



Annual Report 2006 and Financial Statements



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Mission Statement

To generate and apply new knowledge for the sustainable development of agriculture and the food processing industry to enable it to respond profitably to consumer demands and requirements and contribute to a vibrant rural economy and society.





Highlights 2006

Teagasc has reorganised and invested to position itself to provide the best services to the agriculture and food industries into the future. The organisation continues to underpin the development of a competitive, innovative and consumer focused agriculture sector.

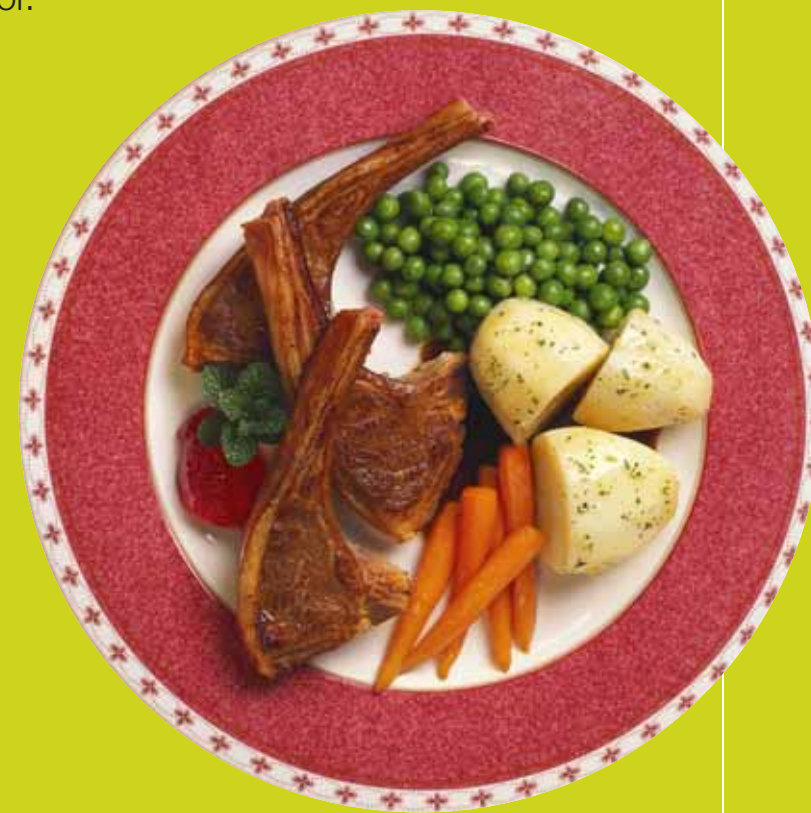
eCollege

A total of 400 students completed the FETAC Level 5 Specific Purpose Certificate in Animal and Crop Production (100 hours) which they had received using online delivery. Virtually all went on and completed the FETAC Level 6 Specific Purpose Certificate in Farm Business.



Events 2006

The Agriculture and Food 06 event held in Kildalton College was a huge success attracting over 40,000 visitors and showcasing a comprehensive range of Teagasc activities.

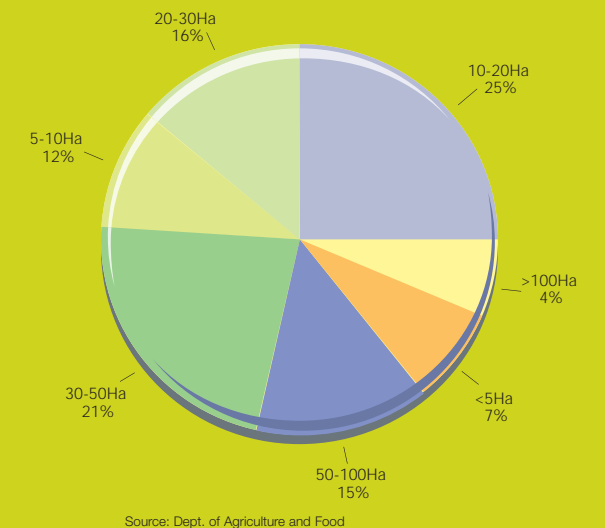


Advisory

In 2006 client numbers reached 43,000, a new high in recent years. While driving forward the business technology and transfer programmes the Teagasc Advisory Service supported 25,300 REPS clients and assisted 25,500 farmers with applications under the Farm Waste Management Scheme. And 41,500 farmers were assisted to secure their decoupled Single Farm Payment.



Farm Size Structure in Ireland, 2005



Summary of public advisory events:

Activity	Dairy	Cattle	Sheep	Tillage
Farm Walks				
Number	85	51	17	30
Attendance	4,340	3,695	698	1,250

Group Meetings	Dairy	Cattle	Sheep	Tillage
Number	939	180	49	70
Attendance	14,085	5,860	752	850

Seminars	Dairy	Cattle	Sheep	Tillage
Number	52	21	29	7
Attendance	4,100	1,392	1,522	740

Food Research

The 5th Framework European Union Project BIOCLA, coordinated by Moorepark Food Research Centre was completed in 2006. To mark the occasion, Moorepark hosted an international conference 'Conjugated Linoleic Acid based Functional Foods: Evidence Delivery and Dose'. Blood lipid profiles of those fed high CLA cheese were significantly improved, demonstrating the beneficial effects of eating CLA enriched cheese.



Agriculture Research

The milk payment system developed by dairy production research scientists at Moorepark for Irish conditions has now been adopted by a significant number of milk processors. This new system of paying for milk (known as the A+B-C system) allows for strong signals to be sent back to producers in relation to market requirements. It also allows for the science of animal breeding and nutrition to make a more significant contribution to efficient production at farm level and consequently on farm profitability. Significant improvement in process efficiency at factory level can also be achieved because the processor will be paying for the true value of milk for the product mix relevant to Ireland.

Chairman's Statement



Irish farming and the agriculture sector continue to evolve as we move to a more market driven business environment. The business emphasis has been placed firmly back on what the market can return for the products produced inside the farm gate.

Teagasc has reorganised and invested to position itself to provide the best services to the agriculture and food industries into the future. The reorganisation of our education and training courses, along with the restructuring of our advisory services, position the organisation to service the needs of our clients. We are now more relevant to the requirements of our customers, who are restructuring their businesses for the challenges ahead.

Our investment in new biotechnology research facilities during the year, positions us at the cutting edge of both food and agricultural research. Research is the driving force within Teagasc and within Irish agriculture.

Our Agriculture Research programmes are firmly focused on improving efficiencies on farms. As farming and the agri-food industry become more market-driven, Teagasc research, particularly our innovative food research programme, is providing solutions in this new environment.

Teagasc has worked closely with a number of public bodies, organisations, individuals and companies in the agriculture and food industries. These linkages are vital to Teagasc in delivering its programmes to clients and stakeholders.

The open day in Kildalton, Agriculture and Food 06, on the longest day of the year, showed clearly the genuine interest of farmers in research, and the relevance of Teagasc's work to the farming and food industries.

During the year, the guidance and assistance of the Minister for Agriculture and Food, Mary Coughlan T.D., has been greatly appreciated. I also want to acknowledge the contribution of the two Ministers of State at the Department of Agriculture and Food, Brendan Smith T.D. and Mary Wallace T.D., and to thank them for their continued support. Teagasc continues to interact and work well with the Department of Agriculture and Food at all levels. The excellent working relationships with the Secretary General of the Department, Tom Moran, and his officials help to streamline the service provided by the organisation to its customers. I would especially like to express my appreciation to Jim Beecher, Assistant Secretary General in the Department, and member of the Authority for his contribution during the year.

Teagasc has worked effectively with a number of co-operatives and companies on a range of joint programmes. These links with industry are important and help to ensure that our activities remain relevant to the needs of our customers.

Our co-operation with the universities and research institutions are critical to sharing information and increasing the overall knowledge base within the organisation.

I would like to take this opportunity to thank Jim Flanagan for his contribution to Teagasc over the four years he served as Director. He helped modernise and restructure the organisation. One of his main achievements was relocating the headquarters to Oak Park. His ongoing contribution to the organisation's research vision plan will greatly enhance the research capacity of the organisation. I want to express my appreciation to the Acting Director, Tom Kirley, for his management of the organisation since September.

The enthusiasm and commitment of the management team and all the staff during the past year has made Teagasc a stronger organisation.

My colleagues on the Teagasc Authority continue to give generously of their time and commitment to the betterment of the organisation. I would like to thank Ruaidhri Deasy for his contribution over the years as a member of the Authority; welcome Derek Deane who joined the board during the year; and congratulate Joe Fitzgerald on his reappointment for another term. I wish to thank all my colleagues on the Authority for their contribution in the year under review.

Dr Tom O Dwyer
Chairman



Report of the Acting Director



Tom Kirley
Acting Director

2006 was an eventful year for Teagasc with an exceptionally high level of activity across the entire organisation. The advisory service had one of its busiest years ever, meeting important deadlines for farmers while continuing to drive the business and technology transfer programmes. Client numbers have reached 43,000, a new level for recent years. Teagasc advisory services supported 25,300 REPS clients and assisted 25,500 farmers with applications under the farm waste management scheme. A total of 41,500 farmers were assisted to secure their decoupled Single Farm Payment.

Advisory

It was a mixed year for our farmer clients. Milk prices declined early in the year, but dairy markets recovered as the year came to a close. Beef producers had a reasonable year, while grain prices improved substantially, creating more optimism in that sector than has been seen for many years. Against this background, farmers continue to assess the options for their businesses and families. Teagasc has assisted 5,200 farmers with this process through the Options Programme. Sixty percent of these farmers plan to change and improve their financial management and enterprise efficiency.

The National Farm Survey provides definitive data on income levels on farms. The 2005 NFS was published in September 2006. The main findings were that Family Farm Income increased to €22,460 with direct payments accounting for 94% of FFI. But it must be remembered that farmers received a once-off payment averaging €5,266 per farm due to the carry-over of arrears from the 2004 coupled direct payments.

Gross output per farm increased by 18 percent with both direct and overhead costs increasing by 5% in 2005. On 55% of farms, either the farmer and or the spouse had off-farm employment.

Research

Agricultural research continues to underpin the business and technical advice transferred to farms. In dairying, the focus is on grass based production systems. Better grazing management, reduced grass silage and concentrate supplementation, use of high Economic Breeding Index sires and a reduction in machinery costs were identified as the main routes to increased profitability on dairy farms.

Early in the year, the organisation made an important contribution to the government's effort to secure amendments to the statutory instrument implementing the Nitrates Directive. At the request of the Minister for Agriculture and Food research and advisory staff prepared a document on phosphorous and nitrogen which formed the scientific basis for the amendments. The level of phosphorus (P) application on grassland and crops is an important factor in environmental protection.



The results of a large-scale experiment conducted over four years at 32 locations across Ireland established fertiliser rates required to produce both optimum yield and herbage P contents, for various combinations of soil type and soil test P.

For most soils and for all soil P levels, fertiliser rates required to produce 95% of potential yield were lower than those required to produce herbage-P concentrations of 0.3 or 0.35% — the level required for high production cows. Fertiliser rates required to produce both 95% of potential yield and herbage-P of 0.3% or higher were largely similar. These research results were a very important component in Teagasc's scientific argument which enabled changes to be made to the initial statutory instrument implementing the Nitrates Directive.

Last year saw renewed interest in the use of crops for energy. Results from research work carried out over a number of years allowed Teagasc to provide independent impartial advice to farmers on this emerging industry. Teagasc programmes will continue to assess the opportunities provided by biofuel crops and communicate this information to farmers.

Foresight

In October, Teagasc management decided to undertake a foresight project, Teagasc 2030, in which Teagasc and its stakeholders will work to achieve a consensus on the long-term challenges facing the agriculture and food industries in Ireland. This work has progressed since year end and is due for completion in 2008.

Food

Innovative food research is being pursued at the two food research centres in Moorepark and Ashtown. A total of 26 new research contracts were secured under the Food Institutional Research Measure (FIRM) along with five awards under the FIRM special equipment initiative. During the year, the functional food research in Teagasc and University College Cork was integrated through the establishment of the UCC - Teagasc Foods for Health Research Partnership. The Teagasc Food Research Directorate has also developed strong collaborative arrangements with other national and international partners.



Agriculture and Food, Mary Coughlan T.D., in June of 2006.

The Ashtown Training and Conference Centre was completed and has been officially open since the end of the year. Other investments were made in new training and milking facilities in Kildalton, and in offices for researchers at the Johnstown Castle laboratory. During the year, the sale of the land at Athenry to the IDA was advanced to contract stage and since year end this has been completed. In total almost 300 acres will be lost to Teagasc and we are actively seeking to replace some of this land to meet the requirements of the research programmes. The proceeds from the sale will be invested in facilities to modernise and equip the organisation for the future.

The Ashtown Food Research Centre was selected to lead a €17.8 million EU-Funded ProSafeBeef project involving 42 international partners.

Education and Training

Teagasc provided a strong education and training service to the agriculture, horticulture and food sectors during the year. A total of 4,560 students received FETAC awards. The new eCollege had over 400 students and almost 10,000 adults attended part-time courses around the country, with the biggest demand being for REPS training courses. The new two year level 6 Advanced Certificate in Agriculture was launched in September 2006 in colleges and local centres with the introduction of home farm placement.

Organisational Development

Teagasc continued to invest and modernise its facilities in 2006. The new Crops Bioscience Centre in Oak Park was officially opened by the Minister for

Events

Attendance at Teagasc events in 2006 reached new levels. The Agriculture and Food 06 event held in Kildalton College on June 21 was an enormous success, attracting over 40,000 visitors and showcasing the wide range of activities that Teagasc are involved in. Other successful open days and farm walks were held in Grange, Oak Park, Moorepark, Athenry, Johnstown Castle and Kinsealy.

Two important events were organised by the Food Research Directorate. The Ashtown Food Research centre was the chief organiser of the International Congress of Meat Science and Technology, which was held in Dublin in August. An industry day on "Intelligence in Food" was held in Moorepark.

Quality Service

Teagasc is committed to providing a quality service to its customers. Surveys to obtain feedback from our clients were carried out during the year at several events. A survey of 1,620 of our farmer customers in December, showed that a large percentage of respondents were very satisfied (72%) or satisfied (23.5%) with the quality of the service they received. Just 2% of respondents indicated they were dissatisfied, with 1.5% very dissatisfied.

I would like to take the opportunity to thank all staff in Teagasc for their commitment to their work, and the quality of the service they provide to the Irish agriculture and food industries.

Tom Kirley
Acting Director

Agricultural research continues to underpin the business and technical advice transferred to farms



Teagasc Authority Members



Dr. Tom O'Dwyer,
Chairman



Mr. James Beecher
Minister's Appointee



Mr. James J. Brett
Minister's Appointee



Mr. Stephen Flynn
Staff Representative



Mr. Derek Deane*
IFA Nominee



Ms. Anna May McHugh
Minister's Appointee



Mr. Joe Fitzgerald
ICMSA Nominee



Professor Patrick Fottrell
Minister's Appointee



Mr. Michael O'Dwyer
ICOS Nominee



Mr. Patrick J. Kelly
Macra Na Feirme
Nominee



Mr. Jerry Henchy
Minister's Appointee

* Replaced Mr Ruaidhri Deasy in May 2006

Membership of Teagasc Authority Committees

Remuneration Committee

- Dr. Tom O'Dwyer (Chairman)
- Mr. James Beecher
- Ms. Anna May McHugh
- Mr. Michael O'Dwyer

Advisory and Training Committee

- Mr. Patrick J. Kelly (Chairman)
- Mr. Derek Deane
- Mr. Joe Fitzgerald
- Mr. Stephen Flynn
- Ms. Anna May McHugh
- Mr. Michael O'Dwyer

Finance Committee

- Mr. James Beecher (Chairman)
- Mr. James J. Brett
- Mr. Joe Fitzgerald
- Mr. Stephen Flynn
- Dr. Tom O'Dwyer

Research Committee

- Professor Patrick Fottrell (Chairman)
- Mr. James Beecher
- Mr. Derek Deane
- Mr. Stephen Flynn
- Mr. Jerry Henchy
- Mr. Patrick J. Kelly
- Ms. Anna May McHugh

Audit Committee

- Mr. James Brett (Chairman)
- Mr. James Beecher
- Mr. Jerry Henchy
- Dr. Tom O'Dwyer



Teagasc Senior Management



Mr Tom Kirley
Acting Director*



Mr Pat Boyle
Head of Advisory
Services Directorate



Mr Donal Carey
Head of Training and
Development
Directorate



Dr Seamus Crosse
Head of Agriculture
Research Directorate



Professor Liam Donnelly
Head of Food Research
Directorate



Mr Tony Mc Mahon
Acting Head of
Administration
Directorate**



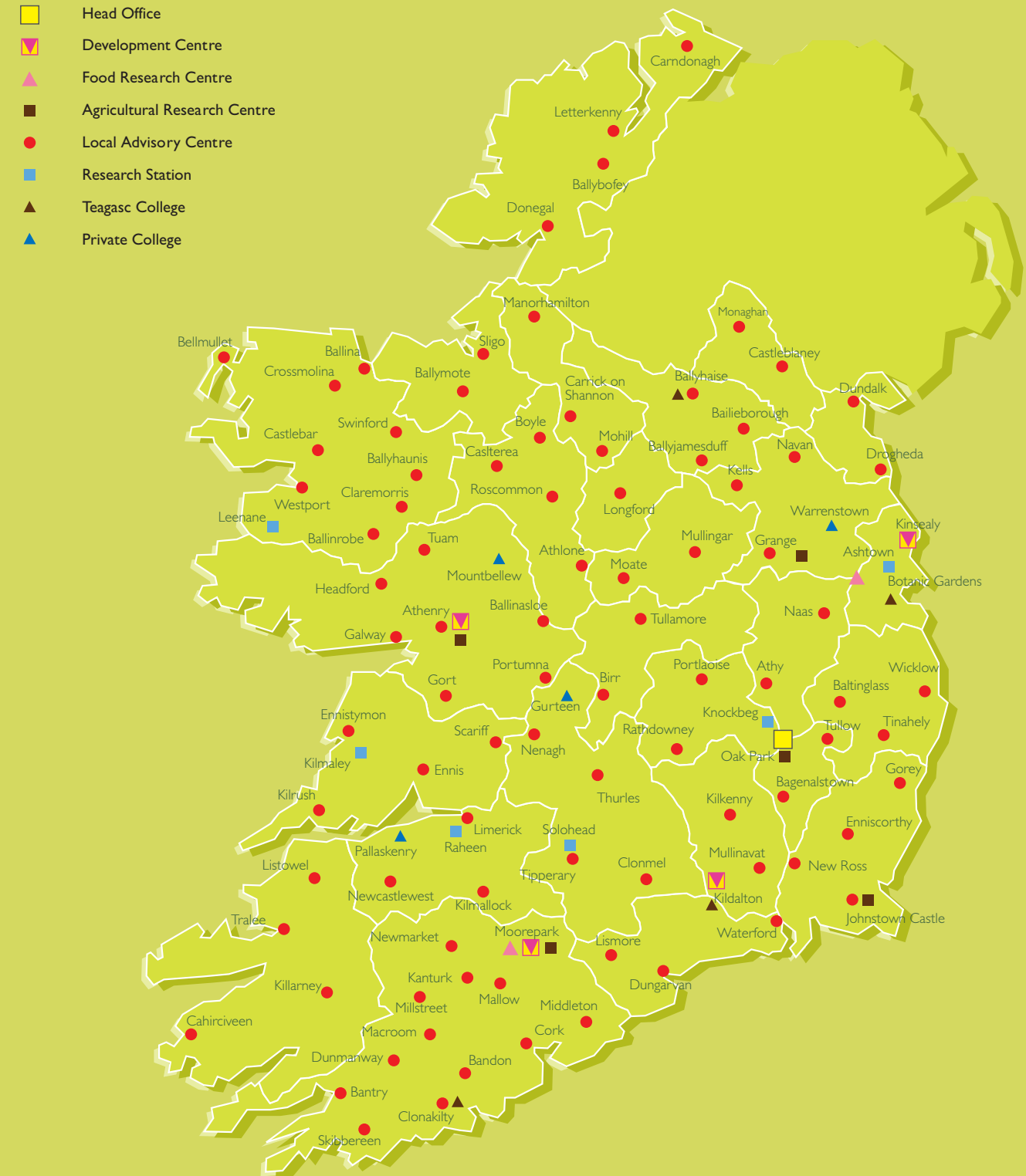
Mr Tom Collins
Head of Corporate and
Management Services
Directorate***

* Tom Kirley was appointed Acting Director in September, 2006, on the retirement of Jim Flanagan.

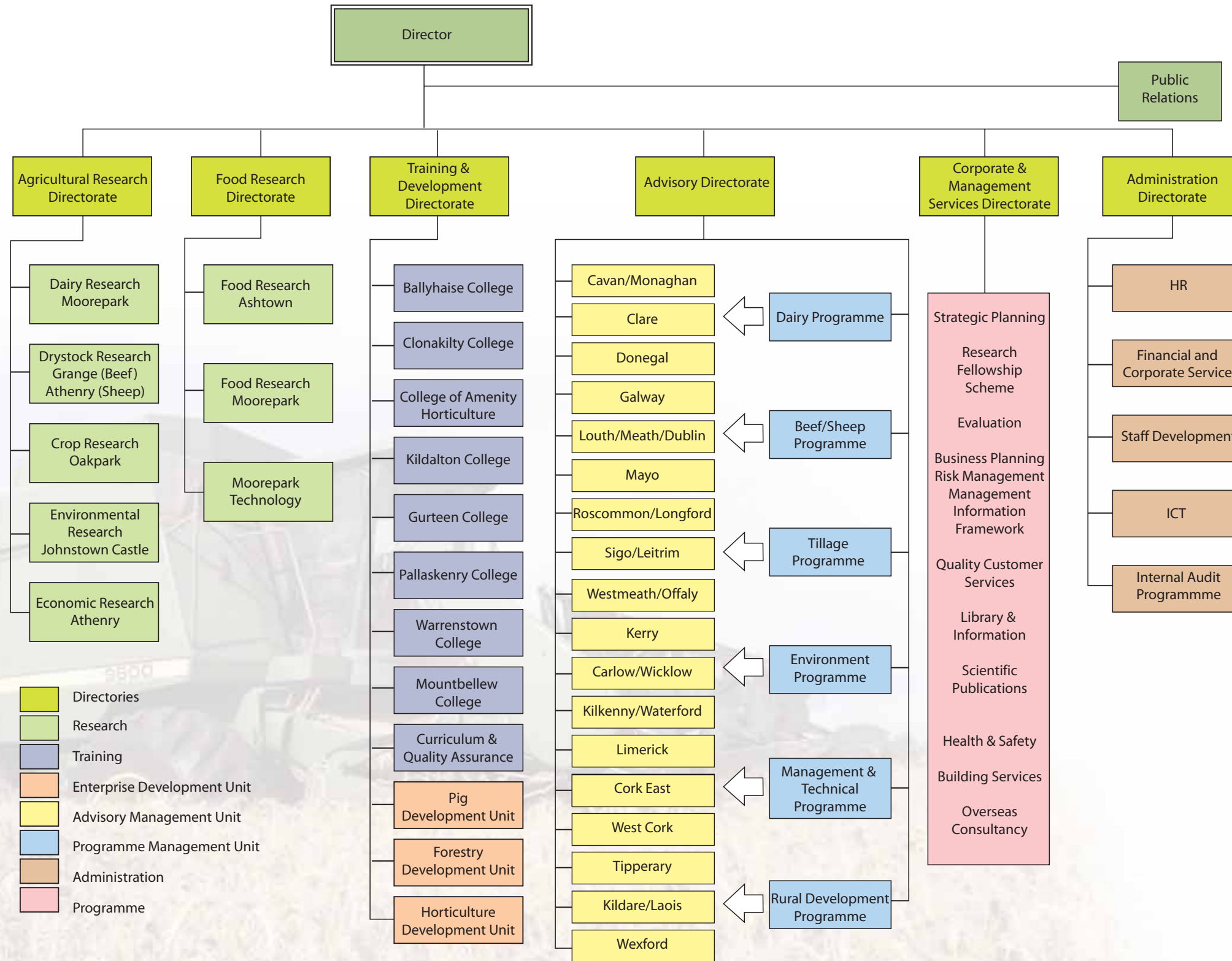
** Tony McMahon was appointed Acting Head of Administration in September 2006.

*** Tom Collins was appointed Head of Corporate and Management services in October 2006, filling the post left vacant by the untimely death of Peter Seery. Dr Lance O'Brien was Acting Head of Corporate and Management Services from March to September 2006.

Teagasc Offices and Centres



Teagasc Organisation Chart



- Directories
- Research
- Training
- Enterprise Development Unit
- Advisory Management Unit
- Programme Management Unit
- Administration
- Programme

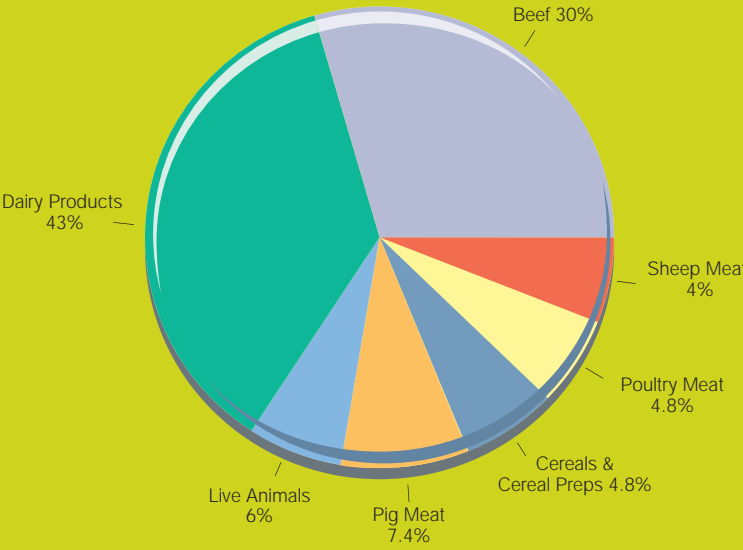
ORGANISATIONAL CHART



Introduction

The 2006 Annual Report is built around the goals outlined in the Teagasc Statement of Strategy 2005-2007. Key achievements and developments for the Agriculture Research, Food Research, Training and Development, Advisory, Corporate and Management services, and Administration Directorates are described in the context of these goals.

Exports of Selected Agricultural Products, 2006



Source: Dept. of Agriculture and Food

Goal 1 - Competitiveness and Innovation in Agriculture

1



To underpin the development of a competitive, innovative and consumer focused agriculture sector, Teagasc will implement research, advisory, education and training strategies for the development of primary agriculture, including horticulture and forestry.

The research strategies will focus on transferring the latest cost-reduction technologies and production blueprints from research, and modern farm management practices, to the commercial farming sector.

Third-level and vocational-level training courses will be provided to equip young entrants to agriculture and horticulture with best practice skills for modern farming.

AGRICULTURE RESEARCH

DAIRYING

Dairy Cow Breeding

Selection for milk yield has resulted in remarkable increases in milk output per animal, but reduced fertility, as cows divert nutrients to production at the expense of body reserves, particularly in early lactation. On Curtin's Farm at the Moorepark Research Centre, analysis of the bioenergetic, endocrine and metabolic status of native High Production (HP; poor fertility) and New Zealand (NZ; good fertility) strains of cows was carried out from late pregnancy through the first 100 days of lactation.

The cows were then superovulated. Embryos collected from the NZ cows were of higher quality and at a more advanced stage of development, partly explaining their superior conception and pregnancy rates. This indicates that NZ strain cows are "genetically programmed" for higher fertility. The results highlight the importance of using high fertility AI bulls for replacement stock.

Dairying Systems Analysis

Scientists at Moorepark have helped Irish milk processors to develop payment formulae which more accurately reflect market requirements. This led to the decision by Connaught Gold Co-op in 2006 to introduce an A+B-C (value of protein plus fat minus the cost of processing) system of milk payment and other co-ops are likely to follow.



Improving grass quality should result in higher levels of milk protein.



This system reflects factors such as seasonality and the cost of handling and removing water, potentially increasing competitiveness. Denmark (7%) and the Netherlands (15%) already include a negative factor for volume on their base milk price.

Technology Evaluation and Transfer
Farm systems research is being conducted on dairy farms in the western and northern regions to identify areas requiring new initiatives in technology transfer. Work in 2006 showed that average financial performance on the 16 selected dairy farms was similar to national farm survey standards; however the lowest cost producers achieved 10.4c/l more profit than those with the highest costs.

Better grazing management, reducing grass silage and concentrate supplementation, use of high Economical Breeding Index sires and a reduction in machinery costs were identified as the main routes to increased profitability.

Automatic Milking
Moorepark, together with the School of Mechanical Engineering at Dublin City University, is developing an automatic milking process suitable for pasture-based milk production. To achieve adequate throughput of animals the device must apply milking cups swiftly, requiring it to locate all four teats at once.

The strategy so far has been to use a vision-based system to locate all teats simultaneously (systems which find one teat at a time using laser-based methods are too slow). Work in progress has yielded a robotic manipulator concept capable of handling four milking cups



at the same time. This represents a suitable platform for the design and development of cluster attachment software.

Animal Nutrition and Product Quality
Increasing both the concentration of milk protein and conjugated linoleic acid (CLA), a component of milk fat, will increase the value of milk. While levels are rising gradually, milk protein concentrations in the mid-summer period are still lower than expected. Analysis of work done on 45 farms from June to August 2006 shows that milk protein concentration is linked to grass digestibility. Improving grass quality should result in higher levels of milk protein.

Conjugated linoleic acid can have health benefits for humans. An investigation showed that CLA concentrations were higher in milk from pasture-grazed cows than from zero-grazed cows (where cut grass is delivered to the animal). Levels were lowest in milk from cows fed grass silage.

BEEF

Sustainable Beef Production Systems
About half of all dairy cows are bred to beef bulls. Of these cows half are bred to early and half to late maturing breed types. The progeny differ greatly in age and weight at finish and in their suitability for different finishing regimes. Systems were assessed where 16-month old spring-born steers were finished either (1) at pasture for three months, (2) indoors on ad lib concentrates for three months, or (3) at pasture for three months followed by feeding concentrates ad lib indoors for three months.

None of the breed types was adequately finished off pasture alone; the pure dairy and early maturing breed types were adequately finished after three months on ad lib concentrates, and the late maturing steers were adequately finished on pasture followed by the concentrates treatment.

Animal Nutrition and Product Quality
An on-going project is investigating the potential human health implications of beef muscle from cattle finished on grazed grass having a higher proportion of beneficial conjugated linoleic acid (CLA) and total polyunsaturated fatty acids than animals finished on a concentrate-based diet.

In an in vitro study of rumen fermentation, plant oils, as the free oil form, promoted higher vaccenic acid production than the oilseed form. Since vaccenic acid is the raw material for production of CLA, using plant oils rather than whole oilseeds, seems a more effective route to increase CLA concentration in beef.

Animal Genomics and Proteomics
Transporting cattle can result in stress which leaves animals susceptible to respiratory diseases, probably due to reduced immunity. A study examined if transporting young bulls by road for nine hours induced changes in the expression of genes associated with defences and inflammation in the lungs.



The conclusion is that transporting young bulls induces increased expression of the gene for blood neutrophils which raises circulating neutrophil numbers. Scientists further concluded that bovine neutrophils may generate a hyperactive inflammatory response during transportation stress, indicating a potential rationale for increased disease susceptibility, especially to pathogens which cause respiratory disease.

Biological control of sheep endoparasites

Gastrointestinal parasites can cause major economic loss through their effects on lamb health and performance. Anthelmintics used alone can result in genetic resistance. Resistance first emerged in the southern hemisphere and field studies conducted by Teagasc have shown that there is a high incidence of resistance to some anthelmintics on Irish sheep farms.

This prompted researchers to examine the potential of fungi for biological control of gastrointestinal parasites of sheep. A total of 20 endoparasitic species of fungi were evaluated for their ability to attack eggs and larvae of one of the principal sheep endoparasites in Ireland. Six of the species were found to have activity against either egg or larval stages of the sheep parasite, and produced chlamydozoospores which can survive passage through the digestive tract of sheep.

This means that the spores may be administered orally to sheep and are voided in the dung, where they attack the eggs or larvae.

Four of the six species have been found in Ireland and thus would not be exotic introductions. These four species attack the egg stage, which means they also have potential to be effective against liver fluke. Translating these findings into practice will require the development of efficient chlamydozoospore production and delivery systems and significant investment.



CROPS

Agronomy

A review of the long-term performance of a low-input winter wheat production system indicates that while yields are somewhat reduced, overall profitability is increased by €62/ha.

Response to fungicides

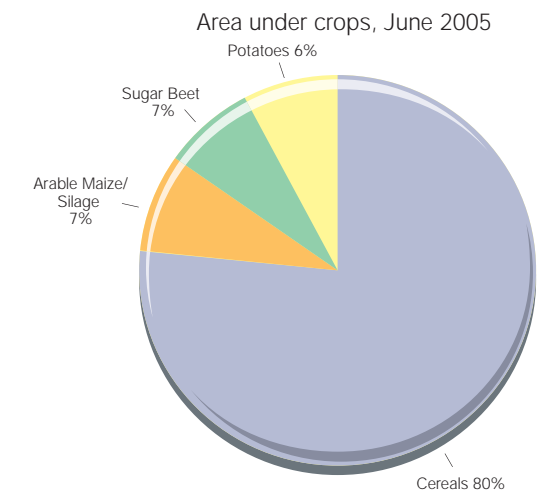
Weather conditions generally lowered the response to fungicides in 2006, but trials were nonetheless able to rank products for disease control and production margin. Product mixtures which reduce the risk of sensitivity development in the triazole group of fungicides to *Mycosphaerella graminicola* (*Septoria tritici*) were identified. Trials showed that there are differing levels of cross resistance within the triazoles to this pathogen.

Reduced tillage

Wheat grain yields in 2006 were marginally better in crops established using min-till establishment rather than conventional ploughing. This result combined with cost, labour and timeliness benefits, indicates that the system should be considered by larger-scale wheat producers.

New varieties

A triticale variety trial showed that there are new types which can significantly out-yield the most commonly grown cultivar. Research also indicated that the response to fertilizer nitrogen of autumn-sown triticale is similar to that of winter wheat but that the greater risk of lodging must be taken into account when deciding overall nitrogen strategy.



Source: Dept. of Agriculture and Food

Cover crops

Research on cover crops indicated that a mustard cover crop can significantly reduce nitrate leaching compared to bare soil over the winter period. A comparison of the effects of a range of over-winter cover crops on the response to fertilizer nitrogen of a subsequent spring barley crop indicated effects were generally small and inconsistent.

Gene flow

Research on oilseed rape is modeling the potential for gene flow from a herbicide tolerant winter oilseed rape site. Simulation software indicates that new management measures will be required to ensure the effective co-existence of GM herbicide tolerant oilseed rape in parallel with non-GM oilseed rape systems.



TRAINING & DEVELOPMENT

All current Teagasc education and training programmes were validated by FETAC during 2006 and a total of 4,560 candidates received FETAC awards. Over 3,000 students participated in further education and training, with 670 participating in higher level courses. The new eCollege had over 400 students, and almost 10,000 adults attended part-time courses throughout the country.

Teagasc eCollege

In 2006, 400 students received online delivery of the FETAC Level 5 Specific Purpose Certificate in Animal and Crop Production (100 hours) and virtually all continued on and completed the FETAC Level 6 Specific Purpose Certificate in Farm Business (80 hours). The courses are provided using a Virtual Learning Environment, which facilitates student administration and online discussion forums.

All Teagasc agricultural colleges and private colleges are involved in the provision of practical skills training for the online students. There are now over 60 eTutors trained to deliver programmes in the virtual learning environment from agricultural, horticultural, forestry and food sectors within Teagasc.

A number of successful pilot programmes were also initiated by eCollege staff in 2006. The Advanced Hygiene Management in Food Safety course at Ashtown Food Research Centre was delivered in an online format to provide a more flexible and innovative mode of delivery than traditional classroom-based sessions. This was a successful project and the online option for this course will be available again in 2007. In addition, online learning was integrated in the FETAC Advanced Certificate in Horticulture Level 6 programme by students completing modules via the virtual learning environment.

Online FETAC Level 6 Specific Purpose Certificate in Farm Business (80 hours) courses were run in association with Clonakilty and Pallaskenry colleges to meet the demands of students completing their 180 hours of agricultural training. 34 students participated in these programmes.

Due to unprecedented demand for online FETAC programmes, over 400 places will again be offered to students in 2007. Future plans for the eCollege include design and delivery of online poultry courses, further development of online courses within food and horticultural sectors, and training of additional eTutors.

Young Entrant Training

Further education and training programmes were delivered at eight colleges and at a number of local centres in agriculture, horticulture, horse breeding and training and forestry. Specialised advanced courses were also provided in Dairy Herd Management, Machinery and Crop Management, Farm Management, Drystock Management and Agricultural Mechanisation. A total of 409 students enrolled in 2006 in further education and training programmes while the overall number participating in these programmes was 3,076.

A notable trend in 2006 was the demise of the Advanced Certificate in Farm Management, with no first year enrollees for the first time since the course's inception. This has led to an initiative to recruit Eastern European students onto this course for 2007.

Teagasc is delivering eleven higher education and training programmes in conjunction with Institutes of Technology. These programmes include Agriculture, Horticulture, Agricultural Science, Agribusiness, Equine Studies and Agricultural Mechanisation. A total of

198 students enrolled in 2006 in higher education and training programmes and the overall number participating in these programmes was 622.

Access, transfer and progression are key components of all the above programmes. Participants can transfer onto higher education and training courses if they achieve a merit or distinction and all higher level students can progress up to and beyond Level 8 (honours degree level) on the National Qualifications Framework.

Adult Farmer Training

In total, 9,717 adult farmers completed training programmes and, of these, 2,225 were awarded FETAC certificates. The biggest category was the REPS training courses with a total of 4,014 participants. 957 participants completed the 100 hour Certificate in Agriculture Programme with a further 1,062 also completing the 80 hour Certificate in Farm Management Programme.

The Advanced Certificate in Agriculture for part-time farmers was delivered at 14 centres with 447 farmers participating.

These programmes were put on at night and weekends to facilitate the needs of part-time farmers. In addition to the above, adult modules were also delivered in the following areas: Technology and Business, Rural Viability, Health and Safety, Forestry, Alternative Enterprises, Information Technology and Pesticides.



On November 13th Taoiseach Bertie Ahern presented Ms. Caragh Walsh with the Teagasc College of Amenity Horticulture medallion for the best performance on the horticultural course. Also pictured are Dr. Tom O'Dwyer, Chairman Teagasc and Dr. Paul Cusack, College Principal.





New courses

The new two year Level 6 Advanced Certificate in Agriculture was rolled out in September 2006 in colleges and local centres. The main changes to the programme relate to placement, with a reduction in the length of conventional placement and the introduction of home farm placement which is structured to ensure a valuable learning experience.

A work-based training programme for mushroom harvesters has been developed and validated by FETAC. The framework for this programme is suitable for other work-based training programmes for migrant workers in all sectors.

ADVISORY

In what proved to be an exceptionally busy year, the Advisory Directorate increased its total client numbers to over 43,000 and provided them with a comprehensive range of services. More than 41,500 farmers were assisted with Single Payment Scheme (SPS) applications; 1,286 e-Profit Monitors were completed; a total of 350 discussion groups were supported and 52,600 individual advisory visits were made to client farms. Income target was exceeded by 26%.

Before the close of the REPS 3 Scheme in October 2006, Teagasc advisers had submitted 7,300 plans, 3,000 more than the previous year. The Farm Waste Management Scheme generated substantially more interest than anticipated. However a well co-ordinated campaign and huge commitment by staff resulted in 25,000 FWM applications being submitted.



Dairy

Over 1,100 farmers attended the National Dairy Conference held in Limerick and Cavan.

The organisation was involved in joint programmes with the dairy industry in 2006. Partners included Arrabawn, Centenary, Connacht Gold, Dairygold, Glanbia, Kerry, Lakeland/Town of Monaghan, Tipperary / Thurles, West Cork and Wexford Co-Ops. The 100 dairy monitor farms across the country were used extensively for farm walks, discussion group meetings, in-service training of advisors, the evaluation of technical and financial performance achievable and evaluation of future options for dairy farmers.

5,500 farmers have signed up to have their ICBF (Irish Cattle Breeding Federation) data released to their Teagasc advisor; this has enabled the advisor to give more specific fertility/breeding advice to individual farmers. Two hundred and thirty three dairy discussion groups were supported.

Teagasc also supports dairy goat producers. A total of 133 phone consultations and 144 farm visits were carried out in 2006. Six farm walks were attended by 127 people and three newsletters were distributed to over 300 producers. A 25-hour course held at Ballyhaise was attended by 25 people.



Drystock

Teagasc clients who have completed profit monitors have increased profit by 14% per annum since 2001, with 75% of this improvement coming from improved technical efficiency and better marketing. Cattle farmers involved in the Teagasc Dawn Partnership (which concluded in 2006 after 5 years) achieved a very significant income improvement over the five year period.

Overall profitability by year 5 was €27,000 higher per farm per annum. Profit had increased by €500 per hectare by year five, with over 90% of the income improvement coming from improved technical efficiency and better marketing. The remaining 10% came from higher premia income.

The top third of sheep farms with profit monitor have an advantage of €35 per lamb over the bottom third due to better selling price, lower production costs and lower replacement costs per lamb. This amounts to over €21,000 for a 40 hectare (100 ac) sheep farm, showing the huge scope that exists for income improvement on the majority of sheep farms through improved technical performance.

Sixty-eight cattle, nineteen sheep and nine deer discussion groups were supported during 2006. Approximately 200 deer farmers were supported in 2006; 23 completed the Options Programme and were supplied with 'way forward' plans. Twenty-seven farm visits were conducted and five discussion groups met three times. Two newsletters were supplied to producers and all venison producers are now registered in the Quality Assured Venison Scheme.





Tillage

Twenty one tillage discussion groups were supported.

Low margins in grain crops and the challenge of replacing beet as well as new opportunities with energy crops resulted in a significantly increased workload for advisers. Optimising Single Payment Scheme payments, achieving top yields and optimum quality remain the focus, and best practice technology and financial assessment was promoted and demonstrated on monitor farms and in communication bulletins including crop reports (10), newsletters (10) and numerous articles.

The computerised E-crops recording programme was introduced on 50 farms and will yield useful data for the Profit Monitor programme.

A renewable energy specialist was appointed. He investigated the renewable energy sectors in Germany, Northern Ireland, UK, Sweden and here and spoke at 20 events nationally on the topic.

Farm Management and Farmer Information Communications Technology (ICT) Development and Support

A detailed study highlighted the vital role of Teagasc in enabling farmers achieve efficiency gains through the use of information and communication technologies.

A new organisation-wide web-based text messaging service was developed and launched, which will enable SMS messaging for all staff, improving their communications potential with clients and enabling text based surveys and polls to be conducted.

A comprehensive range of farm building drawings, and a buildings cost calculator, were updated and developed during 2006 and made available to clients through advisers.



Summary of public advisory events:

Activity	Dairy	Cattle	Sheep	Tillage
Farm Walks				
Number	85	51	17	30
Attendance	4,340	3,695	698	1,250
Group Meetings				
Number	939	180	49	70
Attendance	14,085	5,860	752	850
Seminars				
Number	52	21	29	7
Attendance	4,100	1,392	1,522	740

Horticultural Development Unit

Teagasc has advisory contracts with 74% of the country's 930 growers. Advisors completed 175 business plans (total planned investment €16m) supporting applications under the Scheme of Investment Aid for the development of the Commercial Horticulture Sector.

Fruit

A major 2006 project established a production protocol for propagators of strawberry plugs, which are replacing bare-root transplants. Timing of tip cuttings, the effect of different nutrient and substrate treatments on subsequent tray plant flower development and fruit yield are being researched.

Nursery Stock

In 2006, systems were developed to micropropagate a range of ornamental shrubs which are new to the market such as cultivars of *Salvia*, *Erysimum*, *Liriope* and *Tulbaghia*, as well as rare plants with commercial potential, such as *Emmenopterys henryi*. Meristem culture was used to regenerate whole plants of ten varieties of *Buddleia* which had presented with symptoms of dieback.



Micropropagation helps ensure bacteria-free stock plants which are key to the production of vigorous, high quality plants.

Mushrooms

A process has been agreed with mushroom growers and compost producers to sample compost over a period of time to test for the presence of viral dsRNAs in mushrooms and mushroom compost. Monitoring of Hydrogen Sulphide emissions from stored spent mushroom compost was begun to help inform a protocol for work-based training in safe storage and handling.



Ms. Mary Wallace T.D., Minister of State, Department of Agriculture and Food and Bernard Murray, Oldtown, Co. Dublin sampling some strawberries at the Teagasc National Soft Fruit Conference.



VEGETABLE CROPS

Nitrogen Fertilisation of Brassica Crops

This project, completed in 2006, was conducted at Kinsealy with extension trials on farms with a range of soil types. Summer cauliflower performed best at rates of 180-240kg N/ha; autumn cauliflower 120kg N/ha. Winter cauliflower had best yields and quality at 120-180kg N/ha depending on soil type, while Brussel sprouts had an optimum nitrogen requirement of 180kg N/ha. Broccoli showed the least response to applied nitrogen varying from 0 to 60kg N for autumn cropping; 120kg N/ha for summer crops.

FORESTRY DEVELOPMENT UNIT

Broadleaf Tree Improvement

Genetic material (seeds and grafts) of superior oak, sycamore, ash and alder trees were gathered and will form the basis for conservation and breeding programmes. A collection of elm trees that appear to be unaffected by Dutch Elm disease will form the basis for the re-introduction of elm to the countryside.

Protocols for shaping oak, ash, beech and sycamore have been produced and a protocol for pre-commercial thinning of ash, alder, birch and oak is nearing completion. A new protocol has also been developed for the classification of Potential Timber Quality (PTQ) of broadleaves.

Forest Productivity

National and county forest productivity maps were completed and adopted by the Forest Service for their Indicative Forestry Strategy. Methods to identify forest sites suitable for thinning and harvesting were developed.

This included the production of windspeed maps to quantify the risk of windthrow and the development of site classification methods for grouping similar areas for management purposes.

PIG PRODUCTION DEVELOPMENT UNIT

Nutrition and Management

A study of reduced protein and phosphorus diets for finishing pigs aims to reduce nitrogen and phosphorus excreted. Another study is looking into the effect of nutrition on bone strength of breeding sows.

Health and Welfare

A study into delivering manipulable material to sows continues. This involves sows in groups on an Electronic Sow Feeder at Hillsborough (N.I.) and in stalls at Moorepark. Straw and silage were used as sources of manipulable material and soya bean hulls were used to increase dietary fibre. Increasing fibre appears to be more effective in influencing sow behaviour and improving welfare than providing straw.

A study of on-farm Salmonella control measures on 12 commercial farms showed that supplementation of diets with organic acids was the most effective treatment.

Meat Quality

Amounts of feed given to sows during pregnancy are being varied with a view to influencing the number of muscle fibres at birth. This project is a collaboration with the Royal Veterinary College, London.



Goal 2 - Competitiveness, Innovation, Safety and Quality in Food

2

To support the development of a market oriented, competitive and innovative food sector, particularly in the area 'foods for health', which meets the highest standards of quality and safety.

The Food Directorate implemented research strategies, spanning a range of science and technology areas for the food industry, particularly in meat, dairy, food ingredients and food safety.

Teagasc provided a technology transfer service and training courses for the food industry as an integral element of the research strategies.

FOOD RESEARCH

A total of 26 new research contracts were secured under the Food Institutional Research Measure (FIRM) plus five awards under the FIRM Special Equipment Initiative. Together with Teagasc funding, these awards will enable the Directorate to achieve new capabilities in microscopy, process technology for functional foods and in nutraceutical discovery. A major initiative in 2006 was the decision to integrate functional foods research in Teagasc and University College Cork through the establishment of the UCC-Teagasc Foods for Health Research Partnership. External income of the Directorate is now €13m.

Human Disease Control

The Alimentary Pharmabiotic Centre involving Teagasc Moorepark and UCC together with an industrial partner GlaxoSmithKline identified bacterial viruses (bacteriophages) with potential to kill bacteria causing human disease.

FOOD SAFETY

Safer Beef

Ashtown Food Research Centre won a new Integrated Project, ProSafeBeef, funded under the EU Framework Programme. The project has a budget of €17.8m and starts in March 2007. The project includes 42 partners, comprising universities, research organisations and enterprises across Europe, as well as Brazil, New Zealand, Australia, USA and Canada. The aim is to reduce microbial or chemical contaminants, while enhancing quality and nutrition in the beef chain.

Ashtown Food Research Centre has begun consumer testing of the Meat Standards Australia model, a quality management aimed at achieving consistency in eating quality.

Competitiveness

Moorepark Food Research Centre in collaboration with UCC has investigated the potential of High Pressure Processing and High Pressure Homogenisation in cheese manufacture and other dairy products over recent years. In 2006 research focussed on low fat yoghurt. A problem with low fat yoghurt is an adverse effect on thickness and mouth feel. Data showed that HPP and HPH may be used to improve the characteristics of low fat yoghurts.

Advisory

A new specialist in artisan foods was appointed in September 2006 and a comprehensive training programme was drawn up for 2007. A 25-hour FETAC accredited module on food production specifically for participants in Farmers' Markets will be offered in 2007.



Iodine in Milk

Moorepark is helping dairy companies to deal with tight specifications in some markets on iodine levels in milk products. Iodine levels were assayed in milk from cows on different feed regimes and feed proved a significant source of increased iodine.

from cows fed sunflower oil as a supplement. People fed this cheese had increased plasma levels of CLA and omega-3-fatty acids. Their blood lipid profiles were significantly improved which demonstrated the beneficial effects of eating the CLA enriched cheese.

Product Quality and Innovation

The 5th Framework European Union Project BIOCLA, coordinated by Moorepark Food Research Centre was completed in 2006. To mark the occasion, Moorepark hosted an international conference 'Conjugated Linoleic Acid based Functional Foods: Evidence, Delivery and Dose'. Results of the BIOCLA programme relating to humans, completed in Rome, were announced at the conference. The consortium had fed CLA enriched cheese developed at Moorepark and made from milk obtained

The organisation advanced commercial development of the patented probiotic *Lactobacillus paracasei* (Lb338) in 2006. This strain is already licensed to the Irish Dairy Board for probiotic cheese in the UK market sold under the Pilgrims Choice brand. A second licence granted to an Irish food company extends its use to other products. An important characteristic of probiotic cultures is that they can pass through the human stomach with beneficial effects in the intestine.

Scientific Research Laboratory at Moorepark.



BIO SCIENCES

Gene sequencing

Teagasc researchers have sequenced and published the genome of *Lactobacillus helveticus* DPC4571, which enhances cheese flavour. This is the first genome sequence of this commercially valuable bacterium to be made publicly available and the first genome sequence completed by Teagasc. Researchers are working to identify commercial applications.

The Animal Molecular Genetics programme at Moorepark was expanded in 2006 and now includes research on mastitis, body condition and other traits. The DNA bank for Irish cattle includes 3,500 cow and 200 progeny tested bull samples.

Moorepark scientists showed during the year that it's possible to improve (>10,000 fold) the gastric survival of Lb338 by altering the composition of its growth medium. Given its importance to the Moorepark programme, the gene sequence of Lb338 culture is currently being determined.

A number of milk-protein derived peptides were identified which had biological activity that make them potentially useful as anti-pathogen, anti-cancer and anti-hypertensive food ingredients.

Teagasc hosted the International Conference of Meat Science and Technology in Dublin. Over 500 delegates came from 46 countries, including scientists, industry personnel, policymakers and representatives from government and public bodies.

To develop systems of agriculture and food production which are sustainable in terms of the environment, animal welfare, occupational safety and the work environment.

Mr. Declan Troy (Chairman, ICoMST), Mr. Brendan Smith T.D., Minister of State at the Department of Agriculture and Food, and Mr. Cormac Healy (Meat Industry Ireland) at the launch of the 52nd International Congress of Meat Science and Technology at Teagasc, Ashtown.



Goal 3 - Sustainable Systems of Agriculture.

3



To develop systems of agriculture and food production which are sustainable in terms of the environment, animal welfare, occupational safety and the work environment.

To develop systems of agriculture and food production which are sustainable in terms of the environment, animal welfare, occupational safety and the work environment.

Research strategies will generate, and transfer new scientific information and technologies for the agriculture sector, enabling farmers to farm in an environmentally sustainable manner, promote the preservation of the rural landscape, improve the welfare of farm animals and contribute to the development of a safe and healthy working environment.

Advisory strategies will be undertaken to support the development of sustainable farming through the provision of a REPS planning and support service, nutrient management planning and farm waste management planning services, and the transfer of technologies from research.

Best practice in relation to occupational safety, animal welfare and environmentally sustainable farming practices will be included in Teagasc training courses.

AGRICULTURE RESEARCH

DAIRYING

Animal Welfare

A cattle housing study examined the effects of placing rubber mats or wood-chips on concrete slatted floors, on the production, behavioural, physiological and immunological responses of finishing beef steers. The performance measurements and welfare indices (immune and metabolic) provided no evidence that housing finishing beef steers on slats alone was detrimental. Mats or wood-chips on the slats did not affect production or welfare.

Livestock Facilities

Grange Research Centre evaluated a low-rate intermittent slurry aeration system. The process kept the slurry in a uniform state and it did not require agitation prior to pumping at the end of the winter. The potential benefits of low-rate slurry aeration systems are that tanks may be emptied periodically without time-consuming and costly agitation.





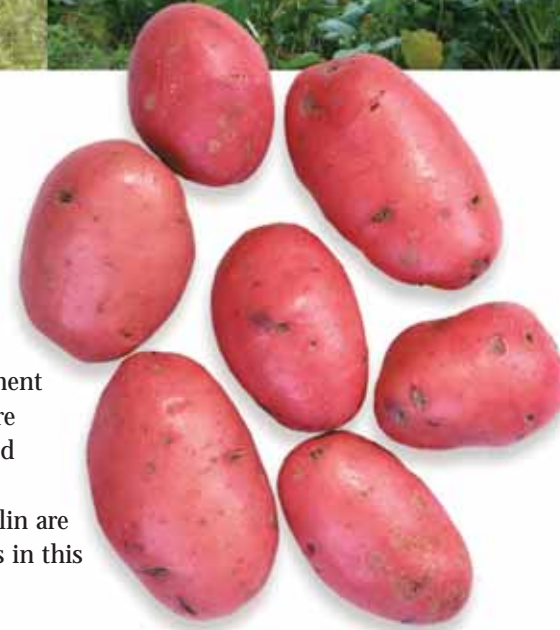
Animal Health

John's disease (JD) can cause chronic debilitation or death in cattle and a link with Crohn's disease in humans is suspected. Currently, there is no nationwide surveillance or control program, and little is known about the economic threat to the dairy farmer or the dairy industry.

This project has three aims:

- (1) to establish epidemiological herd management risk factors associated with the introduction and spread of JD in Irish dairy herds;
- (2) to estimate the national economic impact of JD in Irish dairy herds using simulation modelling; and
- (3) to model the economic impact of implementation of a JD control programme on dairy farms.

Cornell University, The Department of Agriculture and Food and University College Dublin are collaborators in this research.



CROPS

Plant Genomics for Crop Sustainability

Researchers at Oak Park are evaluating the potential impact of cultivating GM potato (modified for blight resistance) and GM oilseed rape (modified for herbicide tolerance) and aim to identify the co-existence measures required to ensure the genetic integrity of non-GM potato and oilseed rape crops.

Gene flow studies completed for potato indicated that a 20 metre separation is adequate to restrict pollen transfer between commercial GM and non-GM potato crops below the legislative thresholds. In addition, a blight-tolerant potato has been generated through the introduction of the Rb gene from the wild potato species *Solanum bulbocastanum*. Preliminary glasshouse tests have demonstrated the potential of this gene to restrict the development of Irish isolates of *P. infestans*.

Organic Crop Production Systems

Some 35,000 ha of land are farmed organically in Ireland, representing 0.7% of agricultural land, compared with 9.7% in Austria. The organic retail market in Ireland is valued at €66m and rising. A project at Oak Park is evaluating production systems designed to increase the yield and quality of cereal/protein crops grown in an organic rotation.

A single, stockless, seven-year rotation (winter-wheat, potatoes, oats, legume, spring barley followed by two years of grass/clover) with three replicates has been established. Winter wheat (Deben) yielded 7.2 t/ha, triticale (Fidelio) yielded 5.6 t/ha, oats (Jalna) yielded 6.2 t/ha, spring barley (Tavern) 4.8 t/ha, lupins (Bordako) yielded 2.1 t/ha and potatoes (Setanta) yielded 32.6 t/ha. Red clover was sown as the fertility building crop.



ENVIRONMENT

Nutrient Efficiency

Grazing cattle deposit nitrogen in urine and dung patches, risking nitrogen (N) losses to water and air, particularly when grass is not growing vigorously. Researchers at Johnstown Castle are examining ways to increase the N efficiency of grazing cattle through manipulation of the carbohydrate (sugar) content and the N concentrations in the diet.

Scientists used a new mathematical model of herbage intake to evaluate the potential of herbage management to affect the N and water soluble carbohydrate concentrations in the intake of grazing cattle. The results showed that high sugar varieties could be used to increase bovine N-efficiency during late season, when risks of N losses to water are greatest.



Nutrient Loss to Water

Water flowing through large soil pores, root or worm channels – preferential flow – can cause accelerated leaching of nutrients and pathogens. Research at Johnstown Castle measured preferential flow in three Irish grassland soils.

The results show that preferential flow occurred in all three soil types and in both seasons, although there is little difference between the seasons. Deeper infiltration of dye-marked water was observed in the heavier soils than in the lighter soils. The importance of preferential flow in leaching of nutrients and pathogens is being investigated further in lysimeter studies.



Environmental Modelling

Phosphorus (P) application to grassland and crops is an important element in environmental protection and is based on soil analysis and crop need. Researchers conducted a large-scale experiment over four years at 32 locations across Ireland to establish fertilizer rates required to produce both optimum yield and herbage P contents for various combinations of soil type and soil test P.

For most soils and for all soil P levels, fertilizer rates required to produce 95% of potential yield were lower than those required to produce herbage-P concentrations of 0.3 or 0.35% — the level required for high production cows. Fertilizer rates required to produce both 95% of potential yield and herbage-P of 0.3% or higher were largely similar across soil types. These research results were a very important element in Teagasc's scientific arguments which enabled changes to be made to the initial statutory instrument implementing the Nitrates Directive.



Biodiversity

Johnstown Castle research indicates that there is a greater abundance and variety of bird species in set-aside planted with wild bird crop compared to conventional crops for most months surveyed. Planted set-aside crops were found to be very valuable to a range of birds, particularly in winter, when food sources are scarce; winter mortality rates were reduced.

The birds benefiting include small farmland species, along with birds which feed on them. Of particular importance is the use of these sites by red listed species, such as yellowhammers and threatened birds of prey (Red Kites, Marsh Harriers and Hen Harriers).

Gaseous Emissions

Research at Johnstown Castle saw cattle slurry applied to four grassland plots using either trailing shoe or broadcast methods and ammonia-N emissions measured. The trailing shoe significantly reduced peak emissions in the first six hours following spreading. However, the emission rates from the trailing shoe applied slurry were higher over the next 42 hours.

This may have arisen because the slurry remained wetter for longer in the thick bands left by the trailing shoe compared with the thin layer of slurry applied by the splashplate which dried faster. By the end of the measurement period there was a significant reduction in the total N loss for the trailing shoe (22.9 kg/ha) compared with the broadcast method (31 kg/ha).



ADVISORY

The provisions of the Statutory Instrument governing the Nitrates Directive were announced early in the year. They will prove to be a significant challenge to many of our more intensive farmers in the future but should also significantly improve the impact of agriculture on the environment. Supporting farmers in complying with these provisions will be a major challenge for the advisory service.

The revised Farm Waste Management Scheme was one of the key measures introduced in 2006 to support farmers in meeting the new standards. This offered increased levels of grants for slurry storage and improved housing facilities to farmers to develop their infrastructure to improve environmental compliance.

The FWMS dominated the work of the Advisory Service at the end of 2006 and meeting the deadlines was only achieved through an extraordinary effort from all advisory staff.



Key statistics

- A record 40,800 of our clients availed of intensive environmental services.
- 25,300 Teagasc clients now participate in REPS, an increase of over 5,000. This represents in excess of 55% of our clients. Teagasc prepared a record 7,300 REPS plans in 2006.
- More than 13,500 Farm Waste Management Scheme applications were fully processed and a further 12,000 used the simplified application.
- A further 15,500 clients received specific services relating to nutrient and manure management and the protection of natural heritage
- More than 4,000 clients attended 130 REPS-20 hour training courses.

The dissemination of information on the Nitrates Regulations received high priority. This involved a major 'public good' programme, providing practical information on 'good agricultural practice' and raising environmental awareness among farmers generally. The programme included 36 public meetings conducted jointly with the Department of Agriculture and Food. More than 10,000 farmers attended.

Biodiversity

The Advisory Service initiated a major campaign in 2006 to promote awareness of biodiversity. This involved practical demonstrations on hedgerow planting and rejuvenation in each county. These events were very relevant in the context of the estimated 5,000 kilometres of hedgerow contracted to be planted by REPS 3 participants. The demonstrations have been extremely popular and were well attended particularly by REPS farmers. The campaign will continue with further demonstrations in 2007.





REPS on-line

The new web-based REPS planning – system – eREPS – brought REPS planning into a new era. Teagasc specialists developed the system in conjunction with The Department of Agriculture and Food who financed the project. It is now available to all planners. The new eREPS operating system has contributed to an improvement of up to 15% in REPS planning efficiency. Teagasc received the 'Best Project within an Organisation' award for eREPS as part of the 'Innovation Through Technology Awards 2006'. Towards the end of 2006 work was initiated on the upgrading of eREPS in line with the requirements of REPS 4.



Fertiliser management

Improvements in manure and fertiliser management on farms are thought to have made a major contribution to the protection of water quality. In addition to the FWMS almost 500 nutrient management plans were prepared for clients to meet the requirements of agricultural bye-laws, local authority planning conditions and the Pollution Control Tax Break Scheme.

The Nitrates Directive was the subject of 36 public awareness meetings conducted jointly by Teagasc and Department of Agriculture and Food. This work will serve as a base for a more thorough programme in 2007.

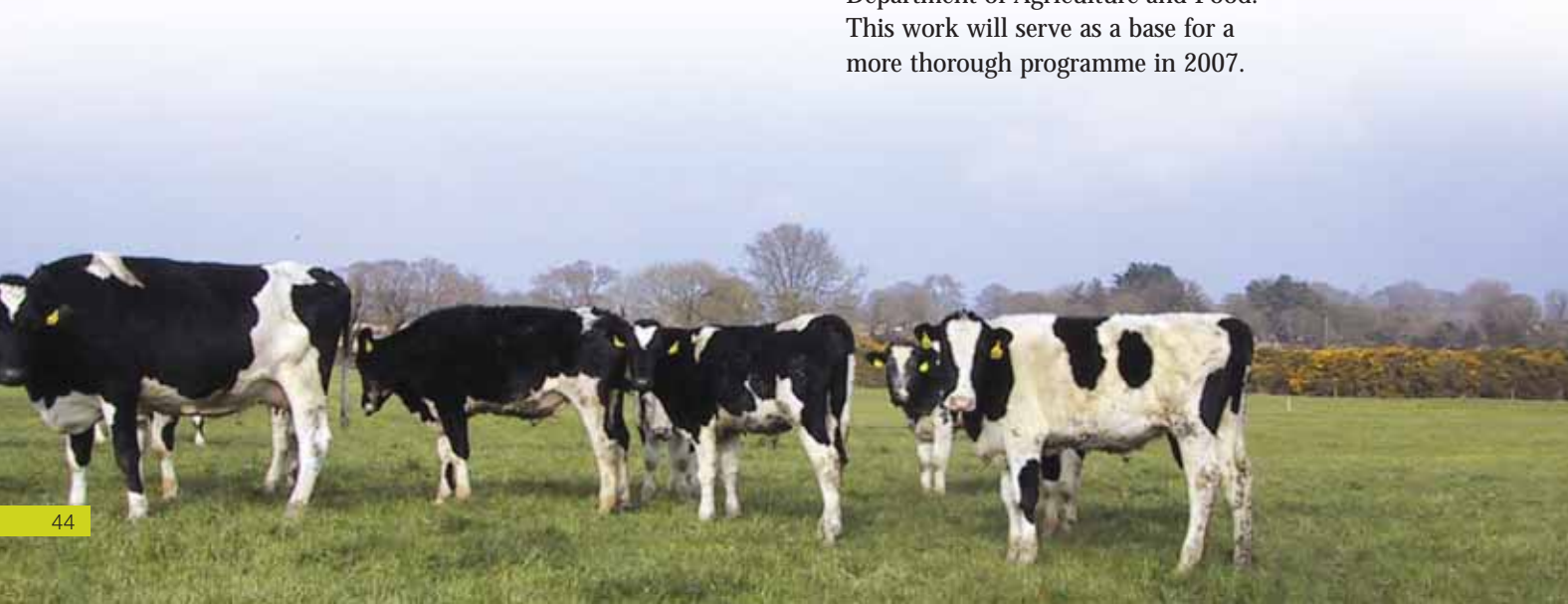
Nitrogen efficiency

A specific objective of the National Action Plan under the Nitrates Directive is to increase efficiency in nitrogen use in agriculture using 2003 as the base year. A research programme was begun at the Dairygold Farm – part of the Moorepark Research Centre - to establish the influence of stocking rate/nitrogen fertilizer rate and length of the grazing season on nitrate leaching losses. This project is part funded by the Department of Agriculture and Food Research Stimulus Fund.



Countryside management

Teagasc provided its Countryside Management expertise to a wide range of governmental and non-governmental organisations. The principal activities/projects undertaken in 2006 included: BurrenLIFE Project – 2006 was the second year of this major five-year environmental research and advisory project designed to map out a sustainable future for the Burren and its people.





Teagasc is undertaking an evaluation of health and safety measures and practices adopted by farmers with a view to determining the best long-term strategy to improve the safety and health record of the sector.

Farm Safety Advisory and Training Programme

Teagasc and the Health and Safety Authority agreed in 2005 to implement a joint three-year prevention initiative. The initiative aims to assist farmers to implement a Code of Practice and Risk Assessment as required under the Safety, Health and Welfare at Work Act, 2005. As part of the initiative, Teagasc is undertaking an evaluation of health and safety measures and practices adopted by farmers with a view to determining the best long-term strategy to improve the safety and health record of the sector.

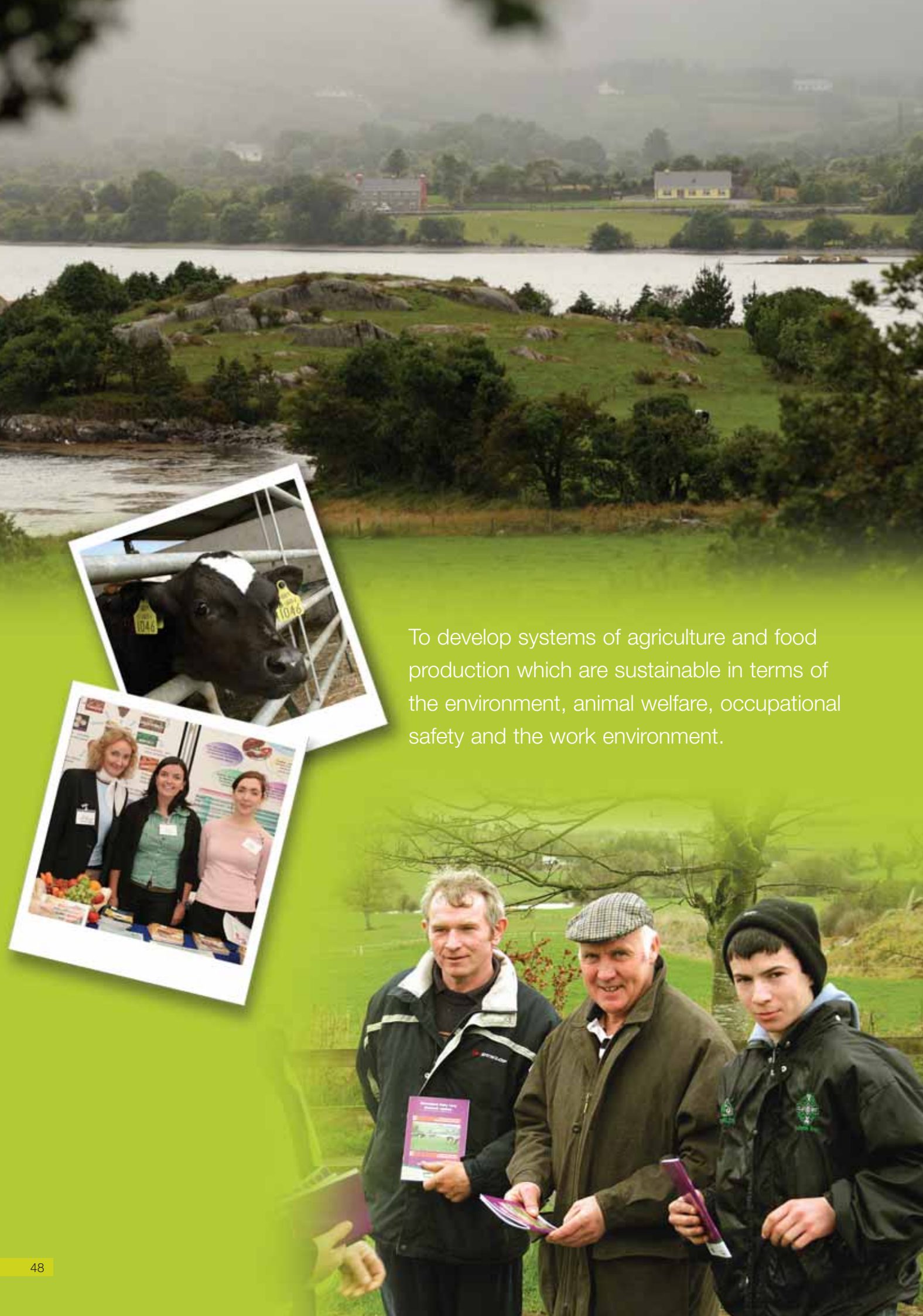
Over 2,500 farmers participated in the pilot phase of the initiative, with about 1,500 attending a half-day training course on completion of the Code of Practice and Risk Assessment document. In 2006 Teagasc undertook a comprehensive evaluation of health and safety controls implemented by farmers following participation in the initiative.

The organisation drafted a statutory Code of Practice on Prevention of Accidents and Occupational Ill Health. The Code was approved by the Board of the Health and Safety Authority and the Minister of Labour Affairs and was circulated to all farmers.

Teagasc took the lead in organising a Farm Safety Village at the World Ploughing Championship in September 2006.



Goal 4 - Rural Viability



To develop systems of agriculture and food production which are sustainable in terms of the environment, animal welfare, occupational safety and the work environment.

To promote the development of a vibrant rural economy and society and provide a sound scientific knowledge base to agri-food policy development.

The research strategies will focus on analysing the trends and changes in rural areas, the impact of rural development policies and the contribution of the agri-food sector to the rural economy.

The advisory strategies will include an options analysis service to assist farmers adjust to changes affecting them and support them to identify options and pathways for viability, including the adoption of other diversified enterprises.

Adult training services will be provided to support all aspects of the advisory service to farmers.

AGRICULTURE RESEARCH

National Farm Survey

The 2005 National Farm Survey was completed and a report published in September 2006. In 2005, farmers received a once-off payment averaging €5,266 per farm due to the carry-over of arrears from the 2004 coupled direct payments. Gross output per farm increased by 18%, with direct and overhead costs each increasing by 5% in 2005. FFI increases ranged from 16% on the Specialist Dairying System to 110% on Cattle Other System with Cattle Rearing increasing by 75% and Mainly Sheep system by 45%.

A summary of the main findings:

	2004	2005
Family Farm Income	€15,557	€22,460

Direct Payments (Nat. ave)	€13,549 (86% of FFI)	€21,103 (94% of FFI)
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Participation in off-farm employment (holder and/or spouse)	52%	55%
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The increase in incomes on the drystock systems is linked to their dependency on direct payments which increased by 63% on the Cattle Rearing System and by 60% on Cattle Other. Direct payments on Specialist Dairy farms and Dairy Other farms increased by 77% and 63% respectively, due to a combination of increased Dairy Premium Scheme Payments and arrears of subsidies from 2004. Net new investment accounted for €5,939 per farm – an increase of 23% on 2004, or 26% of farm income.



Rural Development and Sociology

An example of this unit's work is research into the motivations of women engaged in off-farm work. Using qualitative techniques and working with a small sample of partners of dairy farmers, findings indicate that women are vital contributors to the maintenance of the farm household and farm viability, yet increasingly they do not identify with the farm business.

Focusing on demographic changes between 1996 – 2006 other research examined how the restructuring of the national economy has affected rural areas. This work highlights the growing significance of urban centres as employment nodes and commuting from rural to urban areas. Other projects are examining the impact of the agricultural advisory service, the value of the Farm Options programme, changing rural identities, and the impact of housing policy.

Spatial Analysis

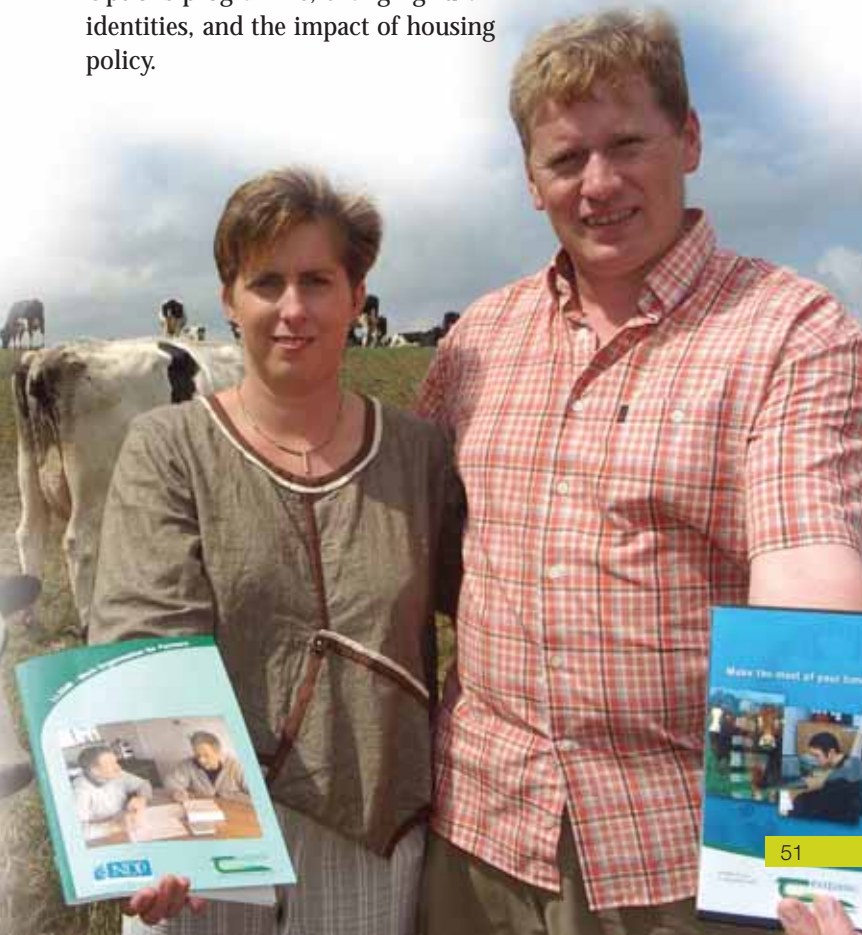
National or EU policy decisions can have unexpected repercussions at local level. However, the White Paper on Rural Development (Dept. of Agriculture and Food, 1999) commits the Government to ensuring that policy makers are aware of the likely impact of policy proposals on the economic, social, cultural and environmental well-being of rural communities.

In 2006, staff at the Rural Economy Research Centre developed micro-simulation techniques, which enable them to gauge the likely impact of national or international (usually EU) policy changes on specific rural areas. These techniques are computer-based analysis tools which not only allow the impact of rural development policy to be assessed after implementation, but also the potential impact of new policies.

Environmental Economics

Environmental economics is a new area within the Teagasc research programme. The goal is to balance economic activity and its environmental impacts by taking into account all the costs and benefits. The aim of this programme is to look broadly at these issues in relation to agriculture and natural resource usage in Ireland. The research will focus on the role that this branch of economics can play in the research agenda of Teagasc in the future.

Extensive consultation resulted in a clear view of how Teagasc can contribute to the environmental economic research community in Ireland, and the potential of environmental economics within Teagasc. Examples of the research activities identified included the valuation of recreational activities, evaluations of the REPS scheme and the Nitrates Directive, modelling greenhouse gas emissions and other environmental indicators.





ADVISORY

Rural viability

In 2006, 5,200 farmers participated in the Options Programme and 4,820 received a Way Forward Action Plan. Approximately 60 percent of those farmers planned to change or improve their financial management and enterprise efficiency, three percent opted to develop a forestry enterprise while in excess of 20 percent joined REPS. Four percent of farmers expressed a strong interest in organic farming, six percent undertook to develop a specific supplementary farm enterprise and over 10 percent agreed to seek either full-time or part-time off-farm employment.

REPS had its most successful year to date in 2006. Teagasc prepared 7,300 REPS 3 plans bringing client participation in the scheme to more than 25,000. This is over 55% of the client base. Almost 6,000 were still in REPS 2 at the end of the year. When these are combined with the REPS 3 clients the total REPS client base at the end of 2006 was 25,300. The national level of participation in REPS approached 59,000 indicating a Teagasc market share of over 43%.

Business Planning

Over 100 families attended a total of six business start-up courses and 25 produced a business plan. Mentoring in starting up a business plan was provided as a follow-on to the business course for those in the start-up phase. Over 300 people attended the Teagasc Rural Entrepreneurship Conference held in Mullingar in October, 2006.

Rural innovations

Teagasc launched a new Innovation Awards competition in conjunction with the Irish Farmers Journal and JFC Manufacturing. This competition, which covers the island of Ireland, offers a prize fund in excess of €30,000 equivalent which includes cash, advertising and mentoring. The competition will increase the focus on the Teagasc initiatives in small business start-up.

Organic farming

Open Days were held on all fourteen organic demonstration farms which were established in 2005, representing cattle and sheep, dairying, tillage, and horticulture. In all, 860 organic farmers or farmers interested in converting to organics attended these Open Days.

Rural tourism

Rural tourism has been undergoing major change, with growth now confined to providers who can offer a niche product e.g. a real farm experience, a farmhouse evening meal, an open farm, walks, or a stop-off meal for bus tours.



During 2006, the major achievement of the Teagasc service, in partnership with LEADER and the Department of Social and Family Affairs, was to get the organizations representing Rural Tourism to come together under a single Federation banner. Three, 25-hour courses were conducted for product providers attended by 68 participants and inputs were provided to many LEADER and County Enterprise teams.

Sport Horse Production

The horse specialist team supports improvement in the quality of horses by promoting breeding programmes, improving management and husbandry of mares and young horses. The team delivered fifteen 25-hour modules of training to farmers attended by 486 farmers

Sixty-eight cattle, nineteen sheep and nine deer discussion groups were supported during 2006. Approximately 200 deer farmers were supported in 2006; 23 completed the Options Programme and were supplied with Way Forward Plans.

Twenty-seven farm visits were conducted and five discussion groups met three times. Two newsletters were supplied to producers and all venison producers are now registered in the Quality Assured Venison Scheme. Three skills courses were attended over 50 hours by 39 farmers. Seven major seminars, farm visits, newsletters, radio interviews and meeting with groups of sport horse owners also contributed to the team's goals.

Free Range Poultry

The poultry specialist provided enterprise development mentoring to 20 producers and work was carried out on the Bord Bia Quality Assurance Scheme. Information on Avian Flu was widely circulated. As poultry units became eligible for grant aid for the first time in 2006 under the Farm Waste Management Scheme, a submission was prepared for the Department of Agriculture and Food which formed the guidelines for the grant aid.



Goal 5 – Operational Capabilities and Modernisation

5

To develop the organisation's human and physical resources and operational capabilities to ensure the delivery of quality services to our customers while implementing Government policy on public service modernisation and corporate governance.

This will involve the further development of the organisation's staff and physical resources, its systems of financial management, ICT systems and a range of other internal organisational management support and information services.

In working to achieve this goal, Teagasc is committed to implementing strategies related to the public service modernisation agenda of better organisational management underpinning the delivery of quality services to customers. Compliance with the Code of Practice for the Governance of State Bodies at all levels in the organisation will be assessed and any necessary action taken.

RESEARCH SUPPORT SERVICES

Foresight study

In October 2006, the Authority decided to undertake a Technology Foresight study of the scientific and technology needs of the Irish agri-food sector and rural economy and of the positioning of Teagasc within it. A Steering Committee, comprising national and international experts, was established and the project was launched in December 2006. The project will be completed during 2007 and the final report will be launched at a major international foresight conference in May 2008.

Intellectual property

The organisation recruited an Intellectual Property (IP) Officer whose responsibilities include the support, protection and commercialisation of IP emanating from Teagasc research. The IP Officer drafted a "Policy and Procedures on Intellectual Property" (IP Policy) which takes into account the increased emphasis on collaborative research and aims to encourage exploitation of research results for the public good. The policy includes incentives for inventors and the associated research centre as a result of successful commercialisation.





SCIENCE COMMUNICATIONS

TResearch

Teagasc launched a new popular science magazine featuring its research and innovation, TResearch. This quarterly, full colour, publication includes a range of scientific articles written by Teagasc staff.

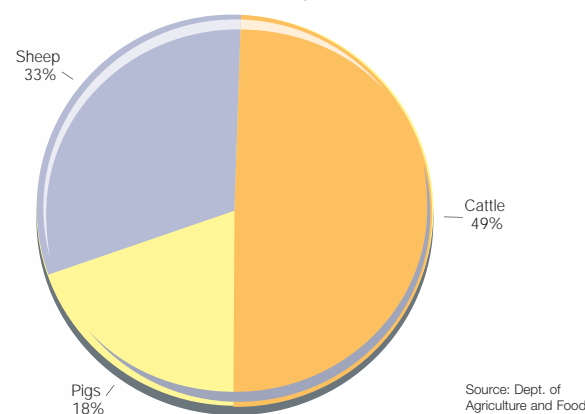
Science week

Teagasc established a Science Week Committee to organise a series of major events, leading to a higher profile for Teagasc research in 2006. Ashtown Food Research Centre, Grange Research Centre and Moorepark Food Research Centre held open days for secondary schools. The Rural Economy Research Centre held a debate in conjunction with NUI-Galway and staff from Oak Park Crops Research Centre spoke to students at Carlow IT about post-graduate and research opportunities in Teagasc.

Catriona Boyle, Editor of TResearch, Leo Enright, Chairman, Discover Science and Engineering, Dr. Tom O' Dwyer, Chairman, Teagasc and Mr. Tom Kirley, Acting Director, Teagasc



Total Livestock Numbers, Dec 2005



Performance Evaluation

The Evaluation Unit completed four evaluation projects in 2006, two completed by internal staff and two by external consultants. The internal reports were an evaluation of the Vocational Certificate in Agriculture Level 5 education programme and a comprehensive assessment of a scorecard model for Teagasc.

The external reports were an evaluation of the Teagasc Walsh Fellowship Programme and an evaluation of the Teagasc Food Training Programme. Ongoing projects included a programme evaluation report on the Teagasc National Farm Survey and an evaluation of the effectiveness of the Teagasc Options Analysis Advisory Programme.

Library Services

The tendering process was completed for the provision of a full-text on-line scientific journal access service for research staff. Work will commence on the project in 2007. Library staff promoted the benefits of information services available in the library leading to increased use of research databases and on-line material. Further progress was also made in updating the library catalogue.

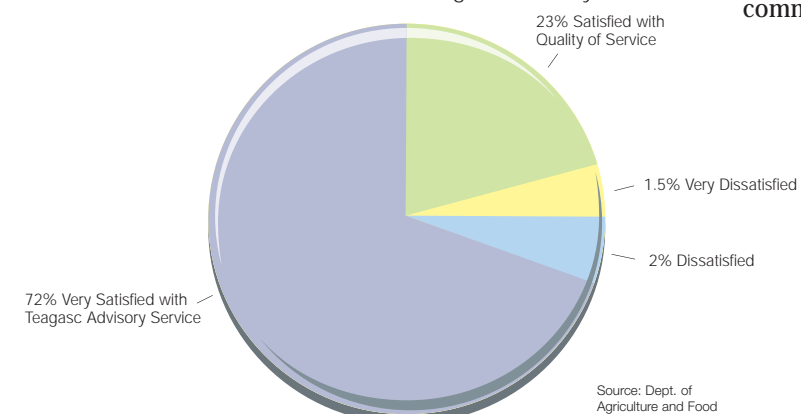


Minister for Agriculture and Food, Mary Coughlan T.D. with Dr. Tom O' Dwyer, Chairman, Teagasc and Hugh Ryan FBD Board Member, presenting James Breen, Lisduff, Lattin, Co. Tipperary, a 22-year-old student, with his award when he won the FBD Student of the Year 2006 Award. James represented the Teagasc Agriculture College in Clonakilty.

Quality Customer Services

The Quality Customer Services Officer completed and analysed customer service feedback surveys for major Teagasc events, including Agriculture and Food 06, the National Ploughing Championships and Grange Open Day. In December 2006, comment cards were sent to all advisory clients. A substantial response was received, with 1,620 comment cards returned.

Customer Satisfaction with Teagasc Advisory Service





The New Biotech Unit at Oak Park in Carlow was officially opened by Mary Coughlan T.D., Minister for Agriculture and Food, Also in the picture are Professor Jim Burke, Head of Centre, Oak Park; then-Director Mr. Jim Flanagan, Teagasc and Dr. Tom O' Dwyer, Chairman, Teagasc.



Risk Management

In 2006, a risk register was prepared, which identifies the major risks associated with achieving objectives in the business plan. It identifies measures currently in place and additional measures required to manage the risks. Working with the Management Committee, the most serious corporate level risks were identified and a strategy was agreed for their management.

A Corporate Risk Register was prepared for the Authority. A mid-year review of the risks identified was carried out and a 'Risk Chest' comprising all risk registers was set-up and training provided to new managers on risk management.

Capital Investment Appraisal

Revised guidelines were put in place for Capital Investment Appraisal in line with new guidelines from the Department of Finance. In addition, a number of capital project appraisals were reviewed during 2006.

Business Planning

Teagasc has refined its internal business planning process. In 2006, all business plans prepared for directorates and management units were individually assessed to ensure consistently high quality. Templates were further refined for all managers to ensure that a number of key objectives are met. The timetable for the annual business cycle was brought forward to enable the planning process to be properly integrated and completed within a reasonable timescale. A mid-year review was introduced as a requirement for all management units to focus on progress towards targets in the business plan. Training was provided for new managers on preparing business plans and using the new templates.

Management Information Framework

Improvements in the Management Information Framework (MIF) revolve mainly around the RMIS system. Following the completion of a detailed requirements gathering exercise and documentation process, the main focus of this project for 2006 was the redevelopment of the project budgeting module which allows the costs associated with research projects to be clearly identified. The new Laboratory Information Management System (LIMS) system became fully operational in four research centres.



Mr. Jim Flanagan, then-Director, Teagasc, Dr. Tom O' Dwyer, Chairman, Teagasc, Mary Coughlan T.D., Minister for Agriculture and Food, and Professor Jim Burke, Head of the Oak Park, Carlow.



Farmers attending a Teagasc Biofuels Open Day at Oak Park, Carlow.

Capital programme expenditure in 2006	
Research Facilities at Oak Park	€1.1m
Milking / Training Facilities Kildalton College	€0.375m
Ashtown Training Centre and Johnstown Castle Laboratory	€0.250m
Smaller Capital Projects	€1.1m
Repairs and Maintenance	€0.67m
Total Expenditure	€2.7m



Tom Kirley, Acting Director Teagasc, and Billy Nagle, Chairman Agriculture Committee, RDS, with Kaushal Kothari, Anad, Western India, winner of the Teagasc Young Researcher of the Year 2006.

Walsh Fellowship Scheme

The Walsh Fellowship Scheme provides grants to selected postgraduate students to work on projects relevant to the Teagasc Research Programme, while studying for a higher degree. These fellowships not only provide research training opportunities for young scientists, but facilitate liaison with third-level colleges, introduce new science into Teagasc and increase the organisation's research capacity.

183 fellowships are being funded, of which 58 commenced in 2006 and 125 were ongoing from previous years. An upgraded IT system and an on-line application system will allow more efficient and effective administration. The stipend awarded to Walsh Fellows was increased from €17,000 to €21,000 in December 2006, effective from January 2007. The 2006 Walsh Fellowship Seminar was broadened to include participation of more students and new promotional material was produced. The value of the Walsh Fellowship Scheme to Teagasc and to the agri-food industry was highlighted in the evaluation of the scheme conducted by external consultants.

ADMINISTRATION DIRECTORATE

Capital Programme

During 2006, Teagasc disposed of a number of surplus assets, including a dwelling house at Kilmaley, Ennis, Co. Clare and one at Kildalton College. Sale of land at Athenry and at Ashtown had progressed to the contract stage by the end of December 2006. Capital programme expenditure in 2006 (not including ICT) amounted to €2.7m.

This included large projects such as offices for research staff at Oak Park €1.1m including fit-out), new milking/training facilities at Kildalton College (€0.375m), completion of Ashtown Training Centre and Johnstown Castle Laboratory (€0.250m).

Smaller capital projects at a range of locations accounted for €1m. A sum of €0.67m was spent on repairs and maintenance to existing properties.

The Buildings and Technical Services team provided technical services for the completion of approved large and small capital projects valued at over €3m. Protocols were developed for all property disposals and acquisitions including the use of e-tendering. Campus steering groups have been established to oversee major capital projects at Grange, Moorepark and Johnstown Castle. The improvement of the built environment within the organisation was prioritised including: upgrading building accessibility and function; improving energy use efficiency; and, optimising waste management practices.

Following the relocation and restructuring of Head Office, the range and quality of services provided are demonstrably better in 2006. An upgrade of the ICT infrastructure was completed at all Research Centres and Colleges during 2006. Work in Advisory offices was completed by February 2007.

In Human Resources, Core Personnel was selected as our HRIT system, and significant progress on data migration and testing was made.

The organisation completed a Management Education Training and Development Strategy and this is being implemented through Staff Training and Development Unit and the HR Department. The HR strategy has been substantially implemented, internal audit is moving into year two of its three year plan, while planning for a renewed ICT strategy has commenced.

A total of thirteen meetings were held in 2006 and the Chairman signed off all official minutes. Returns required under the Ethics in Public Office Acts were made, both in relation to Authority members, and designated staff. An ICT security specialist was recruited, enhancing governance capability.

Human Resources

The Teagasc National Partnership Committee undertook an externally facilitated review which confirmed satisfactory progress on the development of Partnership structures and the use of Partnership as a vehicle for consultation and change. Teagasc progress reports were accepted by the Secretary General as verification of satisfactory progress on modernisation, ensuring payment of the pay awards due under the final phase of Sustaining Progress and the first phase of Towards 2016.

HR department continued to bring about improvements in recruitment processes. The Teagasc Authority devolved approval of entry level appointments to the Director in November 2006, initially for one year.

Some measures of activity in HR Services are as follows:

Twice yearly management seminars commenced, supplementing work done on policy development in areas such as Induction, Probation, Attendance Management and Disciplinary and Grievance Procedures. The first edition of the Teagasc Staff Handbook was published in October 2006.

Staff Training and Development

A total of 2,304 training proposals for 1,135 staff members were referred from the PMDS onto the 2006 ST&D planning process. At least one proposal was identified and processed for 73% of Teagasc staff, indicating the comprehensive operation of PMDS across the organisation in 2006.

Activity of HR Services	2006	2005
Number of Competitions	137	95
New Permanent Employees	31	24
New Contract/ Temporary Staff	63	44
Number of Retirements	40	45
Number Availing of VER	12	53



Effective operation of PMDS in 2006 was supported by: induction training on PMDS, best practice workshops with management teams, website support for staff and managers.

Expenditure on staff training in 2006 was significantly under budget at €563,143. Most of the under-spend was in the Advisory Services Directorate where increased workload disrupted delivery of staff training. A feature of the training delivered in 2006 was the increased number of in-house training modules delivered at little cost. A total of 65 staff participated in third-level training in 2007, at a cost of €190,699.

Internal Audit

The 2006 Teagasc internal audit programme was implemented as planned under the supervision of the Audit Committee. The Comptroller and Auditor General recommended in his management letter to Teagasc in 2005 that the views of the Internal Auditor should be received in the annual review of Internal Financial Controls by the Authority. The Audit Charter was amended accordingly and a report was made to the Audit Committee, Authority and Management Committee in December 2006.



Information and Communications Technology (ICT)

During 2006 the ICT Department made substantial progress with the main ICT projects. The Department rolled out new ICT Infrastructure to 92% of staff by the end of the year and the new Service Desk became fully operational. The business projects were progressed satisfactorily despite the deficit in project funds and the annual departmental budgets were met.

Teagasc currently has 1,300 computer users and 2,000 computers are deployed. The Service Delivery Group maintained this equipment, provided user support throughout the year and was also actively involved in administering and securing the ICT infrastructure. In addition they made a major contribution to ICT Infrastructure Projects and arranged for the outsourcing of their service desk.

Finance

Finance Department delivered a major upgrade to our financial reporting software, the sales ledger was rolled out to the remaining Teagasc locations where it had not been used previously.



Wages and salaries are now paid electronically as are all retirement and other lump sums and taxes. A pilot project for electronic payment of foreign suppliers was underway by the end of 2006. Month-end reconciliation procedures were reviewed and improved, enhancing data and reporting integrity.

The Finance Department delivered training on procurement, corporate governance, Integra and year-end processes to staff at various locations; the Finance T-net site has a new look, and a programme of documentation of Finance Department procedures was commenced.





Agriculture and Food 06

On June 21, the summer equinox, Kildalton Agricultural College hosted the most important Teagasc event of 2006. The event covered a wide range of themes: Crops and Biofuels, Education and Training, Dairy, Environment, Equestrian, Farm Buildings, Farm Machinery, Food, Forestry, Farm Management and ICT, Health and Lifestyle, Organic Farming, Health and Lifestyle, Sheep and Suckler Beef, Horticulture, and Rural Development. Each of the theme areas was organised in the form of a 'village'.

The event featured a total of 300 exhibitors including commercial, trade, voluntary organization and state agencies as well as Teagasc staff from all areas of the organisation. Every area of Teagasc activity was represented: from the most basic scientific research to readily applied technologies. All were displayed and presented in an attractive and easy-to-understand way.



In addition, indigenous food producers had the opportunity to showcase their products. A wide variety of artisan and specialty foods was available in an outdoor farmers' market against the imposing backdrop of Kildalton House.

Agriculture and Food '06 at Kildalton was a tremendous success for Teagasc with close to 40,000 visitors attending. Feedback was exceptionally positive and an exit survey of 200 visitors indicated strong satisfaction.



Compliance with Statutory Obligations

Equality

Teagasc is committed to ensuring equality of opportunity and its personnel and staff development programmes are geared towards this objective. We are also committed to the implementation of Government policy on the employment of disabled people in the public sector. The organisation has developed and implemented policies on bullying, intimidation and sexual harassment to support and protect the dignity of each staff member.

Ethics in Public Office Act, 1995 and Standards in Public Office Act, 2001

In accordance with the Ethics in Public Office Act, 1995, and the Standards in Public Office Act, 2001, members of the Teagasc authority have furnished a statement of interests to the secretary of the authority and a copy has been provided to the Standards in Public Office Commission. In addition, Teagasc staff members holding designated positions have complied with both acts.

Safety, Health and Welfare Act, 1989

In accordance with the Safety, Health and Welfare Act, 1989, Teagasc has prepared safety statements that encompass all factors affecting staff and visitor welfare. Safety statements for all Teagasc locations were revised in 2005 and published on the internet site (Tnet). Following a review of a sample of these statements, the Health and Safety Steering Committee recommended that individual feedback be provided to managers in preparing their 2006 statements. Briefing sessions were organised for staff on Safety Statements, whilst a seminar was organised in November for senior managers on their responsibilities under the 2005 Health and Safety Act.

Safety audits were conducted at all locations and policies and procedures on working alone and on the use of ATVs were published on the Tnet.

Worker Participation (State Enterprises) Act, 1988

Sub-Board consultative structures have been put in place to support the organisation's communications and consultative processes. A National Partnership Committee was established in 2005.

Freedom of Information Act, 1997

The Freedom of Information Act, 1997, was applied with effect from November 1, 2002. The Act establishes three new statutory rights:

- a legal right for each person to access information held by public bodies.
- a legal right for each person to have official information held by a public body relating to him/herself amended where it is incomplete, incorrect or misleading, and
- a legal right to obtain reasons for decisions affecting oneself taken by a public body.

A total of nine requests under the Act were dealt with during the year.

Code of Practice for the Governance of State Bodies, October 2001

The Code of Practice for the Governance of State Bodies, approved by the Government in October 2001, has been adopted by Teagasc and arrangements have been made to ensure that the organisation complies with the Code in all aspects of its operations.

Financial Statements

Year Ended 31 December 2006

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Report of the Comptroller and Auditor General

for Presentation to the Houses of The Oireachtas

I have audited the financial statements of Teagasc for the year ended 31 December 2006 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 Balance Sheet, the Cash Flow Statement, the Statement of Total Recognised Gains and Losses and the related notes.

Respective Responsibilities of the Members of the Authority and the Comptroller and Auditor General

The Authority is responsible for preparing the financial statements in accordance with the Agriculture (Research, Training and Advice) Act, 1988, and for ensuring the regularity of transactions. The Authority prepares the financial statements in accordance with Generally Accepted Accounting Practice in Ireland. The accounting responsibilities of the Members of the Authority are set out in the Statement of Responsibilities of the Authority.

My responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

I report my opinion as to whether the financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland. I also report whether in my opinion proper books of account have been kept. In addition, I state whether the financial statements are in agreement with the books of account.

I report any material instance where monies have not been applied for the purposes intended or where the transactions do not conform to the authorities governing them.

I also report if I have not obtained all the information and explanations necessary for the purposes of my audit.

I review whether the Statement on Internal Financial Control reflects the Authority's compliance with the Code of Practice for the Governance of State Bodies and report any material instance where it does not do so, or if the statement is misleading or inconsistent with other information of which I am aware from my audit of the financial statements. I am not required to consider whether the Statement on Internal Financial Control covers all financial risks and controls, or to form an opinion on the effectiveness of the risk and control procedures.

I read other information contained in the Annual Report, and consider whether it is consistent with the audited financial statements. I consider the implications for my report if I become aware of any apparent misstatements or material inconsistencies with the financial statements.

Basis of Audit Opinion

In the exercise of my function as Comptroller and Auditor General, I conducted my audit of the financial statements in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board and by reference to the special considerations which attach to State bodies in relation to their management and operation. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures and regularity of the financial transactions included in the financial statements. It also includes an assessment of the significant estimates and judgments made in the preparation of the financial statements, and of whether the accounting policies are appropriate to the Authority's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations that I considered necessary in order to provide me with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming my opinion I also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In my opinion, the financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland, of the state of the Authority's affairs at 31 December 2006 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.

John Purcell
Comptroller and Auditor General
29 June 2007

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:

- a comprehensive 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 2006. 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 2006 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 in the year ended 31 December 2006 the Authority conducted a review of the effectiveness of the systems of internal financial control.

Dr Tom O'Dwyer
Chairman
28 June 2007

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 and Food 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 Tom O'Dwyer
Chairman
28 June 2007

James Brett
Member of the Authority

Accounting Policies

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 and Food 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 and in accordance with generally accepted accounting practices. Financial Reporting Standards recommended by the recognised accountancy bodies are adopted as they become applicable.

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 for slaughter. 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.

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 and Food, and from contributions deducted from staff salaries.

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.

Accounting Policies

Actuarial gains or losses arising on scheme liabilities are reflected in the Statement of Total Recognised Gains and Losses and a corresponding adjustment is recognised in the amount recoverable from the Department of Agriculture and Food.

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 and Food.

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 14).

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 Account

Year ended 31 December 2006

	Notes	31 December 2006 €'000	31 December 2005 €'000
Income			
State funding	2	138,228	125,392
EU funding	3	1,314	933
Operational income	4	30,610	25,290
Deferred funding for pensions	9	18,593	11,883
Surplus on disposal of fixed assets		329	5,796
Other grants, donations and voluntary levies		1,898	4,079
		190,972	173,373
Expenditure			
	5	187,917	176,201
		3,055	(2,828)
Transfer to Capital Account	12	(191)	(5,147)
Surplus / (Deficit) for the financial year		2,864	(7,975)
Balance at beginning of year		(1,663)	6,312
Balance at end of year		1,201	(1,663)

Statement of Total Recognised Gains and Losses

	Notes	31 December 2006 €'000	31 December 2005 €'000
Surplus / (Deficit) for the financial year		2,864	(7,975)
Experience losses on pension scheme liabilities	9	(26,362)	(24,203)
Changes in assumptions underlying the present value of pension liabilities	9	14,999	(138,630)
Actuarial loss on pension liabilities		(11,363)	(162,833)
Deferred pension funding		11,363	162,833
Total Recognised Gain / (Loss) for the year		2,864	(7,975)

The above amounts relate entirely to continuing operations. The Statement of Accounting Policies and notes 1 to 25 form part of these Financial Statements.

Dr. Tom O'Dwyer
Chairman

Tom Kirley
Acting Director

Balance Sheet

Year ended 31 December 2006

		31 December	31 December
	Notes	2006	2005
		€'000	€'000
Fixed assets			
Tangible assets	13	79,812	79,627
Financial assets	14	2	2
		79,814	79,629
Current assets			
Stocks	16	4,964	4,475
Debtors	17	5,219	8,362
Bank balances		8,952	2,509
Short term deposits		1,314	686
		20,449	16,032
Creditors - Amounts falling due within one year			
Creditors and accruals	18	14,874	16,742
Deferred income	19	4,370	887
Obligations under finance leases	20	0	4
Bank loans and overdraft		0	60
		19,244	17,693
Net current assets		1,205	(1,661)
Total assets less current liabilities before pensions		81,019	77,968
Deferred pension funding	9	962,094	932,138
Pension liabilities	9	(962,094)	(932,138)
		0	0
Total assets less current liabilities		81,019	77,968
Less			
Creditors – Amounts falling due after more than one year			
Obligations under finance leases	20	0	0
Bank loans		0	1
Other long-term liabilities		10	13
		10	14
Net assets		81,009	77,954
Represented by			
Capital account	12	79,808	79,617
Income and Expenditure account		1,201	(1,663)
		81,009	77,954

The Statement of Accounting Policies and notes 1 to 25 form part of these Financial Statements.

Dr. Tom O'Dwyer
Chairman

Tom Kirley
Acting Director

Cash Flow Statement

Year ended 31 December 2006

		31 December	31 December
	Notes	2006	2005
		€'000	€'000
Reconciliation of operating deficit to net cash inflow from operating activities			
Operating surplus / (deficit)		2,864	(7,975)
Depreciation	13	6,578	5,945
Transfer to capital account	12	191	5,147
Interest paid		0	1
Interest received		(256)	(136)
Profit on sale of fixed assets		(329)	(5,796)
(Increase) / Decrease in stocks		(489)	1,374
Decrease / (Increase) in debtors		3,143	(4,255)
(Decrease) / Increase in creditors and long term liabilities		(1,871)	3,244
Increase in deferred income		3,483	26
Net cash inflow / (outflow) from operating activities		13,314	(2,425)

Cash Flow Statement

Net cash inflow / (outflow) from operating activities		13,314	(2,425)
Return on investment and servicing of finance			
Interest paid		0	(1)
Interest received		256	136
Net cash inflow from returns on investment and servicing of finance		256	135
Investing activities			
Payments to acquire tangible fixed assets	13	(6,986)	(11,519)
Receipts from disposals of tangible fixed assets		552	6,264
Net cash outflow from investing activities		(6,434)	(5,255)
Financing			
Property loan repayments		(2)	(2)
Capital element of finance lease payments	20	(4)	(38)
Net cash outflow from financing		(6)	(40)
Increase / (Decrease) in cash	23	7,130	(7,585)

Reconciliation of net cashflow to movement in net funds			
Increase / (Decrease) in cash	23	7,130	(7,585)
Net funds at 1 January		3,136	10,721
Net funds at 31 December		10,266	3,136

The Statement of Accounting Policies and notes 1 to 25 form part of these Financial Statements.

Dr. Tom O'Dwyer
Chairman

Tom Kirley
Acting Director

Notes to the Financial Statements

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 Oilíúna 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 and Food with the concurrence of the Minister for Finance. This approval was given on 14 August 1998.

	2006	2005
	€'000	€'000
The amount shown under this heading comprises:		
Vote 31: Agriculture and Food		
Grant-in-aid for general expenses (including Grant for capital purposes, €5m 2005 - €4.5m)	100,299	92,167
Grant-in-aid for superannuation purposes	21,719	19,239
Grant-in-aid for human resource purposes	12,010	11,693
Grant-in-aid for food research	3,156	1,512
Grant for Stimulus collaborative research programme	300	81
Grant for forestry publicity and awareness	574	550
Grant for forestry training	170	150
	138,228	125,392
3 EU funding	2006	2005
	€'000	€'000
Framework Programme V	571	933
Framework Programme VI	743	0
	1,314	933

Notes to the Financial Statements - Continued

	2006	2005		2006	2005
	€'000	€'000		€'000	€'000
4 Operational income					
Authority, Headquarters and National	€'000	€'000	Food Research	€'000	€'000
Advisory Service	€'000	€'000	Agricultural Production Research	€'000	€'000
Training and Development	€'000	€'000		€'000	€'000
	€'000	€'000		€'000	€'000
Advisory service fees	0	241		0	12,686
Other fees	32	1,498		2,177	6,874
Livestock trading (Note 7)	0	1,164		0	2,090
Other farming operations	0	582		11	2,085
Canteen receipts	0	163		97	422
Publications and miscellaneous	271	377		12	1,133
	303	4,025		2,297	25,290
	303	4,025		30,610	25,290
5 Expenditure					
Authority, Headquarters and National	€'000	€'000		€'000	€'000
Advisory Service	€'000	€'000		€'000	€'000
Training and Development	€'000	€'000		€'000	€'000
	€'000	€'000		€'000	€'000
Pay (Note 8)	5,128	13,211		9,738	80,943
Pensions (Note 9)	50,632	0		0	43,626
Travelling and subsistence	762	823		464	7,110
General operating expenses (Note 6)	6,752	4,709		6,452	31,349
Interest and lease charges	18	0		0	76
Depreciation (Note 13)	757	954		1,463	5,945
Grants to private colleges (Note 15)	0	4,434		0	4,762
Other grants	119	513		656	2,390
	64,168	24,644		18,773	176,201
	64,168	24,644		187,917	176,201

6 Analysis of general operating expenses

	Authority, Headquarters and National	Advisory Service	Training and Development	Agricultural Production Research	Food Research	2006	2005
	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Farming supplies/services	38	1	1,088	1,868	8	3,003	3,338
Maintenance/repairs	537	874	1,217	1,356	1,405	5,389	6,029
Rents/rates/insurances	33	752	402	770	365	2,322	2,185
Postage/telephones	765	1,191	188	241	139	2,524	2,237
Power/fuel/petrol	50	542	511	798	406	2,307	1,866
Laboratory supplies	1,092	22	14	551	2,352	4,031	3,154
Printing/stationery/publicity	1,606	689	338	167	223	3,023	3,207
Seminar/classroom/library supplies	11	279	215	150	431	1,086	1,158
Services of external agencies	0	199	4	169	81	453	543
Student and staff canteen supplies	0	2	434	137	126	699	778
ICT supplies/services	1,917	102	37	88	64	2,208	3,968
Legal/professional fees (Note 10)	703	49	49	176	126	1,103	1,222
Miscellaneous programme costs	0	33	131	572	668	1,404	1,390
Miscellaneous	0	45	81	14	58	198	274
	6,752	4,780	4,709	7,057	6,452	29,750	31,349

7 Livestock trading surplus

	2006	2005
	€'000	€'000
Sales	2,677	2,596
Grants and subsidies	559	857
Total livestock trading revenue	3,236	3,453
Opening stock	3,666	4,072
Purchases	993	957
Less: Closing stock	(4,167)	(3,666)
Total cost of livestock sales	492	1,363
Surplus to Income and Expenditure account (Note 4)	2,744	2,090

8 Staff

	2006	2005
The average number of staff employed during the year was as follows:		
Professional	790	762
Technical	208	221
Administrative/clerical	290	279
Farm/domestic	310	317
	1,598	1,579

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 Oilíúna Talmhaíochta and from An Foras Talúntais.

Pending the approval of draft superannuation schemes by the Minister for Agriculture and Food, 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.

Superannuation costs

The average number of monthly pensions paid during the year was 1,382 (2005 – 1,326).

Superannuation benefits

The valuation used for FRS17 disclosures has been based on an actuarial valuation by a qualified independent actuary to take account of the requirements of FRS17 in order to assess the scheme liabilities at 31 December 2006.

The financial assumptions used to calculate liabilities under FRS17 are as follows:	2006 % per annum	2005 % per annum
Inflation rate increase	2.25	2.25
Salary rate increase	3.50	3.50
Pension rate increase	3.50	3.50
Scheme liabilities discount rate	4.60	4.10

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:

	2006 €'000	2005 €'000
Accumulated liabilities in respect of active scheme members	405,492	429,013
Liabilities in respect of existing pensioners and deferred pensions	556,602	503,125
Total accrued pension liability	962,094	932,138

Net deferred funding for pensions in the year	2006 €'000	2005 €'000
Funding recoverable in respect of current years pensions	54,994	47,731
Resources applied to pay pensions	(36,401)	(35,848)
	18,593	11,883

Analysis of total pension costs charged to income and expenditure account	2006 €'000	2005 €'000
Current service cost	17,017	7,669
Interest on scheme liabilities	37,977	34,549
Past service cost, settlements and curtailments	0	5,513
Staff contributions	(4,362)	(4,105)
	50,632	43,626

Movement in net pension liability during the financial year	2006 €'000	2005 €'000
Net pension liability at 1 January	932,138	753,564
Current service cost	17,017	7,669
Benefits paid	(36,401)	(31,990)
Past service cost, settlements and curtailments	0	5,513
Interest on scheme liabilities	37,977	34,549
Actuarial loss	11,363	162,833
Net pension liability at 31 December	962,094	932,138

Analysis of the history of experience gains and losses	2006 €'000	2005 €'000	2004 €'000
Experience gains and losses	(26,362)	(24,203)	(11,017)
Percentage of present value of scheme liabilities	2.7%	2.6%	1.5%
Changes in Assumptions	14,999	(138,630)	(67,967)
Percentage of present value of scheme liabilities	2.6%	14.9%	9.0%
Actuarial loss recognised in the STRGL	(11,363)	(162,833)	(78,984)

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 and Food, Teagasc has no evidence that this funding policy will not continue to meet such sums in accordance with current practice. The deferred funding asset for pensions as at 31 December 2006 was €962 million (2005 - €932 million).

10 Audit fee

A provision of €49,500 has been included in expenditure in respect of auditor's remuneration for 2006 (2005 - €49,500).

11 Authority fees and emoluments

The following emoluments were paid to members of the Authority:	2006 €'000	2005 €'000
Chairman	25	15
Other Authority members	131	91
	156	106

These amounts are included in the total pay expenditure included under Note 5 above.

12 Capital account

	2006 €'000	2005 €'000
Balance at 1 January	79,617	74,470
Transfers from income and expenditure account		
Amount capitalised in respect of purchased assets	6,986	11,519
Net amount released on disposals	(223)	(467)
Property loan repayments	2	2
Capital element of payments in respect of leased assets	4	38
	6,769	11,092
Less: Amortised in line with asset depreciation	(6,578)	(5,945)
	191	5,147
Balance at 31 December	79,808	79,617

13 Tangible fixed assets

	Land	Buildings	Plant & equipment	Total
	€'000	€'000	€'000	€'000
Cost or valuation				
At beginning of year	5,810	82,392	50,744	138,946
Additions	0	2,236	4,750	6,986
Disposals	0	(168)	(518)	(686)
At end of year	5,810	84,460	54,976	145,246
Accumulated depreciation				
At beginning of year	0	26,101	33,218	59,319
Charge for year	0	1,985	4,593	6,578
Disposals	0	(36)	(427)	(463)
At end of year	0	28,050	37,384	65,434
Net book amounts				
At beginning of year	5,810	56,291	17,526	79,627
At end of year	5,810	56,410	17,592	79,812

Included in the opening balances is land totalling 612.3 ha (1,513 acres) transferred by the Department of Agriculture and Food at nominal values, and certain other assets which were revalued at 31 December 1975 or 1 July 1980.

Teagasc has the use of 85 ha (210 acres) of land owned by the Department of Agriculture & Food, 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.

The net book value of assets includes the following amounts in respect of leased assets:

	2006 €'000	2005 €'000
Plant and equipment: Balance at 31 December	0	0
The depreciation charge for the year on those assets was as follows:	0	39

14 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 2006 were as follows:

	2006 €'000	2005 €'000
Turnover	1,204	1,108
Operating profit before depreciation, interest and tax	190	185
Depreciation (net of grants amortised)	(182)	(156)
Interest receipts	8	8
Tax	0	0
Profit after taxation	16	37
Accumulated losses to 31 December	(9)	(25)

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:

	2006 €'000	2005 €'000
Moorepark Technology Limited sales to Teagasc (included in turnover)	269	101
Other recoupments from Teagasc (deducted from cost of sales)	4	17
Total	273	118
Balance unpaid at 31 December	0	39
Teagasc sales to Moorepark Technology Limited	116	159
Balance unpaid at 31 December	22	124

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:

	2006 €'000	2005 €'000
Staff	162	180
Other	105	112

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

Moorepark Technology Limited utilises assets owned by Teagasc as follows:

	2006 €'000	2005 €'000
Original Costs	1,196	1,196
Net Book Value at 31 December	161	228

These amounts are included under Plant and Equipment (see Note 13 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 (2005 - €1,243).

15 Private Colleges

Teagasc provides support to four private agricultural colleges as follows:

	2006	2005
	€'000	€'000
Grants to private colleges	4,434	4,762
Staff seconded to private colleges (included in the total pay expenditure in Note 5 above)	535	511
	4,969	5,273

The 2005 comparative figures have been adjusted from those shown in the published financial statements for that year due to a reclassification of expenditure items.

16 Stocks

	2006	2005
	€'000	€'000
Livestock	4,167	3,666
Farm produce, fertilisers and feeding stocks	547	497
General supplies	250	312
	4,964	4,475

17 Debtors and prepayments

	2006	2005
	€'000	€'000
Trade debtors	2,860	2,761
Other debtors, prepayments and accrued income	2,359	5,601
	5,219	8,362

All amounts included above fall due within one year.

18 Creditors - Amounts falling due within one year

	2006	2005
	€'000	€'000
Trade creditors	2,757	5,984
Income tax deducted under PAYE	1,504	1,421
Pay related social insurance	637	533
Value added tax	74	225
Withholding tax	157	127
Other creditors and accruals	9,745	8,452
	14,874	16,742
Creditors for taxation and social welfare included above	2,372	2,306

19 Deferred income

Public funded research is carried out in accordance with contracts with other State Institutions, principally the Department of Agriculture and Food.

At 31 December the source and amount of such deferred income was as follows:

	2006	2005
	€'000	€'000
Department of Agriculture and Food – advance for analyses	4,252	769
European Science Foundation – Food Safety Promotion	118	118
	4,370	887

20 Finance leases

Finance charges incurred during the year under finance leases amounted to €834 (2005 - €3,086).

Future obligations under finance leases are due as follows:

	31 December	31 December
	2006	2005
	€'000	€'000
Within one year	0	4
Within two to five years	0	0
After five years	0	0
	0	4

At 31 December 2006 Teagasc had no commitments to enter into further finance leases (2005 - nil).

The movement in finance leasing obligations was as follows:

	2006	2005
	€'000	€'000
Obligations at 1 January	4	42
New finance leases	0	0
Capital element of finance lease payments	(4)	(38)
	0	4
Obligations at 31 December	0	4

Notes to the Financial Statements - Continued

21 Capital commitments

Capital commitments outstanding at 31 December 2006 amounted to €1.68 million (2005 - €3.39 million).

22 Operating leases

At 31 December 2006 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	0	21	21
Between two and five years	122	57	179
After five years	170	0	170
	<u>292</u>	<u>78</u>	<u>370</u>

23 Analysis of changes in net funds during the year

	1 January 2006 €'000	Cashflows €'000	31 December 2006 €'000
Cash at bank and on hand	2,509	6,443	8,952
Bank overdraft	(59)	59	0
Short-term deposits	686	628	1,314
At end of year	<u>3,136</u>	<u>7,130</u>	<u>10,266</u>

24 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.

25 Approval of the financial statements

The Authority approved the financial statements on 4 April 2007.