

Annual Report 2011
& Financial Statements



Introduction

The 2011 Annual Report is built around the goals outlined in the Teagasc Statement of Strategy.

Examples of key achievements and developments for the Research, Knowledge Transfer and Operations directorates are described in the context of these goals.

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Chairman's Report



2011 was an excellent year for farming and the agri industry. Strong prices for the main farm produce: milk, beef, and grain helped to increase average farm incomes to higher levels. Irish farming and the agriculture sector continues to develop as it moves towards a quota free scenario for the dairy industry. The agri-food sector is facing a more market driven business environment.

In 2011, Irish agri-food and drink exports increased from 2010 levels, reaching nearly €8.9 billion accounting for almost 10% of Ireland's exports and contributing 7.5% of total employment in the country.

Solid science based technical innovation is one of the key building blocks for the industry. The formal and informal links Teagasc has with universities and research institutions, both nationally and internationally are critical to sharing information and increasing the knowledge base in the country.

In the past year, a formal education and research partnership was signed between Teagasc and UCD and this coupled with the formal alliance between Teagasc and UCC helps to pool scarce research and educational resources in the country, to lever for the betterment of the agri-food sector.

Teagasc has worked closely with other organisations both in the public and private sector, in the agriculture and food industries. These linkages are vital to Teagasc delivering its programmes to its clients and other stakeholders.

During the year, the support of the Minister for Agriculture, Food and the Marine, Simon Coveney TD for the programmes being pursued by Teagasc, has been greatly appreciated. I also want to acknowledge the contribution of the Minister of State in the Department of Agriculture, Food and the Marine, Shane McEntee TD. Teagasc works closely with the Department of Agriculture at all levels, particularly with the Secretary General of the Department of Agriculture Tom Moran.

Teagasc has reorganised the delivery of its education and training courses to meet the increased demand for places coupled with a reducing staff compliment. The restructuring of our advisory services is positioning the organisation to service the needs of our clients in the future. Teagasc has closed 36 offices since the Teagasc Change Programme was agreed in 2009. The research directorate has exited leases of land at Ballydague in Cork and Eagles farm in Athenry in the last year. Movement of staff from the centre in Kinsealy in Dublin, which is closing, to the Ashtown campus in Dublin is progressing well. Overall, staff numbers in Teagasc has reduced from 1,574 in 2008, down to 1,189 at the end of 2011 while maintaining output and services.

Total Teagasc income for 2011 amounted to €173.276 million, excluding net deferred funding for pensions, up from €165.44 million in 2010. Current expenditure increased from €166.63 million excluding net deferred funding for pensions to €174.23 million and when combined with the reduction in capital reserves of €5,000 resulted in an overall reduction of €0.959 million in the Income and Expenditure Account Reserve in the year.

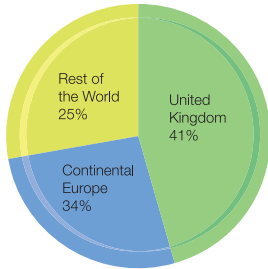
During the year, we welcomed Tommy Cooke to the Teagasc board, having been appointed by the Minister as ICMSA's representative. Tommy brings a wealth of experience in practical farming, along with his work in community and farming circles. I thank Joe Fitzgerald for his valuable contributions to Teagasc as a board member since his appointment in October 2001. His knowledge of the dairy sector and the educational and advisory requirements of milk producers and other farmers was invaluable.

The members of the Authority are hugely committed to Teagasc and I thank them for the contribution over the past year. I want to express my appreciation to the Director, Gerry Boyle for his management of the organisation. The enthusiasm of the management team and all the staff to their work is appreciated.

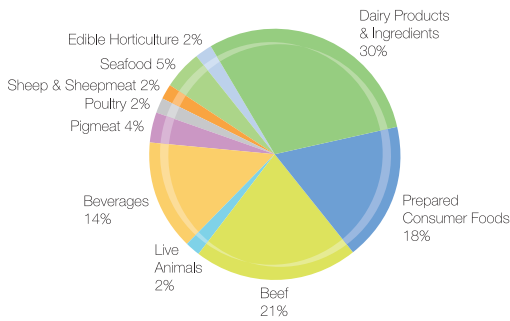
Dr. Noel Cawley
Chairman of the Teagasc Authority

Report of the Director

Irish Agriculture Food Exports
Destinations 2011
Value €8.85bn



Distribution of Agri Food & Drink Exports by Sector
Value €8.85bn



Farming and the agri-food industry made steady progress during 2011, generating important economic activity in rural areas and export earnings for the country.

Average family farm income reached unprecedented levels in 2011 averaging at €24,461, as measured by the Teagasc National Farm Survey. The average for the more commercial full-time farms, of which there are about 30,000, was €56,413 last year.

Our low cost, grass based animal production systems in Ireland have a comparative advantage in European agriculture, that positions our farmers and the food industry to strive to achieve the growth opportunities and targets outlined in the Food Harvest 2020 plan for the sector.

Teagasc, through its integrated research, advisory and education activities, is providing the scientific technology platforms to maintain and improve Ireland's competitive position in dairy, beef, sheep, pigs and crop production.

A total of 1,322 students enrolled in full-time Teagasc courses in 2011/2012. This is an increase of 180 students at agricultural and horticultural colleges and 102 students at Teagasc Regional Education Centres over 2010 levels.

Growth in Discussion Groups

There is an increased emphasis in our advisory service to deliver more technology to farmers through discussion groups. The Business and Technology programme has been refocused around discussion groups. The Dairy Efficiency Programme (DEP) has brought more farmers together in discussion groups facilitated by Teagasc advisers which has benefitted their farm businesses. Dairy Farmer Discussion Groups have increased participation from 2,500 to 5,500 since 2009.

Teagasc worked closely with the Department of Agriculture, Food and the Marine to design the Beef Technology Adoption Programme (BTAP) for drystock farmers. This has been successfully rolled out in 2012 with over 5,000 farmers in Teagasc facilitated beef discussion groups. In total across the dairy, drystock and tillage enterprises there were 506 discussion groups working in 2011, and this has increased considerably in 2012 with the introduction of BTAP.

Through ongoing consultation with industry through the Teagasc enterprise stakeholder groups the research and advisory programmes maintain their relevance to commercial farming. New dairy joint programmes with industry partners were renewed and launched in 2011, with agreements reached with Dairygold, Glanbia and Kerry during the year. A new Greenfield dairy farm was set up by Carbery and the West Cork co-ops, with Teagasc providing advisory services to the operation. On the beef side Teagasc is working closely with the three main beef processors.

A new Teagasc sheep research and knowledge transfer strategy was launched. This included the setting up of a sheep research demonstration farm located at the Teagasc Mellows Campus in Athenry.

Sustainable Farming

Food production systems must be sustainable into the future. Teagasc environmental research and advisory programmes focus on soils, water and mitigating strategies to reduce greenhouse gasses and the carbon footprint of agricultural production. A second phase of the agricultural catchments programme was agreed and launched at an international scientific conference in the Mansion House, Dublin.

The Agricultural Catchments Programme is a joint initiative with DAFM and the Department of the Environment looking at the impact of agricultural practices on water quality.

The Teagasc Working Group on Greenhouse Gas Emissions prepared a briefing note on Carbon audits for Irish agriculture. A separate briefing note on Greenhouse Gas Emissions by Irish Agriculture: Consequences arising from the Food Harvest Targets was also prepared and published.

Innovation in Food Research

Teagasc food researchers in Ashtown and Moorepark have meaningful interactions with up to 300 food companies on an annual basis, assisting them to find innovative market based solutions.

The new joint initiative between the Teagasc food programme and the Irish Dairy Board was launched by Minister Coveney in 2011. Our research in the area of probiotics with our partners in UCC is world leading, while our expertise in infant formula ingredients is assisting some of the global leading infant formula companies

Teagasc researchers successfully competed for research funding from the EU Framework seven programme to the tune of €3.6 million in 2011.

During 2011, a voluntary early retirement scheme and a voluntary redundancy scheme were implemented. In addition some 6 administrative staff have transferred out of Teagasc through external redeployment to other parts of the Public Service.

A particularly useful and successful initiative this year was the "All Staff Conference". Feedback from participants suggests that staff found the event improved internal communication and understanding of Teagasc Goals. The Conference also provided the opportunity for staff to discuss strategic challenges directly with Teagasc management.

I would like to thank my colleagues in Teagasc, and former colleagues who have retired or left the organisation during the year, for their work, commitment and dedication to Teagasc.

Professor Gerry Boyle
Director

Teagasc Authority



1. Mr. Frank O'Mahony – Macra na Feirme Nominee, 2. Mr. Joe Fitzgerald – ICMSA Nominee.
3. Ms. Margaret Sweeney – Minister's Appointee, 4. Mr. Tom Collins – Minister's Appointee.
5. Mr. Pdraig Gibbons – ICOS Nominee, (Joined Jan 2010), 6. Dr. Noel Cawley – Chairman - Teagasc.
7. Prof. Patrick Fottrell – Minister's Appointee, 8. Ms. Marie Christie– Staff Representative.
9. Mr. Eddie Downey- IFA Nominee, 10. Mr. James J Brett – Minister's Appointee,
11. Mr. Martin Heraghty - Minister's Appointee.

Attendance at Authority Meetings *

Name	12 Jan	02 Feb	02 Mar	06 Apr	04 May	1 Jun	06 Jul	07 Sep	05 Oct	02 Nov	07 Dec
Cawley, Dr. Noel (Chairman)	●	●	●	●	●	●	●	●	●	●	●
Brett, Mr. James	●	●	●	●	●	●	●	●	●	●	●
Christie, Ms. Marie	●	●	●	●	●	●	●	●	●	●	●
Collins, Mr. Tom	●	●	●	●	●	●	●	●	●	●	●
Cooke, Mr. Tommy									●	●	●
Downey, Mr. Eddie	●	●	●	●	●	●	●	●		●	●
Fitzgerald, Mr. Joe	●	●	●	●	●	●	●	●			
Fottrell, Professor Patrick		●	●	●	●	●	●			●	●
Gibbons, Mr. Pdraig	●	●	●	●	●	●	●	●	●	●	●
Heraghty, Mr. Martin	●	●	●	●	●	●	●	●	●	●	●
O'Mahony, Mr. Frank	●	●	●	●	●	●	●	●	●	●	●
Sweeney, Ms. Margaret	●	●		●	●	●	●	●		●	

Tommy Cooke replaced Joe Fitzgerald effective from the October Authority meeting.

Note: This schedule of attendances at meetings is provided in accordance with paragraph 3.8 of the Code of Practice for the Governance of State Bodies dated June 2009.

Audit Committee

	12 Apr	06 Jul	17 Oct	07Dec
Brett, Mr. James (Chair)	●	●	●	●
Gibbons, Mr. Pdraig	●	●	●	●
Heraghty, Mr. Martin	●	●	●	●
Sweeney, Ms. Margaret	●	●	●	

Research Committee

	02 Mar	8 Jun	21 Nov
Fottrell, Professor Patrick (Chair)	●	●	●
O'Mahony, Mr. Frank	●	●	●
Downey, Mr. Eddie	●	●	●
Christie, Ms. Marie	●	●	●
Collins, Mr. Tom			●

Advisory & Education Committee

	26 Apr	21 Nov
O'Mahony, Mr. Frank (Chair)	●	●
Fitzgerald, Mr. Joe	●	●
Downey, Mr. Eddie	●	●
Gibbons, Mr. Pdraig	●	●
Christie, Ms. Marie	●	●

Finance Committee

	01 Jun
Heraghty, Mr. Martin (Chair)	●
Cawley, Dr. Noel	●
Fitzgerald, Mr. Joe	●
Brett, Mr. James	●



Mr. Tommy Cooke

Mr Tommy Cooke was appointed to the Teagasc Authority by the Minister for Agriculture, Food and the Marine, Simon Coveney TD and attended his first meeting of the Authority on Wednesday, 5 October.

Tommy Cooke is a dairy and beef farmer from Renaghmore, Grange, Barna, Thurles, County Tipperary. He is a member of the national council of ICMSA and is a former chairman of the ICMSA's dairy and rural development committees.

He is chairman and founding member of the Irish Wind Farmers Cooperative Society Ltd. known as Meitheal na Gaoithe and is also chairman of Barrow Nore Suir Rural Development Ltd. He is also active in community organisations and in the renewable energy sector. He replaced Joe Fitzgerald on the Authority.

Senior Management Team



Professor Gerry Boyle
Director



Dr. Frank O Mara
Director of Research

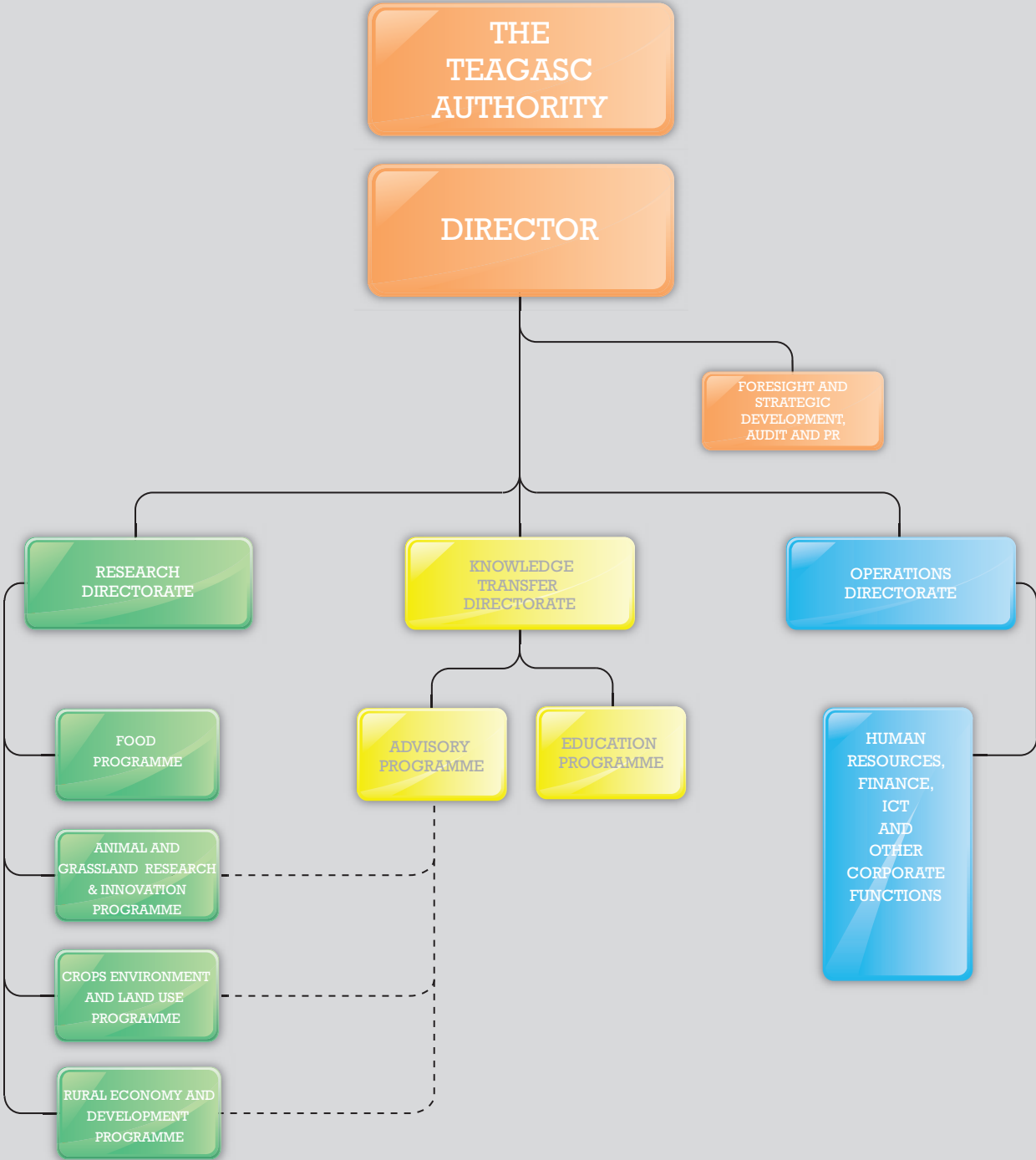


Mr. Tom Doherty
Chief Operating Officer



Dr. Tom Kelly
Director of Knowledge Transfer

Organisational Chart *January 2012*



Goal 1

Improve the competitiveness of agriculture,
food and the wider bio-economy



Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy

Road Maps for Farming and Food Sector

The Food Harvest 2020 report sets out ambitious targets for the agriculture and food industry. Teagasc has outlined the developments required for each of the major farming enterprises and the food sector over the next seven years to 2018.

Nine Teagasc Road Maps covering dairy, suckler beef, pigs, sheep, tillage, forestry, horticulture, food and the environment, summarize the expected changes in the shape and size of the individual sectors in the context of the main market and policy issues facing Irish producers in each enterprise.

The Road Maps specifically set out the technical performance required at farm level to meet these targets. They take account of environmental and land-use implications of these changes and Food Harvest 2020. The Teagasc Road Maps explore the research and advisory actions required to support the Irish agri-food sector to achieve its potential.

Successful Single Farm Payment Scheme

Teagasc completed 31,703 online applications for the Single Payment Scheme on behalf of farmer clients in 2011. This is almost 80% of the 40,000 SPS applications made through Teagasc offices.

Online applications processed by Teagasc were up by 30% from the 24,000 completed in 2010 and they represent a high proportion of the 54,000 online applications received by the Department of Agriculture, Food and the Marine (DAFM).



Professor Gerry Boyle, Dr. Tom Kelly and Dr. Noel Culleton at the launch of the "Teagasc Road Maps".

Joint Advisory Programmes with Dairy Companies

Joint programmes with a number of dairy companies were renewed during 2011. And a new joint programme between Teagasc and Dairygold designed to improve the efficiency and profitability of Dairygold milk suppliers' farm enterprises was launched.

The three-year programme will run from 2011 to 2013. It established nine new Dairygold Demonstration Farms which will act as showcase units for the latest grassland, dairy husbandry and herd health practices from the Teagasc Animal and Grassland, Research and Innovation Centre, Moorepark.

The Demonstration Farms provide an essential link between the development of new technology at research level and the adoption of these practices on farms.

This is the fourth in a series of joint Dairygold/Teagasc programmes, which have seen over 1,100 Dairygold milk suppliers participate in the Co-op's 67 Discussion Groups.

The Teagasc/Glanbia Joint Dairy Programme agreed in 2011 will run for three years. The overall purpose of the Joint Programme is to position dairy farmers in the Glanbia area to take advantage of growth opportunities that will arise post 2015.

The Joint Programme has five objectives:

- Improve knowledge transfer and practice adoption.
- Increase grass utilization.
- Increase milk solid production per cow and per hectare.
- Improve herd fertility and calving pattern.
- Improved financial planner and cost control.

Teagasc Dairy Manual

As farmers begin to plan and prepare for the world 'post quotas' Teagasc produced a comprehensive manual for existing and potential dairy farmers - the 'Teagasc Dairy Manual' (TDM).

The manual, which was launched by Mr Simon Coveney T.D. Minister for Agriculture, Food and the Marine, will be a practical resource for any farmer who plans a future in dairying. "The Teagasc Dairy Manual assembles, in a single publication, concise and practical advice on strategic, business and operational issues facing existing and potential dairy farmers," said Professor Gerry Boyle, Teagasc Director.

Farmers planning to profitably grow their businesses once quotas are abolished need to plan carefully and business planning and project management are also addressed in the manual.



Professor Gerry Boyle, Simon Coveney T.D., Minister for Agriculture, Food and the Marine and Editor Mark Moore of Teagasc, at the launch.



Ease of 'navigation' was one of the key requests from leading dairy farmers consulted about what the TDM should contain and how it should be laid out. Checklists, key risks and 'How to' sections increase the ease-of-use for the reader.

The manual brings together input from front line Teagasc dairy advisers, Teagasc dairy specialists, Teagasc college dairy lecturers and also Teagasc research scientists, vets and economists. The TDM also includes material from the Department of Agriculture, Food, and the Marine and Animal Health Ireland.

Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy

Discussion Group Programmes

During 2011 Teagasc worked with the Department of Agriculture, Food and the Marine to develop a new initiative to encourage cattle farmers adopt new technologies to improve their beef businesses.

The Beef Technology Adoption Programme (BTAP) is based on a discussion group model, incentivising farmers to participate in groups to increase the output and profitability of their beef enterprises.

Up to 100 Teagasc advisers are facilitating farmer discussion groups right around the country with up to 5,000 farmers participating.

Horticultural MOU

In 2011 Teagasc signed a Memorandum of Understanding (MoU) with the Horticultural Development Company (HDC) in the UK, to increase the levels of co-operation and collaboration between the two organisations for the benefit of the horticulture sectors in Ireland and the UK.

The HDC is a division of the Agricultural and Horticultural Development Board in the UK and is based in Stoneleigh Park in England. The HDC sponsor near-market research and development and make a major contribution to the profitability of the British horticultural industry.

HDC has responsibility for over 300 crops in the horticultural industry supporting research in seven areas of horticulture: Bulbs and Outdoor Flowers; Field Vegetables; Hardy Nursery Stock; Mushrooms; Protected Crops; Soft Fruits and Tree Fruit. Growers and farmers play a vital role in setting research strategies in each of the seven crop sectors and in the decision making process for individual research projects.

Guide to Vegetable Growing

The popular Teagasc publication, A Guide to Vegetable Growing was updated and expanded to include new topics like plant raising and watering of vegetable crops. This book is full of tips and advice on how to grow the A-Z of vegetables.

The ever present problems of pests and diseases are addressed along with suggested solutions. The emphasis is on cultural and physical controls rather than relying on pesticides. There are also handy ready-reference tables laying out the seasons of production, plant spacing, sowing, planting and harvesting dates for all the crops mentioned in the main text. A copy of the guide can be downloaded from the Teagasc web site.





Dr. Noel Cawley addressing the Annual Teagasc Equine Conference 2011.

Equine Conference

The Teagasc 2011 National Equine Conference, “Building on the strengths of the Irish horse”, focussed on state-of-the-art breeding and marketing: Teagasc equine specialist Declan McArdle said: “When designing a web page to market horses, we must now look at designing a page for the Smartphone user also”.

Teagasc equine specialist, Wendy Conlon, presented the results of a statistical overview of the performances of the Irish Sport Horse in show jumping. The study found that 75% of the 1m50 grand prix horses studied progressed to international placings, while only 20% of those successful in young horse leagues born in 2002/2003 went on to provide placings at grand prix and international level.

While isolating mares born since 1990 that have produced multiple successful horses, 75% had a dam line which produced at least one horse with double clears at 1m30 level, or the mare had performed herself. This underlines the relevance of a performance dam line when breeding show jumpers.



Pig Development Department

The Pig Development Department Programme underpins the Irish pig sector through research, advice and training.

Advice & Training

The “Two from Seven” programme (producing two tonnes of pig meat from seven tonnes of feed) was launched. PigSys Recording, farm visits and business plan preparation are the key areas for this programme. The Annual Pig Farmers’ Conferences saw it’s biggest ever attendance (more than 300 over two days). Two new FETAC level 6 Pig Courses were started at Moorepark & Ballyhaise. Regional workshops were organised on a range of subjects.

Research

Ongoing research covers pig nutrition and management, safety evaluation of GM feed ingredients, prevalence and risk factors associated with lameness in sows, carcass condemnations, novel transport systems for pigs, assessment and management of risks posed by salmonella. Results on Alternative Uses for Pig Manure were presented at a Moorepark Research Dissemination in June.

Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy

Small scale forestry

While most of the felling and extracting in Irish forestry is carried out by harvesters and forwarders, a minimum volume of timber is required to justify the transport and use of such large and expensive machinery.

A Teagasc demonstration presented a range of other options for owners of small forests to manage and thin their crops. A variety of timber harvesting, extraction and processing contractors shared their expertise with those attending.

Almost 400 people attended a National Demonstration of Small Scale Harvesting, Extraction and Timber Processing which took place in Knocknagoshel, Co. Kerry. This annual event, organised by Teagasc, in conjunction with the Forest Service, highlighted the benefits of forest thinning on crop quality and value. The demonstration focused on practical, workable solutions to help optimise the returns for owners of small conifer and broadleaf forests.



Her Excellency Catherine Muigai Mwangi, Ambassador of Kenya, visited Oak Park in summer 2011. The Kenyan economy has a large agriculture and food sector and the ambassador discussed agricultural production and food security with Teagasc management. Potential for co-operation between Teagasc and a Kenyan research institute was also discussed.

Extra Students attend Teagasc Agricultural Courses

One thousand and eleven students enrolled in further level courses in agriculture and horticulture in Teagasc colleges in 2011, with 283 students also studying higher level Teagasc courses linked to Institutes of Technology and Universities. This brought the total number of students studying on Teagasc run courses to 3,300.

Around 250 extra places were made available in agriculture and horticulture colleges in 2011 through a range of measures introduced to meet the growing demand. Six new teachers were recruited on contract, six advisory staff were redeployed into the colleges to teach certain modules, and teacher /student ratios increased.

Broadleaf forestry open day.

A mechanism to contract out the teaching of certain modules/skills was put in place. Additional courses were provided through the advisory service.

Joint Education Courses

At the 2011 Teagasc Education Conference in Dublin Castle. Professor Gerry Boyle announced details of three new joint education initiatives: a B.Agr.Sc. (Honours) in Dairy Business at UCD; a new B.Sc. in Horticulture (Honours) in DCU; and a new B.Sc. in Sustainable Agriculture (Honours) at Dundalk Institute of Technology.

The B.Agr.Sc. (Honours) in Dairy Business at UCD is an exciting new development and timely given the planned expansion in milk production set out in the Food Harvest 2020 report. The programme is designed to provide students entering the dairy industry with a high level of scientific, technical and business skills.

Years 1, 2 and 4 are being delivered at UCD while in Year 3 students will undertake 'Technical Management of a Dairy Farm' at Teagasc Kildalton prior to commencing professional Work Experience Placement.

Students will be exposed to the latest research developments by taking modules in Grassland Management and Applied Dairy Cow Nutrition, Applied Animal Breeding and Reproduction, Dairy Systems and Herd Health at Teagasc's Animal Production and Grassland Centre, Moorepark.

A new B.Sc. in Horticulture (Honours) has been developed by DCU in conjunction with Teagasc. This programme has been designed to incorporate the theoretical and practical aspects of horticulture to provide participants with the knowledge and expertise needed for a career at the highest professional level.

The programme will combine the best of science at DCU with the best of horticulture at the Teagasc Horticultural College at the National Botanic Gardens. The two campuses are almost adjacent and provide world-class campus facilities with gardens of international renown. The first students were taken on in autumn 2011.

A new B.Sc. in Sustainable Agriculture (Honours) at Dundalk Institute of Technology is being offered in conjunction with Teagasc, Ballyhaise, Co. Cavan. This course will focus on economically and environmentally sustainable agricultural technologies and systems. The course is aimed at commercial farmers and farm managers, as well as professionals servicing the agri-food sector.

Teagasc Student of the Year

Richard Dollard from County Kilkenny was the 2011 Teagasc Student of the Year. The awards, sponsored by FBD Trust, were presented by the Minister for Agriculture, Food and the Marine, Simon Coveney, TD at an awards ceremony in Dublin.

Richard Dollard, Smithstown, Tullagher, Mullinvatt, Co Kilkenny completed the Advanced Certificate in Dairy Herd Management at the Teagasc Kildalton Agricultural and Horticultural College, Piltown, County Kilkenny.

Mr. Dollard farms 80 hectares with his father and they have plans to expand their dairy herd from 120 to 250 cows. He is a member of the Tullagher dairy discussion group and places a big emphasis on growing and utilising more grass in the cows' diet.

Dr. Tom Kelly, Richard Dollard FBD Student of the Year, Hugh Ryan FBD Trust and Frank Murphy, Principal of Kildalton College.



Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy



New Dairy Innovation Centre

The Irish Dairy Board (IDB) and Teagasc have jointly created a new Dairy Innovation Centre based in Moorepark. The objective is to develop market led product concepts which can be manufactured by IDB members and marketed internationally by the IDB.

The initiative is a response to the IDB's medium terms plans to maximise the expansion opportunities which will be created for the Irish dairy sector when the European Union abolishes milk quotas in 2015 and the Government's Food Harvest 2020 Report.

This partnership is a vital part of the IDB's strategy to increase the added value element of Irish dairy exports and Teagasc's strategy to support innovative research by commercial Irish food companies.



Genomic Selection

Research carried out by Teagasc in collaboration with industry has resulted in a reduction in the cost of genomic testing of approximately one third. This will encourage Irish dairy farmers to genomically test their breeding animals, facilitating more informed breeding decisions and, potentially, increased genetic merit of herds.

In 2009 genomic selection was launched in Ireland following research carried out by Teagasc led by Dr. Donagh Berry in collaboration with the Irish Cattle Breeding Federation (ICBF). This made Ireland the second country in the world, after the USA, to implement this technology in a national dairy cattle breeding programme. Genomic selection has resulted in a significant acceleration in genetic gain within the Irish dairy cow population.

But up to now the cost of the technology was prohibitively expensive for individual dairy

farmers. Now, Dr. Berry and his colleagues, in collaboration with the ICBF, have successfully developed a new method to use a lower cost technology with minimal compromise in accuracy.

The approach is based on the knowledge that "chunks" of DNA are inherited from an animal's pedigree and if we know a few of the pieces of DNA in these chunks the remaining DNA in the chunk can be estimated.

The accuracy of this estimation is, on average, 98% when the full DNA profile of at least the sire is also known, which is the recommendation laid down for the use of the technology.

The results of this research are now available to farmers through a new service launched by ICBF. Farmers can obtain genomic proofs of their animals which can result in better selection decisions and ultimately more profitability through greater genetic gain. The technology can also be easily applied to beef cattle once genomic selection becomes available.

Since September 2010, the IDB and Teagasc have undertaken a market led, collaborative development programme on cheese. Four new cheese product concepts are currently being developed. The collaboration was formalised with the establishment of the IDB Dairy Innovation Centre, at the Teagasc Food Centre, Moorepark.

The collaboration brings together -

- *The intellectual knowledge and technical product development expertise of the Teagasc Food Research Centre*
- *The pilot scale, test equipment and production capacity of Moorepark Technology Limited*
- *The IDB's 50 years of international marketing and consumer expertise as well as the IDB's brands and route to market infrastructure.*

Product concepts will be scaled up for commercialisation with IDB members and will be marketed internationally by the IDB.



New Sheep Research Demonstration Farm.

Sheep Programme

A new Sheep Research and Knowledge Transfer programme launched in 2011 will support the 30,000 Irish sheep farmers, who keep a national breeding flock of 2.5 million ewes. The programme will assist farmers to increase efficiency at farm level, increase production nationally, and increase the level of Irish exports of sheep meat. The Food Harvest 2020 report has set a target of increasing the output of the sheep sector by 20%.

As part of the Programme a new Sheep Research Demonstration Farm of 350 breeding ewes was set up on the Teagasc campus in Athenry. On this farm the focus is on prolific sheep, with the aim of increasing the national weaning rate from the current national average of 1.3 lambs per ewe. Two groups of sheep with different levels of prolificacy, will be evaluated at three different stocking rates to determine the optimum level.

The Sheep BETTER farm programme, which consists of commercial sheep farms used for research and knowledge transfer, is being expanded to 10 farms, spread geographically around the country. The data gathered from these commercial farms will be used to improve efficiency on other commercial farms around the country.



Professor Paul Ross, Head of Food Programme, Simon Coveney T.D., Minister of Agriculture, Food and the Marine and Kevin Lane, CEO Irish Dairy Board.

Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy



Dr. Denis Minogue, speaking to farmers attending the Teagasc Suckler Beef Open Day at Grange, Co. Meath

Derrypatrick Herd

An update on the performance of the Derrypatrick suckler beef herd at Teagasc, Grange, County Meath, was provided for farmers at farm walks in June and September 2011.

Cow and calf performance was outlined - a pregnancy rate of 90% following a 12-week breeding season and an average daily gain to date for calves of 1.2 kg/day. The performance of finishing bulls showed that 16% graded E, 80% graded U, 4% graded R and the average carcass weight was 400 kg at 18 months of age.

Teagasc advisers: Activities Summary for 2009, 2010, 2011.

	2009	2010	2011
No. of advisers	355	278	263
No. of clients	46,554	45,447	43,286
No. of clients/adviser	131	164	165
Total no. of visits and consults to clients	100,930	97,389	99,734
No. of visits and consults per adviser	284	341	379
No. of discussion groups	405	501	506
Total income €	€15.1m	€12.0m	€10.4m
Income per adviser €	€42,740	€43,298	€39,569

Potato Genome Sequence

The Potato Genome Sequencing Consortium (PGSC), an international team of scientists - including Teagasc representing Ireland - whose goal was to develop a high quality draft sequence of the potato genome published its findings in the prestigious international journal, Nature in 2011.

The PGSC was initiated in January 2006 by the Plant Breeding Department of Wageningen UR (University & Research Centre) in the Netherlands and, during the course of the project, developed into a global consortium of 29 research groups from 14 countries.

The Teagasc group, led by geneticist Dr. Dan Milbourne of the Crops, Environment and Land Use Research programme, based at Oak Park in Carlow, was amongst the earliest members of the consortium.

In addition to its continued importance to the Irish diet, potato is the world's third most important food crop. The potato genome sequence, the "genetic blueprint" of how a potato plant grows and reproduces, will assist potato scientists and breeders improve yield, quality, nutritional value and disease resistance of potato varieties, a process that has been slow in this genetically complex crop.

The potato genome sequence will permit potato breeders to reduce the 10-12 years currently needed to breed new varieties.

Infant Formula

Teagasc, Food Research Centre, Moorepark has generated a research programme that has a central role in supporting the technological development of the infant milk formula sector in Ireland.

The global market for infant milk formula is estimated to be worth in the region of \$5-6 billion and Irish based companies produce approximately 15% of the infant milk formula tonnage traded internationally.

The Chinese infant formula market, currently in the region of 332,000 tonnes, is growing at about 10% per annum and is expected to rise to 588,000 tonnes. Imports are also expected to increase for dairy ingredients from 15% for whey powder to an 84% increase for whole milk powder.

Ireland is very well positioned to supply this market; it produces a broad product portfolio, has a highly developed specialised ingredient capability, and three of the key multinational players are located in the Republic of Ireland.

Drs. Istvan Nagy, Dan Milbourne and Marialaura Destefanis (Crops Environment and Land Use Programme) contributed to the international initiative to sequence the potato genome, the results of which were published in the prestigious journal "Nature" in July 2011.



Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy

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CLIENT-PROFILE



JJ O'Neill, Beef Farmer, Clashmore in Co. Waterford

JJ O'Neill farms near Clashmore in Co. Waterford and is a member of his local Suckler Discussion Group run by Teagasc adviser Mark Slattery. JJ has a 50 cow spring calving suckler herd. The bull calves are sold as steers at 14 to 15 months of age in May, at 450 kg having been fed very little meal. Most of the heifers are put in calf to be sold at the point of calving at 22 months of age. The heifers that do not go in calf are finished at 20 months.

The average calving interval on the O'Neill farm for the last three years was 354 days and the average number of calves per cow per year was exactly 1.0 for the same period. Calving starts in early February and ends in April. In 2010 of the 50 cows calved, 43 calved in February and March. "A key aim is to match calving date to grass growth," says Mark Slattery. "That way farmers can make best use of grazed grass which is the best value foodstuff available."

"Another advantage of compact calving is that I have a very uniform bunch of calves all the way through to sale," says JJ. "I can concentrate a lot more on the calving by having most of it done in two months. At the moment I have four individual calving pens and one group pen for putting them in for a short while after calving. With so many calving together we would like to have more individual pens."

JJ aims to get stock turned out to grass as early as possible. With compact calving in February and March he can turn out cows and calves as soon as he has grass and the weather allows which is usually in late February/early March.



Sean Cummins, Winner of the Teagasc Walsh Fellowship 2011 with Dr. Jim Flanagan, Chairman, RDS Committee of Agriculture and Dr. Frank O'Mara, Director of Research, Teagasc.

Walsh Fellow of the Year

The 2011 Teagasc Walsh Fellowships award went to Sean Cummins, who presented a paper on 'The effect of genetic merit for fertility on reproductive efficiency'. The study emphasises the importance of genetic selection for fertility as a vital strategy to alleviate reproductive wastage, and achieve the desired expansion of the national herd highlighted in the Food Harvest 2020 report.

Sean Cummins is a Teagasc Walsh Fellow at the Teagasc Animal and Grassland, Research and Innovation centre, Moorepark, supervised by DRs. Pat Lonergan and Alex Evans from UCD and Dr. Stephen Butler, Teagasc.

A President's medal from The Institute of Food Science and Technology Ireland (IFSTI) was presented to the best food science and technology presentation. This was won by Eoin Murphy, for his presentation entitled: 'Re-engineering infant formula manufacture'. The energy savings resulting from the process could help maintain the economical and environmental sustainability of the infant formula industry in Ireland into the future.

Eoin Murphy is a Teagasc Walsh Fellow at the Teagasc Food Research centre, Moorepark. His supervisors are Yrjo H. Roos from UCC and John Tobin and Mark Fenelon from Teagasc. The medal was presented by IFSTI council member Charles Lamb.

Research programmes/Knowledge Transfer Activities

2011	AGRIP	CELUP	REDP
Technical Articles / booklets	91	68	57
Conference Papers	27	11	12
Popular Articles / Radio / TV	136	149	53
Conferences organised	9	3	3
Seminars / training courses	80	87	79
Workshops / symposia	86	12	3
Open Days / Demonstrations	124	39	59
Discussion Groups Visited	596	84	51
In service Training Days	150	56	31
Newsletters	48	36	5



Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy



At the launch of *The Study of the Competitiveness of the Irish Dairy Sector at Farm Level* were Dr. Fiona Thorne, Dr. Trevor Donnellan, Minister for Agriculture, Food and the Marine, Simon Coveney T.D., and Dr. Michael Keane, UCC.



Pictured in Cork at the 8th Cheese Symposium organised by Teagasc & UCC in collaboration with the French National Institute for Agricultural Research (INRA) are Tim Coolbear, Fonterra Research Centre, New Zealand, Dr. Tom Beresford, Teagasc, Bob Savage DSM Food-Specialties Denmark & Jean Rene Kerjean, Actilait, France.



Teagasc Director Professor Gerry Boyle, with Minister for Agriculture, Food and the Marine, Simon Coveney T.D., and Dr. Beat Bolier, Chairperson of the Fodder Crops and Amenity Grasses section EUCARPIA, plus Molecular geneticist Dr. Susanne Barth (chairperson of the organising committee) who were at the 29th EUCARPIA Fodder Crops and Amenity Grasses Section meeting which took place in Dublin Castle Conference Centre.

Goal 1- Improve the competitiveness of agriculture, food and the wider bio-economy



STAFF-PROFILE



Oliver Tierney
Acting Assistant Principal
Ballyhaise College

Oliver lectures in dairying and also farm business management and says there has been a pick up in the number of students wishing to study agriculture in recent years because it is seen as an industry with potential for growth and employment.

“There is a positive mood around agriculture, particularly dairying, with Food Harvest 2020 setting ambitious targets. Students feel that if there are more cows and bigger herds that there will be jobs for qualified operators and managers”. The presence of the dairy research programme in the Ballyhaise College is a significant addition to the overall educational value of courses delivered there.

Applying material learned is a key part of Teagasc College education and Oliver holds the role of Practical Learning Period (PLP) co-ordinator for Ballyhaise College.

Speaking about his PLP role Oliver says on-farm training is a very positive feature of the Ag college year. It is his job to find good farms, where students typically 18-19 years old can be placed, and to monitor their progress. In 2012 Ballyhaise had more than 160 students on PLP on farms from counties Donegal to Dublin.

According to Oliver one of the most positive developments in agricultural education has been the possibility for students to progress to the highest levels of educational achievement.

Ballyhaise College co-operates closely with Dundalk Institute of Technology (DkIT) in the delivery of courses. This means that students who commence at FETAC Level 5 at Ballyhaise can continue their studies at DkIT and ultimately even to PhD level if they have the interest and ability.

Since 2010 the two colleges have combined to offer a new Level 8, BSc. in Sustainable Agriculture which has proved very attractive to students from the region.

Goal 2

Support sustainable farming
and the environment



Goal 2- Support sustainable farming and the environment

Carbon footprint

The carbon footprint of Irish food products is among the best in the EU according to a study published in 2011 by the Joint Research Centre of the EU Commission.

The study entitled “Evaluation of the livestock sector contribution to the EU Greenhouse Gas (GHG) emissions” (GGELS) evaluated the full, net, carbon emissions of a range of livestock products, taking account of all on-farm emissions related to livestock rearing and the production of animal feed (even where this feed production takes place outside the EU), as well as emissions caused by providing input of mineral fertilisers, pesticides, energy, and land for the production of feed.

This cradle-to-gate life cycle analysis gives a comprehensive assessment of different production systems.

Irish milk has the lowest (joint with Austria) carbon footprint in the EU at 1 kg CO₂-eq/kg milk, compared to the EU average of 1.4kg. According to the study, Irish pork also has the lowest carbon footprint in the EU (4.8 kg vs EU average of 7.5 CO₂-eq/kg pork) as does Irish chicken (3.3 kg vs EU average of 4.9 CO₂-eq/kg poultry).

Irish beef has a carbon footprint of 19 kg CO₂-eq/kg beef, well below the EU average of 22.1 kg CO₂-eq/kg beef, and it is the 5th lowest in the EU.

In the report, the carbon footprint of Brazilian beef was estimated to be 80 kg CO₂-eq /kg beef when land use change is included (and 48kg when land use change is not considered) due to the lower productivity of beef production.

Teagasc Director of Research, Dr. Frank O’Mara who was a member of the project Advisory Board, said; “This study is particularly important as it is the first time such a range of products have been compared across all EU countries in a single comprehensive study.

“A key factor in this is our grass-based production system and the associated sequestration of carbon in grassland. Ireland has one of the highest proportions in the EU of grassland in its agricultural land.”

	Milk	Pork	Beef
Ireland	1.0 kg CO ₂ -eq/kg	4.8 kg CO ₂ -eq/kg	19.0 kg CO ₂ -eq/kg
EU average	1.4 kg CO ₂ -eq/kg	7.5 kg CO ₂ -eq/kg	22.1 kg CO ₂ -eq/kg



Methane gas from cows

Researchers at the Teagasc Animal and Grassland Research Centre and the University of Bristol, have found a link between methane production and levels of a compound called archaeol in the faeces of several fore-gut fermenting animals including cows, sheep and deer.

The compound could potentially be developed as a biomarker to estimate the methane production from domestic and wild animals, allowing scientists to more accurately assess the contribution that ruminants make to global greenhouse gas emissions.

Agricultural Catchments Programme

The Agricultural Catchments Programme was extended in 2011 for a four year period from 2012 to 2015. An international environment conference, 'Catchment Science 2011' was held in the Mansion House, Dublin in September to outline the findings from the first phase of the programme.

Scientists from the USA, New Zealand, Australia, Denmark, Sweden, the Netherlands, Norway, England, Scotland, Wales, Northern Ireland and the Czech Republic presented papers on their research.

The Agricultural Catchments Programme (ACP) was set up in 2008 in six agricultural catchments to look at the effectiveness of the measures in the National Action Programme established under the Nitrates Directive. It's based on a partnership with farmers and other stakeholders and aims to support productive agriculture while protecting water quality.



Teagasc Staff Member Phil Kilduff taking water samples.

Goal 2- Support sustainable farming and the environment

National Farm Survey 2011

The National Farm Survey (NFS) has been conducted by Teagasc on an annual basis since 1972. The survey is operated as part of the Farm Accountancy Data Network of the EU and fulfils Ireland's statutory obligation to provide data on farm output, costs and income to the European Commission. In 2011, a total of 1,050 farms participated in the NFS, representing a total population of approximately 105,000 farms.

Average family farm income reached unprecedented levels in 2011 averaging €24,461, a 30% increase on the 2010 average. The average for the more commercial full-time farming sector, of which there are about 30,000 farms, was €56,413 up 31% on 2010. Income increases were entirely driven by output gains as production costs increased and the value of direct payments declined marginally. Direct payments per farm averaged at €17,929 in 2011, showing an overall decline of 2% on 2010 levels. Farming remains highly reliant on direct payments which comprise 73% of income.

Average incomes on dairy farms increased by 36% to €68,570. Favourable market conditions resulted in a 15% increase in dairy gross output. Some input costs, such as fertiliser and fuel increased considerably, but in total production costs were up about 4%.

At the launch of results were, Dr. Cathal O'Donoghue, Head of the Teagasc Rural Economy & Development Programme(left) with, from the Teagasc National Farm Survey team, Anne Kinsella, Brian Moran and Dr. Thia Hennessy.

On the back of strong beef prices in 2011, cattle farm income increased by 48% to €10,453. Despite the considerable improvement in income, there are still large numbers of small, low-income cattle farms that continue to be highly reliant on direct payments.

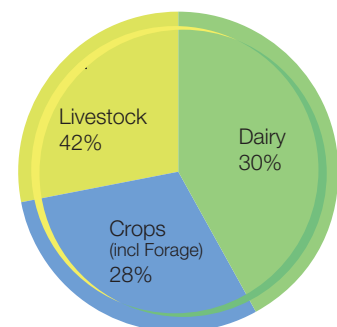
Sheep farms also benefited from price increases and gross output on sheep farms increased by 13% with average family farm income 25% higher at €16,805. While grain markets remained favourable in 2011, and output increased on tillage farms, this was offset by cost inflation, especially in fertiliser and energy, resulting in tillage farm incomes remaining relatively unchanged from the 2010 level.

Continuing the trend from previous years, and in line with the wider macro-economy, the number of households where the farmer and /or the spouse had an off farm job declined to 49.5% in 2011, from 51% in 2010 and 54% in 2009.

Debt levels in the farm sector totalled just under €1.9 billion in 2011 a 14% decrease on the 2010 figure showing a substantial repayment of debt, suggesting that farmers used the positive income situation in 2011 to reduce indebtedness.

The percentage of farms classified as economically viable businesses increased from 27% in 2010 to 35% in 2011. Almost 34% of farm households are classified as economically vulnerable.

Farm Revenue by Sector



cso 2011





**David Rogers, Potato Farmer,
Ballyboughal North Co. Dublin**

With any crop costing over €2,000 per acre to grow, attention to detail is vital to protect and improve profitability. These County Dublin growers hit all the targets.

Teagasc clients John and David Rodgers farm near Ballyboughal north Co. Dublin along with brothers Richard and Thomas and their father Joe. In total they grow over 2,000 acres of crops including wheat, barley, oats, maize, potatoes and onions. Like most tillage farms they rely on rented ground which further reduces the margin for error – wherever feasible they will test ground for disease such as eelworm and fertiliser status. Such attention to detail is central to the entire operation as small mistakes can quite quickly cost a lot of money.

All crops are evaluated using the Teagasc e-crops programme. “It’s an invaluable tool in making decisions for the farm,” says John. In total, approx. 350 acres of potatoes are grown each year for the supermarket trade by the family.

“The Rodgers supply potatoes all year round which was made possible by investment in refrigerated stores over the last 10 years,” says Teagasc tillage specialist Shay Phelan. “These stores allow the farm to supply a consistent product to the supermarket buyers all year round. However the cycle begins a year in advance of the potatoes hitting the shelf - with the seed.”

All the seed is carefully selected as clean seed, imperative in producing washed quality potatoes which the supermarkets demand. When the seed enters the farm it is carefully inspected to check for rots and diseases, it is then treated if needed and trayed up into sprouting trays in years where there is variation in seed size the seed is split graded according to size to ensure even planting.

The seed is carefully monitored (David is pictured above) over the winter months to ensure that there are good sprouts on the seed that will survive planting so as to ensure earlier emergence and hopefully increase yield. The Rodgers’ plan their planting meticulously and ensure the tubers get at least 280 degree days.

Goal 2- Support sustainable farming and the environment

Decision Tree Assists farmers

What are the options for increasing family farm income? Are they through On-Farm efficiencies, by pursuing opportunities Off-Farm or through Diversification? To help farmers make wise financial decisions, Teagasc has introduced a 'Decision Tree' application.

A 'Decision Tree' is a means of methodically examining an individual farm situation. It's a helping hand to take a serious look at the options for sustainability or further development. It will expose individual farmers to new ideas and take them through a decision making process.

The ready reckoner that accompanies the 'Decision Tree' will help clarify the financial position of a farm. It will help identify if inputs need to be reviewed and where there is scope for savings. It will also help to address major decisions on succession and a livelihood for the next generation. The 'Decision Tree' is an easy to use, farmer friendly tool.

A subsequent series of Options Courses at 12 locations around the country help participants consider the full potential of their farm and explore options for generating an additional income stream.



Pictured at the 4th Annual Glycoscience Ireland meeting, at the Teagasc Food Research Centre, Moorepark are Mariarosaria Marolta, Food for Health Ireland (hosted at Teagasc), Dr. Marguerite Clyne, UCD, Prof David Newburg, Boston College & Dr. Rita Hickey, Teagasc Food Programme.

GlycoScience Ireland

GlycoScience Ireland was established towards the end of 2007, following a meeting in Galway of glycoscientists working in Irish academic and research institutes.

The goal of GlycoScience Ireland is to encourage inter-disciplinary collaboration between glycoscientists, biologists, chemists, engineers, information scientists and clinicians, interested in exploring novel glycoscience approaches to their particular research questions.

There are now a significant number of scientists working in the glycoscience field in Ireland with a wealth of expertise that is directly relevant to the Biopharmaceutical and Food industries in Ireland and abroad. This has important implications for the future direction of basic biological, industrial and clinical research fields in Ireland.

GlycoScience Ireland provides the forum for communication and interaction between Irish glycoscientists and industry representatives in Ireland and further afield that will be responsible for the translation of glycoscience discoveries into commercial and clinical realities.

Goal 3

Encourage diversification of the rural economy
and enhance the quality of life in rural areas



Goal 3- Encourage diversification of the rural economy and enhance the quality of life in rural areas

Farm Safety Poster

The A to Z Farm Safety Poster was developed by Teagasc in 2011 to tackle the number of deaths and serious injuries occurring on Irish farms. 22 people died in farm accidents in 2011 following 26 deaths in 2010.

The Safety Poster was the 'brain child' of Teagasc adviser Anthony O'Connor. The Poster uses an attractive A to Z format to remind farmers of key 'life-saving' safety controls. The poster was distributed to all Teagasc Clients in the 'August Monthly Newsletter' pack. It was also supplied to businesses used by farmers, including marts and merchants' premises.

The Taoiseach, Enda Kenny T.D., launched the Teagasc Farm Safety Poster campaign at the Teagasc Mellows Campus, Athenry, County Galway.

The Taoiseach, Enda Kenny T.D., pictured with Anthony O'Connor who conceived the A-Z Farm Safety Poster.



ÉCONOMUSÉE

An ÉCONOMUSÉE is a craft or artisan based business that opens its doors to the public to provide a learning and interpretive experience for visitors. ÉCONOMUSÉE'S are an important cultural tourism attraction and contribute to the sustainability of rural areas by creating employment and providing an attraction that attracts tourists to rural regions.

Ireland's first ÉCONOMUSÉE was opened at the Celtic Roots Studio in Ballinahoun, Athlone, Co. Westmeath by the Canadian Ambassador to Ireland, His Excellency Loyola Hearn (centre).

The opportunity to create Ireland's first ÉCONOMUSÉE' arose from an invitation to Teagasc to become involved in an EU Northern Periphery Programme (NPP) project to bring the ÉCONOMUSÉE concept to selected rural areas in Europe. The aim is to have at least four ÉCONOMUSÉE'S in Ireland.

Celtic Roots Studio is world renowned for its bogwood creation, made from bog oak, yew and pine which are almost five thousand years old. The Celtic Roots Studio ÉCONOMUSÉE was supported by Westmeath Community Development Ltd through the Rural Development Programme (2007-2013).





Teagasc Researcher Dr. John Finnan (far right) discusses renewable energy with farmers at Teagasc Oak Park.

In both Ireland and the Canadian provinces of Newfoundland and Labrador, seaweeds have a long tradition of use. In Ireland, for example, approximately 36,000 tonnes of seaweed are harvested annually.

Seaweed species of commercial interest in Ireland include *Laminaria digitata* and *Fucus* species (*Fucus vesiculosus*, *Fucus serratus* and *Fucus spiralis*), which are harvested primarily for their valuable carbohydrates, Laminarin and Fucoidan, respectively.

The value-added sector of the seaweed industry in Ireland has emerged to produce attractive, high-quality products for use as functional body care products and cosmetics.

However, there is limited activity aimed at exploiting Irish seaweed resources as materials for functional food ingredients with enhanced health benefits that go beyond basic nutrition for the consumer.

The Teagasc NutraMara Research Programme is currently working on developing the area of marine-origin functional foods in Ireland. Seaweeds are known to contain a number of heart-health compounds, including ACE inhibitors, antioxidants and essential fatty acids (lipids).

Heat Energy Opportunities

Farmers can be the heat suppliers of the future by pooling their resources together, and to achieve this Teagasc is supporting several timber producer groups who are already operating nationwide. That was the message from Frances McHugh, Teagasc forestry adviser, speaking at Bioenergy '11 in Johnstown Castle.

The Bioenergy 2011 event was jointly organised by Teagasc, Sustainable Energy Authority of Ireland (SEAI) and COFORD. The importance of mobilising the private sector to thin their forests was a strong theme among the speakers.

Teagasc Director, Professor Gerry Boyle, Teagasc said at the conference: "We believe that the rapid expansion of the wood energy sector in Ireland will be beneficial to more than 15,000 farmers who developed a farm forest enterprise

Speaking at the conference, Teagasc forestry researcher, Dr. Joanne Fitzgerald explained how GIS techniques can be used to develop a cluster-based approach to identify where the private forest resources exist in relation to the location of heat users. Dr. Fitzgerald said: "The presence or absence of road access is one of the most critical factors that determine whether a forest is likely to be thinned or not."

Seaweed and health

Researchers at Teagasc have been investigating lipids from a variety of Irish and Canadian seaweed species for their heart-health properties.



Goal 3- Encourage diversification of the rural economy and enhance the quality of life in rural areas

The Art of Hurley Making

A new DVD called The Art of Hurley Making - 'From Ash to Clash' been produced in 2011 by the GAA, Teagasc and the Irish Guild of Ash Hurley Makers. The DVD tells the story of Irish hurley making, from the planting of the ash tree, through the crafting of the hurley, to being used on the field of play in Croke Park.

The craft of Hurley making is an indigenous, rural, industry resulting in the sustainable and renewable manufacture of hurley sticks.

The DVD will play in the GAA Museum at Croke Park and will be available to view on the three organisations' websites.

Teagasc Director, Professor Gerry Boyle, said: "Our forests are an important national asset, contributing not just to the economic activity in the country and to a sustainable environment, but in the case of our ash plantations, to our important sporting culture. Teagasc are delighted to have worked with the Irish Guild of Ash Hurley Makers and the GAA on this DVD."



Willie McAuliffe, President of the Irish Guild of Ash Hurely Makers; Minister of State, Shane McEntee TD, Dr Gerry Boyle and Uachtarán Chumann na Lúthchleas Gael, Cristóir O'Cuana pictured at the launch in Croke Park of 'The Art of Hurley Making – the Clash of the Ash' DVD.



**Jim Dunne, Hurley Maker
 Slievenamon**

Demand for top quality hurleys is stronger than ever according to this Tipperary farmer, saw-mill owner and Teagasc client. As the sun rises over Slievenamon, Jim Dunne begins the day deep in the heart of Tipperary hurling country. Herding his suckler herd on the 125 acre farm is the first job but it's not long until he enters his sawmill. Jim has been sawmilling most of his life, at first he worked for others then, in 1994, he set up his own sawmill. Today Jim's sawmill is one of the key links in the chain which sees ash trees transformed into top quality hurleys.

"We started off processing fencing material stakes, strainers, post and rail," says Jim. As timber processing became more automated with the larger sawmills, Jim diversified into processing and making more specialised products. Today, he processes 70,000 hurley butts which are sold to hurl makers all over the country, manufactures timber gates, makes cheese boxes and even constructs bee hives.

Hurley Butts.

Jim started planking hurley butts in 1996 which involves expertly slicing the butt to make best use of the curved grain at the base of the tree.

Jim has planked ash butts from all over Europe and believes that Irish ash is best. "It grows quicker here so there is a bigger grain. The hurley makers love this, because it's easier to work".

Dunne's sawmill is a good example of the benefits of forestry," says Teagasc Michael Somers, Teagasc, Forest Development Officer for Limerick and Tipperary.

"A key lesson for us is that you have to be very flexible and constantly open to new challenges and niche markets," concludes Jim.

Goal 3- Encourage diversification of the rural economy and enhance the quality of life in rural areas



Sandra Hayes

Business and Technology Dairy Adviser, Thurles.

Sandra joined Teagasc in 2001 and was based initially in the Portlaoise office. Until 2009 she was a Rural and Environment Protection Scheme (REPS) adviser and ran a drystock discussion group in parallel.

Today, Sandra works from the Thurles office as a Business and Technology dairy adviser with 170 dairy and 40 other clients. Facilitating six discussion groups which are all currently part of the Department of Agriculture Food and the Marine's Dairy Efficiency Programme is a core activity for Sandra.

"Switching to dairy was a challenge but the support from specialists, advisory colleagues and researchers has been excellent," says Sandra. With the number of agricultural advisers falling due to non-replacement of retirees the workload is increasing but Sandra says quality is not allowed to vary.

"The extent of the contact with clients will vary with the nature of the contract they have with Teagasc but we make sure that all clients get the same high level of professionalism."


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**STAFF-
PROFILE**



Improving the infant gut 'microbiome'

Sequencing technology has advanced significantly since the race to sequence the human genome first began. As part of the Teagasc Vision Programme a 'next generation sequencer', the only one of its kind in Ireland, has been installed at Teagasc Food Research Centre, Moorepark.

This technology is being used to sequence microorganisms from one of the most extreme environments, i.e., the human gastrointestinal tract (gut). The human gut has the potential to impact hugely on the health of individuals. This is because microbes correspond to nine out of every ten cells in our body.

Indeed, in the large intestine the number of microbes can be as high as 100 billion per gram.

This collection of microbes is known as the human 'microbiome'. This microbiome contains 100 times more unique genes than those present in our own genomes, and has a metabolic capability equivalent to that of our liver.

While next-generation sequencing-based research of gut microbiomes will ultimately benefit all members of the population, to date there has been a particular emphasis at Teagasc on investigating and, where necessary, altering the microbiota present in the gut of the elderly, infants and obese individuals.

For example, evidence exists that early colonisation of the infant gastrointestinal tract by microbes is crucial for the overall health of the infant.

Ireland is a major player in the global infant formula industry, producing about 15% of global exports, and research in this area is of key importance with respect to maintaining, and further enhancing, Ireland's reputation in this area. Collaborative research between Teagasc, UCC and Cork University Maternity Hospital is employing next-generation sequencing technology to carry out research in this area.



Goal 4

Enhance organisational capability
and deliver value for money



Goal 4 - Enhance organisational capability and deliver value for money

The Teagasc People, Leadership Change (PLC) Strategy

The Teagasc People, Leadership Change (PLC) Strategy was launched in April 2011. Through the implementation of this strategy, Teagasc is building a culture of teamwork, innovation, integration and adaptability to create a high performing work environment.

The PLC strategy has five strategic goals

- To build a high performing work environment which will facilitate a culture of teamwork, innovation and adaptability of people.
- To strategically align training needs identification with the requirements of the business and deliver appropriate learning and development interventions to improve employee contribution and organisation performance.
- To develop our current and future managers and leaders to proactively influence, motivate, and empower, their staff in the achievement of organisational goals.
- To attract, retain, recognise and motivate staff to achieve high performance.
- To improve employee engagement, two-way communications and partnership with staff at all levels of the organisation.



At the Launch of Teagasc People Leadership Change Programme were Mr. Alan Phelan, Head of HR, Dr. Noel Cawley, Chairman of Teagasc, Ms. Valerie Farrell, HR Manager and Professor Gerry Boyle.

HR Manager with Teagasc, Valerie Farrell said: "The Teagasc Agenda is clearly focused around implementing the Teagasc Change Programme and the Public Service Agreement (Croke Park), as well as meeting the ambitious targets set out in Food Harvest 2020. How we achieve these plans is down to the people in the organisation. How our people grow, are nurtured, are inspired, will influence how they perform and ultimately their contribution to the agri-food industry.

"The People, Leadership and Change Strategy was developed by staff in response to these challenges and involves a number of new programmes and initiatives that will be delivered over the period 2011-2013. We are confident that this strategy will help deliver higher level performance into the future."

Staff numbers 2007-2011

Teagasc staff numbers have reduced from 1,574 in 2008 down to 1,189 serving at the end of 2011.

Websites and Social Media in Teagasc

In 2011, Teagasc integrated social media into its marketing communications activity and established Facebook, Twitter and YouTube accounts as another means to converse and interact with clients, stakeholders, students and the media.

Teagasc are using the social media sites to broadcast news, publicise upcoming events, share photographs, attract people to the main website and connect with their audiences.

By the end of 2011, Teagasc's corporate Facebook had reached over 3,000 members with almost 1,000 followers on Twitter.

The Teagasc YouTube channel broadcast 95 videos which in total received 15,584 views.

Teagasc, Kildalton has developed a Facebook page for Kildalton College and has over 700 fans while Teagasc Forestry have also developed a Facebook page and with 97 fans.

There is also a Teagasc Research Twitter account, providing the latest news and events in agri-food research to 600 followers.

The use of the Teagasc websites as a data source of information and knowledge continues to increase year on year as the number of new pages and sections are developed. The combined Teagasc websites received over one million visits during 2011. Average visits lasted from 6 to 8 minutes with visitors coming from over half a million unique internet addresses.

Strategic Investment

In order to deliver the recommendations of Food Harvest 2020 and implement the Organisational Change Programme, Teagasc must invest in critical infrastructure. It is planned to invest in three major projects over the next two years. A Pig Research Unit in Moorepark, to replace the current facility, will be combined with a new Animal Biotest Facility at a cost of €2.5 Million.

A Dairy Research-Based Education and Innovation Facility for the training of students and dairy farmers will also be constructed in Moorepark at a cost of €3.7 million, although it is expected that FBD Trust will contribute €2 million to this.

€4.75 million will be invested in Ashtown to provide new horticultural facilities and accommodation for those staff transferring from Kinsealy. These projects will be funded from the sale of offices, savings from other projects and reallocation of existing funds.

Implementing the Teagasc Change Programme

The Teagasc Change Programme 2009 - 2013 is currently being implemented, with the number of Directorates reduced from 6 to 3, a reduction in the advisory office network from 91 to 51 (36 closed to date), a 30 per cent reduction in the land base used for research, a streamlining of administration and a reorganisation in the delivery of education.

Management of the Teagasc advisory service, within the Knowledge Transfer directorate, continues to be streamlined and is now being managed as 12 regional units, down from 18. The 12 regions are:

Advisory Regions

Cork East
 Cork West
 Galway/Clare
 Kerry/Limerick
 Laois/Kildare/Meath/Louth/Dublin
 Mayo
 Roscommon/Longford
 Sligo/Leitrim/Donegal
 Tipperary
 Waterford/Kilkenny
 Westmeath/Offaly/Cavan/Monaghan
 Wexford/Wicklow/Carlow



Goal 4 - Enhance organisational capability and deliver value for money



UCD and Teagasc have signed a Memorandum of Agreement to establish 'The National Agricultural Research, Education and Innovation Partnership'. Pictured at the signing is Director of Teagasc, Professor Gerry Boyle, President of UCD, Dr Hugh Brady and Mr Michael Berkery, Chairman of the UCD Teagasc Joint Working Group.

UCD/Teagasc National Agricultural Research, Education and Innovation Partnership

The National Agricultural Research, Education and Innovation Partnership between UCD and Teagasc was established in 2011 to enhance the scientific and technical leadership of both organisations and underpin the international competitiveness, growth and sustainable development of the agricultural sector.

It will provide world-class education for agricultural students and deliver excellent basic and applied research programmes in key areas of relevance to the development of Irish agriculture.

The Partnership's core strategy will focus on the establishment, in close collaboration with industry, of a National Agricultural Research, Education and Innovation Programme linked to the strategies of both organisations.

At the core of the National programme will be an agreed programme of agricultural research; a shared strategy for post-graduate training, including a provision for greater involvement by Teagasc personnel in undergraduate and post-graduate teaching, while also enabling more substantial engagement by UCD personnel in Teagasc research programmes and technology transfer activities.

Professor Maurice Boland, Principal of the UCD College of Agriculture, Food Science, & Veterinary Medicine is the Director of the Partnership.

Annual Energy Usage Report 2011

Teagasc operate from approximately 60 locations nationwide varying in scale from Campus type facilities with 100+ staff (e.g. Research Centres & Colleges) to small local Advisory offices with approximately 10 staff. The Teagasc 'built environment' is the principal user of energy resources accounting for up to 70% of total consumption.

- In 2011, Teagasc consumed 24,200 MWh of energy consisting of:
- 9,200 MWh of electricity or 38% of total energy
- 9,400 MWh of fossil fuel (75% oil, 25% gas) for space heating or 39% of total energy
- 4,600 MWh of vehicle fuel (agricultural, commercial transport and car fleet) or 19% of total energy
- 1,000 MWh of renewable fuels or 4% of total energy

Teagasc has a programme in place to upgrade the building fabric of its facilities to reduce heat loss (double glazing, roof and wall insulation etc.). This programme will continue in 2012. In 2011 biomass boilers were installed at the Athenry and Johnstown Castle campuses.

ICT Investments

In 2011 Teagasc invested half a million Euro in its ICT systems. It completed major upgrades to the Finance System, HR/Payroll System and eProfit Monitor System. It also completed the implementation of a new time series database for hydro-meteorological data for the Agricultural Catchments project.

Capital Investment Programme

In 2011 Teagasc completed the construction of a major new Animal Bioscience Facility in Grange Co. Meath.

Construction work commenced on a new sheep research facility in Athenry and a sheep demonstration farm was also established.

Office and land sales

Teagasc is continuing it's rationalisation through the implementation of the Teagasc Change Programme within the organisation. The following Advisory offices were sold in 2011:

Ennistymon, Co Clare
Dunmanway, Co Cork
Castleblayney, Co Monaghan
Bandon, Co Cork
Kells, Co Meath
Boyle, Co Roscommon
Sligo Town

The other notable project to be completed in 2011 was the Compulsory Purchase of land by Cork County Council for road enhancement close to Moorepark Campus in Fermoy, Co Cork.

Under the Change Programme, Leases of both office space and land Leases were discontinued in six locations throughout the country as outlined below:

Portumna, Co Galway
Advisory Office

Belmullet, Co Mayo
Advisory Office

Terryland, Galway
Advisory Office

Leenane, Co Galway
Lease of land

Newmarket, Co Cork
Advisory Office

Ballydague, Co Cork
Lease of land

Goal 4 - Enhance organisational capability and deliver value for money

Repairs to Oak Park House

The Teagasc Head Office is located in Oak Park House, Oak Park, Carlow. The House dates from c. 1760. First occupied by the Cooke Family, and then purchased by the Bruen Family in 1775, and from then onwards five generations of that family made this grand building their home.

In 1954 following the death of Henry Bruen the land was purchased by Brown's Hill Farms, and later taken over by the Land Commission. The State has used the house and lands as an agricultural research facility from the 1960s and in 2004 Teagasc relocated its Head Office from Dublin to Oak Park House. A contemporary wing extension designed by Architects C. J. Falconer and Associates was constructed in 2009.

In recent years the roof and windows of the house have needed continuous repairs and maintenance and in 2011, following consultation with Carlow Co. Council, this protected structure received a new roof and windows in full compliance with Conservation.



Roof repairs underway at Oak Park House, Carlow.

All Staff Conference

On October 13 2011 Teagasc held its first ever National Staff Conference in the The Hub, Cillin Hill, Kilkenny. This landmark, all-day event, for the first time, brought over 900 staff members together in one location; a skeleton staff remained at offices and centres.

Almost 95% of the 700 who completed feedback forms stated that the day either met or exceeded their expectations.

Attendees at the Teagasc first National Staff Conference held in Kilkenny in October.





Dr. Noel Cawley presenting the Teagasc Gold Medal to Professor Paul Ross.

Staff Awards

Three awards schemes operate in Teagasc to recognise the achievements of staff. The 2011 winner of the Teagasc Gold Medal was Professor Paul Ross, head of the Food Research programme.

The Teagasc Gold Medal is awarded on an annual basis to a serving staff member who has made an outstanding contribution to the organisation and to the agri-food sector.

The award was presented to Professor Ross in recognition of his achievements during his career in Teagasc since joining the organisation in 1993.

He has authored over 300 peer reviewed scientific publications to date, in addition to numerous book chapters, and other articles.

The quality of his research has elevated the scientific reputation of the research programme, and he has developed significant national and international collaborations and secured significant funding for the research programme.

The Teagasc Open Innovation Awards programme promotes innovation among staff. This programme invites individual staff members or teams to submit ideas or projects that could help improve how Teagasc does its business and encourage innovation and employee involvement.

Fourteen staff members were recognised for their initiatives during 2011.

The Teagasc Excellence annual Award Scheme was launched and run in 2011, its primary purpose is to recognise and reward the excellent achievements of staff. Awards are offered in five categories and are open to teams and individuals. 2011 winning projects included:

Excellence in Education
(Teagasc migration project to the FETAC Common Award System)

Goal 4 - Enhance organisational capability and deliver value for money

Excellence in Service

(exceptional maintenance of grounds at Mellows campus), (Technology support to advanced molecular biology techniques in the Animal science programme.) (Excellence in internal auditing.) (Design and operation of Voluntary early Retirement (VER)) and Voluntary Redundancy Scheme (VRS).

Excellence in Promoting Organisational Integration

(The Teagasc Water Framework Directive Working Group).

Excellence in Research

(Establishing computational biology in Animal Bioscience programme and accelerating it to high performance in external income and publications.), (Improvements to shelf life of food).

Excellence in Knowledge Transfer

(Publication of Teagasc Dairy Manual – a comprehensive guide to all aspects of dairy farming)

(Completion of high numbers of eProfit Monitors for dairy farmers), Knowledge transfer in horticulture.



Pictured at the Teagasc Agri Environment Conference which took place in Athlone in November 2011 were speakers l to r: Mark Gibson, Teagasc; Mairead McGuinness, MEP and keynote speaker at the conference; Phil Jordan, Teagasc Agricultural Catchments Programme and Bill Callanan, Department of Agriculture, Food and the Marine.

In 2011 Teagasc Authority members held a meeting at the Teagasc College of Amenity Horticulture, Botanic Gardens, Dublin. Mr. Padraig Gibbons; Mr. Martin Heraghty; Ms. Margaret Sweeney; Mr. Harold Lalor, Retired Principal, College of Amenity Horticulture, Botanic Gardens; Dr. Noel Cawley, Chairman; Mr. Eddie Downey; Mr. James J. Brett; Mr. Joe Fitzgerald; Mr. Frank O'Mahony and Ms. Marie Christie are pictured.



Participant at the Annual Teagasc Science Week 2011.

Science Week Events 2011

Teagasc research centres, Moorepark - Agriculture and Food, Oak Park, Ashtown, Johnstown Castle, Athenry, hosted students from secondary level schools as part of National Science Week in November. During these visits students saw practical examples of the use of science in agriculture and food production. This is the fifth year that Teagasc has organised science week events in each of its main centres to promote science among second level students. Over 1,000 people attended.

Goal 4 - Enhance organisational capability and deliver value for money



STAFF-PROFILE



Caroline McDonald **Oak Park**

Caroline is a Human Resources officer for the Teagasc Research Directorate and is based at Teagasc headquarters at Oak Park in Carlow. Caroline joined Teagasc in 2005 and through the Staff Training & Development fund has completed a certificate in HR Practice and a Level 8 degree in Business Administration.

Although permanent recruitment is suspended under the Public Sector Moratorium a significant proportion of Caroline's time is spent recruiting temporary research scientists and technicians to work on the numerous new and ongoing funded research projects. This has always been the main area of recruitment activity in Teagasc and is unaffected by the Staffing Moratorium as the posts concerned are fully funded through external sources.

Caroline works closely with Heads of Departments, Project Leaders and the Department of Agriculture, Food and the Marine to secure sanction for these temporary posts.

Once a suitable candidate is identified Caroline liaises with the candidate to extend an offer of employment and processes all necessary contractual paperwork. Caroline is also the main point of contact between Teagasc and the Public Appointments Service who administer the recruitment process.

In addition to managing the internal redeployments for the Research Directorates, Caroline manages the external redeployment process agreed under the Croke Park Agreement (CPA) for Teagasc.

This is necessary to comply with the terms of the CPA and meet Teagasc's staff targets under the Employment Control Framework. Both voluntary and involuntary redeployments have taken place in 2011.

Caroline is also involved as a working group member for two projects under the Teagasc People Leadership and Change strategy – the Teagasc Total Reward and Recognition Programme and the Management Development Programme.



Financial Statements

For the Year ended 31 December 2011



Financial Statements

Year ended 31 December 2011

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Report of the Comptroller & Auditor General for presentation to the Houses of the Oireachtas

I have audited the financial statements of Teagasc for the year ended 31 December 2011 under the Agriculture (Research, Training and Advice) Act 1988. The financial statements, which have been prepared under the accounting policies set out therein, comprise the Accounting Policies, the Income and Expenditure Account, the Statement of Total Recognised Gains and Losses, the Balance Sheet, the Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and Generally Accepted Accounting Practice in Ireland.

Responsibilities of the Members of the Authority

The Authority is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of the Authority's affairs and of its income and expenditure, and for ensuring the regularity of transactions.

Responsibilities of the Comptroller and Auditor General

My responsibility is to audit the financial statements and report on them in accordance with applicable law.

My audit is conducted by reference to the special considerations which attach to State Bodies in relation to their management and operation.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of 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 Authority's circumstances, and have been consistently applied and adequately disclosed
- the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- the overall presentation of the financial statements

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

In addition, I read all the financial and non-financial information in the annual report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my report.

Opinion on the Financial Statements

In my opinion, the financial statements, which have been properly prepared in accordance with Generally Accepted Accounting Practice in Ireland, give a true and fair view of the state of the Authority's affairs at 31 December 2011 and of its income and expenditure for the year then ended.

In my opinion, proper books of account have been kept by the Authority. The financial statements are in agreement with the books of account.

Report of the Comptroller & Auditor General

Year ended 31 December 2011

Matters on which I Report by Exception

I report by exception if

- I have not received all the information and explanations I required for my audit, or
- my audit noted any material instance where moneys have not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the information given in the Authority's Annual Report for the year for which the financial statements are prepared is not consistent with the financial statements, or
- the Statement on Internal Financial Control does not reflect the Authority's compliance with the Code of Practice for the Governance of State Bodies, or
- I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters upon which reporting is by exception.

Gerard Smyth
For and on behalf of the
Comptroller and Auditor General
29th June 2012

Statement on Internal Financial Control

On behalf of the Authority of Teagasc I acknowledge our responsibility for ensuring that an effective system of internal financial control is maintained and operated.

Any system of internal financial control can provide only reasonable and not absolute assurance against material error, misstatement or loss. In considering the effectiveness of internal financial controls, the Authority and its Audit Committee have regard, among other things, to the requirements of the Code of Practice for the Governance of State Bodies.

The Authority has taken steps to ensure that an appropriate control environment is in place by:

- clearly defining management responsibilities, authority and accountability;
- establishing formal procedures for monitoring the activities and safeguarding the assets of Teagasc;
- developing a culture of accountability across all levels of the organisation.

The Authority has established procedures to identify business risks within Teagasc by:

- identifying the nature, extent and financial implication of risks facing Teagasc including the extent and categories which it regards as acceptable;
- assessing the likelihood of identified risks occurring;
- assessing Teagasc's ability to manage and mitigate the risks that do occur;
- assessing the costs of operating particular controls relative to the benefit obtained.

The system of internal financial control is based on a framework of regular management reporting, administration procedures including segregation of duties and a system of delegation and accountability including:

- an annual budgeting and financial reporting system which is reviewed and approved by the Authority;
- regular reviews by the Authority of overall strategy, business and financial plans and variances against operating and capital budgets.

Teagasc has an internal audit function, which operates in accordance with the requirements of the Code of Practice for the Governance of State Bodies and with the effectiveness criteria set out in the Teagasc Statement of Strategy published in 2008. The work of internal audit is informed by analysis of the risks to which Teagasc is exposed and annual internal audit plans are based on this analysis. The internal audit plans are approved by the Audit Committee. In 2011 the Authority retained an external expert to advise the Audit Committee.

The Authority's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the internal auditor, the Audit Committee which oversees the work of the internal auditor, the executive managers within Teagasc responsible for the development and maintenance of the financial control framework and comments made by the Comptroller and Auditor General in his management letter.

I confirm that the Authority conducted a review of the effectiveness of the systems of internal financial control in 2011.

Dr. Noel Cawley
Chairman
26th June 2012

Statement on Responsibilities of the Authority

Under Section 12(1) of the Agriculture (Research, Training and Advice) Act, 1988, the Authority is required to prepare financial statements in such form as may be approved by the Minister for Agriculture, Food and the Marine with the concurrence of the Minister for Finance. In preparing those financial statements, the Authority is required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that Teagasc will continue in operation;
- disclose and explain any material departures from applicable accounting standards.

The Authority is responsible for keeping proper books of account which disclose with reasonable accuracy at any time the financial position of Teagasc and which enable it to ensure that the financial statements comply with statutory requirements. The books of account are kept at the Authority's headquarters at Oak Park, Carlow. The Authority is also responsible for safeguarding the assets of Teagasc and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Dr. Noel Cawley
Chairman
26th June 2012

Mr Martin Heraghty
Member of the Authority

Accounting Policies

Year ended 31 December 2011

The significant accounting policies adopted by Teagasc are as follows:

Basis of accounting

The Financial Statements have been prepared in accordance with the historical cost convention, subject to certain assets being included at a valuation (see below), and in a form approved by the Minister for Agriculture, Food and the Marine with the consent of the Minister for Finance under the Agriculture (Research, Training and Advice) Act, 1988. The Financial Statements have been prepared using the accruals method of accounting except as stated below and in accordance with generally accepted accounting practices. Financial Reporting Standards recommended by the recognised accountancy bodies are adopted as they become applicable.

State funding

State funding for research in the Food sector, for the Stimulus collaborative research programme and for the Agricultural Catchments Programme is accounted for on an accruals basis. All other State funding is accounted for on a cash receipts basis.

Research and other projects

Grants in respect of research and other projects are included as income in the year in which the related expenditure is incurred.

Tangible fixed assets and depreciation

Assets were taken over from An Chomhairle Oiliúna Talmhaíochta and An Foras Talúntais on 8th September 1988 at the closing values in the Balance Sheets of those bodies. Additions are stated at cost.

Land is not depreciated. The cost or valuation of other owned fixed assets is written off by equal instalments over their expected useful lives as follows:

Farm Buildings	20 years
Other Buildings	50 years
Plant and Vehicles	5 years
Computer Equipment	3 years
Laboratory and Office Equipment	10 years

Assets held under finance leases are depreciated over the lease term, where this is shorter than their expected useful lives.

A half year's depreciation is charged in the years of acquisition and disposal of assets.

Leases

Fixed assets acquired under finance leases are treated in accordance with the policy noted above under fixed assets. The capital element of related rental obligations is included under liabilities, while the interest element is charged to expenditure over the term of the primary lease period.

Rentals on operating leases are charged to expenditure as incurred.

Capital account

The balance on this account represents the unamortised value of funds used to purchase fixed assets.

Stocks

Stocks have been valued by Teagasc officials. Livestock and own farm produce are valued at estimated net realisable value. Net realisable value is determined on the basis that animals are sold on the open market. Gains and losses, which arise from these valuations, are reflected in full in operational income. All other stocks are valued at the lower of cost and net realisable value.

Debtors

Known bad debts are written off as they arise and specific provision is made where recovery is considered doubtful.

Accounting Policies

Year ended 31 December 2011

Pensions

Teagasc operates defined benefit pension schemes which are funded annually on a pay as you go basis from monies available to it, including monies provided by the Department of Agriculture, Food and the Marine, and from contributions deducted from staff salaries.

Pension Scheme liabilities are measured on an actuarial basis using the projected unit method.

Pension costs reflect pension benefits earned by employees in the period and are shown net of staff pension contributions which are retained by Teagasc. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable, and offset by grants received in the year to discharge pension payments.

Actuarial gains or losses arising from changes in Actuarial assumptions and from experience surpluses and deficits are recognised in the Statement of Total Recognised Gains and Losses for the year and a corresponding adjustment is recognised in the amount recoverable from the Department of Agriculture, Food and the Marine.

Pension liabilities represent the present value of future pension payments earned by staff to date. Deferred pension funding represents the corresponding asset to be recovered in future periods from the Department of Agriculture, Food and the Marine.

Moorepark Technology Limited

Moorepark Technology Limited is a joint venture between Teagasc and various agriculture co-operatives. Teagasc has a 57% holding in the paid up share capital of the company. Separate audited financial statements have been prepared in respect of Moorepark Technology Limited. It was not considered appropriate to consolidate the results of the company (Note 15).

Foreign currency

Transactions denominated in foreign currencies are translated into Euro and recorded at the rates of exchange ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into Euro at the rates of exchange ruling at the balance sheet date.

Income and Expenditure Accounts

Year ended 31 December 2011

	Notes	31 December 2011 €'000	31 December 2010 €'000
Income			
State funding	2	139,404	134,653
EU funding	3	1,775	1,553
Operational income	4	28,543	26,081
Net deferred funding for pensions	9	15,315	20,161
Surplus on disposal of fixed assets	25	1,066	905
Other grants, donations and voluntary levies		2,488	2,248
		<u>188,591</u>	<u>185,601</u>
Expenditure			
	5	<u>189,545</u>	<u>186,792</u>
		(954)	(1,191)
Transfer (to) / from Capital Account	12	<u>(5)</u>	<u>4,578</u>
(Deficit) / Surplus for the financial year		<u>(959)</u>	<u>3,387</u>
Balance at beginning of year		<u>11,366</u>	<u>7,979</u>
Balance at end of year		<u>10,407</u>	<u>11,366</u>

Statement of Total Recognised Gains & Losses

	Notes	31 December 2011 €'000	31 December 2010 €'000
(Deficit) / Surplus for the financial year		(959)	3,387
Experience gains on pension scheme liabilities	9	1,838	71,517
Changes in assumptions underlying the present value of pension liabilities	9	<u>(43,171)</u>	<u>(68,898)</u>
Actuarial (loss) / gain on pension liabilities		(41,333)	2,619
Adjustment to Deferred pension funding		<u>41,333</u>	<u>(2,619)</u>
Total Recognised (Loss) / Surplus for the year		<u>(959)</u>	<u>3,387</u>

The above amounts relate entirely to continuing operations. The Statement of Accounting Policies and notes 1 to 28 form part of these Financial Statements.

Dr. Noel Cawley
Chairman

Professor Gerry Boyle
Director

Balance Sheet

Year ended 31 December 2011

	Notes	31 December 2011 €'000	31 December 2010 €'000
Fixed assets			
Tangible assets	14	95,209	95,204
Financial assets	15	<u>2</u>	<u>2</u>
		<u>95,211</u>	<u>95,206</u>
Current assets			
Stocks	17	4,755	4,662
Debtors	18	10,842	10,597
Bank balances		20,910	18,925
Short term deposits		<u>784</u>	<u>2,178</u>
		<u>37,291</u>	<u>36,362</u>
Creditors - Amounts falling due within one year			
Creditors and accruals	19	14,418	15,072
Deferred income	20	<u>12,468</u>	<u>9,926</u>
		<u>26,886</u>	<u>24,998</u>
Net current assets		<u>10,405</u>	<u>11,364</u>
Total assets less current liabilities before pensions		105,616	106,570
Deferred pension funding	9	937,296	880,648
Pension liabilities	9	<u>(937,296)</u>	<u>(880,648)</u>
		<u>0</u>	<u>0</u>
Net assets		<u>105,616</u>	<u>106,570</u>
Represented by			
Capital account	12	95,209	95,204
Income and Expenditure account		<u>10,407</u>	<u>11,366</u>
		<u>105,616</u>	<u>106,570</u>

The Statement of Accounting Policies and notes 1 to 28 form part of these Financial Statements.

Dr. Noel Cawley
Chairman

Professor Gerry Boyle
Director

Cashflow Statement

Year ended 31 December 2011

	Notes	31 December 2011 €'000	31 December 2010 €'000
Reconciliation of operating surplus to net cash inflow from operating activities			
Operating (deficit)/surplus		(959)	3,387
Depreciation	14	7,054	7,298
Transfer to/(from) capital account	12	5	(4,578)
Interest received		(565)	(471)
Profit on sale of fixed assets		(1,066)	(905)
(Increase)/Decrease in stocks		(93)	320
(Increase)/Decrease in debtors		(245)	549
(Decrease)/Increase in creditors and long term liabilities		(654)	1,643
Increase/(decrease) in deferred income		2,542	(153)
Net cash inflow from operating activities		6,019	7,090

Cash Flow Statement

Net cash inflow from operating activities		<u>6,019</u>	<u>7,090</u>
Return on investment and servicing of finance			
Interest received		<u>565</u>	<u>471</u>
Net cash inflow from returns on investment and servicing of finance		<u>565</u>	<u>471</u>
Investing activities			
Payments to acquire tangible fixed asset	14	(7,600)	(2,875)
Receipts from disposals of tangible fixed assets		<u>1,607</u>	<u>1,060</u>
Net cash outflow from investing activities		<u>(5,993)</u>	<u>(1,815)</u>
Increase in cash	24	<u>591</u>	<u>5,746</u>
Reconciliation of net cashflow to movement in net funds			
Increase in cash	24	591	<u>5,746</u>
Net funds at 1 January		21,103	15,357
Net funds at 31 December		<u>21,694</u>	<u>21,103</u>

The Statement of Accounting Policies and notes 1 to 28 form part of these Financial Statements.

Dr. Noel Cawley
Chairman

Professor Gerry Boyle
Director

Notes to the Financial Statements

Year ended 31 December 2011

1 Teagasc (the Agriculture and Food Development Authority)

Teagasc (the Agriculture and Food Development Authority) was established under the Agriculture (Research, Training and Advice) Act, 1988. Under Section 21 of the Act, the assets and liabilities of An Chomhairle Oiliúna Talmhaíochta and An Foras Talúntais were transferred to Teagasc upon its establishment.

Section 12 of the Act requires that Accounts shall be kept in such form as may be approved by the Minister for Agriculture, Food and the Marine with the concurrence of the Minister for Finance. This approval was given on 14 August 1998.

2 State funding	2011	2010
	€'000	€'000

The amount shown under this heading comprises:

Vote 31: Agriculture, Food and the Marine

Grant-in-aid for general expenses	82,602	83,390
Grant-in-aid for superannuation purposes	37,554	30,775
Grant for human resource purposes	12,000	12,000
Food research and agriculture research	4,654	4,406
Stimulus collaborative research programme	1,964	2,829
Animal Welfare Recording and Breeding Scheme	0	513
Grant for forestry publicity and awareness and training	630	74
	<u>139,404</u>	<u>134,653</u>

3 EU funding	2011	2010
	€'000	€'000

Farm Survey Income	157	102
INTERREG	225	151
Framework Programme VI	275	953
Framework Programme VII	1,118	347
	<u>1,775</u>	<u>1,553</u>

Framework Programmes have been the main financial tools through which the European Union supports research and development activities covering almost all scientific disciplines. Framework Programme VI ran up to the end of 2006. Framework Programme VII started on 1 January 2007 and runs to the end of 2013.

Teagasc carries out EU funded research through the Framework Programmes. Grants in respect of such research are taken into account as income when the corresponding expenditure has been incurred.

Notes to the Financial Statements...continued

Year ended 31 December 2011

4 Operational income

	Operations	Knowledge Transfer	Research	2011	2010
	€'000	€'000	€'000	€'000	€'000
Advisory service fees	0	10,225	440	10,665	11,371
Other fees	1	2,963	6,941	9,905	8,650
Livestock trading (Note 7)	0	706	2,454	3,160	2,010
Other farming operations	0	818	2,090	2,908	2,436
Canteen receipts	0	109	114	223	219
Publications and miscellaneous	1,000	404	278	1,682	1,395
	<u>1,001</u>	<u>15,225</u>	<u>12,317</u>	<u>28,543</u>	<u>26,081</u>

5 Expenditure

	Operations	Knowledge Transfer	Research	2011	2010
	€'000	€'000	€'000	€'000	€'000
Pay (Note 8)	4,863	35,874	36,915	77,652	79,709
Pensions (Note 9)	58,013	0	0	58,013	60,549
Travelling and subsistence *	256	1,720	1,968	3,944	3,840
Staff Training	232	115	160	507	407
General operating expenses (Note 6)	5,256	9,030	19,727	34,013	26,728
Interest and lease charges	34	0	85	119	27
Depreciation (Note 14)	192	1,343	5,519	7,054	7,298
Grants to private colleges (Note 16)	0	3,567	0	3,567	3,539
Other grants	66	481	4,129	4,676	4,695
	<u>68,912</u>	<u>52,130</u>	<u>68,503</u>	<u>189,545</u>	<u>186,792</u>

* Travelling and subsistence

	Domestic	Foreign	2011	2010
	€'000	€'000	€'000	€'000
Subsistence	1,187	233	1,420	1,199
Motor travel			2,290	2,443
Airline and ferries			234	198
			<u>3,944</u>	<u>3,840</u>

Notes to the Financial Statements...continued

Year ended 31 December 2011

6 Analysis of general operating expenses

	Operations	Knowledge Transfer	Research	2011	2010
	€'000	€'000	€'000	€'000	€'000
Farming supplies/services	1	899	2,805	3,705	3,337
Maintenance/repairs	831	3,174	6,964	10,969	5,147
Rents/rates/insurances	52	781	1,668	2,501	2,380
Postage/telephones	566	1,033	305	1,904	2,170
Power/fuel/petrol	127	778	1,584	2,489	2,285
Laboratory supplies	0	9	2,653	2,662	3,669
Printing/stationery/publicity	1,088	822	409	2,319	1,740
Seminar/classroom/library supplies	55	357	694	1,106	869
Services of external agencies	0	361	732	1,093	843
Student and staff canteen supplies	43	322	272	637	713
ICT supplies/services	1,836	94	282	2,212	1,376
Legal/professional fees (Note 10)	651	293	799	1,743	1,232
Miscellaneous programme costs	4	96	541	641	837
Special events and miscellaneous	2	11	19	32	130
	<u>5,256</u>	<u>9,030</u>	<u>19,727</u>	<u>34,013</u>	<u>26,728</u>

7 Livestock trading surplus

	2011	2010
	€'000	€'000
Sales	3,149	2,322
Grants and subsidies	621	597
Total livestock trading revenue	<u>3,770</u>	<u>2,919</u>
Opening stock	3,910	4,260
Purchases	<u>660</u>	<u>559</u>
	4,570	4,819
Less: Closing stock	<u>(3,960)</u>	<u>(3,910)</u>
Total cost of livestock sales	<u>610</u>	<u>909</u>
Surplus to Income and Expenditure account (Note 4)	<u>3,160</u>	<u>2,010</u>

8 Staff

The average number of staff employed during the year was as follows:

	2011	2010
Professional	660	655
Technical	164	172
Administrative/clerical	233	261
Farm/domestic	203	248
	<u>1,260</u>	<u>1,336</u>

The Director's remuneration was as follows:

	2011	2010
Basic pay	153	151
Benefit in kind (Car)	10	12
	<u>163</u>	<u>163</u>

Notes to the Financial Statements...continued

Year ended 31 December 2011

The Director's pension entitlements do not extend beyond the model public sector defined benefit superannuation scheme.

In 2011, redundancy payments totalling €109,319 were made to former contract staff members who were previously thought not to be entitled to such redundancy payments. These former staff members had lodged a claim for redundancy payments from Teagasc in 2010. The amount accrued in the 2010 financial statements was €90,000.

Pension levy of €5,094,797 has been deducted from salaries and paid to the Department of Agriculture, Food and the Marine.

9 Superannuation

Section 9 of the Agriculture (Research, Training and Advice) Act, 1988 provides for the establishment of schemes for the granting of superannuation benefits in respect of staff appointed by Teagasc and staff transferred to Teagasc from An Chomhairle Oiliúna Talmhaíochta and from An Foras Talúntais.

Pending the approval of draft superannuation schemes by the Minister for Agriculture, Food and the Marine, the Minister for Finance and the Oireachtas, Teagasc operates superannuation schemes on an administrative basis.

Teagasc also administers two superannuation schemes (the Agricultural Colleges Staff Superannuation Scheme 1985 and the Agricultural Colleges Spouses' and Children's Contributory Pension Scheme 1985) in respect of certain staff employed by privately-owned Colleges of Agriculture and Horticulture, the cost of whose salaries is borne by the Exchequer through the agency of Teagasc.

The above schemes are defined benefit superannuation schemes. No separate fund is maintained, and no assets are held, to finance the payment of pensions and gratuities. The actuarial estimate of future liabilities accruing in regard to future benefits is shown on the Balance Sheet.

The average number of monthly pensions paid during the year was 1,584 (2010 –1,564).

Notes to the Financial Statements...continued

Year ended 31 December 2011

Superannuation Costs

(i) Analysis of total pension costs charged to income and expenditure account

	2011 €'000	2010 €'000
Current service cost	15,492	14,251
Interest on scheme liabilities	46,483	50,450
Staff contributions	(3,962)	(4,152)
	<u>58,013</u>	<u>60,549</u>

(ii) Movement in net pension liability during the financial year

	2011 €'000	2010 €'000
Net pension liability at 1 January	880,648	863,106
Current service cost	15,492	14,251
Benefits paid	(46,660)	(44,540)
Interest on scheme liabilities	46,483	50,450
Actuarial loss / (gain)	41,333	(2,619)
Net pension liability at 31 December	<u>937,296</u>	<u>880,648</u>

(iii) Deferred funding asset for pensions

Teagasc recognises as an asset an amount corresponding to the unfunded deferred liability for pensions on the basis of the set of assumptions described above and a number of past events. These events include the statutory basis for the establishment of the superannuation schemes, and the policy and practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. While there is no formal agreement regarding these specific amounts with the Department of Agriculture, Food and the Marine, Teagasc has no evidence that this funding policy will not continue to meet such sums in accordance with current practice.

Net deferred funding for pensions in the year

	2011 €'000	2010 €'000
Funding recoverable in respect of current years pensions	61,975	64,701
Resources applied to pay pensions	(46,660)	(44,540)
	<u>15,315</u>	<u>20,161</u>

The deferred funding asset for pensions as at 31 December 2011 was €937million (2010 - €881million).

Notes to the Financial Statements...continued

Year ended 31 December 2011

(iv) History of defined benefit obligations

	2011	2010	2009
	€'000	€'000	€'000
Experience gain / (loss)	1,838	71,517	22,535
Percentage of present value of scheme liabilities	0.2%	8.1%	2.6%
Changes in assumptions	(43,171)	(68,898)	672
Percentage of present value of scheme liabilities	4.6%	7.8%	0.001%
Actuarial (loss)/ gain recognised in the STRGL	(41,333)	2,619	23,207

The cumulative actuarial gain recognised in the Statement of Total Recognised Gains and Losses amounts to €111.794m.

(v) General description of the scheme

The pension scheme is a defined benefit final salary pension arrangement with benefits and contributions defined by reference to current "model" public sector scheme regulations. The scheme provides a pension (eightieths per year of service), a gratuity lump sum (three eightieths per year of service) and spouse's and children's pensions. Normal retirement age is a member's 65th birthday, and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. Pensions in payment (and deferment) normally increase in line with general public sector salary inflation.

The valuation used for FRS17 disclosures has been based on an actuarial valuation by a qualified independent actuary on 20 January 2012 to take account of the requirements of FRS17 (revised) in order to assess the scheme liabilities at 31 December 2011.

The principal actuarial assumptions used to calculate liabilities under FRS17 are as follows:

	2011	2010
	% per annum	% per annum
Inflation rate increase	2.00	2.00
Salary rate increase	3.50	3.50
Pension rate increase	3.50	3.50
Scheme liabilities discount rate	5.00	5.30

The mortality basis adopted allows for improvements in life expectancy over time, so that life expectancy at retirement will depend on the year in which a member attains retirement age (age 65). The table below shows the life expectancy for members attaining age 65 in 2011 and 2036.

Year of attaining 65	2011	2036
Life expectancy - males	87.8	90.1
Life expectancy - females	89.5	92.0

On the basis of these and other assumptions and applying the projected unit method prescribed in FRS17, the present value of pension scheme liabilities is as follows:

	2011	2010
	€'000	€'000
Accumulated liabilities in respect of active scheme members	247,091	454,737
Liabilities in respect of existing pensioners and deferred pensions	690,205	425,911
Total accrued pension liability	<u>937,296</u>	<u>880,648</u>

10 Audit fee

A provision of €47,470 has been included in expenditure in respect of auditor's remuneration for 2011 (2010 - €47,470).

Notes to the Financial Statements...continued

Year ended 31 December 2011

11 Authority members' fees and emoluments	2011 €'000	2010 €'000
Cawley, Dr Noel, Chairman	21	21
Brett, Mr James	12	12
Christie, Ms Marie	10	12
Fitzgerald, Mr Joe	9	12
Collins, Mr Tom	12	11
Downey, Mr Eddie	12	12
Fottrell, Dr Patrick	12	12
Cooke, Mr Tommy	3	0
Gibbons, Mr Padraig	12	12
Heraghty, Mr Martin	0	0
O'Mahony, Mr Frank	12	12
Sweeney, Ms Margaret	12	12
	<u>127</u>	<u>128</u>

These amounts are included in the total pay expenditure in Note 5
Total expenses paid to Authority members

	<u>36</u>	<u>29</u>
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12 Capital account	2011 €'000	2010 €'000
Balance at 1 January	<u>95,204</u>	<u>99,782</u>
Transfers from income and expenditure account		
Amount capitalised in respect of purchased assets	7,600	2,875
Net amount released on disposals	(541)	(155)
Property loan repayments	<u>0</u>	<u>0</u>
	7,059	2,720
Less: Amortised in line with asset depreciation	<u>(7,054)</u>	<u>(7,298)</u>
	<u>5</u>	<u>(4,578)</u>
Balance at 31 December	<u>95,209</u>	<u>95,204</u>

13 Income and Expenditure account

The Authority's accumulated surplus includes profits taken to income in respect of land sales which have and will be used for capital investment purposes. The sanction of the Minister for Agriculture, Food and the Marine and the Minister for Finance must be secured in the case of each sale transaction if Teagasc is to retain the proceeds for investment in the Teagasc programme.

Notes to the Financial Statements...continued

Year ended 31 December 2011

€	Budget for Project €'000	Invested to 31Dec 2011 €'000	Budget to Complete €'000
Teagasc has secured sanction to invest in the following projects which are scheduled or underway:			
Animal Bioscience Centre, Grange, Co. Meath	4,600	3,818	782
Sheep Research Facilities, Athenry	850	22	828
Student Facilities, Botanic Gardens	2,500	0	2,500
Demonstration / Technology farm	170	36	134
			4,244
Teagasc has applied for but has not yet secured sanction to reallocate residual funds on hand following completion of capital projects within budget and/or redesign of project at lower cost			
			2,449
Teagasc has applied for but has not yet secured sanction to retain the proceeds from 14 sales completed in 2009/2010/2011 (Note 25)			
Included in accumulated surplus on Income and Expenditure Account			<u>2,690</u>
			<u>9,383</u>

14 Tangible fixed assets	Land €'000	Buildings €'000	Plant & & equipment €'000	Total €'000
Cost or valuation				
At beginning of year	5,810	109,174	65,143	180,127
Additions	0	3,707	3,893	7,600
Disposals	0	(936)	(807)	(1,743)
At end of year	<u>5,810</u>	<u>111,945</u>	<u>68,229</u>	<u>185,984</u>
Accumulated depreciation				
At beginning of year	0	37,895	47,028	84,923
Charge for year	0	2,799	4,255	7,054
Disposals	0	(540)	(662)	(1,202)
At end of year	<u>0</u>	<u>40,154</u>	<u>50,621</u>	<u>90,775</u>
Net book amounts				
At beginning of year	<u>5,810</u>	<u>71,279</u>	<u>18,115</u>	<u>95,204</u>
At end of year	<u>5,810</u>	<u>71,791</u>	<u>17,608</u>	<u>95,209</u>

Notes to the Financial Statements...continued

Year ended 31 December 2011

Included in the opening balances is land totalling 522.8 ha (1,291.3 acres) transferred by the Department of Agriculture, Food and the Marine at nominal values, and certain other assets which were revalued at 31 December 1975 or 1 July 1980.

Teagasc has the use of 38.0 ha (94 acres) of land owned by the Department of Agriculture, Food and the Marine, while the Department has the use of 27.1 ha (67 acres) owned by Teagasc. There is no charge to either party arising from these arrangements.

Certain fixed assets entrusted to Teagasc are protected by statute, and may not be sold.

15 Financial assets

Teagasc has a 57% holding in the paid up share capital of Moorepark Technology Limited (5,100 shares at €0.127). The Company, which was incorporated on 18 January 1991, is a joint venture between Teagasc and various agriculture co-operatives.

Separate audited financial statements have been prepared in respect of the Company and its results for the year ended 31 December 2011 were as follows:

	2011 €'000	2010 €'000
Turnover	<u>1,351</u>	<u>1,407</u>
Operating profit before depreciation, interest and tax	348	338
Depreciation (net of grants amortised)	(260)	(261)
Interest receipts	5	1
Tax	<u>(1)</u>	<u>0</u>
Profit after taxation	<u>92</u>	<u>78</u>
Accumulated profits to 31 December	<u>205</u>	<u>113</u>

The Company's turnover for 2010 has been restated to reflect an amount which had been netted off against staff costs in that year. In addition the company's operating profit before depreciation, interest and tax for 2010 has been adjusted to reflect a provision for bad debts which had not been included in the profit reported for that year in the note to the Teagasc 2010 financial statements.

The Company's Memorandum of Association provides that shareholders are entitled to avail of the Company's services at preferential rates.

Trading transactions between Teagasc and Moorepark Technology Limited (which consists of consultancy, analyses and use of technical and other facilities) were as follows:

	2011 €'000	2010 €'000
Moorepark Technology Limited sales to Teagasc (included in turnover)	403	319
Other recoupments from Teagasc (deducted from cost of sales)	<u>118</u>	<u>157</u>
Total	<u>521</u>	<u>476</u>
Amounts owed to Moorepark Technology Limited at 31 December	<u>65</u>	<u>97</u>
Teagasc sales to Moorepark Technology Limited	<u>67</u>	<u>53</u>
Amounts owed to Teagasc at 31 December	<u>9</u>	<u>18</u>

Notes to the Financial Statements...continued

Year ended 31 December 2011

Under the terms of the Moorepark Technology Limited Promoters' Agreement, Teagasc has undertaken to provide from its own resources specified staff requirements in Moorepark Technology Limited, as well as underwriting the Company's utility, stores, accounts and effluent overheads. These costs were as follows:

	2011 €'000	2010 €'000
Staff	196	98
Other	27	65

These totals are included in Teagasc expenditure under Research (Notes 5 and 6).

Moorepark Technology Limited utilises assets owned by Teagasc as follows:

	2011 €'000	2010 €'000
Original Costs	1,196	1,196
Net Book Value at 31 December	6	19

These amounts are included under Plant and Equipment (see Note 14 above).

In accordance with the Promoters' Agreement, Teagasc has also leased to Moorepark Technology Limited at a nominal rent of €127 per annum its existing processing hall at Moorepark Dairy Products Centre together with an adjoining site on which the Company has constructed additional facilities.

It was not considered appropriate to consolidate the results of the Company.

Teagasc has three small investments in agricultural co-operatives costing €1,243 in total (2010 - €1,243).

16 Private Colleges

Teagasc provides support to three private agricultural colleges as follows:

	2011 €'000	2010 €'000
Grants to private colleges	3,567	3,539
Staff seconded to private colleges (included in the total pay expenditure in Note 5 above)	369	285
	<u>3,936</u>	<u>3,824</u>

17 Stocks

	2011 €'000	2010 €'000
Livestock	3,960	3,909
Farm produce, fertilisers and feeding stocks	524	510
General supplies	271	243
	<u>4,755</u>	<u>4,662</u>

Notes to the Financial Statements...continued

Year ended 31 December 2011

18 Debtors and prepayments

	2011 €'000	2010 €'000
Trade debtors	5,066	4,938
Other debtors, prepayments and accrued income	5,776	5,659
	<u>10,842</u>	<u>10,597</u>

All amounts included above fall due within one year.

19 Creditors - Amounts falling due within one year

	2011 €'000	2010 €'000
Trade creditors	1,738	1,881
Income tax deducted under PAYE	1,463	1,238
Pay related social insurance	1,109	966
Value added tax	280	283
Withholding tax	242	96
Other creditors and accruals	9,586	10,608
	<u>14,418</u>	<u>15,072</u>
Creditors for taxation and social welfare included above	<u>3,094</u>	<u>2,583</u>

20 Deferred income

Teagasc carries out public funded research in accordance with contracts with other State Institutions, principally the Department of Agriculture, Food and the Marine. Grants in respect of such research are taken into account as income when the corresponding expenditure has been incurred under each contract.

At 31 December the source and amount of deferred income in respect of research and other projects was as follows:

	2011 €'000	2010 €'000
Department of Agriculture, Food and the Marine – advance for FIRM projects	2,782	1,317
Department of Agriculture, Food and the Marine – advance for Stimulus projects	2,254	1,745
European Science Foundation – Food Safety Promotion	166	282
Other research related deferrals	6,152	5,468
Amounts received in advance for work associated with the completion of sale of land at Athenry	1,114	1,114
	<u>12,468</u>	<u>9,926</u>

21 Finance leases

At 31 December 2011 Teagasc had no obligations under finance leases (2010 - Nil).

There were no finance charges incurred during the year under finance leases (2010 - Nil).

Notes to the Financial Statements...continued

Year ended 31 December 2011

22 Capital commitments

There were no capital commitments outstanding at 31 December 2011 (2010 - €3.44million).

23 Operating leases

At 31 December 2011 Teagasc had annual commitments under non-cancellable operating leases as follows:

	Land and buildings €'000	Plant and machinery €'000	Total €'000
Leases which expire:			
Within one year	109	19	128
Between two and five years	167	83	250
After five years	27	0	27
	<u>303</u>	<u>102</u>	<u>405</u>

24 Analysis of changes in net funds during the year

	1 January 2011 €'000	Cashflows €'000	31 December 2011 €'000
Cash at bank and on hand	18,925	1,985	20,910
Bank overdraft	0	0	0
Short-term deposits	2,178	(1,394)	784
	<u>21,103</u>	<u>591</u>	<u>21,694</u>

25 Disposal of fixed assets

	Proceeds Costs €'000	Proceeds Costs €'000
Proceeds from sale of property		
Property sales during year	1,625	
Cost of sales	<u>(144)</u>	1,481
Proceeds from sale of other assets		<u>126</u>
Net book value of fixed assets disposed		1,607
Property assets	(396)	
Other assets	<u>(145)</u>	<u>(541)</u>
		<u>1,066</u>

There was no transfer to the Exchequer of asset sales proceeds in 2011.

Notes to the Financial Statements...continued

Year ended 31 December 2011

26 Teagasc premises

Teagasc has a total of 58 offices/centres throughout the country, of which 52 are owned by Teagasc and the remaining 6 are under short term rental agreements with an annual total cost of €167,000. All of these rental agreements will have expired within the next 5 years.

27 Authority members – disclosure of transactions

The Authority has adopted procedures in accordance with the guidelines issued by the Department of Finance in relation to the disclosure of interest by Authority members and the Authority has adhered to these procedures. There were no transactions in the year in relation to the Authority's activities in which board members had an interest.

28 Approval of the financial statements

The Authority approved the financial statements on 7th March 2012.

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