covers a wide range of socio-economic issues and 'state of the art' economic modelling within AFE includes:

- Bio-economic farm business models which identify optimal farm business strategies in a changing market and policy environment;
- Non-market valuation methods which explore preferences for environmental and other public goods and quantify monetary values;
- Household decision making econometric models which explore labour supply, time use and human capital investment at the household level;
- Input-output and computable general equilibrium models which evaluate the linkages between economic sectors and the impact on the overall economy of agri-food policy changes;
- Partial equilibrium models which evaluate the sectoral impact of agri-food policy reforms.
- AFE also has a long standing research partnership with the Food and Agricultural

Agricultural and Food Economics

Policy Research Institute, University of Missouri, and has developed research links with high-level Chinese institutions, including the Chinese Academy of Agricultural Sciences.

Key Customers/Sectors

AFE research provides an evidence base in relevant and accessible formats via policy and practice briefs, reports, research papers, seminars and tailored knowledge transfer events that informs policymakers, NGOs and industry decision makers. In 2009-10 the main customers for AFE research were the four UK Agricultural Administrations: DARD; Defra; SEERAD, Scotland; and the Environment & Countryside Department, Wales. Work was also undertaken for the LMC, the Vaughan Trust and AgriSearch.

AFE research covers the dairy, beef, sheep meat, pigs, poultry, cereals, oilseed and liquid bio fuel sectors as well as the rural environment and rural society.

Key Achievements in the 09-10 Year

- Policy analysis of the impact on UK agriculture of HM Treasury/Defra's Vision for the CAP at the UK level and also separately for England, Wales, Scotland and Northern Ireland. This covered CAP Health Check Reforms; proposed Doha Round WTO Reforms; full decoupling of direct payments; and further trade liberalisation and phasing out of the Single Farm Payment.
- A briefing 'Rural Northern Ireland: Context, Challenges & Opportunities', drawing on AFE's expertise across a range of former research projects, submitted to DARD for inclusion in the forthcoming NI Rural White Paper.
- A policy briefing for DARD on 'The Educational Attainment of Farm Operators in NI.
- A policy briefing for DARD on the Evaluation of Agri-Environmental Schemes in NI.

Branch Contact:

John.Davis@afbini.gov.uk
Tel: +44 (0) 2890 255 213
Fax: +44 (0) 2890 255 327

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Remuneration Report

Chairman and Board Members

The Chairman is appointed for a fixed period of four years, the Deputy Chair for three years and the Board members are appointed for a fixed period of two or three years. Thereafter they are re-appointed in accordance with the Code of practice.

The remuneration of the Board is set by DARD. Increases are calculated in line with the recommendations of the Senior Salaries Review Body. There are no arrangements in place for the payment of a bonus. Neither the Chairman nor any Board Member receives pension contribution from AFBI or DARD. AFBI reimburses the Chairman and Board members for any incidental expenses incurred for carrying out their duties relevant to the organisation.

Details of remuneration of the Chairman and Board Members

In 2009/2010, the remuneration of the members of the Board was as shown below.

	2009/10		2008/09	
	Salary	Benefits in kind	Salary	Benefits
	(to nearest £1,000)	(to nearest £100)	(to nearest £1,000)	(to nearest £100)
Mr Sean Hogan, Chairman	25	-	25	-
Prof. David McDowell	10	-	10	-
Mr Kieran Campbell	6	-	7	-
Dr Michael Hollywood	5	-	6	-
Dr Christine Kennedy	4	-	5	-
Mr Nicholas Mack	4	-	4	-
Prof. Grace Mulcahy	4	-	4	-
Mr John McKinley	4	-	4	-
Prof. Stewart McNulty	4	-	4	-
Mr Jim Noble	4	-	4	-
Mr John Rankin	5	-	6	-
Mr Michael Walker	4	-	4	-

The following members completed their term of office on 31 March 2010.

Mr Seán Hogan
 Mr Kieran Campbell
 Dr Michael Hollywood
 Dr Christine Kennedy
 Mr Nicholas Mack
 Mr John McKinley

The DARD Minister announced the re-appointment of Mr Seán Hogan for a further four year term and the re-appointment of Mr Kieran Campbell and Dr Michael Hollywood for a further one year period.

Sub-committees of the Board

The following sub-committees continued to operate during the year:

Audit Committee

Dr Michael Hollywood, Chairman	£1,252
Mr Kieran Campbell	£1,252
Mr John Rankin	£1,252

Remuneration Committee

Prof. David McDowell, Chairman*	-
Mr Kieran Campbell	£313
Dr Christine Kennedy	£313

* Prof David McDowell, Chairman does not receive any remuneration for chairing the meetings of the Remuneration Committee.

The role of the Remuneration Committee is to advise the AFBI Board in respect of the remuneration of members of the Senior Management Team (SMT). Whilst the terms and conditions of employment and remuneration of all AFBI employees are in accordance with the overall terms and conditions of the NICS, as described above, any proposed changes to the overall framework are also subject to review and scrutiny by this Committee.

Policy on rewards to staff for the development of Intellectual Property Rights

The Remuneration Committee reviewed the organisation's procedures for rewarding staff where their work gave rise to increased income from the exploitation of intellectual rights. A policy on rewards to staff, approved by the AFBI Board, was the subject of a detailed interaction with DARD and the business case has recently been approved by DFP.

Chief Executive and Senior Management Team

Remuneration Policy

At present, the remuneration of the Chief Executive Officer and the Deputy Chief Executive Officers is set in accordance with the Senior Civil Service (SCS) in Northern Ireland which, in turn, is set by the Prime Minister following independent advice from the Review Body on Senior Salaries. The pay award for staff in the Senior Civil Service is comprised of two elements – a base pay uplift and a non-consolidated bonus, both of which are entirely performance based.

At present, the remuneration of the Acting Head of the Business Support Unit is set in accordance with the pay award negotiated with the trade unions for all non-industrial staff in the Northern Ireland Civil Service.

Service contracts

Appointments in AFBI are made in accordance with the Civil Service Commissioners' Recruitment code which requires appointments to be made on merit on the basis of fair and open competition but also includes the circumstances when appointments may otherwise be made. Unless otherwise stated below, the officials covered by this report hold appointments which are open-ended until they reach the normal retiring age of 60. Policy relating to notice periods and termination payments is contained in the Northern Ireland Civil Service (NICS) Staff Handbook.

Duration of notice periods

At present, recruits or promotees to the analogous Senior Civil Service posts in AFBI are required to give three months notice of resignation. The Institute reserves the right to introduce a longer period of notice for individual posts up to a maximum of six months and incumbents will be notified accordingly. This may be likely where the recruitment of the replacement is likely to be a protracted process.

At the time of resignation, the Institute may, by agreement with the member of staff concerned, agree to waive the required notice.

Where the Institute is of the opinion that the appointee is unfit to continue in post or is incapable of adequately performing the duties of the post, it can terminate the appointment with due notice as per the NICS Staff Handbook/Terms and Conditions.

Termination payments

If for any reason other than disciplinary dismissal, the minimum period of notice cannot be given, the member of staff will receive compensation in lieu of the unexpired period of notice. Compensation is not payable when the date of leaving is mutually agreed, for example, in cases of flexible early retirement, approved early retirement, voluntary redundancy or where staff resigns before the end of the notice period.

Salary and Pension Entitlements

The following sections provide details of the remuneration and pension interests of the Senior Management Team of the Institute.

(a) Remuneration (Audited)

	2009/2010		2008/2009	
	Salary (to the nearest £1,000)	Benefits in kind (to the nearest £1,000)	Salary (to the nearest £1,000)	Benefits in kind (to the nearest £1,000)
Dr S G McIlroy, CEO ¹	80 - 85	-	80 - 85	-
Dr M Camlin, DCEO	75 - 80	-	71 - 75	-
Dr S Neill, DCEO	40 - 45	-	65 - 70	-
Dr S Kennedy, CEO (Acting) ²	75 - 80	-	65 - 70	-
Dr R Boyd, DCEO CSD	55 - 60	-	60 - 65	-
Dr A Gilmour DCEO (Acting)	70 - 75	-	35 - 40 (60 - 65 full year equivalent)	-
Dr D Bryson DCEO (Acting) ³	40 - 45 (70 - 75 fully equivalent)	-	15 - 20 60 - 65 full year equivalent)	-
Mr Joel Ferguson Head of BSU (Acting) ⁴	10 - 15 (fully equivalent 50 - 55)	-	-	-

¹ Dr George McIlroy was absent on long term sick leave from 30 November 2009. He subsequently retired on medical grounds on 19 April 2010.

² Dr Seamus Kennedy was appointed Acting Chief Executive Officer and Accounting Officer on 16 December 2009.

³ Dr David Bryson was Acting Deputy Chief Executive from 15 December 2008 to 31 August 2009. He reverted to his substantive grade on 1 September 2009 and commenced a subsequent acting up period from 11 January 2010 when Dr Seamus Kennedy was appointed Acting CEO.

⁴ Mr Joel Ferguson was appointed acting Head of Corporate Services from 12 December 2009 in view of the impending retirement of Dr Robin Boyd.

Salary:

Salary includes gross salary; performance pay or bonuses and any allowance that is subject to UK taxation. This report is based on payments made by the Institute and thus recorded in the accounts.

Benefits in kind:

The monetary value of benefits in kind covers any benefits provided by the employer and treated by the Inland Revenue as a taxable emolument.

(b) Pensions (Audited)

Name	Real increase in pension	Real increase in lump sum	Pension at end date	Lump sum at end date	CETV at start date	CETV at end date	Employee contribs. and transfers in	Real increase in CETV funded by employer
	To nearest £'000				To nearest £'000	To nearest £	To nearest £'000	
Dr G McIlroy	0 – 2.5	5 – 7.5	20 - 25	65 -70	438	509	1389	46
Dr M Camlin	2.5 - 5	10-12.5	40 - 45	120 - 125	846	976	1152	92
Dr S Neill	0-2.5	5 - 7.5	35-40	110-115	828	917	3336	50
Dr S Kennedy	2.5-5	12.5-15	25-30	85-90	460	623	1148	103
Dr R Boyd	2.5-5	7.5 - 10	25-30	85-90	560	621	869	58
Dr A Gilmour	0-2.5	12.5-15	30-35	95-100	645	774	1059	100
Dr D Bryson*	0-2.5	2.5-5	25-30	85-90	615	678	429	24
Dr D Bryson*	0-2.5	2.5-5	30-35	90-95	694	708	215	24
Mr J Ferguson	0-2.5	0	0-5	0	9	19	470	9

*Dr Bryson was on the Senior Management Team on a temporary basis for two separate periods of time during the year.

Accrued pension and lump sum as at 31 March 10

This is the pension the individual would receive if 31 March 10 were their last day of service. If the individual is in premium or nuvos then they will not receive an automatic lump sum and therefore there is no lump sum to disclose. The accrued pension and lump sum includes any benefits that have accrued from the individual buying added years, added pension or transferring in benefits from another scheme. If a member has a preserved award from a previous NI Civil Service employment, this is included in the calculations.

Real increase in pension and lump sum

This is the increase in the value of the pension over the year taking account of inflation.

Members of premium and nuvos do not automatically receive a lump sum and so there is no disclosure in respect of this.

Members of classic and classic plus receive an automatic lump sum and this has been disclosed.

Cash Equivalent Transfer Values (CETV)

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies.

The CETV figures include the value of any pension benefit in another scheme or arrangement which the individual has transferred to the Civil Service pension arrangements. They also include

any additional pension benefit accrued to the member as a result of their purchasing additional pension benefits at their own cost. CETVs are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries and do not take account of any actual or potential reduction to benefits resulting from Lifetime Allowance Tax which may be due when pension benefits are drawn.

The factors used in calculating CETVs have been updated from October 2008. CSP will use new factors to calculate the opening CETV for 08/09 and as a result the figure may differ from the 07/08 closing CETV figure given last year.

Real increase in CETV

This reflects the increase in CETV effectively funded by the employer. It does not include the increase in accrued pension due to inflation, contributions paid by the employee (including the value of any benefits transferred from another pension scheme or arrangement) and uses common market valuation factors for the start and end of the period.

Civil Service Pensions

Pension benefits are provided through the Civil Service pension arrangements. From 1 October 2002, civil servants may be in one of three statutory based 'final salary' defined benefit schemes (Classic, Premium and Classic Plus). The schemes are unfunded with the cost of benefits met by monies voted by Northern Ireland Assembly each year. Pensions payable under Classic, Premium and Classic Plus are increased annually with changes in the Retail Price Index. New entrants after 1 October 2002 may choose between membership of premium or joining a good quality 'money purchase' stakeholder arrangement with a significant employer contribution (partnership pension account).

Employee contributions are set at the rate of 1.5% of pensionable earnings for Classic and 3.5% for Premium and Classic Plus. Benefits in Classic accrue at the rate of 1/80th of pensionable salary for each year of service. In addition, a lump sum equivalent to three years' pension is payable on retirement. For Premium, benefits accrue at the rate of 1/60th of final pensionable salary for each year of service. Unlike Classic there is no automatic lump sum (but members may give up (commute) some of their pension to provide a lump sum). Classic Plus is essentially a variation of Premium, but with benefits in respect of service before 1 October 2002 calculated broadly in the same way as in Classic.

The Partnership Pension account is a stakeholder pension arrangement. The employer makes a basic contribution of between 3.5% and 12.5%, depending on the age of the member, into a stakeholder pension product chosen by the employee from a selection of approved products. The employee does not have to contribute but where they do make contributions, the employer will match this up to a limit of 3% of pensionable salary in addition to the employer's basic contribution. Employers also contribute a further 0.8% of pensionable salary to cover the cost of centrally- provided risk benefit cover (death in service and ill health retirement). Further details about the Civil Service pension arrangements can be found at the website: www.civilservicepensions-ni.gov.uk

The Institute's accounting policy in respect of pensions is at Note 1 to the accounts.



Dr Seamus Kennedy MVB PhD MRCVS FRCPath
Chief Executive and Accounting Officer

Date: 3 June 2011

Statement of Internal Control

Scope of responsibility

As Accounting Officer, I have responsibility for maintaining a sound system of internal control that supports the achievement of AFBI's policies, aims and objectives, approved by the Institute's Minister, whilst safeguarding the public funds and the Institute's assets for which I am personally responsible, in accordance with the responsibilities assigned to me in *Managing Public Money Northern Ireland*.

The accountability arrangements within AFBI encompass stewardship, performance and compliance. Monthly Management team and AFBI Board meetings, together with quarterly Audit Committee and Risk Management Control Group meetings, support the role of the Accounting Officer.

The purpose of the system of internal control

The system of internal control is designed to manage risk to a reasonable level rather than to eliminate all risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of effectiveness.

The system of internal control is based on an ongoing process designed:

- to identify the principal risks to the achievement of institute policies, aims and objectives;
- to evaluate the likelihood of these risks being realised;
- to assess the potential impact should they be realised; and
- to manage them efficiently, effectively and economically.

The system of internal control has been in place for the year ended 31 March 2010 and up to the date of approval of the annual report and accounts, and accords with Department of Finance and Personnel guidance.

Capacity to handle risk

I have put appropriate procedures in place to ensure that the institute has identified its objectives and risks and determined a control strategy for each of the significant risks. Risk ownership has been allocated to staff at the appropriate level where it is controllable and the Institute has set out its attitude to risk to the achievement of its objectives. The Senior Management Team has ensured that procedures are in place for verifying that risk management and internal control are regularly reviewed and reported on and these activities are appropriately linked into corporate planning and decision making process. There is a clear chain of accountability between the senior Branch Heads in the Divisions, the Deputy Chief Executives and myself. In formal meetings between DARD and AFBI, cross cutting risks of both organisations have been identified. The Internal Audit teams of both DARD and AFBI have periodically carried out audits on the management of risk.

The Risk Management Strategy has been made available to all staff for guidance on the AFBI intranet and internet sites. This document sets out the necessary organisation roles and responsibilities, along with a framework of the underlying principles of the control system.

The risk and control framework

AFBI Internal Auditor's operate to standards defined in the Government Internal Audit Manual. Annually, the Head of Internal Audit (HIA) provides me with a report on internal audit activity in the institute. The report includes the HIA's independent opinion on the adequacy and effectiveness of the Institute's system of internal control with recommendations for improvement.

A Risk Management Control Group, consisting of the Senior Management Team and Divisional Risk Co-ordinators has been set up, and meets quarterly to review all risks and to ensure compatibility between the Corporate Risk Register and the Divisional Risk Registers.

The deliberations, recommendations and amendments made by this Committee are presented to the Audit Committee before being formally adopted.

The Chair of the Audit Committee presents exception reports to the AFBI non-executive Board at the monthly Board meeting subsequent to the meeting of the Audit Committee. The Audit Committee meets and reviews the Corporate Risk Register four times in a year. If there is any significant change to an existing risk or if a new risk were to arise in the intervening period, I would bring this to the attention of the AFBI Board at the earliest opportunity.

AFBI maintains a Corporate Risk Register and the responsibility for the maintenance of this register lies with the risk co-ordinator. The generic areas which are reviewed include funding, procurement, human resource and operational issues. The format of the register is also reviewed and, when necessary, changes are made for more comprehensive and improved presentation.

A key component of the management of risk within AFBI is the role of the Deputy Chief Executive Officers. They hold regular meetings with their divisional management teams to review and assess risk management within the Divisions and any material changes to the status of any risk is brought to the attention of the AFBI Audit Committee through the Risk Management Control Group and ultimately the AFBI Board. The Corporate Risk Register is a standing item at the Senior Management Team and AFBI Board meetings.

The business planning process, and more specific project planning processes, take account of risks to the achievement of objectives and these risks are recorded in the appropriate risk register with mitigating and additional management actions allocated to a responsible officer.

Each of the Divisional Heads prepares a stewardship statement, twice a year, providing assurances to the CEO in support of the Statement on Internal Control. These statements give assurances that the necessary controls are in place in each of the business divisions.

Review of Effectiveness

As Accounting Officer, I have responsibility for reviewing the effectiveness of the system of internal control. My review of the effectiveness of the system of internal control is informed by the work of the internal auditors, the executive managers within the Institute who have responsibility for the development and maintenance of the internal control framework, and comments made by the external auditors in their management letter. I have been advised on the implications of the result of my review of the effectiveness of the system of internal control by the Management Board and by the Audit and Risk Management Committee and a plan to address weaknesses and ensure continuous improvement of the system is in place.

The HIA has provided me with a report on internal audit activity within the Institute during the year and an annual assurance statement. This indicates that, whilst overall there is a satisfactory system of governance, risk management and internal control in place, there are areas for improvement. The HIA states that his opinion is based upon both the direct audit work performed in 2009-2010 and an evaluation of the adequacy of the Institute's risk management process.

To enable me to complete this Statement on Internal Control I have also drawn on assurances received from the Head of Internal Audit in the Department of Finance and Personnel on the various components of Enterprise Shared Services including Account NI which is responsible for the Institute's transaction processing arrangements, HR Connect which is responsible for the Institute's Human Resource management arrangements and IT Assist which is responsible for providing IT support services in the Institute.

Account NI

Following ten risk-based Systems Audits and fourteen follow-ups to previous audit reports to the Head of the Department of Finance and Personnel's Internal Audit Service has awarded Account NI a satisfactory assurance rating.

HR Connect

The HR Connect payroll service Contractor had planned to undertake ten quality assurance reviews which, when combined with the direct audit work undertaken by the Department of Finance and Personnel's Internal Audit Service would facilitate the provision of an overall audit assurance. The Contractor, however, has only completed two of its ten planned reviews and those are considered by the Department of Finance and Personnel's Internal Audit Service to lack rigour, breadth and depth. As such the Head of Internal Audit in the Department of Finance and Personnel Audit was unable to provide additional assurance on those areas. Therefore, although satisfactory assurance was provided in six audits undertaken by the Department of Finance and Personnel's Internal Audit Service, a limited assurance rating was provided for HR Connect overall. The Department of Finance and Personnel's Internal Audit Service will undertake all audits in HR Connect from 2010-2011 onwards.

IT Assist

The Head of Internal Audit in the Department of Finance and Personnel has indicated that a satisfactory level of assurance is appropriate for IT Assist and has noted that this opinion is supported by reliance on the work of other key assurance providers namely, the Independent IT Health Check Professionals and the CLAS consultants employed to review Risk Management Accreditation Document Sets.

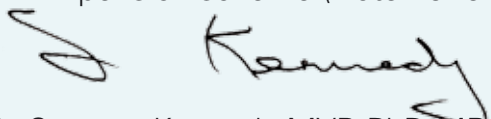
Significant Internal Control problems

During the period the HIA identified weaknesses in the following areas with specific areas of concern highlighted.

- The lack of policies and detailed operating procedures in relation to key operational and financial areas (references: REVIEW OF SITE SECURITY – final report issued September 2009, REVIEW OF BUDGETARY MANAGEMENT AND REPORTING – final report issued June 2010 and review of receipts, cash and banking – final report issued June 2010);
- The requirement to allocate security - related roles and responsibilities and to develop formal reporting protocols across each AFBI site (reference: REVIEW OF SITE SECURITY – final report issued September 2009); and
- The requirement to develop, integrate and standardise AFBI's budgetary management reporting processes across the organisation (reference: REVIEW OF BUDGETARY MANAGEMENT AND REPORTING – final report issued June 2010).

I assigned responsible officers to prepare action plans and associated timetables to rectify these weaknesses. I monitor the implementation timetables, subject to follow up reviews by Internal Audit and reported through SMT to the Audit and Risk Committees. I am pleased to report that the HIA's report identified that good progress was being made against a range of audit recommendations. All the agreed recommendations will be implemented in the course of the coming year.

The delay in the completion of this Annual Report and Accounts has been caused by ongoing negotiations with NILGOSC in respect of the settlement of pension liabilities for closure of the ARINI pension scheme (Note 15 refers). Full agreement of the liability has now been reached.



Dr Seamus Kennedy MVB PhD MRCVS FRCPATH
Chief Executive and Accounting Officer

Date: 3 June 2011

Statement of Accounting Officers Responsibilities

Under the Agriculture (Northern Ireland) Order 2004, the Institute is required to prepare for each financial year, a statement of accounts detailing the resources acquired, held, or disposed off during the year and the use of resources by the Institute during the year.

The statement of accounts is prepared on an accruals basis and must give a true and fair view of the state of affairs of the Institute, its income and expenditure, recognised gains and losses and cash flows for the financial year.

DARD has appointed the Chief Executive Officer of the Institute as Accounting Officer of the Institute, with responsibility for preparing the Institute's accounts and for transmitting them to the Comptroller and Auditor General.

In preparing the accounts, the Accounting Officer is required to comply with the Government Financial Reporting Manual and in particular to:

- a) observe the Accounts Direction issued by DARD, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- b) make judgments and estimates on a suitable basis;
- c) state whether applicable accounting standards, as set out in the Government Financial Reporting Manual have been followed, and disclose and explain any material departures in the accounts; and
- d) prepare the accounts on a going concern basis.

Note 21 to the financial statements indicates that the Accounting Officer has an ongoing legal claim against the Institute which has been provided for within the financial statements. The details of this provision has not been disclosed to the Accounting Officer during the preparation of the financial statements as this may prejudice any potential settlement. Consequently the Accounting Officer has been unable to fulfil all the duties required and the Principal Accounting Officer in DARD has overseen this aspect of the preparation of their financial statements.

The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which he is answerable, for keeping proper records and for guarding the Institute's assets, are set out in the Accounting Officer's memorandum issued by DFP and published in *Managing Public Money Northern Ireland*.

THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE NORTHERN IRELAND ASSEMBLY

I certify that I have audited the financial statements of Agri-Food and Biosciences Institute for the year ended 31 March 2010 under the Agriculture (Northern Ireland) Order 2004, These comprise the Net Expenditure Account, the Statement of Financial Position, the Statement of Cash Flows, the Statement of Changes in Taxpayers' Equity and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

Respective responsibilities of the Chief Executive and auditor

As explained more fully in the Statement of Chief Executive's Responsibilities, the Chief Executive is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. My responsibility is to audit the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require me and my staff to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the Audit of the Financial Statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Agri-Food and Biosciences Institute's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Agri-Food and Biosciences Institute; and the overall presentation of the financial statements.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the expenditure and income reported in the financial statements have been applied to the purposes intended by the Assembly and the financial transactions conform to the authorities which govern them.

Opinion on Regularity

In my opinion, in all material respects the expenditure and income have been applied to the purposes intended by the Assembly and the financial transactions conform to the authorities which govern them.

Opinion on financial statements

In my opinion:

- the financial statements give a true and fair view, of the state of Agri-Food and Biosciences Institute affairs as at 31 March 2010 and of its net expenditure, cash flows and changes in taxpayers' equity for the year then ended; and
- the financial statements have been properly prepared in accordance the Agriculture (Northern Ireland) Order 2004 and the Department of Agriculture and Rural Development directions issued thereunder.

Opinion on other matters

In my opinion:

- the part of the Remuneration Report to be audited has been properly prepared in accordance with the Department of Agriculture and Rural Development directions issued under the Agriculture (Northern Ireland) Order 2004; and
- the information given in the Management Commentary and the unaudited part of the Remuneration report included within the Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept; or
- the financial statements are not in agreement with the accounting records; or
- I have not received all of the information and explanations I require for my audit; or
- the Statement on Internal Control does not reflect compliance with Department of Finance and Personnel's guidance.

Report

I have no observations to make on these financial statements.



K J Donnelly
Comptroller and Auditor General
Northern Ireland Audit Office
106 University Street
Belfast
BT7IEU

Date: 16 June 2011

Accounts

Net Expenditure Account For the year ended 31 March 2010

	Note	2010 £000	Restated 2009 £000
Expenditure			
Staff costs	4	27,143	26,236
Depreciation	5	2,781	2,450
Other Expenditures	5	23,254	25,102
		53,178	53,788
Income			
Income from Activities	6	(10,775)	(11,933)
Other Income	6	-	(1,435)
		(10,775)	(13,368)
Net Expenditure		42,403	40,420
Notional charges	5	743	-
Cost of Capital	5	236	212
Interest payable/receivable	5	1	-
Net Expenditure after cost of capital charge and interest		43,383	40,632

Notes 1 to 22 form part of the accounts.

Statement of Financial Position as at 31 March 2010

	Note	2010 £000	Restated 2009 £000	Restated 2008 £000
Non-current assets:				
Plant and Equipment	7	11,841	11,665	12,751
Intangible assets	8	163	191	221
Biological assets	9	1,019	949	975
Total non-current assets		13,023	12,805	13,947
Current assets:				
Inventories	11	282	295	251
Trade and other receivables	12	5,948	6,816	3,757
Cash and cash equivalents	13	4	3	702
Total current assets		6,234	7,114	4,710
Total assets		19,257	19,919	18,657
Current liabilities				
Trade and other payables	14	(10,621)	(5,110)	(7,154)
Total current liabilities		(10,621)	(5,110)	(7,154)
Non-current assets plus/ less net current assets/liabilities		8,636	14,809	11,503
Non-current liabilities				
Provisions	15	(2,110)	(7,582)	(6,254)
Total non-current liabilities		(2,110)	(7,582)	(6,254)
Assets less liabilities		6,526	7,227	5,249
Taxpayers' equity				
General reserve		5,223	5,896	4,072
Revaluation Reserve		1,185	1,159	960
Donated Assets Reserve		118	172	217
		6,526	7,227	5,249

The financial statements were approved by the Board on 25 May 2011 and signed on its behalf by:

Dr Seamus Kennedy MVB PhD MRCVS FRCPATH
Chief Executive and Accounting Officer

Date:

The notes on pages 69 to 93 form part of these accounts.

Statement of Cash Flows for the year ended 31 March 2010

	Note	2010 £000	Restated 2009 £000
Cash flows from operating activities			
Net expenditure after cost of capital and interest		(43,383)	(40,632)
Non-cash transactions			
Cost of capital	5	236	212
Notional charges - Account NI		743	-
Impairment of fixed assets		(26)	60
Write off of livestock		30	-
Loss on theft of livestock		-	21
Loss on disposal of non-current assets		31	71
Profit on disposal of livestock		(266)	-
Movement in provision of bad debts		(48)	-
Increase in provisions		435	-
Profit on disposal of assets		(14)	(43)
Release of donated assets reserve		(56)	(54)
Depreciation charges	7	2,781	2,450
Other finance costs		-	(1,435)
Change in market value of livestock		(416)	(268)
		<u>3,430</u>	<u>1,014</u>
Operating cash flows before changes in working capital		(39,953)	(39,618)
Changes in working capital			
(Increase) / Decrease in trade receivables	12	916	(3,059)
(Increase) / Decrease in Inventories	11	13	(44)
Increase / (Decrease) in trade payables	14	5,064	(2,822)
Use of provisions	15	(5,907)	664
		<u>86</u>	<u>(5,261)</u>
Net cash outflow from operating activities		(39,867)	(44,879)
Cash flows from investing activities			
Purchase of plant and equipment	7	(1,647)	(1,428)
Purchase of intangible assets	8	(67)	(84)
Purchase of biological assets	9	(29)	(113)
Proceeds of disposal of plant and equipment		27	533
Proceeds of disposal of biological assets		610	452
Net cash outflow from investing activities		(1,106)	(640)
Cash flows from financing activities			
Grants from parent department		<u>41,475</u>	<u>44,138</u>
Net financing		<u>41,475</u>	<u>44,138</u>
Net increase in cash & cash equivalents in the period		502	(1,381)
Cash & cash equivalents at the beginning of the period	13	<u>(679)</u>	<u>702</u>
Cash & cash equivalents at the end of the period	13	<u>(177)</u>	<u>(679)</u>

The notes on pages 69 to 93 form part of these accounts.

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2010

	Note	General Reserve £000	Revaluation Reserve £000	Donated Assets Reserve £000	Total £000
Balance at 31 March 2009		5,896	1,159	172	7,227
Prior Period Adjustments		-	-	-	-
Restated balance at 1 April 2009		5,896	1,159	172	7,227
Changes in Taxpayers Equity 2009-10					
Net gain/(loss) on revaluation of plant and equipment		-	277	2	279
Net gain/(loss) on revaluation of intangible assets		-	5	-	5
Actuarial gain/(loss) recognised for the financial year		-	-	-	-
Release of reserves to the Net Expenditure Account		-	-	(56)	(56)
Non-cash charges - cost of capital	5	236	-	-	236
Notional charges - Account NI	5	743	-	-	743
Transfers between reserves		256	(256)	-	-
Retained Surplus/Deficit		(43,383)	-	-	(43,383)
Total recognised Income and Expense for 2009-10		(42,148)	26	(54)	(42,176)
Grant from parent		41,475	-	-	41,475
Balance at 31 March 2010		5,223	1,185	118	6,526

The notes on pages 69 to 93 form part of these accounts.

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2009

	Note	Restated General Reserve	Restated Revaluation Reserve	Restated Donated Assets Reserve	Restated Total
		£000	£000	£000	£000
IFRS revised balance at 1 April 2008		4,072	960	217	5,249
Changes in Taxpayers Equity 2008-09					
Net gain/(loss) on revaluation of plant and equipment		-	404	9	413
Net gain/(loss) on revaluation of intangible assets		-	-	-	-
Actuarial gain/(loss) recognised for the financial year		(2,099)	-	-	(2,099)
Release of reserves to the I&E		-	-	(54)	(54)
Non-cash charges - cost of capital	5	212	-	-	212
Transfers between reserves		205	(205)	-	-
Retained Surplus/Deficit		(40,632)	-	-	(40,632)
Total recognised Income and Expense for 2008-09		(42,314)	199	(45)	(42,160)
Grant from parent		44,138	-	-	44,138
Balance at 31 March 2009		5,896	1,159	172	7,227

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2008

	Note	Restated General Reserve £000	Restated Revaluation Reserve £000	Restated Donated Assets Reserve £000	Restated Total £000
Changes in Taxpayers Equity 2007-08					
Balance at 1 April 2007		8,541	900	-	9,441
Prior period adjustments		-	-	-	-
Restated balance at 1 April 2007		8,541	900	-	9,441
Addition of donated assets		-	-	266	266
Net gain/(loss) on revaluation of plant and equipment		-	173	-	173
Net gain/(loss) on revaluation of intangible assets		-	-	-	-
Actuarial gain/(loss) recognised for the financial year		892	-	-	892
Net gain/(loss) on revaluation of investments		-	-	-	-
Release of reserves to the I&E		-	-	(49)	(49)
Non-cash charges - cost of capital		258	-	-	258
Transfers between reserves		113	(113)	-	-
Retained Surplus/Deficit		(47,432)	-	-	(47,432)
Total recognised Income and Expense for 2007-08		(46,169)	60	217	(45,892)
Grant from parent		41,992	-	-	41,992
Balance at 31 March 2008		4,364	960	217	5,541
IFRS adjustments	2	(292)	-	-	(292)
IFRS revised balance at 1 April 2008		4,072	960	217	5,249

Notes to the accounts for the year ended 31 March 2010

1. Statement of accounting policies

These financial statements have been prepared in accordance with the 2009-10 Government Financial Reporting Manual (FReM) issued by DFP and the Accounts Direction issued by DARD on 19 April 2006. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context.

Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of the Agri-Food and Biosciences Institute for the purpose of giving a true and fair view has been selected.

The particular policies adopted by the Agri-Food and Biosciences Institute are described below. They have been applied consistently in dealing with items that are considered material to the accounts.

First Time Adoption of IFRS

The impact of the first time adoption of IFRS is detailed in note 2. This note provides a reconciliation between the UK GAAP position and the IFRS position for both the Taxpayers Equity and the Net Expenditure.

Accounting convention

These accounts have been prepared under the historical cost convention modified to account for the revaluation of plant and equipment, intangible assets, biological assets and inventories.

Plant and equipment

1. The Institute does not own any land and building but leases them from DARD.
2. Other non-property assets are stated at current cost using appropriate indices to account for the effects of inflation. No independent valuer is involved in valuation of assets. The date of the revaluation is the reporting date of 31 March each year.
3. The threshold for capitalisation is £5,000 excluding VAT.
4. The Institute does not capitalise fixtures, fitting and office furniture.

Donated fixed assets

Donated fixed assets are capitalised at their fair value on receipt and this value is credited to the donated asset reserve. Donated fixed assets are valued and depreciated as described below for purchased assets. Gains and losses on revaluations are also taken to the donated asset reserve and, each year, an amount equal to the depreciation charge on the asset is released from the donated asset charged to the Net Expenditure Account. Any impairment on donated assets charged to the Net Expenditure Account is matched by a transfer from the donated asset reserve. On sale of donated assets, the value of the sale proceeds is transferred from the donated asset reserve to the General Reserve.

Depreciation

Assets in course of construction are not depreciated.

Depreciation is charged on a straight line basis in order to write off the valuation of assets, less estimated residual value, of each asset over the expected useful life. Assets are depreciated from the period of acquisition and not depreciated in the period of disposal. The useful lives of tangible assets, which are reviewed regularly, are:

Plant	3 to 15 years
Equipment	5 to 20 years
Transport equipment: boats	5 to 15 years
Transport equipment: vehicles	5 to 10 years
Information technology: computers	3 to 6 years

The useful lives of intangible assets, which are reviewed regularly, are:

Software Licences	2 to 10 years
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Intangible assets

Software licences are stated at current cost using appropriate indices to account for the effects of inflation. Software assets are depreciated from the period of acquisition and not depreciated in the period of disposal.

Biological Assets

Biological assets comprise cattle, sheep and pigs which are used for research purposes. They are categorised according to the attributes used in the market to facilitate their valuation at the reporting date. Cattle were further grouped as follows:

- Beef cattle are group by gender, breed and age.
- Dairy cattle are group by lactation and breed.

Biological assets are valued at fair value less estimated costs at the point of sale at the end of the reporting period. The difference between the purchase cost and/or the value brought forward of each animal and the market value at the end of the reporting period is taken to the Net Expenditure Account to reflect any changes in value due to changes in physical condition of the herd and due to changes in market price.

Inventories

Inventories are valued at the lower of cost and net realisable value.

Cash and cash equivalents

Cash and cash equivalents comprise of cash and deposits with commercial banks. At each year end, the carrying value of cash at bank and in hand approximates their fair value due to their short-term nature.

Revenue

Revenue is recognised when it is probable that the economic benefits will flow to the Institute and the revenue can be reliably measured. Revenue is recognised as follows:

For sales of services, revenue is recognised in the accounting period in which the services are rendered by reference to stage of completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided.

For sales of goods, revenue is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer and the amount of revenue can be measured reliably.

Royalties, Charter of Ship and Rents receivable: Revenue is recognised on an accruals basis in accordance with the substance of the relevant agreement.

Employee Benefits

Under the requirements of IAS 19 Employee Benefits, staff costs must be recorded as an expense as soon as the organisation is obligated to pay them. This includes the cost of any untaken leave that has been earned at the year end. This cost has been estimated using average staff numbers and costs applied to the average untaken leave balance determined from the results of a survey to ascertain leave balances as at 31 March 2010. It is not anticipated that the level of untaken annual and flexi leave will vary significantly from year to year.

Leases

Operating lease rentals are charged directly to the Net Expenditure Account over the period of the lease. There are no finance leases.

Financial Instruments

The Institute is not allowed to borrow or invest surplus funds as per the Management Statement and Financial Memorandum. Financial assets and liabilities are generated by operational activities and are not held to handle the risk profile facing the Institute in undertaking its operations.

Liquidity risk

The Institute's net revenue resource requirements are financed by the Grant in Aid agreed with the Department of Agriculture and Rural Development, as is its capital expenditure. It is not, therefore exposed to significant liquidity risks.

Interest rate risk

All the Institute's financial assets and liabilities carry nil rate of interest and it is not therefore exposed to significant interest rate risk.

Foreign currency risk

The majority of the Institute's operations, assets and liabilities are denominated in Sterling therefore its exposure to foreign currency risk is not significant.

Grants receivables

Grant in aid represents net funding received from DARD and is credited to general reserves.

Provisions

The Institute makes provisions for liabilities and charges where, at the Statement of Financial Position date, a legal or constructive liability exists (i.e. a present obligation for past events exists), where the transfer of economic benefits is probable and a reasonable estimate can be made. Where the time value of money is material, the Institute discounts the provision to its present value using a standard Government discount rate, which currently stands at 3.5%.

Estimated techniques used and changes in accounting estimates

Provision is made for non government debts greater than 90 days old which are considered doubtful.

The effect of a change on accounting estimate is recognised by including it in the Net Expenditure Account in:

- the period of the change, if the change affects that period only.
- the period of the change and future periods, if that change affects both.

Value added tax

Value Added Tax (VAT) is accounted for in accordance with the Statement of Standard Accounting Practice 5, in the absence of an International Financial Reporting Standard (IFRS). An amount shown net of VAT except where irrecoverable VAT is charged to the Net Expenditure Account.

Third party assets

The Institute does not hold any third party assets.

Capital charge

A charge, reflecting the cost of capital utilised by the Institute, is included in the Net Expenditure Account. The charge is calculated at the real rate by HM Treasury (currently 3.5 per cent) on the average carrying amount of all assets less liabilities, except for:

- a property, plant and equipment and intangible assets where the cost of capital charge is based on opening values, adjusted pro rata for in-year:
 - additions at cost
 - disposals as valued in the opening statement of financial position (plus any subsequent capital expenditure prior to disposal)
 - impairment at the amount of the reduction of the opening statement of financial position value (plus any subsequent capital expenditure)
 - depreciation of property, plant and equipment and amortisation of intangible assets;
- b donated assets, and cash balances with the Office of the Paymaster General, where the charge is nil.

Operating Segments

IFRS 8 Operating Segments requires the identification of operating segments on the basis of internal reports reviewed by the Institute's Chief Decision Maker in order to allocate resources to each specific segment and assess its performance.

The Institute has completed a review against the criteria set out in IFRS 8 and considers that the disclosure format within the accounts meets IFRS 8 criteria.

AFBI's annual accounts provide more detailed information on programme expenditure than that provided to the Institute Management Board.

Contingent Liabilities

In addition to contingent liabilities disclosed in accordance with IAS 37, the Institute discloses for parliamentary reporting and accountability purposes certain statutory and non-statutory contingent liabilities where the likelihood of a transfer of economic benefit is remote, but which have been reported to the Assembly in accordance with the requirements of Managing Public Money Northern Ireland.

Where the time value of money is material, contingent liabilities which are required to be disclosed under IAS 37 are stated at discounted amounts and the amount reported to the Assembly separately noted.

Contingent liabilities that are not required to be disclosed by IAS 37 are stated at the amounts reported to the Assembly.

Reserves

Donated Assets Reserve

The Donated Assets Reserve is maintained to represent the financing associated with the receipt of a donated asset and to provide a mechanism for neutralizing depreciation, impairment or profit/loss on disposal charged to the NEA in respect of donated assets.

Revaluation Reserve

The Revaluation Reserve reflects the unrealized balance of the cumulative indexation and revaluation adjustments to assets other than donated assets and those funded by grants.

General Reserve

The General Reserve represents the Institute's total assets less total liabilities which is not represented by other reserves and financing items.

Pensions

PCSPS (NI)

Present and past employees are covered by the Principal Civil Service Pension Scheme (Northern Ireland) (PCSPS (NI)), which is a defined benefit scheme and is unfunded and non-contributory. The Institute recognises the expected cost of providing pensions on a systematic and rational basis over the period during which it benefits from employees' services by payment to the PCSPS (NI) of amounts calculated on an accruals basis.

All pension contributions are charged to the Net Expenditure Account when incurred.

NILGOSC

The Northern Ireland Local Government Superannuation Committee Scheme (NILGOSC) is a defined benefit statutory scheme, administered in accordance with the Local Government Pension Scheme Regulations (Northern Ireland) 2002, as amended. It is contracted out of the State Second Pension. This is a fully funded defined benefit scheme that provides benefits on a final salary basis at a normal retirement age of 65.

From 1 April 2006 all the former ARINI staff transferred to the PCSPS(NI) scheme, therefore, there are no further contributions payable.

2. First-time adoption of IFRS

Reconciliation of UK GAAP reported taxpayers' equity to IFRS

at the date of transition 1 April 2008

	General fund	Revaluation Reserve	Donated Asset Reserve	Total
	£000	£000	£000	£000
Taxpayers' equity at 31 March 2008 under UK GAAP	4,364	960	217	5,541
Adjustments for:				
IAS 41 Biological Assets	148	-	-	148
IAS 19 Employee Benefits	(440)	-	-	(440)
Taxpayers' equity at 1 April 2008 under IFRS	4,072	960	217	5,249

Reconciliation of UK GAAP reported taxpayers' equity to IFRS

at the end of final UK GAAP reporting period 31 March 2009

	General fund	Revaluation Reserve	Donated Asset Reserve	Total
	£000	£000	£000	£000
Taxpayers' equity at 31 March 2009 under UK GAAP	6,408	1,159	172	7,739
Adjustments for:				
IAS 41 Biological Assets	11	-	-	11
IAS 19 Employee Benefits	(523)	-	-	(523)
Taxpayers' equity at 1 April 2009 under IFRS	5,896	1,159	172	7,227

2. First-time adoption of IFRS (continued)

Reconciliation of UK GAAP reported net expenditure to IFRS

for year ended 31 March 2009

£000

Net expenditure after cost of capital charge for
2008-09 under UK GAAP

40,426

Notional cost of capital

(226)

Net expenditure for 2008-09 under UK GAAP

40,200

Adjustments for:

IAS 41 Biological Assets

137

IAS 19 Employee Benefits

83

Taxpayers' equity at 1 April 2009 under IFRS

40,420

There were two adjustments required to implement the International Financial Reporting Standards. Livestock was revalued in accordance with IAS 41 Agriculture to ensure that livestock was valued at fair value less estimated costs at the point of sale. This resulted in a £137k debit to the Net Expenditure Account between 1 April 2008 and 31 March 2009.

The second adjustment relates to IAS 19 Employee Benefits. Under IAS 19 it is necessary to provide for accumulating benefits which have been earned by the year end but have not been taken such as annual leave. An exercise was undertaken to establish the average number of days leave outstanding per employee. This was then multiplied by the average salary per day to determine the estimated accrual at the year end. This resulted in a £83k debit to the Net Expenditure Account between 1 April 2008 and 31 March 2009.

3. Segmental Reporting

Segmental selection is based on the organisational structure AFBI uses to make decisions on resource allocation as well as the availability of financial information based on that structure. AFBI has four operational divisions supported by the Corporate Services Division (CSD) The operational divisions are:

Agricultural and Food Economics Division (AFED) carries out economic modelling exercises.

Applied Plant Science and Biometrics Division (APS&BD) provides statutory services including certification of monitoring for the Department of Agriculture and Rural Development (DARD), pasture, seeds and plant health, and provides specialist advice on weeds, crop plants, varieties and disease problems. APS&BD's research takes account of environmental needs and sustainable economic growth in Northern Ireland's countryside.

Agriculture, Food & Environmental Science Division (AFESD) provides scientific support for the growth, sustainability and competitiveness of Northern Ireland's farming, fishing and agri-food industries, and assists the industry to maintain high standards of environmental protection and animal welfare.

Veterinary Sciences Division (VSD) delivers world class veterinary science to the animal, food and fish based sectors of the agri-food industry.

Analysis of Net Expenditure by Segment 2009/10

2009/2010	AFED	AFESD	APS&BD	VSD	CSD	Subtotal	Unallocated	Total
Expenses	501	15,038	6,503	11,225	14,097	47,364	5,814	53,178
Cost of capital and other charges							980	980
Total Expenditure	501	15,038	6,503	11,225	14,097	47,364	6,794	54,158
Revenue	(36)	(4,567)	(954)	(4,675)	(543)	(10,775)	-	(10,775)
Net Expenditure	465	10,471	5,549	6,551	13,554	36,590	6,793	43,383
Assets	37	7,259	2,849	4,825	4,287	19,257	-	19,257
Liabilities	(19)	(1,158)	(441)	(640)	(10,473)	(12,731)	-	(12,731)

Analysis of Net Expenditure by Segment 2008/09

2008/2009	AFED	AFESD	APS&BD	VSD	CSD	Subtotal	Unallocated	Total
Expenses	184	13,481	6,174	10,792	10,443	41,074	12,714	53,788
Cost of capital and other charges							212	212
Total Expenditure	184	13,481	6,174	10,792	10,443	41,074	12,926	54,000
Revenue	(3)	(5,592)	(870)	(5,040)	(1,863)	(13,368)	-	(13,368)
Other finance revenue	-	-	-	-	1,435	1,435	(1,435)	-
Total Income	(3)	(5,592)	(870)	(5,040)	(428)	(11,933)	(1,435)	(13,368)
Net Expenditure	181	7,889	5,304	5,752	10,015	29,141	11,491	40,632
Assets	40	7,424	2,357	5,025	5,073	19,919	-	19,919
Liabilities	-	(554)	(59)	(270)	(11,809)	(12,692)	-	(12,692)

4. Staff numbers and related costs

Staff costs comprise:

	Permanently employed staff		Others		Total	
		Restated		Restated		Restated
	2010	2009	2010	2009	2010	2009
	£000	£000	£000	£000	£000	£000
Wages and salaries	22,155	20,176	596	1,233	22,751	21,409
Social security costs	1,600	1,436	-	-	1,600	1,436
Other pension costs	3,969	3,391	-	-	3,969	3,391
Adjustment to pension liabilities	(1,177)	-	-	-	(1,177)	-
Sub Total	26,547	25,003	596	1,233	27,143	26,236
Less recoveries in respect of outward secondments	(134)	-	-	-	(134)	-
Total net costs	26,413	25,003	596	1,233	27,009	26,236

Pension scheme details

PCSPS (NI)

The Principal Civil Service Pension Scheme (Northern Ireland) is an unfunded multi-employer defined benefit scheme, which produces its own resource accounts, but the Agri-Food and Biosciences Institute is unable to identify its share of the underlying assets and liabilities. The most up-to-date actuarial valuation was carried out as at 31 March 2003 and details are available in the PCSPS (NI) accounts.

For 2009/2010, employer's contributions of £3,969,449.12 (2008/09 £3,390,550.25) were payable to the PCSPS (NI) at one of four rates in the range 16.5 to 23.5 percent (2008/09: 16.5 to 23.5 percent) of pensionable pay based on salary bands. The contribution rates reflect benefits as they are incurred, and reflect past experience of the scheme.

Employees joining after 1 October 2002 could opt to open a partnership pension account or a stakeholder pension with an employer contribution.

Employer's contributions were paid to one or more of a panel of four appointed stakeholder pension providers. Employer contributions are age related and range from 3 to 12.5 per cent of pensionable pay. Employers also match employee contributions up to 3% of pensionable pay. In addition, employer contributions of 0.8% of pensionable pay were payable to PCSPS (NI) to cover the cost of future lump sum benefits on death in service and ill health retirement of these employees.

NILGOSC

The closure of the ARINI pension scheme raised a potential liability from a deficit in the former ARINI pensions fund and a cessation penalty imposed by the administrators of the scheme due to the loss of future contributions. A provision of £6.7m was included in the accounts for the year ended 31 March 2009 in respect of this potential liability. Further actuarial advice indicates that the amount payable as at March 2010 is £4.985m. This has been included in accruals as it was paid in March 2011.

Average number of persons employed

The average number of whole-time equivalent persons employed during the year was as follows.

	Total 2010	Total 2009
Permanent Staff	841	807
Other	29	64
Total	870	871

5. Other Expenditure

		2010		Restated 2009	
	Note	£000	£000	£000	£000
Running costs					
Travel and subsistence			324		302
Computer support			185		166
<i>Accommodation</i>					
Rates and water		1,060		1,022	
Electricity		830		1,361	
Oil		228		271	
Gas		779		936	
Repairs and maintenance		520	3,417	450	4,040
Postage, printing and stationary			191		168
<i>Communication and marketing</i>					
Telephone		289		245	
Marketing and advertisements		68	357	213	458
Consultancy costs			478		254
Contracted out services			1,220		1,634
Hospitality			3		10
Training, conferences and library expenses			846		850
Legal costs and compensation			911		69
Irrecoverable VAT			1,201		1,891
Other expenses			177		247
Audit fees			40		30
<i>Business Unit related expenditure</i>					
Livestock expenses		122		537	
Change in market value of livestock		(416)		(268)	
Animal feed and veterinary expenses		654		652	
Laboratory consumables		2,032		1,547	
Plants, shrubs, fertiliser		189		157	
Motor and tractor expenses		211		325	
Lab equipment maintenance & other exp		1,190		829	
Apparatus, glassware and minor equipment		656		1,018	
Protective clothing		99		75	
Clinical and other waste disposal costs		468		556	
Hire of plant and vehicles		103		158	
Ship operating costs		1,671		1,657	
Other expenses		285	7,264	347	7,590

5. Other Expenditure (continued)

	Note	2010		Restated 2009	
		£000	£000	£000	£000
Lease of land and buildings			6,655		6,720
Rent of land			68		59
Interest Charges			1		-
<i>Non-cash items</i>					
Depreciation	7	2,681		2,348	
Amortisation	8	100		102	
		<u>2,781</u>		<u>2,450</u>	
Release from donated assets reserve		(56)		(54)	
Debt provision and charges		(48)		(129)	
Bad debts write off		-		6	
Profit on disposal of assets		(14)		(43)	
Loss on disposal of plant and equipment		31		71	
Write-off of livestock		30		-	
Loss on theft of livestock		-		21	
Impairment of fixed assets	10	(26)		60	
Cost of capital charges		236		212	
Notional charges - Account NI		743		-	
Provision provided for in year	15	-	<u>3,677</u>	682	<u>3,276</u>
			<u>27,015</u>		<u>27,764</u>

6. Income

		Restated
	2010	2009
	£000	£000
Income from analytical, diagnostic work and research contracts	6,904	8,337
Sale of general produce and livestock	863	1,087
Royalties	2,857	2,375
Charter of the ship	-	125
Rents receivable	17	9
Recoveries in respect of outward secondments	134	-
Other income	-	1,435
Total	<u>10,775</u>	<u>13,368</u>

7. Plant and Equipment 2009/10

	Information Technology	Plant & Machinery*	Boats & Motor Vehicles	Total
	£000	£000	£000	£000
Cost or valuation				
At 1 April 2009	1,755	21,891	3,917	27,563
Additions	319	1,950	326	2,595
Disposals	(18)	(823)	(65)	(906)
Impairments	46	10	-	56
Revaluations	93	326	60	479
At 31 March 2010	2,195	23,354	4,238	29,787
	Information Technology	Plant & machinery	Boats & Motor Vehicles	Total
	£000	£000	£000	£000
Depreciation				
At 1 April 2009	(1,111)	(13,272)	(1,515)	(15,898)
Charge for the year	(364)	(1,931)	(386)	(2,681)
Disposals	17	783	65	865
Impairments	(27)	(5)	-	(32)
Revaluations	(27)	(149)	(24)	(200)
At 31 March 2010	(1,512)	(14,574)	(1,860)	(17,946)
Net book value				
At 31 March 2010	683	8,780	2,378	11,841
Asset financing:				
Owned	683	8,780	2,378	11,841
Finance Leased	-	-	-	-
On-balance sheet PFI contracts	-	-	-	-
Net book value 31 March 2010	683	8,780	2,378	11,841

*Plant & Machinery includes a donated asset of scientific equipment with a carrying value of £118,000 at 31 March 2010.

7. Plant and Equipment 2008/09 Restated

	Information Technology	Plant & Machinery*	Boats & Motor Vehicles	Payments on Account & Assets under construction	Total
	£000	£000	£000	£000	£000
Cost or valuation					
At 1 April 2008	1,638	20,785	3,403	584	26,410
Additions	170	899	389	-	1,458
Disposals	(20)	(726)	(27)	(490)	(1,263)
Impairments	(127)	-	-	-	(127)
Reclassifications	94	-	-	(94)	-
Revaluations	-	933	152	-	1,085
At 31 March 2009	<u>1,755</u>	<u>21,891</u>	<u>3,917</u>	<u>-</u>	<u>27,563</u>
	Information Technology	Plant & machinery	Boats & Motor Vehicles	Payments on Account & Assets under construction	Total
	£000	£000	£000	£000	£000
Depreciation					
At 1 April 2008	(992)	(11,569)	(1,098)	-	(13,659)
Charge for the year	(214)	(1,780)	(354)	-	(2,348)
Disposals	16	666	20	-	702
Impairments	79	-	-	-	79
Reclassifications	-	-	-	-	-
Revaluations	-	(589)	(83)	-	(672)
At 31 March 2009	<u>(1,111)</u>	<u>(13,272)</u>	<u>(1,515)</u>	<u>-</u>	<u>(15,898)</u>
Net book value					
At 31 March 2009	<u>644</u>	<u>8,619</u>	<u>2,402</u>	<u>-</u>	<u>11,665</u>
Asset financing:					
Owned	644	8,619	2,402	-	11,665
Finance Leased	-	-	-	-	-
On-balance sheet PFI contracts	-	-	-	-	-
Net book value 31 March 2009	<u>644</u>	<u>8,619</u>	<u>2,402</u>	<u>-</u>	<u>11,665</u>

*Plant & Machinery includes a donated asset of scientific equipment with a carrying value of £172,000 at 31 March 2009.

8. Intangible assets

Intangible assets comprise software licences.

	£000
Cost or valuation	
At 1 April 2009	414
Additions	67
Impairments	5
Revaluation	5
At 31 March 2010	<u>491</u>

	£000
Amortisation	
At 1 April 2009	(223)
Charge for the year	(100)
Impairments	(3)
Revaluations	(2)
At 31 March 2010	<u>(328)</u>

Net book value	
At 31 March 2010	<u>163</u>

	Restated £000
Cost or valuation	
At 1 April 2008	358
Additions	84
Impairments	-
Revaluation	(28)
At 31 March 2009	<u>414</u>

	£000
Amortisation	
At 1 April 2008	(137)
Charge for the year	(102)
Impairments	-
Revaluations	16
At 31 March 2009	<u>(223)</u>

Net book value	
At 31 March 2009	<u>191</u>

9. Biological Assets

		Restated
	2010	2009
	£000	£000
Valuation as at 1 April	949	975
Increases due to purchases and births	29	113
Decreases due to sales	(345)	(344)
Write down	(30)	(76)
Transfers	-	13
Profit/(loss) due to changes in price	416	268
Valuation as at 31 March	<u>1,019</u>	<u>949</u>

10. Impairments

Computer hardware, software licences and plant & machinery were revalued upwards during the year resulting in a £26,087.19 credit to the Net Expenditure Account. In 2008/09, computer hardware and software licences were impaired by £59,696.71.

Breakdown of impairments by category

		Restated
	2010	2009
	£000	£000
Computer hardware	(19)	48
Software licences	(2)	12
Plant & Machinery	(5)	-
	<u>(26)</u>	<u>60</u>

11. Inventories

	2010	Restated 2009
	£000	£000
Feedstuff and sundry stocks at Hillsborough and Stoney Road	148	168
Consumables at Newforge and Stoney Road	134	127
	<u>282</u>	<u>295</u>

12. Trade receivables and other current assets

	2010	Restated 2009
	£000	£000
Amounts falling due within one year		
Trade receivables	3,535	4,514
Other receivables	92	78
Prepayments and accrued Income	2,321	2,224
	<u>5,948</u>	<u>6,816</u>

	2010	Restated 2009
	£000	£000
Amounts owed by:		
Other Central Government bodies	2,132	2,726
Local Authorities	5	5
NHS Bodies	-	-
Public Corporations	3	-
Non Government	3,808	4,085
	<u>5,948</u>	<u>6,816</u>

13. Cash and cash equivalents

	2010 £000	Restated 2009 £000
Balance at 1 April	(679)	702
Net change in cash and cash equivalent balances	502	(1,381)
Balance at 31 March	<u>(177)</u>	<u>(679)</u>

The following balances at 31 March were held at:

Cash in hand	4	3
Cash at bank	(181)	(682)
Balance at 31 March	<u>(177)</u>	<u>(679)</u>

14. Trade payables and other current liabilities

	Restated	
	2010	2009
	£000	£000
Amounts falling due within one year		
Bank overdraft	181	682
VAT	17	262
Other taxation and social security	6	25
Trade payables	84	608
Other payables	11	-
Capital creditors	1,143	195
Accruals and deferred Income	9,179	3,338
	<u>10,621</u>	<u>5,110</u>
		Restated
	2010	2009
	£000	£000
Amounts owed to:		
Other Central Government bodies	734	2,391
Local Authorities	2	4
NHS Bodies	-	-
Public Corporations	-	-
Non Government	9,885	2,715
	<u>10,621</u>	<u>5,110</u>

15. Provisions for liabilities and charges

	NILGOSC	Legal	Early departure costs	Decommissioning costs	Equal Pay	Total
	£000	£000	£000	£000	£000	£000
Balance at 1 April 2009	6,664	787	131	-	-	7,582
Provided in the year	-	1,091	-	100	909	2,100
Provisions not required written back	(1,177)	(357)	(131)	-	-	(1,665)
Utilised in the year	(5,487)	(420)	-	-	-	(5,907)
Provisions at 31 March 2010	-	1,101	-	100	909	2,110

	NILGOSC	Legal	Early departure costs	Decommissioning costs	Equal Pay	TOTAL
	£000	£000	£000	£000	£000	£000
Balance at 1 April 2008	6,000	254	-	-	-	6,254
Provided in the year	664	533	149	-	-	1,346
Provisions not required written back	-	-	(18)	-	-	(18)
Utilised in the year	-	-	-	-	-	-
Provisions at 31 March 2009	6,664	787	131	-	-	7,582

Provisions have not been discounted as these relate to payments due to be paid in the near future. The provision balance as at 31 March 2008 was reclassified between current liabilities and non-current liabilities to take account of when the payment may fall due. The provision balance has been analysed between current liabilities and non-current liabilities in 2008/09 and 2009/10 to ensure consistency.

NILGOSC

The closure of the ARINI pension scheme raised a potential liability of £6.764 million at 31 March 2009 arising from a deficit in the former ARINI pensions fund and a cessation penalty imposed by the administrators of the scheme due to the loss of future contributions. Further actuarial advice indicates that the amount payable as at March 2010 is £4.985m. This has been included in accruals as it was paid in March 2011.

Legal

This relates to personal injury legal cases and an intellectual property claim. Legal claims are assessed by independent solicitors and a provision of 100% of the likely maximum claim value is made. This percentage is to be reviewed on an ongoing basis to ensure it continues to represent a reasonable estimate of the expenditure on such claims.

Early Departure

This relates to pension payments to a staff member who took early retirement. The provision was reversed in 2009/10 as the individual reached 60 years of age during the year and AFB I are no longer required to make the payments.

Decommissioning costs

This relates to a piece of equipment which holds radioactive material and as such falls under the High Activity Sealed Radioactive Sources (HASS) Regulations 2003. The material is used by AFB I in the course of its business. The provision is required to cover the cost of compliance with HASS Regulations when the equipment is disposed of.

Equal Pay

This relates to the NICS Equal Pay Settlement and revised pay scales for Administrative Assistants, Administrative Officers, Executive Officers II's and all analogous grades.

The provision was calculated by NISRA based on liability from 1 April 2006 when the Agri-Food and Biosciences Institute was created.

16. Capital Commitments

The Institute has no capital commitments at the year end.

17. Commitments under leases

Operating leases

Total future minimum lease payments under operating leases are given in the table below for each of the following periods:

	2010 £000	Restated 2009 £000
Obligations under operating leases comprise:		
Land and buildings		
Not later than one year	6,652	6,720
Later than one year and not later than five years	<u>26,608</u>	<u>26,880</u>
	<u>33,260</u>	<u>33,600</u>

AFBI is currently working with DARD on a review of AFBI's estates needs.

Photocopiers

Not later than one year	9	5
Later than one year and not later than five years	<u>9</u>	<u>4</u>
	<u>18</u>	<u>9</u>

18. Commitments under PFI contracts

The Institute had no PFI contracts during 2009/2010.

19. Other financial commitments

The Institute had no financial commitments at the year end.

20. Contingent liabilities disclosed under IAS 37

The Equal Pay provision included in Note 15 covers the period 1st April 2006 (when AFBI was created) to 31st January 2009. The liability in relation to the period from 1st February 2003 to 31st March 2006 is subject to the outcome of any decisions made by the Trade Union.

21. Related-party transactions

The Department of Agriculture and Rural Development is the sponsor Department of the Institute with which it had various material transactions during the year and is regarded as a related party.

In addition the Institute had some transactions with other government departments and other central government bodies. Most of these transactions have been with Northern Ireland departments and their executive agencies such as DFP (including CPD and Pensions Branch), DCAL, DOE, FSA (NI), HMRC and DEFRA.

Within the provisions (Note 15) there is an amount in respect of an ongoing legal claim for which the Chief Executive is a potential beneficiary.

Other than aforementioned legal claim, no Board member, key manager or other related party has undertaken any material transactions with the Institute during the year.

22. Third-party assets

The Institute does not hold any third party assets.

AFBI's Vision is as an internationally recognised and successful centre of excellence for scientific research and services in the biosciences

AFBI's mission is to maintain and enhance its reputation as a world-class scientific institute, delivering proven value to government and other customers.

AFBI provides research and development, analytical and diagnostic services, and scientific advice in agriculture, food, animal and plant health, marine and fresh water ecosystem management and the agri-environment.

Our customers include a range of local, national and international commercial companies, Northern Ireland and United Kingdom Departments, Agencies, and associated bodies and the European Union.

We pride ourselves on the quality and breadth of our scientific expertise and maintain appropriate quality assured accreditation standards. AFBI has various national and international reference laboratories.

AFBI maintains a cutting edge skills and technology base to fulfil its statutory obligations including provision of rapid, scientific response capabilities for DARD and other Departments during emergencies.

AFBI scientists have long standing experience and internationally recognised standards of providing evidence-based scientific advice to Government policy makers and commercial decision makers.

We are the partner / contractor of choice for many local, national and international bodies.

A major aim is to support industry by providing a "one-stop shop" for diverse specialist expertise and facilities.

AFBI's expertise includes:

Veterinary diagnostics; animal health and welfare; food science; crop and livestock systems; biometric traceability; plant breeding; biometrics and statistics; agricultural economics; renewable energy and non-food crop agronomy; oceanography; fish stock management, aquatic and land based ecosystem management of natural resources.

AFBI has facilities sited across Northern Ireland which include modern laboratories and secure animal accommodation and has a purpose built marine research vessel. The facilities have "state of the art" equipment required to resolve scientific problems and produce sophisticated and reliable results.

Technological capabilities include: molecular technologies; light and electron microscopy; mass spectrometry; pathogenesis studies; biosensor technology; seabed mapping and minimal processing technologies.

To find out what AFBI can do for your business, contact:

AFBI Innovations
AFBI Headquarters
18a Newforge Lane
Malone Upper
Belfast
BT9 5PX
Northern Ireland, UK
Tel: +44 (0) 2890 255 636
Fax: +44 (0) 2890 255 035
Email: info@afbini.gov.uk

