

# IRISH CATTLE BREEDING FEDERATION ANNUAL REPORT 2 0 1 3



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Department of Agriculture, Food and the Marine An Roinn Talmhaíochta, Bia agus Mara

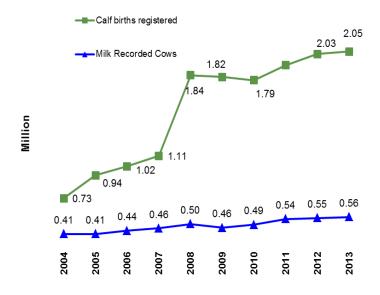


#### SUMMARY of 2013

ICBF exists to benefit our farmers, our agri-food industry and our communities through genetic gain. We do this through the delivery of high value services from the cattle breeding database, by developing and applying science and technology to ensure our farmers and industry make the most profitable and sustainable decisions. The first half of 2013 was a very challenging time for farmers in Ireland, with extremely poor weather conditions and very scarce fodders supplies. However, the weather did improve, and there is a general feeling of optimism for the medium term, especially on the dairy side. On the beef side, there is considerable concern around the future of the suckler herd, with very low profitability levels on most farms. However, on both dairy and beef, we continue to be focused on providing a breeding infrastructure that will facilitate on-going profitability and sustainability of the sectors.

In 2013 the major contributions ICBF made towards its mission included:

- Assisting the AI industry and Irish farmers in the largest field trial ever undertaken in Sexed Semen
- The continued increase in the use of genomic selection (GS) in dairy cattle breeding, with a significant increase in the numbers of females genotyped
- Working with the Beef and Dairy Herdbooks to lead the way in the genotyping of all newly registered pedigree stock bulls
- Delivery on behalf of the Dept of Agriculture (DAFM) of the first year of the Beef Data Programme (BDP).
- Growth in the HerdPlus<sup>®</sup> service to Beef and Dairy herds to 17,000 herds.
- Start-up of the new Maternal Beef Breeding Programme, including the blossoming of Tully in its new role as a performance test centre for commercial cattle.
- Continuation of the roll-out of the Coop Performance Report in collaboration with milk processors, and the use of the ICBF database in their strategic planning efforts
- Provision of the background information system to support the compulsory phase of the Animal Health Ireland (<u>www.animalhealthireland.ie</u>) BVD eradication program, with over 2,000,000 animals tested in 2013.



#### Figure 1

In 2013, 80,294 herds, with 2.05 million calvings (Figure 1) were participating in one or more aspects of the ICBF database. The uptake of milk recording was at an all-time high (Figure 1).

The 2013 Beef Data Programme, which followed on from the Suckler Cow Scheme, has continued to enhance the amount of data on beef cattle in Ireland and has enabled substantial further progress in the development of our genetic evaluations for traits relevant to beef cattle in Ireland.

The ICBF cattle breeding database continues to improve the accuracy and scope of both beef and dairy genetic evaluations. As in previous years, 2013 saw these improved evaluations being used by the AI companies to locate Irish bred Holstein Friesian bulls for subsequent progeny testing through the G€N€ IR€LAND<sup>®</sup> dairy program. They also continued to facilitate the wide use of GS bulls at a young age. The Irish dairy industry is benefiting from more rapid genetic gain giving rise to cows that are more productive, more fertile and more robust. In 2013 beef genetic evaluations for calving, docility, direct weaning weight, carcass, maternal milk and female fertility all benefited significantly from the extra data collected through the Dept of Agriculture schemes, as well as data received from a variety of other sources. As beef and dairy breeding decisions are increasingly based on these more accurate genetic evaluations, the opportunity for increased profitability of beef and dairy farming is being advanced.

Thanks to continued strong support from DAFM, solid tag income, and robust service income from our

service providing partners, ICBF's finances remain sound.

Our research has shown that those herds who are fully engaged across the range of cattle breeding services are more profitable. Thus, the ICBF strategic plan is focused on increasing farmer uptake of those recording and breeding services that give them the greatest economic returns. The focus on how this will be done is through greater engagement with the service providers and industry stakeholders. ICBF's development effort is increasingly focused on streamlining the flow of data from all sources, while improving the quality of the information returned to farms. Initiatives with industry partners are being undertaken to use the ICBF database to provide better quality information to improve decision-making at farm, service providers, industry, research and breeder levels.

As part of ICBF's commitment to facilitate Animal Health Ireland (AHI) there has been a substantial amount of database development work again in 2013 to support AHI's various initiatives. The execution of the compulsory phase of the BVD eradication program was very successful in 2013, with ICBF playing a key role in its delivery.

## MISSION

ICBF exists to benefit our farmers, our agri-food industry and our wider communities through genetic gain. We do this by the application of science and technology to ensure that our farmers and industry make the most profitable and sustainable decisions. 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 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 the required data is available, and that farmers use genetically superior animals in each generation.
- Well informed farmers and industry partners who willingly provide accurate data from their own farms and make full use of the information available in their breeding and farm management decisions.

Farmers that fully engage in cattle breeding services are more profitable than those that don't. (Cromie, 2012). The ICBF Strategic Plan now has at its core the engagement of farmers in the use of cattle breeding services. This is the primary focus of ICBF's activities.

This Annual Report has been prepared for the purpose of providing ICBF shareholders and other stakeholders with a summary of activities and achievements in relation to the objectives of the Society for the 2013 calendar year.

### Genomics

Cattle breeding continues to undergo a transformation as a result of the use of genomics. This technology is enabling increased rates of gain and reduced costs, in particular those associated with large scale progeny testing.

That Ireland is able to lead in the exploitation of genomic technology is a consequence of a number of key factors.

- The availability of large volumes of phenotypic data on large numbers of animals in the ICBF database
- Having access highly skilled and well-motivated technical staff in both ICBF and Teagasc.
- Partnerships with international collaborators that are providing access to knowledge, technology and research material.
- The creation of a bank of DNA samples from AI bulls, herdbook initiatives around pedigree male registrations, and the strategic use of development funds to build the training population.
- Access to the ICBF database and genetic evaluation system, to support the research and, roll out subsequent genomic services to the industry
- Dairy and beef farmers who are convinced of the merits of the EBI and Eurostar Indexes respectively and use them as the main basis for selecting AI sires and stock bulls.
- A forward looking AI breeding industry that responds quickly to the availability of new technology, and is willing to invest to help them better meet the needs of Irish farmers.
- One of the significant achievements in this area in 2013 was the implementation of a custom 'IDB19' chip for Ireland, which had been designed in 2012.

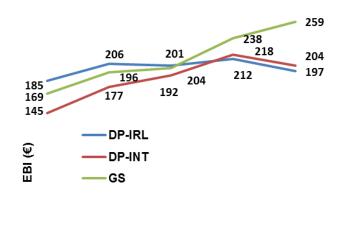
#### **Genomic Services**

ICBF continues to develop the infrastructure to enable the Irish cattle breeding industry to fully exploit the benefits of genomic information while at the same time minimising costs. During 2013 the focus continued to be on enhancing the systems and services to support the process from selecting a calf for genotyping through collecting a tissue sample, usually hair, to sending the sample to the lab for testing, to receiving the genotype back into the ICBF database, to incorporating the genomic information in the genetic evaluation for the animal and finally, to the distribution of the results. One of the critical elements in we focused on late in 2013 was on reducing the turnaround times, especially in relation to dairy bull calves during the spring season.

In 2013, Beef and Dairy Herd-books showed great leadership in breaking new ground by genotyping all registered pedigree males, and the impact has been significant in terms of maintaining the momentum around genomics.

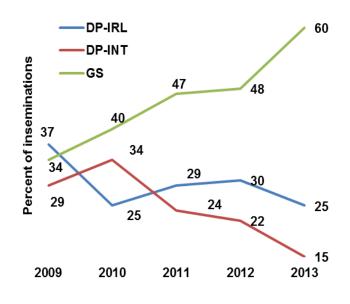
#### **Dairy Genomics**

A major achievement for 2013 has been the on-going roll-out of genomic selection for dairy cattle. In spring 2013, 60% of recorded dairy inseminations were from such bulls. Refer to figure 2 for a summary of the EBI and uptake over the last number of years.



2009	2010	2011	2012	2013	
 •					

Figure 2a. Average EBI for daughter proven in Ireland (DP-IRL), daughter proven internationally (DP-INT) and genomically selected (GS) bulls



**Figure 2b**. Percent of inseminations for daughter proven in Ireland (DP-IRL), daughter proven internationally (DP-INT) and genomically selected (GS) bulls

#### **Dairy Females**

2013 saw an increased emphasis on the genotyping of females and many farmers now see the genotyping of young stock as a routine part of running their dairy enterprise. As the cost of genotyping continues to fall, the levels of genotyping of heifers by farmers will increase dramatically.

#### Beef

The development of genomic selection for beef cattle breeding has progressed significantly in 2013. The launch of the Beef Genomics Scheme by DAFM will see a seismic shift in the level of Beef Genotyping and will see Ireland develop across breed genomic evaluations in 2014/2015.

#### **Genetic Evaluations**

Our overall goal is to ensure the ready availability of 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.

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

#### **Common to Beef and Dairy**

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 sucklercow maternal traits.

Having started in 2005, across breed genetic evaluations for a wide range of calving and beef traits are 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 mart and slaughter records from the industry.

#### **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 all the current traits and introduce new traits as the research allows.

The economic values in the EBI were revised at the end of 2013. We had hoped to also introduce the Test Day Model for Milk Production in 2013, but further work is needed. The research on the genetics of Health and Disease traits will continue to get a lot of focus, and the initial results are quite compelling. This is likely to be the next big area of change within the EBI.

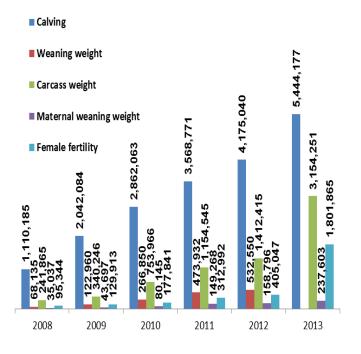
#### **Beef Specific**

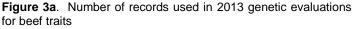
Our strategy is to research, develop, implement and continuously improve the accuracy and relevance of the EuroStar index as a guide for beef breeding decisions. Significant developments in 2013 included:

- The continued rollout of separate maternal and terminal indexes
- A significant amount of research around the calving performance evaluations, which will hopefully be implemented in 2014.
- Research into traits around meat eating quality.

Throughout 2013, the Beef Data Programme continued to play a key role in building the data set

on which genetic evaluations are based. This was critical, as the ending of the Sucker Scheme had the potential to create a real drop in the volumes of data coming from farms, particularly sire data.





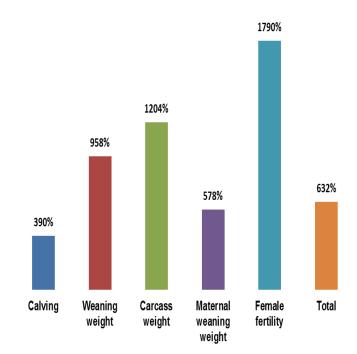


Figure 3b. Numbers of records used in genetic evaluations 2013 expressed as % of numbers in 2008.

#### Interbeef

ICBF is playing an important leadership role in the development of Interbeef to facilitate the international evaluation of beef breeds and traits. In 2011 formal agreements were established for the development of a routine international beef genetic evaluation service, and significant work has taken place in 2013, with Ireland leading the way on weaning weight evaluations.

#### **Cattle Breeding Services**

The level of participation in cattle breeding services continues to grow. This firstly benefits herd owners who are now using breeding stock that give greater farm profitability. It is also providing a substantial benefit to ICBF's members who are enjoying increased service uptake, with the benefits that an integrated database brings. This in turn provides valuable service income and data to ICBF.

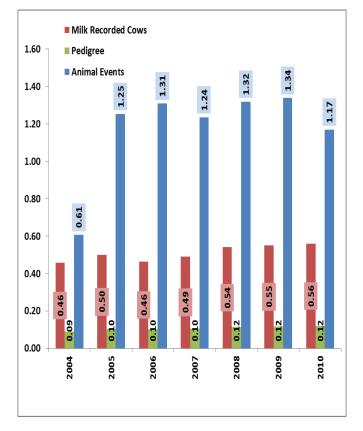


Figure 4. Cattle breeding participation (millions).

#### **Services to Herd Books**

There was on-going development in relation to the herdbook processing service in 2013. The major initiative around the genotyping of pedigree males born in 2013 has paved the way for more extensive levels of genotyping in 2014.

#### **Milk Recording**

ICBF's strategy is to work closely with its milk recording members, and to make full use of new technology to reduce labour, reduce inconvenience for farmers and to reduce the cost of recording. Our long term goal is to help the service providers increase usage of milk recording to 10,000 dairy herds.

In 2013 the uptake of milk recording was at an alltime high record of 0.56 million cows (across 6,257 herds), a 1% increase on milk recording in 2012 and representing 50% of dairy cows. This was an excellent performance given the poor weather conditions at the start of last year.

The EDIY (electronic do-it-yourself) service continues to prove 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 relatively 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. 34% of cows milk recorded in 2013 were recorded under the EDIY service.

#### **Electronic Data from Farms**

Our strategy is to work closely with serviceproviding members to expand farmer electronic data recording through the introduction of new recording systems and increased usage of farm PC packages. Results for 2013 again show growth in key website usage statistics (figure 5) – user sessions, farmer access, reports accessed and advisor reports. The bull search on the ICBF website was used for over a million searches in 2013, a 7% increase on the 2012 figures. The development of our website to collect data directly from farms, when coupled with the wide range of links to DAFM, and other systems, provides great potential to reduce the cost of animal events recording and 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 2013 some 645,000 inseminations were recorded through this system, a slight drop in the 2012 figure, in line with the difficult AI season. (figure 6).

This system has eliminated delays due to 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.

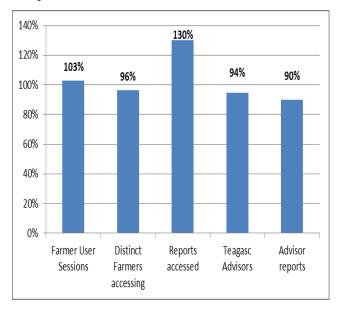


Figure 5. Website usage in 2013 as % of 2012.

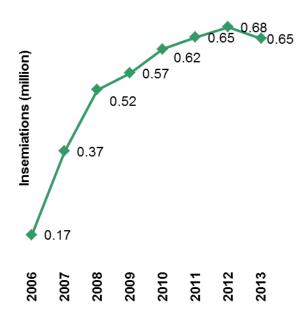


Figure 6. Inseminations recorded via AI Handhelds.

#### Health and Disease Service

Our strategy is to extend database reports and event recording to meet animal health needs for whole herd health management. This will become an area of increasing focus for ICBF and our service providers as we move towards better evaluations for all 'Cost of Production' traits. Our alliance with Animal Health Ireland is proving to be particularly constructive. In 2013 this included the provision by ICBF of the key information system infrastructure for the compulsory phase of the National BVD Eradication initiative.

# HerdPlus®

In September 2006 the HerdPlus<sup>®</sup> 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<sup>®</sup> service is built around genetic evaluations 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<sup>®</sup> service has enabled ICBF to save on costs associated with providing information (e.g. EBI reports, breeding charts, and cow reports) to farmers who did not require it and to generate income by providing information to those farmers who value it.

HerdPlus<sup>®</sup> (refer to figure 7):

- has grown significantly in 2013 as the DAFM supported Beef Technology Adoption Programme (BTAP) scheme continued to have the use of genetic evaluation information as a core element
- beef herds are now 60% of service customers,

#### **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 to ensure that cows are mated to those sires that give the best economic 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 2013 incorporated the most recent suggestions.

Criteria used in the advice include; avoidance of inbreeding, minimization of risk from lethal genes and maximization of future profits from the resulting progeny. The information is provided to the farmer, the farmer's breeding adviser(s) and is downloaded to the handheld computers used by AI technicians.

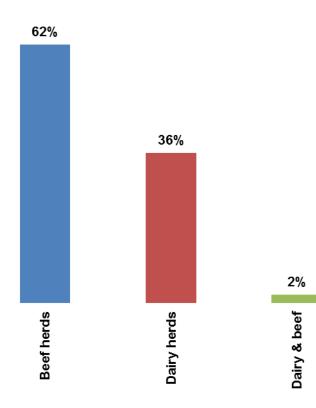


Figure 7. HerdPlus<sup>®</sup> percentages in 2013.

## Grow®

The Grow<sup>®</sup> service was launched in 2002 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. Compared with 2007 the percentage of all pedigree and non-pedigree animals scored and weighed increased from 55% to 99% (figure 8). The service is also used in non-pedigree herds, mainly those associated with the GENE IRELAND<sup>®</sup> beef progeny test.

Year	Total	% Weighed	% Pedigree
2007	14,496	55	75
2008	16,805	85	71
2009	14,727	94	60
2010	14,611	97	63
2011	14,287	99	62
2013	13,289	99	61
		vica untaka	

Figure 8. GROW<sup>®</sup> service uptake.

#### **Advisory Service**

ICBF is providing an information service to Teagasc advisors, private advisors and Veterinarians. The

service provides advisors with access to herd reports (with herd owners' permission) along with discussion group information and analyses 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.

#### **Milk Processors**

The Coop Performance Report, which has been developed in partnership with milk processors, continued to be very popular in 2013. This service makes use of data held in the respective databases (ICBF and processor) to provide herd owners with information that allows them to assess the performance of their herd on a number of key performance indicators.

#### **OptiMIR**

ICBF continued its partnership with Teagasc and fifteen Milk Recording and Research organisations in other EU countries. The OptiMIR (<u>www.optimir.eu</u>) project is focused on improving the sustainability of milk production by providing improved management information to herds. While in 2013 we did not make as much progress as we would have liked in terms of getting spectral data flowing to the ICBF database, ICBF was central to the development of some key functional specifications for the project.

#### **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 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, and huge credit must go to the indigenous AI companies and IHFA for the proactive approach they have taken to genotyping large volumes of animals.

#### Sexed Semen

2013 saw the largest ever structured research trial executed in Ireland. In conjunction with the ICBF member AI companies, Teagasc, the main meat processors and the Farmers Journal, the trial was successfully executed in the midst of a very difficult breeding season for farmers. Sexed semen presents both opportunities and challenges to the Irish industry in ensuring on-going progress in relation to the national breeding programmes, and both have to be managed. However, we need to ensure that Irish farmers have access to the latest technology, and can use it in an informed manner.

# G€N€ IR€LAND<sup>®</sup> Dairy and Beef

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.

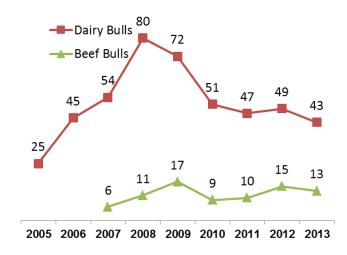
In 2005 and 2007 respectively for dairy and beef, the  $G \in \mathbb{N} \in IR \in LAND^{(B)}$  progeny test schemes were launched in collaboration with the AI industry. The number of bulls (figure 9) progeny tested and herds participating (figure 10) grew steadily up until the years 2008 for dairy and 2009 for beef. Genomics has led to a reduction in the overall numbers of bulls being tested through  $G \in \mathbb{N} \in IR \in LAND^{(B)}$ 

#### **Genetic Gain – Dairy**

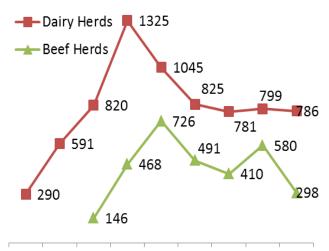
The genetic trends in dairy bulls on the Active Bull list relative to the dairy replacements born each year are shown in figure 11. The strong rate of increase seen over the past few years has been maintained due to the continued use of genomic selection.

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).

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.



**Figure 9.** Bulls tested in G€N€ IR€LAND<sup>®</sup> dairy and beef Progeny test programs.



2005 2006 2007 2008 2009 2010 2011 2012 2013

**Figure 10**. Herds participating in  $G \in \mathbb{N} \in \mathbb{IR} \in \mathbb{LAND}^{\otimes}$  dairy and beef progeny test programs.

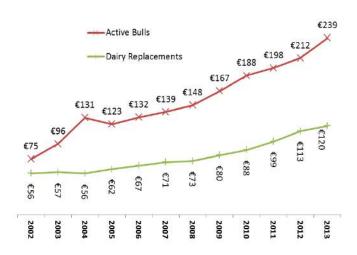


Figure 11. EBI averages by birth year for females and for bulls on active bull list in each year

#### **Tully**

The role of Tully was significantly changed at the end of 2012 and it has blossomed in its new role in 2013. Its role is now as a progeny test centre and the first 77 commercial bulls tested through the new regime were slaughtered in December of 2013.

It has proved to be a very worthwhile exercise with excellent cooperation between ICBF, Teagasc, and the meat processors to ensure that the maximum amount of data is captured from those animals.

The future role of Tully is as an integral element of G€N€ IR€LAND<sup>®</sup>.

#### **Genetic Gain – Beef**

Genetic progress in the suckler herd is illustrated in figure 12. While gain is positive on the Terminal index, it is declining on the Maternal Index. The slight overall gains are slow relative to the optimal rates that are achievable from well designed and well executed beef breeding programs. Ireland faces a major challenge addressing the decline in the Maternal Index, and the on-going profitability of the suckler industry is largely dependent on this. That is the focus of the revised Beef Gene Ireland Programme.

#### **Beef Gene Ireland**

The findings of the 2011 review of Beef Breeding, including Beef Gene Ireland resulted in series of recommendations whose implementation continued in 2013.

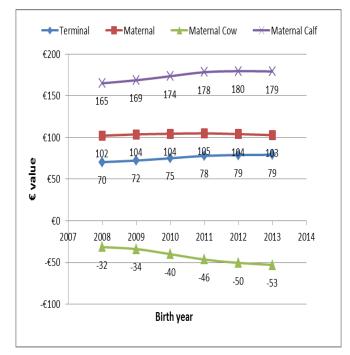


Figure 12. Genetic gain in  $(\in)$  for commercial beef cattle.

The initiatives are as follows:

• Maternal Bull Breeder Programme. This element of the Beef Gene Ireland programme was designed to (a) achieve more accurate and complete data in beef breeding herds and (b) place more emphasis on maternal traits in pedigree beef breeding.

- Weight recording. The operation of a National Weight Recording Service continued in 2013, and with a network of 29 technicians established throughout the country. This puts the industry in a good position for 2014 and beyond to increase the levels of on-farm weight recording taking place.
- G€N€ IR€LAND<sup>®</sup> Beef Progeny Testing Scheme. The model by which the progeny testing is carried out underwent a significant change in 2013. ICBF is now buying the bulls for testing from breeders, in consultation with the breed societies, commercial farmers, and the AI industry. The first of these bulls will be tested in Spring 2014.
- **Genomics.** Genomics in beef is not as advanced as in dairy. However, the Beef Herd-books showed major initative in pushing forward with the genotyping of all the pedigree males registered in 2013. This will now be followed in 2014 with DAFM's Beef Genomics Scheme, a huge initiative, even by international standards.

### **Financials**

#### **2013 Results**

The final audited result for 2013 is a surplus of  $\notin$ 119,987 which compares with a surplus of  $\notin$ 129,103 for 2012 (figure 13).

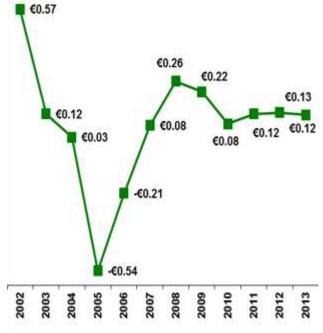


Figure 13. Financial outcome 2002 to 2013 in € million.

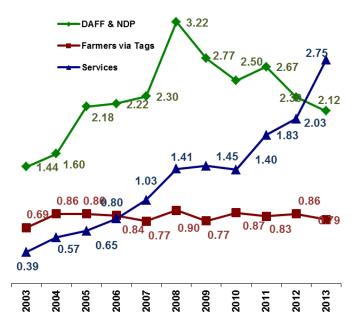


Figure 14. Income trends in € million.

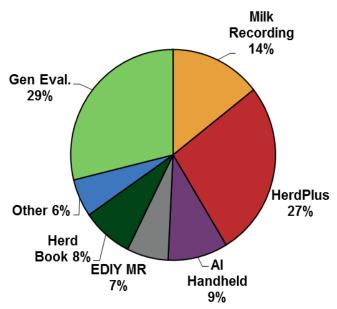


Figure 15. Breakdown of services income

In 2013 ICBF cash income (figures 14, 15) included contributions from the following sources:

- DAFM in the form of a Grant, Suckler Scheme costs, and NDP contributions to infrastructure projects. NDP made contributions towards G€N€ IR€LAND<sup>®</sup>, and projects for the development of genetic evaluations and the development of systems for collecting data and reporting information to farmers.
- Cattle farmers through the Tag Contributions and
- The cattle breeding industry and farmers through service fees. The income from this source has grown to 48% of total revenue in 2013 from 43% in 2012.

These funds cover the cost of on-going operations and the cattle breeding infrastructure projects undertaken in 2013 as outlined in the audited accounts.

#### Resources

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

#### People

ICBF is a small organisation employing a total of 40 people. During 2013, 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 a property owned by Shinagh Estates Limited (SEL) near Bandon, Co. Cork. The accommodation is rented from SEL. In 2009 these offices were renovated to provide extra and improved accommodation as required by ICBF.

#### Tully

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

#### **Database Computers**

ICBF's database runs on computers located in Highfield House and Shinagh House. The ICBF database is constantly undergoing development and upgrades in order to keep on top of the ever growing requirements associated with increased volumes of data, especially in the new era of genomics.

#### **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:

#### **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 (<u>www.icbf.com</u>) provides a wide range of information to Irish farmers and the cattle breeding industry. All herd owners can access their own herd reports (using a sign-on and password) and can also make the reports available to designated advisors. The growth in usage is illustrated in figure 5.

The publications section of the website is a repository for copies of the many presentations made by members of the ICBF team in 2013 and previous years.

#### Weekly Update

Every Friday ICBF provides via its website an Update covering its activities. This has become well established as a source of the latest information on a wide range of issues of interest to ICBF stakeholders.

#### International

ICBF maintains a number of importance international linkages including:

- 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 EU funded OptiMIR project.

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 relationships we have with the cattle breeding service providers are crucially important in delivering the benefits at farm level. 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.

The leadership and support provided by DAFM has been a key to the success of ICBF. DAFM 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 DAFM 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**

2013 has been a year where we have continued to exploit the new cattle breeding technologies for the benefit of Irish farmers. There are real challenges ahead in keeping up with the world's best in terms of the use of data and technology, and it will require ongoing investment.

However, the key to ICBF's success remains the same - the application of good science, a focus on the needs of farmers, working closely with our stakeholders and a 100% commitment to delivering by a talented and dedicated team.

We are most fortunate to operate in an environment where ICBF's vision is shared by our Board, our members, DAFM, our sponsors, Teagasc, and, most importantly, Irish Farmers.

Sean Coughlan

John O'Sullivan

**Chief Executive** 

Chairman



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The voice of Ireland's farming industry





Department of Agriculture, **Food and the Marine** An Roinn Talmhaíochta, **Bia agus Mara** 





Figure 17. Sponsors of major cattle breeding initiatives in Ireland.

# Financial Statements for the Year Ended 31 December 2013

# SOCIETY INFORMATION

COMMITTEE OF MANAGEMENT	Mr. J. O'Sullivan (Chairman) Mr. D. Beehan Mr. J. Brady Mr. G. Brickley Mr. J. Comer Mr. M. Doran Dr. B. Eivers Mr. V. Gorman Mr. K. Kiersey Mr. K. Kinsella Mr. J. Lynch Mr. P. Mulvehill Mr. M. J. O'Donovan Mr. G. Ryan Mr. R. Whelan Mr. T. Wilson
SECRETARY	Mr. J. Carty Department of Agriculture, Food and the Marine Pavilion A Grattan Business Park Portlaoise Co. Laois
CHIEF EXECUTIVE	Mr. S. Coughlan
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
BANKERS	AIB Bank South Main Street Bandon Co. Cork
	Ulster Bank 77/78 South Main Street Bandon Co. Cork
AUDITORS	Ernst & Young Chartered Accountants City Quarter Lapps Quay Cork

The committee of management are responsible for the preparation of the financial statements in accordance with applicable Irish law and Generally Accepted Accounting Practice in Ireland including the accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland.

The Industrial and Provident Societies Acts, 1893 to 1978 require the committee 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 year. In preparing those financial statements, the committee 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 the society will continue in business.

The committee confirms that it has complied with the above requirements in preparing the financial statements.

The committee confirms that it has complied with the above requirements in preparing the financial statements. 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.

On behalf of the Committee of Management

John O'Sullivan Michael Doran

27<sup>th</sup> March 2014

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF IRISH CATTLE BREEDING FEDERATION SOCIETY LIMITED

We have audited the financial statements of Irish Cattle Breeding Federation Society Limited for the year ended 31 December 2013 which comprise the Income and Expenditure Account, Balance Sheet, Cash Flow Statement and the related notes 1 to 17. The financial reporting framework that has been applied in their preparation is Irish law and accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland (Generally Accepted Accounting Practice in Ireland).

This report is made solely to the society's members, as a body, in accordance with section 13 of the Industrial and Provident Societies Act, 1893. 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 auditor's 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 committee of management and auditors

As explained more fully in the Committee of Management's Responsibilities Statement set out on page 3, the committee are responsible for the preparation of the financial statements giving a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with Irish law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

#### Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the society's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the committee of management; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

#### Opinion on financial statements

In our opinion the financial statements

- give a true and fair view of the state of the society's affairs as at 31 December 2013 and of its surplus for the year then ended; and
- have been prepared in accordance with Generally Accepted Accounting Practice in Ireland.

As required by Section 13(2) of the Industrial and Provident Societies Act 1893 we examined the balance sheets showing the receipts and expenditure, funds and effects of the society, and verified the same with the books, deeds, documents, accounts and vouchers relating thereto, and found them to be correct, duly vouched, and in accordance with law.

#### Ernst & Young Chartered Accountants and Registered Auditors Cork

3<sup>rd</sup> April 2014

# INCOME AND EXPENDITURE ACCOUNT for the year ended 31 December 2013

	Note	2013 €	2012 €
INCOME – continuing operations		5,762,645	4,728,992
OPERATING EXPENSES		(5,656,329)	(4,607,984)
OPERATING SURPLUS – continuing operations		106,316	121,008
Bank interest received		13,671	8,095
SURPLUS ON ORDINARY ACTIVTIES BEFORE TAXATION		119,987	129,103
Tax on surplus on ordinary activities	3		
SURPLUS ON ORDINARY ACTIVITIES AFTER TAXATION		119,987	129,103

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 Michael Doran

27<sup>th</sup> March 2014

# BALANCE SHEET

at 31 December 2013

	Note	2013 €	2012 €
FIXED ASSETS Project development expenditure Tangible fixed assets	4 5	4,572,849 79,671	4,464,680 101,167
		4,652,520	4,565,847
CURRENT ASSETS Stock Debtors Cash at bank	6 7	264,324 1,372,277 1,169,358	176,600 1,179,201 1,149,271
		2,805,959	2,505,072
CREDITORS: amounts falling due within one year	8	(1,552,637)	(1,340,351)
NET CURRENT ASSETS		1,253,322	1,164,721
TOTAL ASSETS LESS CURRENT LIABILITIES		5,905,842	5,730,568
PROVISIONS FOR LIABILITIES AND CHARGES GOVERNMENT GRANTS	9 10	(71,263) (2,910,906)	(114,563) (2,812,319)
TOTAL ASSETS LESS LIABILITIES		2,923,673	2,803,686
FINANCED BY			
SHAREHOLDERS' FUNDS Share capital Income and expenditure account	11 12	2,027,022 896,651	2,027,022 776,664
Shareholders' funds	12	2,923,673	2,803,686

On behalf of the Committee of Management

John O'Sullivan Michael Doran

27<sup>th</sup> March 2014

### CASH FLOW STATEMENT for the year ended 31 December 2013

	Note	2013 €	2012 €
NET CASH INFLOW FROM OPERATING ACTIVITIES	13	659,978	677,700
RETURNS ON INVESTMENT AND SERVICING OF FINANCE Deposit interest received		13,671	8,095
CAPITAL EXPENDITURE AND FINANCIAL INVESTMENT Project development expenditure Receipts from sale of EDIY van and meters Payments for tangible fixed assets		(1,660,974) _ (12,588)	(1,584,062) 20,000 (79,748)
		(1,673,562)	(1,643,810)
NET CASH OUTFLOW BEFORE FINANCING		(999,913)	(958,015)
FINANCING Project development grants received		1,020,000	1,000,000
NET CASH INFLOW FROM FINANCING		1,020,000	1,000,000
INCREASE IN CASH	14	20,087	41,985

#### 1. ACCOUNTING POLICIES

#### Accounting convention

The financial statements are prepared under the historical cost convention. The financial statements are expressed in Euro ( $\in$ ).

#### Fixed assets and depreciation

Fixed assets are stated at cost.

Depreciation is calculated on a straight line basis by reference to the expected useful lives as follows:

Office equipment	5 years
Tully machinery	5 years
Weighing Equipment	5 years

#### Project development expenditure

Project development expenditure on clearly defined projects whose commercial outcome can be assessed with reasonable certainty is capitalised. When the development of these commercial projects reaches completion the society provides services to its members in return for fee income. This expenditure is amortised over the useful lives of the projects. Costs relating to fully amortised projects and the related fully amortised government grants are written off after a period of nine years from when the expenditure was incurred.

#### Government grants

#### Grants for operating expenditure:

Grants received from the Department of Agriculture, Food and the Marine 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.

#### Grants for project development expenditure:

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 amortised.

#### Income recognition

Income is recognised on delivery of the service.

#### Leasing

Operating lease costs are charged to the profit and loss account as incurred, normally on a straight line basis over the lease term.

STAFF COSTS	2013 €	2012 €
The staff costs, including costs capitalised in project development, are comprised of:	C	ť
Wages and salaries Social welfare costs	1,793,104 185,292	1,821,837 184,583
	1,978,396	2,006,420

The average number of persons employed by the society in the financial year was 37 (2012: 34) and is analysed into the following categories:

	2013 No.	2012 No.
Management Administration Technical Fixed term subcontractors	1 3 17 16	1 2 17 14
	37	34

The staff numbers and the staff costs exclude fixed term subcontractors which were recharged to Sheep Database Limited (note 16) during the year.

#### 3. TAXATION

2.

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.

€
19,349,238 1,660,974 (7,130,652)
13,879,560
14,884,558 1,552,805 (7,130,652)
9,306,711
4,572,849
4,464,680

- (a) Project development expenditure consists of computer hardware, software consultancy, database and other project costs.
- (b) The society has adopted an accounting policy of writing off costs relating to fully amortised projects after a period of nine years from when the expenditure was incurred. As the project expenditure is fully amortised the write off has no impact on profits or on the carrying value of projects in the balance sheet.

#### 5. TANGIBLE FIXED ASSETS

6.

	Office equipment €	Tully machinery €	Weighing equipment €	Total €
Cost: At 1 January 2013 Additions	206,746 7,588	20,504 5,000	78,748 _	305,998 12,588
At 31 December 2013	214,334	25,504	78,748	318,586
Depreciation: At 1 January 2013 Charge for the year	172,562 16,073	16,519 2,261	15,750 15,750	204,831 34,084
At 31 December 2013	188,635	18,780	31,500	238,915
Net book value:				
At 31 December 2013	25,699	6,724	47,248	79,671
At 31 December 2012	34,184	3,985	62,998	101,167
STOCKS			2013 €	2012 €
Livestock			240 772	67 850

Livestock	240,772	67,850
Stock for resale		90,420
Tully consumables		18,330

176,600

264,324

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

7.	DEBTORS	2013 €	2012 €
	Trade debtors and prepayments Amounts due from related party (note 16) VAT	1,177,243 174,915 20,119	982,099 140,173 56,929
		1,372,277	1,179,201
8.	CREDITORS	2013 €	2012 €
	Trade creditors Accruals and deferred income PAYE/PRSI	787,756 690,169 74,712	716,922 528,695 94,734
		1,552,637	1,340,351

#### 9. PROVISION FOR LIABILITIES AND CHARGES

Provision for progeny	test scheme 2010 Programme €	2011 Programme €	2012 Programme €	2013 Programme €	Total Programme €
Balance as at 1 January	47,238	40,388	26,937	-	114,563
Provided/(paid) during the year	(47,238)			3,938	(43,300)
At 31 December	_	40,388	26,937	3,938	71,263

#### 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. The provision is the estimated cost of data collection in respect of the 2011, 2012 and 2013 programs.

#### 10. GOVERNMENT GRANTS

Government grants comprise of grants received from the Department of Agriculture, Food and the Marine (DAFM).

	€
Received: At 1 January 2013 Received during year Elimination of fully amortised grants (a)	12,106,648 1,020,000 (4,234,253)
At 31 December 2013	8,892,395
Amortisation: At 1 January 2013 Credited to the income and expenditure account in year Elimination of fully amortised grants (a)	9,294,329 921,413 (4,234,253)
At 31 December 2013	5,981,489
Net amount:	
At 31 December 2013	2,910,906
At 31 December 2012	2,812,319

(a) Consistent with the policy for related project expenditure, as outlined in Note 4, fully amortised grants are written off after a period of nine years from when the grant was received. As the grants are fully amortised the write off has no impact on profits or on the balance sheet.

11.

SHARE CAPITAL	2013 €	2012 €
Authorised:	C	e
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
28,409 "C" ordinary shares of €12.697381 each	360,720	360,720
73,696 "D" ordinary shares of €12.697381 each	935,746	935,746
	2,027,022	2,027,022
	· ·	· ·
All shares rank pari passu in all respects.		

# 12. RECONCILIATION OF SHAREHOLDERS' FUNDS AND MOVEMENT ON RESERVES

	Share capital €	Income and expenditure account €	Total €
At 1 January 2012	2,027,022	647,561	2,674,583
Surplus for year		129,103	129,103
At 31 December 2012	2,027,022	776,664	2,803,686
Surplus for year		119,987	119,987
At 31 December 2013	2,027,022	896,651	2,923,673

13.	CASH INFLOW FROM OPERATING ACTIVIT	IES	2013 €	2012 €
	Operating surplus Amortisation of project development expenditu Project development grants amortised Depreciation of tangible fixed assets Increase in debtors Increase in stocks Increase in creditors Profit on disposal of EDIY van and meters Progeny test provisions in year Progeny test payments in year	re 	106,316 1,552,805 (921,413) 34,084 (193,076) (87,724) 212,286 - 3,938 (47,238)	121,008 1,478,598 (872,371) 31,566 (302,501) (158,030) 406,518 (20,000) 40,937 (48,025)
	Net cash inflow from operating activities		659,978	677,700
14.	ANALYSIS OF CHANGES IN NET FUNDS	At 1/1/2013 €	Cash flows €	At 31/12/2013 €
	Cash at bank	1,149,271	20,087	1,169,358

#### 15. **OPERATING LEASE COMMITMENTS**

At the balance sheet date the society had annual commitments of €42,500 under operating leases for land and buildings which expire within two years.

#### 16. **RELATED PARTY TRANSACTIONS**

The operations of Sheep Database Limited are administered by Irish Cattle Breeding Federation Society Limited. Staff costs were recharged by the society to that company as set out in note 2. Other costs incurred by the society, on behalf of the company, totalling €150,000, were also recharged during the year. The amount due by the company to the society at the year end is included in debtors.

#### 17. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the committee of management on  $27^{th}$  March 2014.