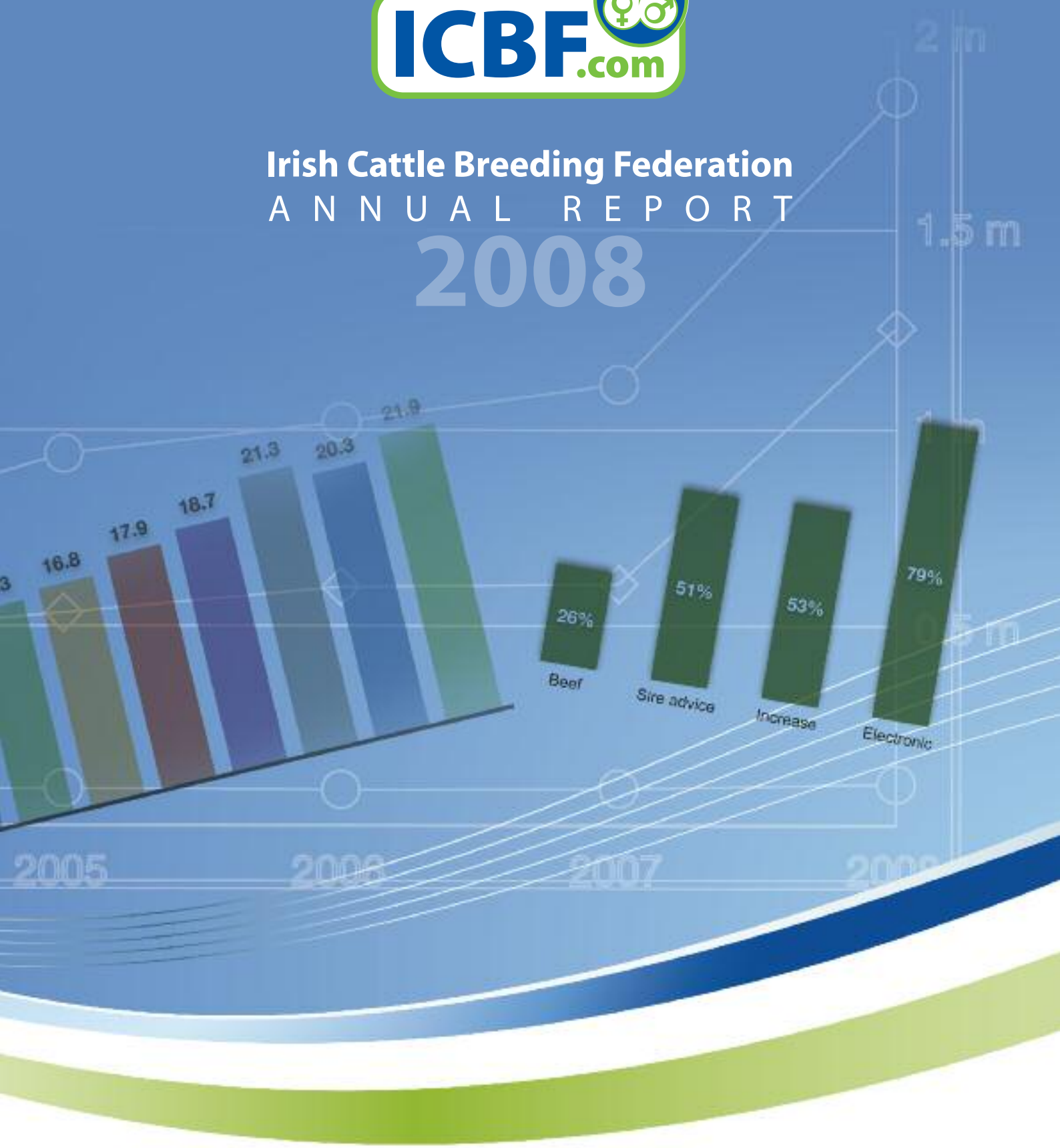
ICBF.com

Irish Cattle Breeding Federation

ANNUAL REPORT

2008



GROW for Good Measure

HerdPlus® Profit through Science

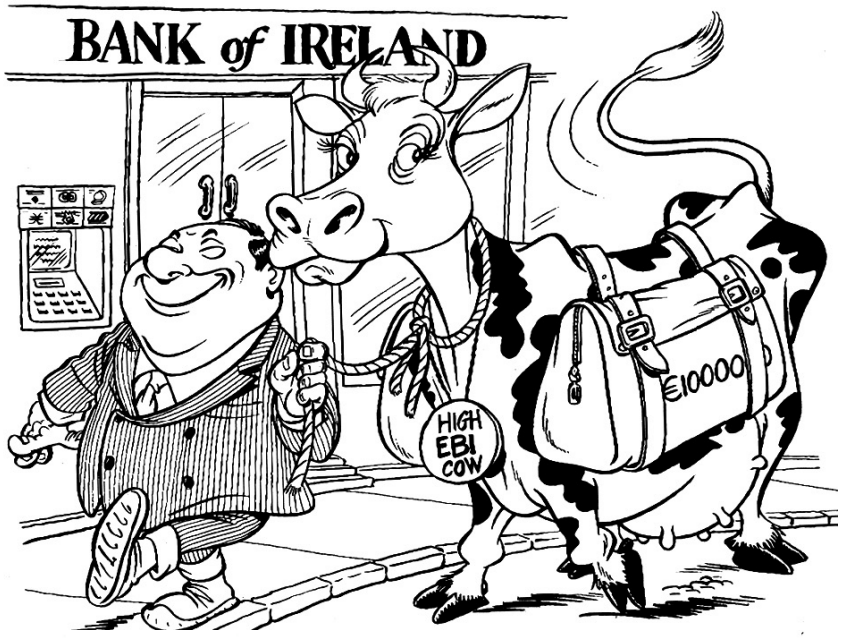
G€N€ IR€LAND® Breeding future Profits

Annual Report
For Calendar Year 2008

Irish Cattle Breeding Federation Society Limited (ICBF)

Irish Cattle Breeding Federation Society Limited.
Highfield House, Shinagh, Bandon. Co. Cork.
T: +353 23 882 0222 www.icbf.com

Table of Contents



Department of Agriculture, Fisheries and Food
An Roinn Talmhaíochta, Iascaigh agus Bia

NDP
NATIONAL DEVELOPMENT PLAN

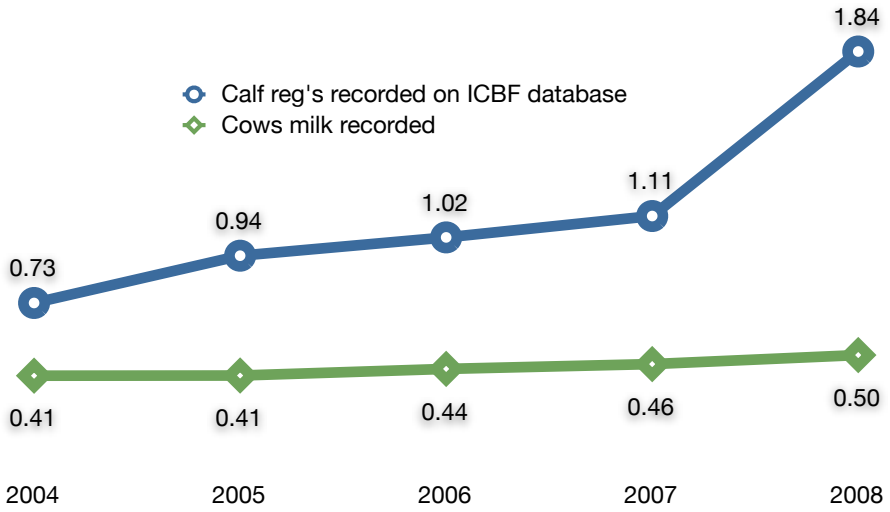
SUMMARY OF 2008

ICBF exists to achieve the greatest possible genetic improvement in the national cattle herd, for the benefit of Irish Farmers, the Dairy and Beef industries, and Members. In 2008 the major contributions to this mission included:

- Establishing genomic selection (GS) as a tool to accelerate genetic progress and reduce costs in dairy cattle breeding.
- Delivery of the suckler cow welfare scheme to some 52,000 suckler herds.
- Roll-out of the €uro-Star beef genetic evaluations.
- Significant growth in dairy G€N€ IR€LAND®.
- A dramatic increase in the level of weight recording in the GROW service.
- Roll-out of HerdPlus® for beef and of the Suckler Cow and Dairy Cow reports.
- Expansion of the AI Handheld data recording service, and
- Expansion of EDIY milk recording.

Since 2005 the ICBF database has been fully operational for dairy, beef, milk recording, beef performance recording, genetic evaluations and herd books. Some 69,000 herds, with 1.84 million calvings representing ninety percent of the Irish cattle herd (figure 1) were participating in one or more aspects of the database by the end of 2008. There has also been steady growth in the use of milk recording (figure 1). The data that is accumulating has increased greatly as a consequence of the introduction of the suckler cow scheme early in 2008 and this enabled substantial further progress with the development of across breed genetic evaluations for traits relevant to dairy and beef.

Figure 1. Data trends (million).



The national database has dramatically improved the accuracy and scope of both beef and dairy genetic evaluations. In 2008 these improved evaluations were used to locate Irish bred Holstein Friesian bulls for subsequent progeny testing through the G€N€ IR€LAND® dairy program. The Irish dairy industry will benefit through cows that are more productive, more fertile and more robust. As beef and dairy breeding decisions are increasingly based on these more accurate genetic evaluations, the profitability of beef and dairy farming is being advanced.

A further benefit of the database is its ability to provide useful information for helping farmers with a wide range of breeding, reproduction and disease management decisions. The launch of the Suckler Cow and the Dairy Cow HerdPlus® reports (see pages 26 and 27 for examples of these reports) has provided further benefits for service users and made HerdPlus® a more attractive option for herd owners.

As a result of the decisions made in 2006, to adopt a user-pays philosophy and full cost recovery on services, ICBF's finances have improved on the recovery in 2007, having been under severe pressure in 2005 and 2006.

The outcome of the 2004 strategic review continues to guide ICBF. The focus of the strategic plan is to increase farmer uptake of the recording and breeding services that give them the greatest economic returns. ICBF's development effort is increasingly focused on streamlining the flow of data from farms, while improving the quality of the information returned to farms. Initiatives with TEAGASC are being undertaken to use the ICBF database to provide better quality information for farm, industry and breeder decision-making.

The review following the outbreak of IBR at Tully in February 2007 resulted in the re-confirmation of Tully as a central element in G€N€ IR€LAND® beef. Tully re-opened in November 2007 after undergoing a number of changes to reduce the risk of further disease outbreaks. The measures taken to prevent the re-emergence of IBR at Tully, despite being severely tested, have been successful.

In summary, 2008 was a year in which ICBF took two very large steps with the introduction of genomic selection and the suckler cow welfare scheme. In large part these were made possible through the database and associated infrastructure established in earlier years. That we have been able to deliver such major developments without any significant increase in staffing is partly due to the incredible commitment and teamwork of our staff, contractors and the many organisations we work closely with. A commitment to the principles of Total Quality Management – continuous improvement, teamwork, and consultation - underpins all the work of ICBF.

MISSION

ICBF was established with the objective of **achieving the greatest possible genetic improvement in the national cattle herd for the benefit of Irish Farmers, the Dairy and Beef industries and Members.** Genetic improvement comes about when the parents of the next generation are genetically superior to their contemporaries. Bringing about improvement requires:

- **Identification, ancestry and quantitative and qualitative data on** those traits of importance for large numbers of animals in each generation.
- A **genetic evaluation** system to identify the genetically superior animals in each generation. An essential part of the genetic evaluation system is a scientific knowledge of the objectives and principles of cattle breeding.
- A **breeding scheme design** that ensures that the required data is available, and that farmers make full use of the genetically superior animals in each generation.
- **Well informed farmers** who willingly provide accurate data from their own farms and make full use of the information available in their breeding and farm management decisions.

During 2004 ICBF conducted a strategic review, which is updated annually and provided the focus for its activities in 2008. The review identified three main areas – genetic evaluation, uptake & cost of services, and breeding schemes – as the primary focus for future activities. For each of these areas a number of strategies are being pursued and they form the basis of this Annual Report.

This Annual Report has been prepared for the purpose of providing ICBF shareholders and other stake-holders with a summary of activities and achievements in relation to the objectives of the Society for the 2008 calendar year.

GENETIC EVALUATIONS

Our overall goal is to ensure accurate genetic evaluations for all traits, breeds and animals (national & international) of significance to Irish cattle farmers. Open consultation meetings provide a forum where the breeding industry and the development team meet and discuss developments in genetic evaluations. Only when a consensus is reached are recommendations for significant changes taken to the ICBF Board for a final decision to proceed.

Our strategy is spread over traits common to beef and dairy, and those specific to dairy or beef.

Common to Beef and Dairy Breeds

Our strategy for traits common to beef and dairy is to research, develop, implement and continuously improve across breed evaluations that make optimal use of all national and international data relevant to calving, fertility, survival, beef production, and suckler-cow maternal traits.

In a world-first starting in 2005, across breed genetic evaluations for a wide range of calving and beef traits are now being routinely provided to the Irish cattle breeding industry. These evaluations enable animals of all breeds

(beef and dairy) to be compared with each other for many traits including direct and maternal calving ease, gestation length, calf mortality, carcass weight, carcass grade, carcass fat score and mature cow live weight. These developments have been made possible by the widespread use of the animal events recording system by farmers to report calving details, and by access to slaughter records via DAFF (the Department of Agriculture, Fisheries & Food).

Dairy Specific

Our goal for the dairy herd is to continuously enhance the accuracy and relevance of the EBI (Economic Breeding Index) as a guide for breeding dairy replacements. We are also seeking to continuously improve genetic evaluations for milk production traits, udder health traits and dairy specific conformation traits.

In 2008 the main step was the collaborative research effort with TEAGASC and others to develop the use of genomic selection as a means of increasing the rate of genetic gain in the national dairy herd. Based on the strategy for genomic selection adopted by the Board at its July 2008 meeting these efforts culminated in the launch in March 2009 of the new Active Bull list incorporating genomic information. The key elements of this success included: creation of a semen archive, genotyping of some 1,200 bulls, a research collaboration agreement with LIC, research to establish the optimal breeding scheme, research undertaken by Dr Donagh Berry (of TEAGASC) at LIC in New Zealand, database developments, pilot evaluations, industry consultation and communications.

Beef Specific

Our strategy is to research, develop, implement and continuously improve economic indexes to guide beef breeding decisions. The €uro-Star beef indexes were introduced early in 2007 and were revised during 2008 to include;

- ✤ updated economic values,
- ✤ foreign breeding values incorporated from France for a range of breeds and from the UK for Simmental, and
- ✤ direct and maternal weaning weights computed using MIX99 software.

This is the culmination of many years work to both establish data sources and to develop a genetic evaluation system that is technically world-class, while at the same time being easy for Irish farmers to use.

These new beef evaluations are on an across breed basis and, for the first time, include the full range of maternal traits. The benefit of across breed evaluations is that farmers are able to compare animals on both a within and across breed basis. These developments in beef breeding represent a dramatic breakthrough for all farmers in Ireland who are seeking to identify the most profitable beef animals.

In last years report we commented on the rapid uptake of the *animal welfare, recording and breeding scheme for suckler herds* (suckler cow scheme) which commenced on 1st January 2008 with some 52,000 herds joining the scheme. The calving ease data and weight data from the scheme has already been incorporated in the genetic evaluation system and research on using the docility and calf quality data is currently underway.

The training element of the suckler cow scheme provided a good opportunity to increase suckler herd owners awareness of €uro-Star indexes. A video produced for the scheme incorporated information on the indexes with the result that awareness is now high throughout the beef industry.

UPTAKE & COST OF SERVICES

The focus in 2008, in a continuation of the effort initiated in 2005, was on increasing farmer participation in cattle breeding services. The introduction of the suckler cow scheme, building on the rapid growth associated with the launch of the AI handhelds, moved overall participation to 90% of all beef and dairy cattle (figure 1) and a total of 69,244 herds.

There has also been substantial and on-going growth in the uptake of animal events, recording of calving ease data and a modest growth in pedigree registrations (figure 2). A large part of the growth in farmer participation is occurring for non-pedigree cattle.

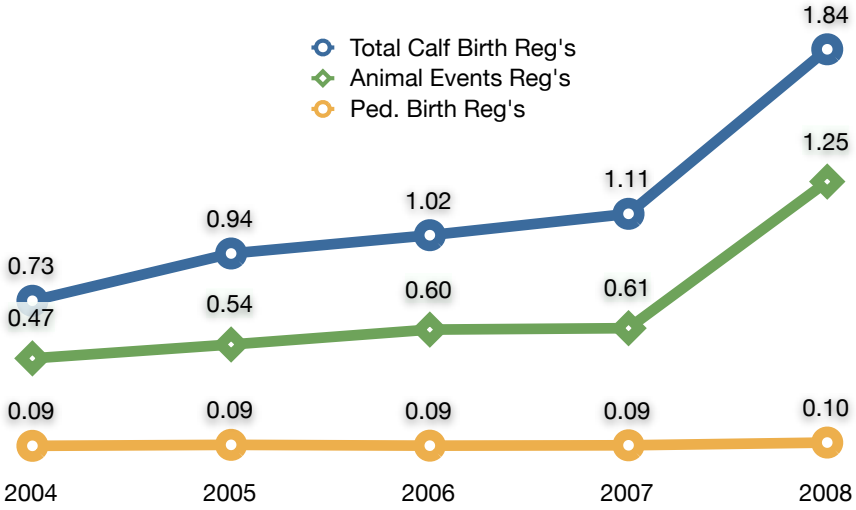
Services to Herd Books

Early in 2007 the Board took a number of actions to ensure services to Herd Books' met expectations and this work was completed in 2008. These included:

- ✤ a new web based interface to the ICBF database (Taurus),

- provision of an extended on-line herd book,
- a complete review of the beef linear scoring and weight recording service which was subsequently launched as the **GROW** service, and
- expansion of **G€N€ IR€LAND®** to support the breeding schemes operated by each breed.

Figure 2. Registration trends (million).



Milk Recording

ICBF's strategy is to work closely with its milk recording members, to rationalise and consolidate milk-recording operations. Also, to make full use of new technology to reduce labour, reduce inconvenience for farmers and to reduce the cost of recording. Our goal is to increase usage of milk recording to some 60% of dairy cows.

In 2008 the major achievement was an increase in the uptake of milk recording, mainly through growth in the EDIY service. Overall the level of milk recording increased by 8% with 37% of cows recorded under the EDIY service (28% in 2007). Particularly encouraging was the response of farmers in areas with traditionally low levels of milk recording.

The EDIY service is proving attractive to farmers because it reduces labour costs, both on-farm and off-farm, through automation and the use of electronic data collection. The cost of the meters, while high on a unit basis, is minimised through achieving high utilisation over many farms. This new service is attracting new herds to milk recording as well as taking the place of the conventional recording service. For the third year in a row a significant growth in milk recording has been achieved.

Marketing

Our strategy for marketing is to work closely with our service-providing members to ensure effective use of relevant marketing disciplines in the designing of cattle breeding services provided to farmers in Ireland.

In 2008 this strategy played an important role in expanding the EDIY milk recording service, the expansion of HerdPlus® for dairy and beef and in increasing the use of AI to breed replacement females.

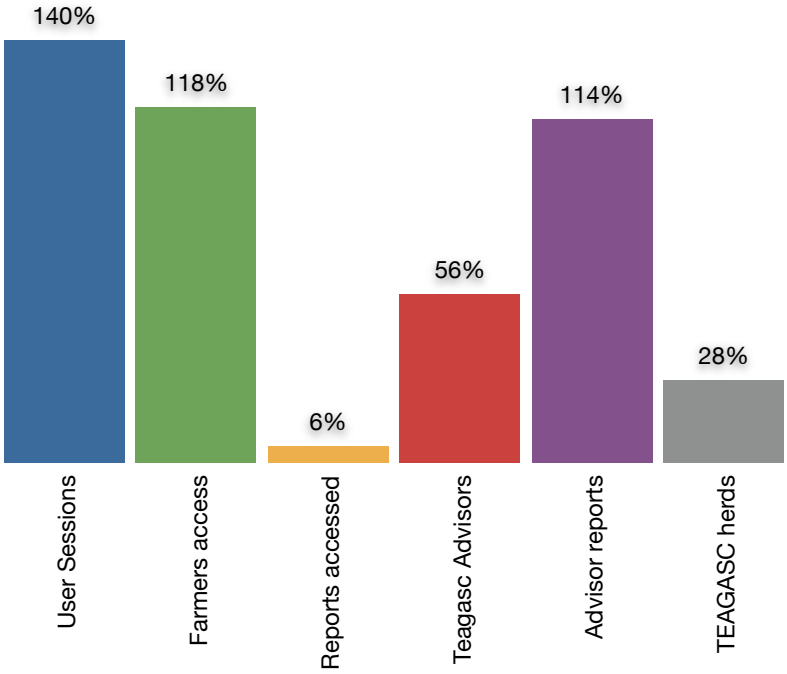
The campaign with the AI industry initiated in 2006, was extended and enhanced in 2008 with the objective of increasing the use of AI to breed more profitable replacements. The campaign was supported by funding from DAFF. Key elements were a farmer survey prior to and after the campaign, an advertising campaign through national media, staff education and a series of farmer meetings. The growth achieved in the early years of the campaign has been maintained. While DAFF funding will not be available for 2009 we are optimistic that the momentum can be maintained.

Electronic Data from Farms

Our strategy is to work closely with service-providing members to expand farmer electronic data recording through the introduction of new recording systems and increased usage of farm PC packages. The aim over a number of

years is to have 50% of all data collected from farms in electronic form. Results for 2008 show substantial growth in key website usage statistics (figure 3).

Figure 3. Website Usage 2008 vs 2007.



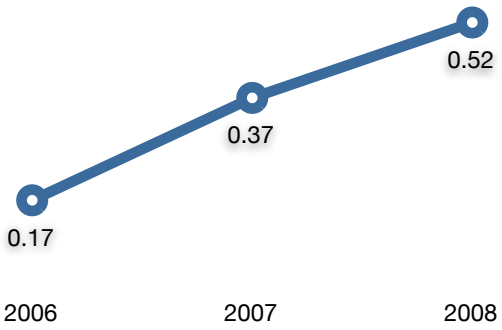
The redevelopment of the ICBF website has been further extended in 2008 to provide farmers with direct access to the ICBF database for retrieving information and for recording new data. Calf registration is the only animal event that farmers were not able to record via the ICBF website in 2008.

The development of our website to collect data directly from farms, when coupled with the wide range of links to DAFF, and other systems, provides great potential to reduce the cost of animal events processing, while at the same time reducing error levels and providing farmers with a more responsive information service.

Electronic Data from Technicians

In close collaboration with AI members and other AI field service licence holders, a handheld computer based system for recording AI technician inseminations was launched in 2006. In 2008 some 520,000 inseminations were recorded through this system, an increase of 40% on 2007 (figure 4). This system has eliminated delays in processing dockets while at the same time providing farmers with near real-time information for mating decisions. The facility for avoiding inbred matings has proven to be particularly useful in pedigree matings where comprehensive data is available for bulls and cows. This is an excellent example of how the shared database (AI and Herd Books in this case) is able to deliver extra value for herd owners.

Figure 4. AI Handheld Insem's (million).



Health and Disease Service

Our strategy is to extend database reports and events recording to meet animal health needs for whole herd health management and DAFF requirements for animal remedy recording and reporting. We have been working closely with CVERA (Centre for Veterinary Epidemiology and Risk Analysis at University College Dublin), DAFF, Veterinary Ireland and other interested parties to understand what is required. A number of reports have been developed and pilot schemes initiated. We welcome the formation of Animal Health Ireland and look forward to contributing our expertise and facilities to help reduce the impact that disease has on the profitability of Irish cattle industry.

HerdPlus®

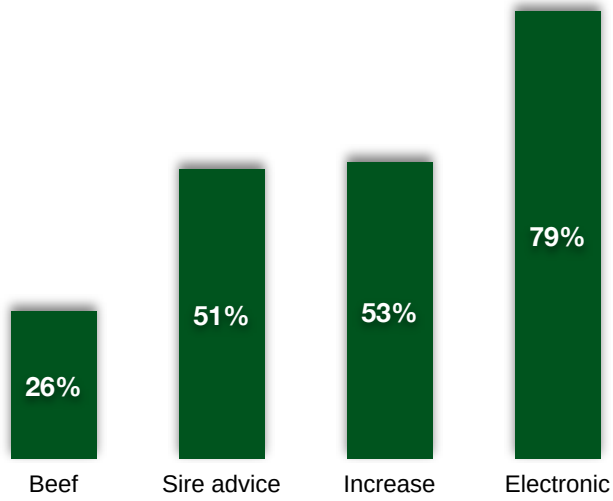
In September 2006 the HerdPlus® service for dairy herds was launched with the goal of providing dairy herd owners with management information that they would find valuable. In 2007 the service was extended to beef herds. The HerdPlus® service is built around genetic evaluation and reproduction information on a whole-herd basis. By focusing on the needs of farmers, ICBF has been able to design, build and market a service that dairy and beef farmers are finding particularly good value for money.

The HerdPlus® service has enabled ICBF to save on costs associated with providing information (EBI reports, breeding charts, etc) to farmers who did not require them and to generate income by providing information to those farmers who value the information.

HerdPlus® (refer to figure 5):

- ✤ has grown by 53% in last the last year,
- ✤ beef herds are 26% of service customers,
- ✤ the sire advice facility was used by 51% of customers, and
- ✤ 79% of customers choose the electronic option.

Figure 5. HerdPlus Percentages 2008.



Sire Advice

To ensure farmers have ready access to breeding advice ICBF's strategy is to ensure a sire advice facility is available to all cattle farmers to guide the selection of the most suitable sires for use in their herds and that cows are mated to those sires that give the best returns in the future.

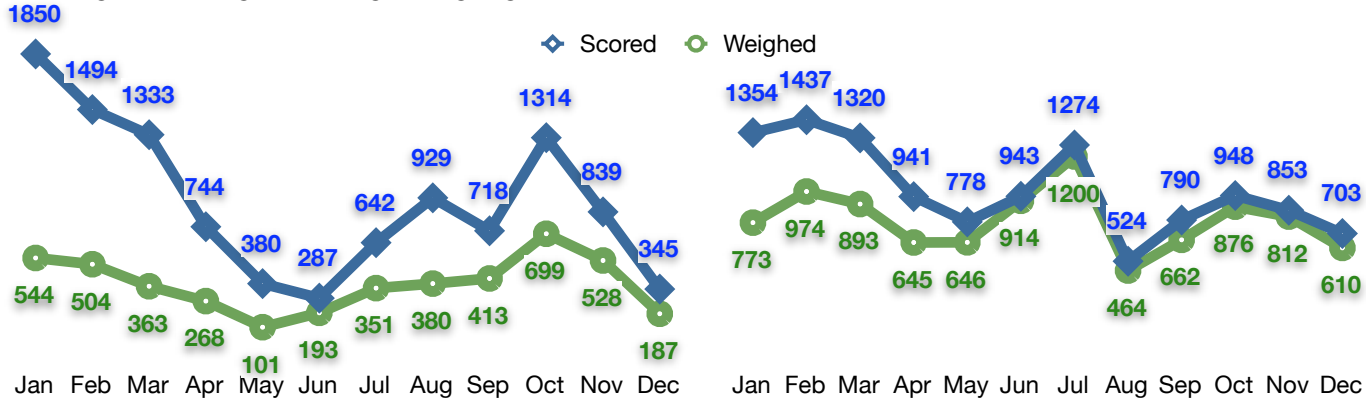
The service, first introduced in spring 2007, has been progressively enhanced on the basis of farmer feedback and the service for spring 2009 incorporates the most recent suggestions.

Criteria used in the advice include; avoidance of inbreeding, minimisation of risk from lethal genes and maximisation of future profits from the resulting progeny. Consideration is given to all candidates available through AI. The information is provided to the farmer, the farmer's breeding adviser(s) and is downloaded to the handheld computers used by AI technicians. Use of the on-line Sire Advice facility increased by some 1,000 herds to 2,400 using the facility in the spring of 2008.

Grow

The Grow service was launched as part of an initiative to improve services to beef breeders. The service enables beef breeders to obtain linear scoring and weight data on weanling age cattle. One of the objectives for the service in 2008 was to increase the use of the weight recording part of the service. Compared with 2007 the percentage of animals scored and weighed increased from 42% to 80% (figure 6).

Figure 6. Pedigree Scoring & Weighing in 2007. **In 2008.**



Teagasc Advisory Service

ICBF is providing an information service to Teagasc advisors. The service provides advisors with access to herd reports (with herd owners' permission) along with discussion group information and analysis of herd performance statistics. This service reduces the amount of time advisors need to spend on gathering and analysing data thus freeing up time for focusing on farm management decisions.

BREEDING SCHEMES

ICBF's strategy is to ensure that the cattle breeding industry achieves optimal economic returns for Irish cattle farmers. This requires a clear understanding of both the optimal breeding scheme design and the currently operating design for each breed of cattle in Ireland. Further, it implies that ICBF will then seek to ensure the industry moves towards the optimal design. This approach is most advanced for the Holstein Friesian breed.

Research Optimal Design - Genomic Selection

ICBF has commissioned the research required to establish optimal breeding scheme design(s) for all breeds of cattle in Ireland. Prof. Theo Meuwissen of the Norwegian University of Life Sciences, a world expert working on contract to ICBF, completed this work in 2006 for both dairy and beef. He has been contracted to update this research to incorporate genomic selection. For dairy this was completed in 2008 and for beef, is scheduled to be undertaken in 2009. The results for dairy are summarised in figures 7, 8 and 9 showing respectively genetic gain, inbreeding and operating cost for eight alternative designs. The previous "Old" optimal design is shown for comparison and the design selected for use in 2009 is indicated as "New".

His original work established that a progeny test of 100 bulls with 100 daughters was near optimal for the dairy breeds and that a similar sized scheme covering all beef breeds is also near optimal. These numbers are required to maximise genetic gain on Irish farms. With the benefit of genomic selection tools the optimal scheme size for dairy changes little while the rate of gain increases some 40% and costs are reduced from some € 1.82 per cow to €1.05. Genomic selection promises to deliver more rapid genetic progress at less cost. Hence, the frequent references to the revolutionary nature of this new technology.

Disease Free Status for Seed Stock Herds

In order to operate an efficient breeding scheme in Ireland our strategy has been to ensure that all herds providing seed stock material are free of TB, Brucellosis, IBR, Johnes, BVD and EBL.

This strategy is being pursued in close co-operation with the animal health industry. Progress has been slower than desirable and the outbreak of IBR de-

Figure 7. Genetic gain for eight options evaluated.

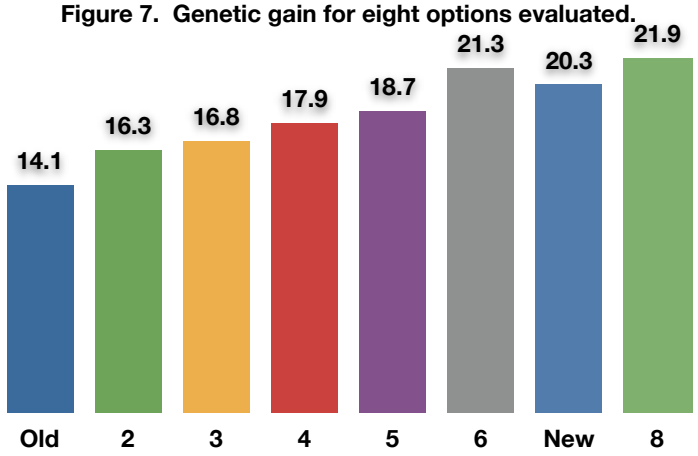


Figure 8. Annual inbreeding increase for options.

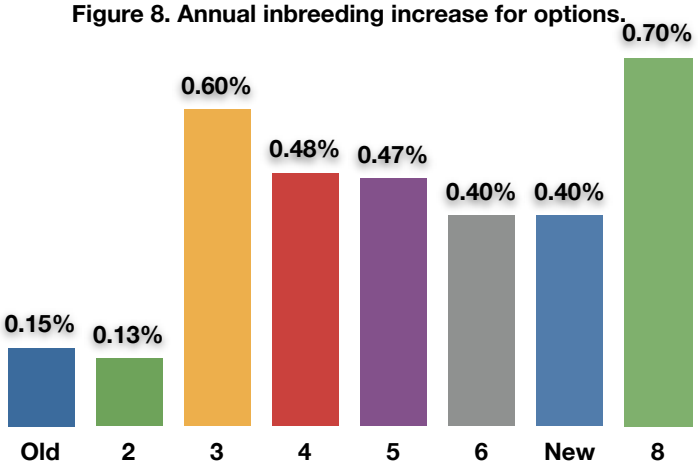
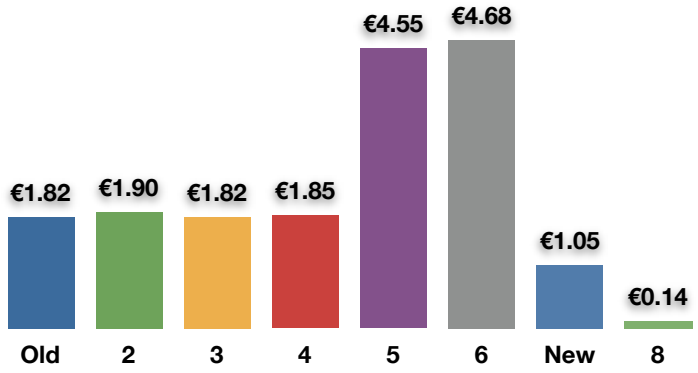


Figure 9. Annual operating cost for options (€/cow).



tected at Tully early in 2007 further highlighted the consequences of not having adequate systems for ensuring disease free breeding stock in Ireland.

The initiatives led by Professor Simon More of UCD to establish an industry partnership to drive the Herd Health initiative are strongly supported by ICBF and have resulted in the formation of Animal Health Ireland with the support of DAFF and a wide range of industry stakeholders. ICBF is strongly supporting this initiative and sees its database playing a key role in delivering animal health information to herd owners in the future.

G€N€ IR€LAND® Dairy and Beef Breeding Schemes

Our strategy is to work closely with NCBC, Dovea and other AI organisations to provide support for bull selection and progeny testing, in tightly targeted herds, in order to achieve the optimal design for dairy and beef breeds in Ireland.

In 2005 the G€N€ IR€LAND® dairy progeny test scheme was launched in a collaboration with NCBC and Dovea. The scheme was reviewed in 2006 with a substantially modified scheme launched in 2007 with the benefit of financial support from the NDP (National Development Plan). The number of bulls (figure 10) progeny tested and herds participating (figure 11) has grown steadily since the scheme was first launched in 2005.

Figure 10. Dairy Bulls Progeny Tested.

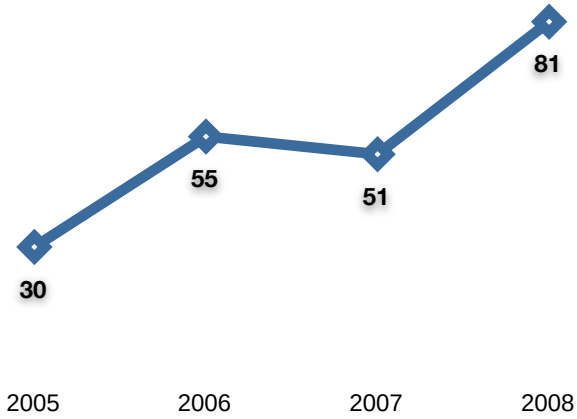
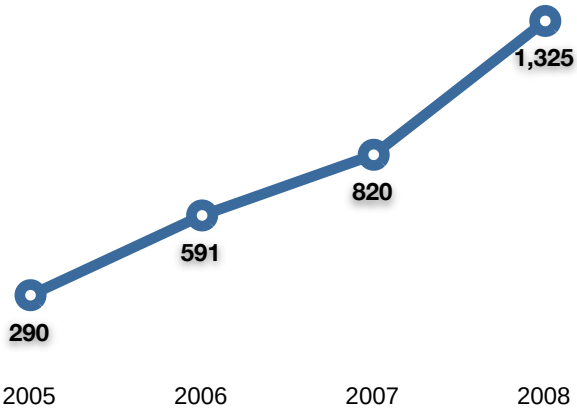


Figure 11. Dairy Herds Participating in Gene Ireland.



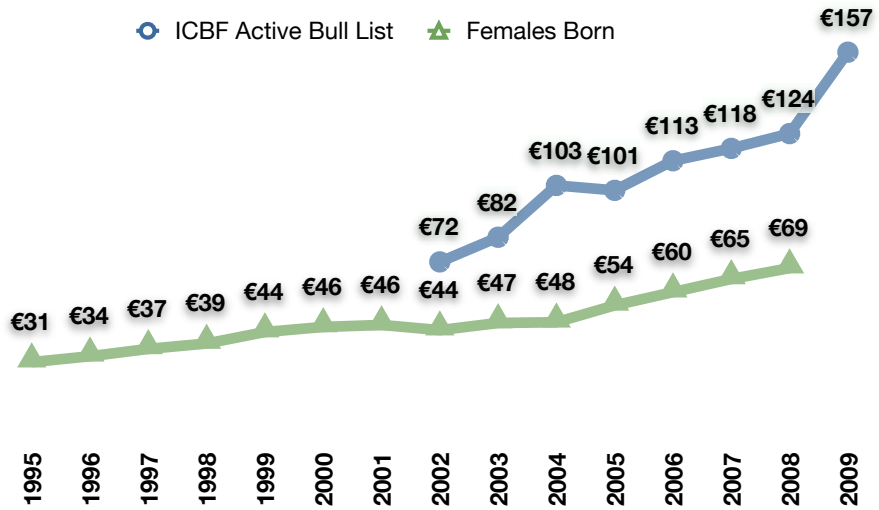
In 2008 DAFF advised that NDP support would be reduced in 2009 necessitating the development of a revised scheme. With the benefit of genomic selection technology and the result of the 2005 scheme clearly demonstrating that the theory works, a further revision has been developed and is being implemented in 2009. The key elements of the modified scheme included:

- Open to all bull owners.
- Random allocation of bulls in defined packs to cooperating herds.
- Semen distribution contracted to co-operating AI Field Service providers.
- Open to elite bulls on EBI (for dairy) and €uro-Star suckler beef index (for beef) evaluations.
- Participating herds receive semen at a discount.

Benefits of Genetic Gain

As part of the implementation of genomic selection for the Irish dairy breeding industry the ICBF Active Bull list has been reviewed and revised. This review established the genetic trends in dairy bulls being selected for use in artificial insemination (on the Active Bull list) relative to the dairy replacements born each year. The trends are shown in figure 12. While the trends are positive and there has already been a significant lift due to genomic selection (active bulls in 2008 vs 2009) there is still great potential to increase the rates of gain. The net impact on the future national dairy herd is improved profitability from increased milk production (increased protein, increased fat and no increase in water), and improved fertility (shorter calving intervals) from more robust cows (greater survival).

Figure 12. EBI Trends



These improved trends are a direct result of ICBF's efforts and demonstrate that ICBF is delivering, in conjunction with the cattle breeding industry, on its mission of increasing the rate of genetic gain in Irish dairy cattle.

Tully

A total review of the Tully beef bull performance test was conducted following the outbreak of IBR early in 2007. The key outcomes of the review included:

- The establishment of the Tully Advisory Committee to advise the Board on the operational aspects of Tully.
- The establishment of an expert Animal Health group to advise on best practice for animal disease control.
- That Tully be an integral element of the G€N€ IR€LAND® beef breeding scheme by focusing on the performance testing of the best candidates for subsequent progeny testing.
- That Breed Associations should be more closely involved in the selection and marketing of bulls tested at Tully.

A series of changes were made at Tully to ensure a higher level of bio-security. Pre-entry isolation units were established and the centre was re-opened late in 2007. Bulls and their herds of origin were subject to extensive testing for IBR. Even after all this effort and greatly increased vigilance, a small outbreak occurred in February 2008 and again in December 2008. Fortunately, the protocols put in place limited the infection to a small number of bulls in each case. Tully has created greater awareness and understanding about IBR and such diseases and this has led a number of farmers with high genetic merit animals potentially suitable for Tully and also commercial herds to be more proactive in the health status of their herd.

The future role of Tully is as an integral element of G€N€ IR€LAND®. Tully's role is to recruit the best bulls calves for beef according to the €uro-Star suckler beef value, to performance test them and to ensure the elite go on to be progeny tested under G€N€ IR€LAND®.

SHEEP

In 2008 an ICBF proposal for participation in sheep breeding, which had been developed with the support of the sheep industry, was accepted. Start-up financial support was provided by DAFF. An Interim Sheep Board to make policy decisions was established. Work to create a sheep breeding database commenced and a commitment made to take over the pedigree sheep breed improvement service operated by DAFF. By sharing its managerial, genetics and information processing capabilities with the sheep industry, ICBF has been able to reduce its overhead costs for cattle breeding, while giving the sheep breeding industry access to its extensive capabilities at a very reasonable cost.

FINANCIAL

The growth in ICBF that occurred over the period up to 2005 placed considerable strain on ICBF's financial resources as was evident in the 2005 results. During 2006 the Board, working on the advice of its Audit & Finance Sub-Committee, took a number of actions to protect ICBF's financial viability while ensuring it continued to achieve its mission. These actions included the development of the contribution model which was used to project forward five years, a review of service fees and the commissioning of a review which was carried out by Deloitte's. As a result of these actions ICBF has achieved a substantial turn-around and the positive financial outcome in 2007 has been built on in 2008.

Contribution Model & Review of Service Fees

The contribution model was developed to provide a clear picture of the financial "contribution" each of ICBF's services makes to ICBF's bottom line, taking account of the resources required for the provision of the service, the share of overheads allocated to the service, income generated by the service, and the allocation of depreciation and amortisation of NDP contributions to the service. It was on the basis of this model that service fees for milk recording, herd books and AI handhelds were increased effective from late 2006 through to 1st January 2008.

The plan developed to remedy ICBF's deficit involved two linked actions; eliminating costs without matching revenues, and putting all services on a full cost recovery basis.

Deloitte Review

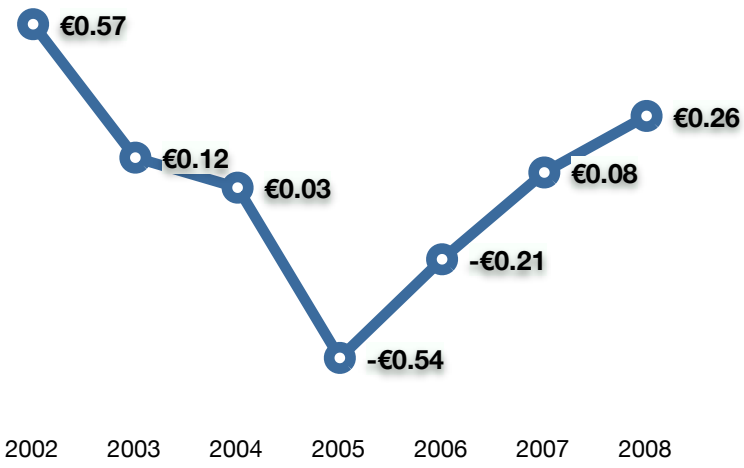
As part of the decision to adopt the recommendations of its Audit & Finance Sub-Committee (relating to the contribution model and service fees) the Board initiated a review of structure and cost to be carried out by independent consultants, Deloitte.

The report from Deloitte validated the approach taken by ICBF and was adopted by the Board at its November 30th 2006 meeting. The recommendations and findings were acted on by the Board with the final changes made in 2008.

2008 Results

The final audited result for 2008 is a surplus of €262,453, which is significantly greater than the surplus of €75,453 for 2007 (figure 13). ICBF is committed to rebuilding its reserves to an appropriate level over the next few years.

Figure 13. Financial outcome 2002 to 2008 (€ million).



In 2008 ICBF cash income (figures 14, 15 and 16) included contributions from the following sources:

- DAFF in the form of a Grant, Suckler Scheme costs, and NDP contributions to infrastructure projects. The NDP made contributions towards G€N€ IR€LAND®, the promotion of better breeding practices, development of genetic evaluations and development of systems for collecting data and reporting information to farmers.

- Cattle farmers through the Tag Contributions (€0.90 million), and
- The cattle breeding industry and farmers through service fees (€1.59 million). The income from this source has grown to 25% in 2008 from 15% in 2003.

These funds cover the cost of on-going operations and the cattle breeding infrastructure projects undertaken in 2008 as outlined in the audited accounts.

Figure 14. Income trends (€ million).

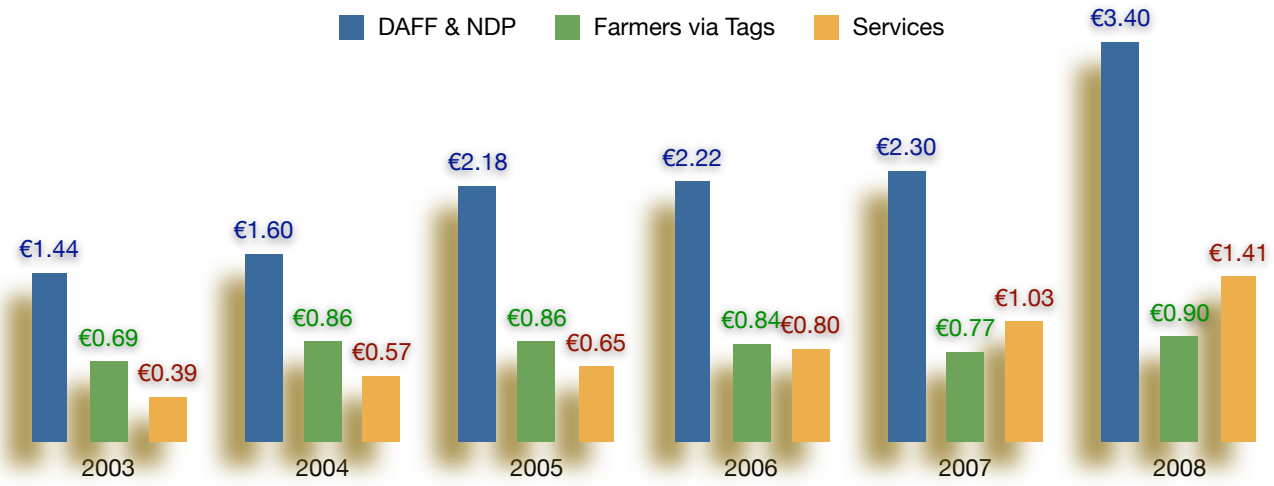


Figure 15. DAFF & NDP Funding in 2008.

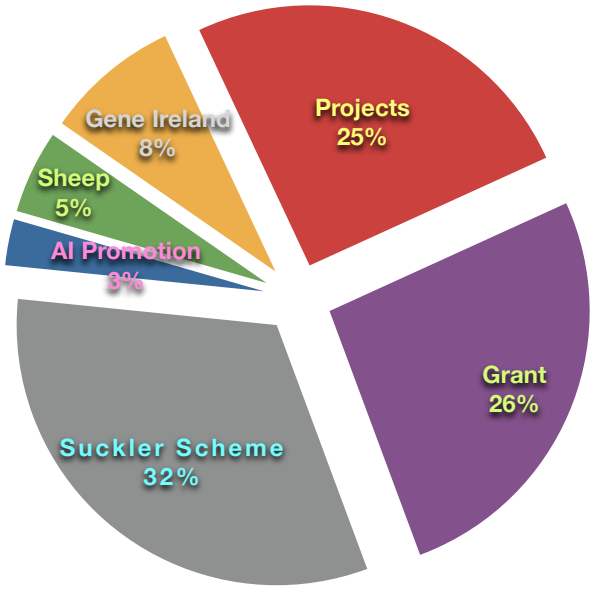
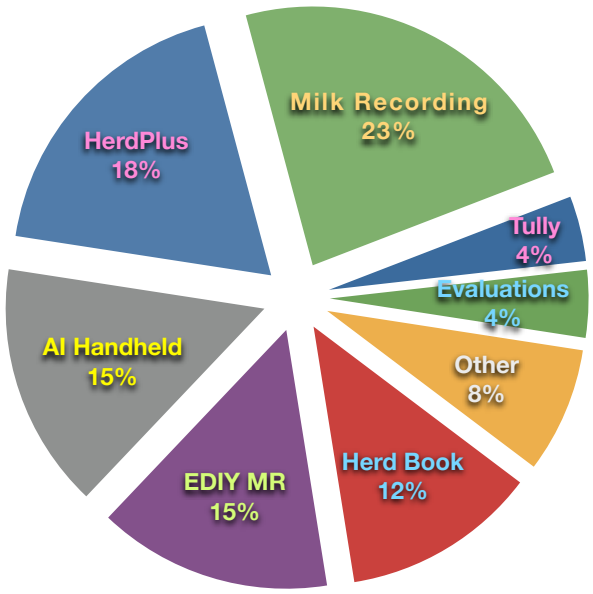


Figure 16. Service Income in 2008.



RESOURCES

ICBF is using a number of resources in pursuit of its mission. These include:

People

The ICBF team comprises a number of groups:

- Based at Highfield House are the:
  - Administration group which includes the Chief Executive,
  - Information Technology group led by Sean Coughlan,
  - Genetics group led by Andrew Cromie, and
  - Customer Support group led by Martin Burke.
- The Tully group led by Stephen Conroy is based at Tully, Kildare.
- EDIY technicians providing the EDIY milk recording service to Donegal, Connacht, Tipperary and Arrabawn Co-ops. ICBF's participation in the provision of the EDIY service is being reduced with the operation of four cells being progressively passed back to these service providers.

ICBF is a small organisation employing a total of 37 people - 22 full time staff, 6 part time staff and 9 contractors. During 2008, as in previous years, staff and contractors put in a magnificent effort in achieving the many goals established under ICBF's strategic plan.

Offices

ICBF's main office and database computers are based at Highfield House which is located on property owned by Shinagh Estates Limited (SEL) near Bandon, Co. Cork. The accommodation is rented from SEL.

Database Computers

ICBF's database runs on computers located in Highfield House and Shinagh House. During 2008 ICBF's database underwent a significant upgrade. Elements of the upgrade included: a new server, and a new disk storage system. The upgrade provides the capacity required to deal with genomic data, will help further reduce the turnaround time on genetic evaluations, ensure we can efficiently deal with the extra volumes of data resulting from the suckler scheme, and support the increasing use of the website.

Tully

The Bull Performance Test Centre at Tully. Co. Kildare is leased from DAFF. These facilities are in good condition, albeit of an older design standard, and has required some modification and routine maintenance to meet ICBF's requirements.

EDIY Calibration Laboratory

This laboratory, located at Teagasc, Moorepark, houses specialist equipment, which is used to ensure the EDIY electronic milk meters used by the industry are performing according to specification. We are grateful for the support that Teagasc have provided in the establishment and operation of this facility.

COMMUNICATIONS

ICBF is involved in communicating on a wide range of subjects to a large national and international audience involved in all aspects of cattle breeding. Irish achievements in cattle breeding are being noticed internationally as the national infrastructure moves closer to the leading edge.

Our communications include:

Irish Cattle Breeding Statistics

Irish Cattle Breeding Statistics were published on the ICBF website for the eighth time in May of 2008. This publication brings together statistical information on all aspects of cattle breeding.

Industry Presentations

ICBF continues to be heavily involved in presenting information to the Irish cattle breeding industry through a wide range of meetings and conferences. ICBF is typically involved in three to five meetings per week with farmers and industry staff. ICBF also participates in a number of international conferences presenting papers and playing an active role in leading the development of cattle breeding internationally.

Web Site

The ICBF web site (www.icbf.com) was extensively revamped in 2006 and provides a wide range of information to Irish farmers and the cattle breeding industry. A major step forward has been the routine availability of all herd reports for access by herd owners (using a sign-on and password) and designated advisors. The growth in usage is illustrated in figure 3.

Training

ICBF is increasingly involved in providing training and support for the provision of field services.

In 2008 training was provided for farmers, farmer-trainers and van drivers associated with the roll-out of the expanded EDIY milk recording service.

INTERNATIONAL

ICBF maintains a number of importance internal linkages including:

- membership of ICAR and Interbull,
- providing leadership for the development of international beef genetic evaluations through the ICAR Interbeef Working Group,
- participation in international research forums including EAAP, and
- participation in international research collaborations including the FP6 funded EURECA, and Ovultest projects.

This international network enables ICBF to keep up to date with scientific developments relevant to Irish cattle breeding.

SUPPORT

ICBF wishes to acknowledge and express its appreciation for the support and co-operation received from a large number of individuals and organisations. The collaborative nature of ICBF's activities depends to a large extent on the goodwill of its membership, the wider agricultural community and cattle farmers. This goodwill has been expressed in a number of specific ways in 2008 including:

- Provision of sponsorship by the FBD Trust for: G€N€ IR€LAND® beef and dairy and the roll-out of HerdPlus® for beef.
- Provision of sponsorship by the ACC Bank for the EBI competition organised jointly by Teagasc, the Irish Farmers Journal and ICBF.
- Provision of sponsorship by the Farmers Journal for the Cattle Breeders Round Table meeting held in Cork in February 2008.

The leadership and support provided by DAFF has been key to the success of ICBF. DAFF has long recognised the value that can be created through the availability of a well integrated cattle breeding database. The financial support provided through the NDP towards the creation of an efficient cattle breeding infrastructure is now delivering benefits to farmers, to the cattle breeding industry and to the wider community. We wish to acknowledge this support and express our appreciation for the leadership and vision that DAFF provides to our industry and cattle breeding in particular.

These many and substantial acts of financial goodwill have been accompanied by a great deal of moral support which the team working for ICBF really appreciates.

FUTURE PROSPECTS

In summary, 2008 was a year in which ICBF delivered the data recording component of the Suckler Cow Welfare Scheme and grew HerdPlus® by 53%. The 152% growth in calf registrations compared with 2004 is dramatic and with 1.8 million of the 2.1 million calves born each year now recorded on the ICBF database, Irish cattle breeding is right up with world best.

The decline in the use of AI to breed replacement dairy stock has been halted and turned around. Recent trends in the genetic characteristics of bulls entering AI show a dramatic improvement in the key traits of production, fertility and robustness. G€N€ IR€LAND® dairy grew substantially in 2008 and is approaching the optimum. We are now well equipped to be a leader in the utilisation of genomic selection as a tool to increase rates of gain and to reduce costs for dairy breeders.

Beef breeding is rapidly catching up with the benefit of the extra data that is accumulating through the suckler cow scheme. Collaboration with the Beef Herd Books is helping G€N€ IR€LAND® beef move towards the optimal design. By making full use of the ICBF database and genetic evaluations, and taking a very proactive and scientific approach to improving services and communicating with farmers, we are convinced that large amounts of extra profit for farmers can be unlocked.

ICBF has established a cattle breeding infrastructure for Ireland based on the efficient use of information technology, provision of relevant genetic evaluations and optimal levels of progeny testing. The cattle breeding industry now needs to work co-operatively to take full advantage of all the opportunities presented by this new infrastructure. ICBF looks forward to supporting the Irish cattle breeding industry in taking its place as a world leader in the provision of genetically superior cattle.

Brian Wickham
Chief Executive

John O'Sullivan
Chairman

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2008

Society Information

COMMITTEE	Mr. J. O'Sullivan (Chairman) Mr. D. Deane (Vice-Chairman) Mr. D. Beehan Mr. J. Bryan Mr. D. Cahill Mr. B. Cottrell (appointed 18 September 2008) Mr. J. Comer Mr. K. Connolly Dr. D. Corridan	Dr. B. Eivers Mr. S. Fitzgerald (resigned 17 July 2008) Mr. L. Foley Mr. K. Kinsella Mr. K. Meade Mr. M. Murphy Mr. R. Whelan Mr. P. Mulvihill (appointed 17 July 2008)
SECRETARY	Mr. J. Carty Department of Agriculture and Food Pavilion A Grattan Business Park Portlaoise Co. Laois	
CHIEF EXECUTIVE	Dr. B. Wickham	
SOCIETY'S ADDRESS AND REGISTERED OFFICE	Highfield House Shinagh Bandon Co. Cork	
SOLICITORS	P. J. O'Driscoll & Sons Solicitors South Main Street Bandon Co. Cork	
AUDITOR	Ernst & Young Registered Auditors City Quarter Lapps Quay Cork	

Independent Auditors Report

We have audited the financial statements for the year ended 31 December 2008, which comprise the Income and Expenditure Account, Balance Sheet and the related notes 1 to 13. These financial statements have been prepared on the basis of the accounting policies set out therein.

This report is made solely to the society's members, as a body, in accordance with the Industrial and Provident Societies Acts, 1893 to 1978. Our audit work has been undertaken so that we might state to the society's members those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent

permitted by law, we do not accept or assume responsibility to anyone other than the society and the society's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of the directors and auditors

The directors are responsible for preparing the financial statements in accordance with applicable Irish law and Generally Accepted Accounting Practice in Ireland including the accounting standards issued by the Accounting Standards Board and promulgated by the Institute of Chartered Accountants in Ireland.

The Industrial and Provident Societies Acts, 1893 to 1978 require the directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the society and of the income and expenditure of the society for that period. In preparing the financial statements, the directors are 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 the society will continue in business.

The directors are responsible for keeping proper accounting records which disclose with reasonable accuracy the financial position of the society and which enables them to ensure that the financial statements are prepared in accordance with accounting standards issued by the Accounting Standards Board and promulgated by the Institute of Chartered Accountants in Ireland (Generally Accepted Accounting Practice in Ireland) and comply with the Industrial and Provident Societies Acts, 1893 to 1978. They are also responsible for safeguarding the assets of the society and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

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

We report to you our opinion as to whether the financial statements give a true and fair view. We also report to you whether we found the society's books, deeds, documents, accounts and vouchers relating thereto to be correct, duly vouched and in accordance with the Industrial and Provident Societies Acts, 1893 to 1978

Basis of opinion

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. An audit includes examination on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the directors in the preparation of the financial statements and of whether the accounting policies are appropriate to the society's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us 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 our opinion, we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion, the financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland, of the state of the society's financial affairs as at 31 December 2008 and of its surplus for the year ended on that date.

We found the society's books, deeds, documents, accounts and vouchers relating thereto to be correct, duly vouched and in accordance with the Industrial and Provident Societies Acts, 1893 to 1978.

Ernst & Young,
Chartered Accountants & Registered Auditors,
Cork

8th April 2009

Income and Expenditure Account for the Year Ended 31 December 2008

	Note	*2008*	*2007*
		€	*€*
INCOME		5,882,133	4,859,438
OPERATING EXPENSES		(5,619,679)	(4,783,985)
SURPLUS ON ORDINARY ACTIVITIES BEFORE TAXATION		262,454	75,453
Tax on surplus on ordinary activities	3	-	-
SURPLUS ON ORDINARY ACTIVITIES AFTER TAXATION		262,454	75,453
RETAINED DEFICIT AT BEGINNING OF FINANCIAL PERIOD		(38,592)	(114,045)
RETAINED SURPLUS/(DEFICIT) AT END OF FINANCIAL PERIOD		223,862	(38,592)

There are no recognised gains or losses in either year other than the surplus attributable to the shareholders of the Society.

On behalf of the Committee of Management:

John O'Sullivan (Chairman)

Derek Deane (Vice Chairman)

2nd April 2009

Balance Sheet at 31 December 2008

	Note	2008	2007
		€	€
FIXED ASSETS	4	4,758,641	4,323,805
CURRENT ASSETS			
Stock	5	19,600	26,631
Debtors	6	812,832	409,332
Cash at bank		610,109	945,966
		1,442,541	1,381,929
CREDITORS: amounts falling due within one year	7	(560,338)	(610,937)
NET CURRENT ASSETS		882,203	770,992
TOTAL ASSETS LESS CURRENT LIABILITIES		5,640,844	5,094,797
PROVISIONS FOR LIABILITIES AND CHARGES	8	(341,398)	(238,227)
GOVERNMENT GRANTS FOR CAPITAL PROJECTS	9	(3,049,075)	(2,870,900)
TOTAL ASSETS LESS LIABILITIES		2,250,371	1,985,670
FINANCED BY			
SHAREHOLDERS' FUNDS			
Share capital	10	2,026,509	2,024,262
Income and expenditure account	11	223,862	(38,592)
Shareholders' funds	11	2,250,371	1,985,670

On behalf of the Committee of Management

John O'Sullivan (Chairman)

Derek Deane (Vice Chairman)

2nd April 2009

1. ACCOUNTING POLICIES

Accounting convention
The financial statements are prepared under the historical cost convention.

The financial statements are expressed in Euro (€).

Fixed assets and depreciation
Fixed assets are stated at cost. Depreciation is calculated on a reducing balance basis by reference to the expected useful lives as follows:

Office equipment	5 years
Tully machinery	5 years

Project development expenditure
Project development expenditure on clearly defined projects whose outcome can be assessed with reasonable certainty is capitalised. When the development of these projects reaches completion the Society provides services to its members in return for fee income. This expenditure is depreciated over four to five years and depreciation begins in the year the Society starts to benefit from the expenditure.

Government grants
Grants for operating and related capital expenditure:
Grants received from the Department of Agriculture and Food to fund the operations of the Society are credited to the income and expenditure account so as to match them with the expenditure to which they relate. The portion of the grant that applies to capital expenditure is deferred and is amortised over the life of the asset to which it relates.

Grants for project expenditure:
National Development Plan grants received towards the cost of project development expenditure are deferred and amortised over the same period in which the related project development expenditure is depreciated.

Income recognition
Income received from tag contributions are recognised on a cash receipts basis. All other income is recognised on delivery of the service.

2. STAFF COSTS

	2008	*2007*
The staff costs are comprised of:	*€*	*€*
Wages and salaries	1,090,583	926,918
Social welfare costs	107,348	95,447
	1,197,931	1,022,365

2. STAFF COSTS (continued)

The average number of persons employed by the Society in the financial year was 24 (2007: 18) and is analysed into the following categories:

	2008 No.	*2007 No.*
Management	1	1
Administration	2	1
Technical	21	16
	24	18

3. TAXATION

The charge for taxation is made up as follows:	*2008* *€*	*2007* *€*
Corporation tax for the year	-	-

Income is exempt from tax as the Society qualifies for charitable status under the provisions of sections 207, 208 and 609 of the Tax Consolidation Act, 1997.

4. FIXED ASSETS

	Project development expenditure		*Office equipment*	*Tully machinery*	*Total*
	Completed	*In progress*			
	€	*€*	*€*	*€*	*€*
Cost:					
At 1 January 2008	7,021,086	5,167,747	132,026	19,504	12,340,363
Additions	-	1,636,365	25,448	-	1,661,813
Transfer	140,406	(140,406)	-	-	-
At 31 December 2008	7,161,492	6,663,706	157,474	19,504	14,002,176
Depreciation:					
At 1 January 2008	6,993,801	914,675	98,942	9,140	8,016,558
Charge for the year	15,243	1,197,956	11,707	2,071	1,226,977
At 31 December 2008	7,009,044	2,112,631	110,649	11,211	9,243,535
Net book value:					
At 31 December 2008	152,448	4,551,075	46,825	8,293	4,758,641
At 31 December 2007	27,285	4,253,072	33,084	10,364	4,323,805

4. **FIXED ASSETS (continued)**

Project development expenditure consists of computer hardware, software consultancy, database and other project costs.

Included in project development expenditure in progress are three milk recording machines which are currently rented to Society members.

5. **STOCK**

	2008	*2007*
	€	*€*
Stocks	19,600	26,631

The replacement cost of stocks is not considered to be materially different from the balance sheet value.

6. **DEBTORS**

	2008	*2007*
	€	*€*
Trade debtors and prepayments	718,113	409,332
VAT	94,719	-
	812,832	409,332

7. **CREDITORS**

	2008	*2007*
	€	*€*
Trade creditors	500,110	166,398
Accruals and deferred income	60,228	444,539
	560,338	610,937

8. **PROVISION FOR LIABILITIES AND CHARGES**

Provision for progeny test scheme	*2005 Program* *€*	*2006 Program* *€*	*2007 Program* *€*	*2008 Program* *€*	*Total* *€*
Opening balance 1 January	*45,000*	*95,000*	*89,227*	*-*	*238,227*
Provided during the year	*-*	*-*	*-*	*103,171*	*103,171*
At 31 December	*45,000*	*95,000*	*89,227*	*103,171*	*341,398*

Progeny test scheme

This provision relates to an agreement in place with the AI Industry (NCBC, Dovea, Eurogene and Genus-ABS) to establish the GENE IRELAND targeted-herd progeny test scheme for both beef and dairy bulls. Herd owners are reimbursed with the estimated costs for each recorded progeny. The provision is the estimated cost of the monetary payments that will be made to herd owners commencing in 2009 in respect of 2005, 2006, 2007 and 2008 matings.

9. **GOVERNMENT GRANTS FOR CAPITAL PROJECTS**

(i) Project grants from National Development Plan administered by Department of Agriculture and Food (DAF).

(ii) Grant from Department of Agriculture and Food (DAF)

	Projects completed	*Projects in progress*	*Grant*	*Total*
	€	*€*	*€*	*€*
	(i)	*(i)*	*(ii)*	
Received:				
At 1 January 2008	3,969,940	3,552,639	74,033	7,596,612
Received during year	-	952,616	-	952,616
At 31 December 2008	3,969,940	4,505,255	74,033	8,549,228
Amortisation:				
At 1 January 2008	3,969,940	681,739	74,033	4,725,712
Credited to the income and expenditure account in year	-	774,441	-	774,441
At 31 December 2008	3,969,940	1,456,180	74,033	5,500,153
Net amount:				
At 31 December 2008	-	3,049,075	-	3,049,075
At 31 December 2007	-	2,870,900	-	2,870,900

10. **SHARE CAPITAL**

	2008	*2007*
	€	*€*
Authorised:		
28,768 “A” ordinary shares of €12.697381 each	365,278	365,278
28,768 “B” ordinary shares of €12.697381 each	365,278	365,278
28,768 “C” ordinary shares of €12.697381 each	365,278	365,278
73,696 “D” ordinary shares of €12.697381 each	935,746	935,746
	2,031,580	2,031,580
Issued and fully paid:		
28,768 “A” ordinary shares of €12.697381 each	365,278	365,278
28,768 “B” ordinary shares of €12.697381 each	365,278	365,278
28,368 “C” ordinary shares of €12.697381 each	360,207	357,960
73,696 “D” ordinary shares of €12.697381 each	935,746	935,746
	2,026,509	2,024,262

All shares rank pari passu in all respects.

11. RECONCILIATION OF SHAREHOLDERS' FUNDS AND MOVEMENT ON RESERVES

	Share Capital	*Income and expenditure account*	*Total*
	€	€	€
At 1 January 2007	2,023,286	(114,045)	1,909,241
Surplus for year	-	75,453	75,453
Share issue	976	-	976
At 1 January 2008	2,024,262	(38,592)	1,985,670
Surplus for year	-	262,454	262,454
Share issue	2,247	-	2,247
At 31 December 2008	2,026,509	223,862	2,250,371

12. PENSION

The Society does not operate a pension scheme. Each employee has the option of joining a Revenue approved scheme and the society facilitates the payment of contributions through its payroll system.

13. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 2nd April 2009.

HerdPlus®
Profit through Science

Suckler Cow Report

Animal Details

Jumbo:	164
Official Tag:	**IEXXXX0164R**
Animal Name:	HIGHFIELDL NAOMI ET
Date of Birth:	05/01/1998
Breed:	LM (100%)
Herdbook:	Pedigree Registered
Scored:	03/11/1999
Weighed:	09/10/1998

BLUP Index (Reliability 64%)

MUSCLE	SKELETAL	DOCILITY
123	113	108

Ancestry Details

Sire's Sire:	2384004516 VAURIEN	
Sire's Dam:	8786005219 BALINE	
Sire:	GNI GENIAL	
Dam:	MZA685132 F084 LENY	
Dam's Sire:	DMI DIMITRI	
Dam's Dam:	1984008688 VENISE	

€uro-Star Index

Within Breed		Index	Rel%	Across Breed
★★★★★	Suckler Beef Value	€170	47%	★★★★★
Beef Value				
★★	Calving Traits	€-13	44%	★★
★★★★★	Weanling Export	€117	56%	★★★★
★★★★★	Beef Carcass	€134	50%	★★★★
Replacement Value				
★★★★★	Milk & Fertility	€-1	22%	★★★★
★★★★★	Calf Quality	€346	53%	★★★★
Other Key Traits				
	Docility	108		

Calving & Fertility Performance / Weanling & Carcass Performance

	Calving Date	Tag Number	Calving Survey	Calving Interval	Sex	Current Status	Sire	Sire Breed	Age days	Weight Kgs	Growth Kg/Day*	Loin (1-15)	Hind Quarter (1-15)	Calf Quality	Docility	Age at Slaught. (months)	Carcass Conf. & Fat	Carcass Weight
1	26/09/2000	IE241280260494			M	Dead	DUV	LM	479	409	1.12	7	8		Quiet	85	U2	555
2	05/01/2001	IE191198940101		ET	F	Sold	IAL	LM	413			7	7		Average			
3	04/12/2001	IE241280230608		332	M	Sold	FTN	LM	269	397	1.23	7	8		Quiet			
4	03/11/2002	IE241280250667		333	F	In herd	FTN	LM	561	296	1.06	10	9		Quiet			
5	07/01/2004	IE241280270784		430	M	Sold	MBU	LM	388	515	1.23	11	12		V.Quiet			
6	13/12/2004	IE241280270842	Normal	340	M	Dead	LNO	LM	420	550	1.21	10	11		Quiet	26	U2	495
7	01/12/2005	IE241280260924	Normal	352	F	In herd	OTX	LM	433	360	1.31	11	11		Quiet			
8	01/01/2007	IE241280260998	Normal	395	F	Exported	MUC	LM	403	420	0.94	10	11		Quiet			
9	02/01/2008	IE241280261071	Normal	365	F	In herd	RMX	LM	276	406	1.33	11	11	V.Good	Quiet			
10	03/01/2009	IE241280231151	Normal	366	F	In herd	OTX	LM										

* Birthweight of 40kgs is assumed and is added to the Weaning Weight when calculating Growth Kg/day.
**Docility - If animal is Linear Scored then this value is printed instead of the Suckler Cow Welfare Scheme value.

HerdPlus®
Profit through Science

Dairy Cow Report

Animal Details

Jumbo	8
Tag	IEXXXX0008G
Name	HIGHFIELD JERRI 5
DOB	01-Feb-96 13y 1m
Breed	HO 84.4% FR 15.6%
EBI Rank	13
In Herd	Born In herd
Status	Milking - To be culled
Due Calve	To Serve

Details & EBI Indexes

Sire	ASE (€ 63)
Dam	DSK184229 (318) (€ 77)
Dam's Sire	DSK

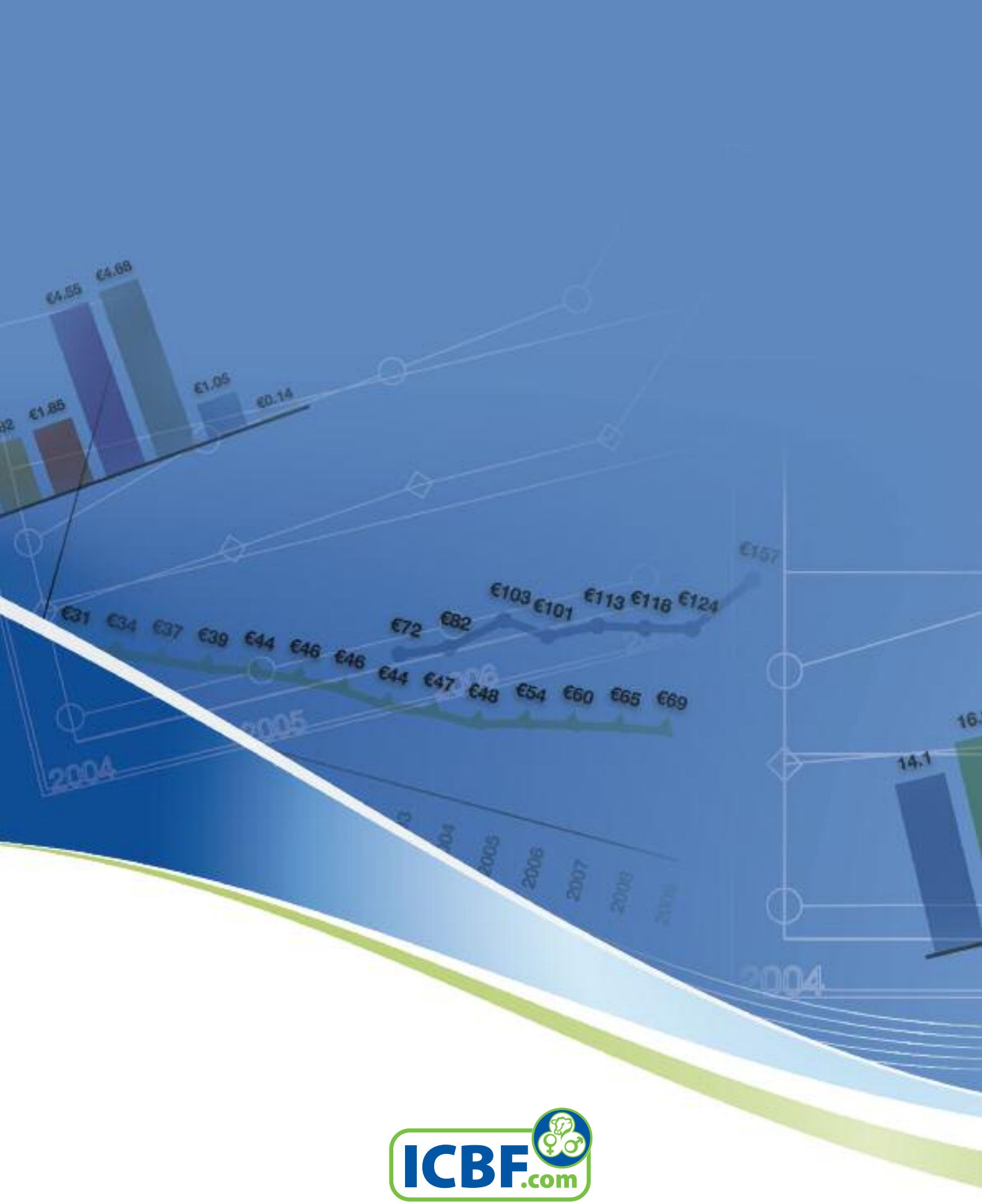
EBI	Milk	Fert	Calv	Beef	Health
€ 134	€ 64	€ 71	€ 9	-€9	-€1

Milk Kg	Fat Kg	Prot Kg	Fat %	Prot %	Calv. Int.	Survival
37	15	7	0.26	0.11	-3.9 days	2.1%

Calving & Fertility

Milk Production

Lact	Calved	Calf Tag	Sex	On Farm	Num Serve	Calv Int	Milk kg	Fat kg	Prot kg	Fat %	Prot %	F+P kg	SCC	Days
2	03-Feb-99	50328	F	N	1	376	7301	357	268	4.89	3.68	626	249	310
3	10-Feb-00	30417	M	N	1	372	7859	376	297	4.79	3.78	673	164	294
4	31-Jan-01	60493	M	N	1	356	8176	393	298	4.81	3.64	691	224	302
5	16-Feb-02	30581	M	N	1	381	9653	479	356	4.96	3.69	835	108	306
6	12-Feb-03	40673	F	Y	1	361	8455	454	317	5.37	3.75	770	151	313
7	02-Feb-04	80751	M	N	1	355	8349	437	309	5.24	3.7	746	155	298
8	15-Jan-05	50815	F	Y	1	348	8144	401	314	4.93	3.85	715	422	327
9	07-Feb-06	60923	F	Y	4	388	8304	480	298	5.78	3.59	778	685	354
10	02-Oct-07	91049	F	Y	1	602	7170	381	258	5.31	3.59	638	538	357
11	10-Nov-08	81163	F	Y	-	405	3098	168	105	5.42	3.41	273	453	113
				Avg (Comp)		394	7974	407	293	5.09	3.67	700	292	318
				Lifetime Production			82834	4233	3039	5.11	3.67	7271		3294



Irish Cattle Breeding Federation

HEAD OFFICE
Highfield House, Shinagh, Bandon, Co. Cork, Ireland
T:+353 (023) 88 20222 F:+353 (023) 88 20229 E:query@icbf.com W:www.icbf.com