Irish Cattle Breeding Federation
ANNUAL REPORT 2010
Annual Report
For Calendar Year 2010

Irish Cattle Breeding Federation Society Limited
(ICBF)
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SUMMARY OF 2010

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 2010 the dairy and industry experienced a significant recovery from the financial downturn of 2009. Achieving sustainable profitability remains an aspiration for Irish beef producers. In 2010 the major contributions ICBF made towards its mission included:

- The completion of a major review of dairy cattle breeding in order to establish a breeding scheme that delivers the benefits and achieves the cost savings made possible by genomic selection (GS).
- A dramatic increase in the average EBI of bulls on the Active Dairy Bull list as a consequence of the second year of implementation of GS.
- Delivery of the third year of the suckler cow welfare scheme (SCWS) to 37,108 suckler herds.
- Further enhancements to the €uro-Star beef genetic evaluations by utilizing the wealth of data becoming available through the SCWS.
- Growth in the HerdPlus® service to Beef and Dairy herds by 39%.
- Expansion of the AI Handheld data recording service by 8%.
- Roll-out of a dairy herd key performance indicator report in collaboration the milk processors.

Since 2005 the ICBF database has been fully operational for dairy, beef, milk recording, beef performance recording, genetic evaluations and herd books. 68,270 herds, with 1.79 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 2010. The drop in milk recording in 2009 was recovered in 2010 (Figure 1).

The amount of data that is accumulating has increased greatly as a consequence of the introduction of the SCWS early in 2008 and this enabled substantial further progress with the development of across breed genetic evaluations for traits relevant to dairy and beef.

The national database has dramatically improved the accuracy and scope of both beef and dairy genetic evaluations. In 2010, these improved evaluations were used to locate Irish bred Holstein Friesian bulls for subsequent progeny testing through the GÈNÈ IRELAND® dairy program. They also facilitated wider use of GS bulls at a younger age than previously possible. 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 2010 beef genetic evaluations for calving, docility, weaning weight and carcass all benefited significantly from the extra data collected through the SCWS. 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 suite of reports and online services that now make up HerdPlus® dairy and beef represent excellent value for herd owners. As a consequence the uptake of the HerdPlus service is growing rapidly with a 27% increase in total herds using the service in 2010.

As a result of the decisions made in 2006, to adopt a user-pays philosophy and full cost recovery on services, ICBF’s finances remain sound.

The outcome of the 2004 strategic review continues to guide ICBF. The focus of the strategic plan which is reviewed annually 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 GENÈIRLÄND® 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, 2010 was a year in which ICBF took two very large steps with the dairy breeding scheme review and the utilisation of the data collected as part of the SCWS. These were made possible through the database and the 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 2010. The review identified three main areas – genetic evaluation, uptake & cost of services, and breeding schemes – as the primary focus of 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 stakeholders with a summary of activities and achievements in relation to the objectives of the Society for the 2010 calendar year.

**GENOMICS**

Cattle breeding is undergoing a transformation as a result of the recent availability of genomics technology at a price that makes its use attractive. This technology offers the promise of increased rates of gain and reduced costs, in particular those associated with large scale progeny testing.

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

- Establishing, over a number of years, a team of highly skilled and well-motivated experts in ICBF and Teagasc.
- Partnerships with international collaborators that provided access to knowledge, technology and research material.
- The creation of a bank of DNA samples from the bulls used in AI in Ireland.
• The provision of funding, through Teagasc and NDP, to genotype the training population of proven AI bulls.
• Access to the ICBF database and genetic evaluation system, firstly to support the research and, secondly to implement the findings.
• Dairy farmers who are convinced of the merits of the EBI and use it as the main basis for selecting AI sires.
• A forward looking breeding industry that responds quickly to the availability of new technology to help them better meet the needs of Irish farmers.

IGenoP
ICBF is leading the development of a database to support the international sharing of genotypes. Operating under the name of IGenoP (short for International Genomics Partnership) the goal is to have a database of genotypes hosted by the Interbull Centre at the Swedish University of Agricultural Science in Uppsala, Sweden and shared by cattle breeding organisations world-wide. In 2010, ICBF developed a prototype of this database, initially to support a number of bi-lateral sharing agreements between ICBF and other countries, but with the goal of demonstrating the practical benefits of sharing genotypes. Already this database is used to store 3K, 50K and 800K Illumina SNP genotype results and contains results for some 8,400 animals.

Genomic Services
ICBF is establishing an infrastructure to enable the Irish cattle breeding industry to fully exploit the benefits of genomic information while at the same time minimising costs. During 2010 the focus of this development has been on a system 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. This system is at the core of the HerdPlus® genomic evaluation service launched in the spring of 2011. It is being used initially by dairy farmers and AI Companies and we plan to expand it in the future to meet the needs of beef farmers and Herd Books.

Dairy Genomics
A major achievement for 2010 has been the on-going roll-out of genomic selection for dairy cattle. In a period of less than two years the required research was completed, ICBF’s genetic evaluation systems modified, the results communicated to dairy farmers, and the AI industry provided bull selected on the basis of their genomic data. In spring 2010, 40% of recorded dairy inseminations were such bulls. This was a major contributor to the increase in the average EBI of sires on the active bulls list (figure 9) from €118 in 2008, to €147 in 2009, and to €196 in 2010. This €78 EBI increase is predicted to result in a €30 million improvement in the profitability, over their lifetime, of the resulting dairy replacements.

Optimal Design – Dairy
During 2010 ICBF conducted a review of the dairy breeding scheme for Ireland placing particular emphasis on capitalising on the benefits of genomic selection while also establishing strategies for minimising associated risks. The review involved, firstly, simulation studies directed by Prof. Theo Meuwissen of the Norwegian University of Life Sciences and undertaken by Noirin McHugh a PhD student based at Teagasc, Moorepark. Secondly, a cost-benefit study was undertaken by Dr Peter Amer of AbacusBio. The outcome of the review is a design that places greatly increased emphasis on females in the breeding scheme and incorporates a number of new elements including:

• Next Generation Research Herds – involving some 1,000 cows of the highest “next generation” EBI selected from the wider population and located in dedicated research herds where the focus is on traits of economic importance but not readily measured in commercial herds. These herds should also ensure management research, conducted using the is relevant to the cows that farmers will be milking when research results are available in a few years’ time.
• Bull Breeder & Research Herds – expected to involve some 100,000 cows from which bulls for use in AI, and replacements for the Next Generation Research Herds, will be selected. The elite cows in these herds will be mated to bulls that ensure rapid rates of genetic gain while also ensuring genomic diversity and thus protecting longer term gains. It is expected that in the near future all of the female calves and genetically superior male calves in these herds will be genotyped at birth. These herds will also milk record and keep accurate performance records. The resulting information will be used for selection decisions and for re-training the genomic predictions. This later aspect is, in effect, a research function which these herds will provide for the wider industry in the future.
**Beef**

The development of genomic selection for beef cattle breeding has progressed in 2010 with the availability of the new HD (800K) SNP chip. It is expected that the greater number of SNPs, compared with the 50K used in dairy, will enable the development of an across breed beef genomic selection key for use in Ireland. The focus in 2010 was on obtaining tissue samples from beef bulls with accurate genetic evaluations for use in this research. We are also seeking to establish sharing collaborations with other countries with significant beef populations. The first results of this research are expected in 2011.

**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. 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**

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.

The EBI was updated at the end of 2009 with the incorporation of new economic values and the splitting of the animal weight contribution into a maintenance subindex and a beef subindex. A review of the EBI late in 2010 indicated that the economic values did not need to change and enhancements being researched for fertility and survival traits were not yet ready to implement.

**Beef Specific**

Our strategy is to research, develop, implement and continuously improve the accuracy and relevance of the SBV (Suckler Beef Value index) as a guide for beef breeding decisions. At this time last year we were celebrating the achievements of the second year of the SCWS. As a result of the demonstrable benefits of the scheme DAFF have committed the resources needed for it to continue in 2011. This is a major achievement in light of the severe constraints on public finances. Achievements in 2010 relevant to the scheme include:

- A continued very high level of participation in the scheme by suckler herds representing some 90% of all suckler cows.
- A further streamlining of the scheme based on experience in 2009 resulting in costs savings and simplification of recording.
- The incorporation of data from the scheme in genetic evaluations for calving (ease, mortality & gestation length), calf quality and docility. In 2010 the extra records incorporated in genetic evaluations from herds in the first three years of the scheme (born 2008, 2009, 2010) were 217,138 for docility, 383,451 for calf quality and 460,158 for calving.
- A considerable amount of back data was obtained for herds participating in the scheme. This data included the identification of sires for suckler cows and as a result some 40,000 additional maternal records were incorporated in our evaluations for maternal traits.
- In 2010, 34,766 suckler females with a known sire, born since 1st January 2008 in herds new to the ICBF database, have now calved themselves. They produced 28,254 calves with a known sire. This is the crucial extra maternal data that is a key element of the scheme.
• The euro-Star indexes are now widely accepted by the beef breeding industry.

This scheme has been so successful, so quickly, because of a number of factors including farmers’ awareness of the value it represents, and the ability of DAFF and ICBF to put in place the required systems and infrastructure. There is also very good industry buy-in with the Farmers Journal playing a key role in removing mystique and demonstrating the value of the scheme. This is the third year of the planned five years. At this stage Ireland is starting to lead the world in beef cattle breeding while also achieving high welfare standards in beef production.

During 2010 the systems used for computing genetic evaluations for beef linear scoring data were redeveloped to operate on an across breed basis and to provide evaluations for all fourteen linear traits. As a consequence, genetic evaluations for linear traits are now available for all beef breeds and are routinely updated on a monthly basis.

The availability of docility data from the SCWS facilitated the development of an across breed docility evaluation incorporating large amounts of docility data from commercial beef herds and the traditional docility data collected as part of the GROW® linear scoring and weight recording service. These evaluations have substantially increased the accuracy of docility evaluations as well as making them available for all breeds and for many stock bulls.

Interbeef
ICBF is playing an important leadership role in the development of Interbeef to facilitate the international evaluation of beef breeds and traits. A prototype system for weaning weight in Charolais & Limousin has been developed by INRA, the French research organisation, and at the end of 2010 this system was transferred to the Interbull Centre. Further progress is expected in 2011.

Best Practice in Cattle Breeding
The Best Practice in Cattle Breeding campaign was continued this year. It played a key role in increasing the uptake of genomically selected bulls to breed dairy replacements. This year’s campaign featured 26 weekly installments on a dedicated page in the Irish Farmers Journal. A development this year was the introduction of key statistics to provide factual information on important elements of cattle breeding in Ireland.

UPTAKE & COST OF SERVICES
The focus in 2010, in a continuation of the effort initiated in 2005, was on increasing farmer participation in cattle breeding services. The introduction of the SCWS, 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 68,270 herds.

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Figure 2. Calf birth registration trends.

Services to Herd Books
The main developments in the services to Herd Books in 2010 included the completion of the roll-out of a standardized pedigree animal sale catalogue, for both dairy and beef breeds, incorporating genetic evaluations, ancestry and animal performance data.

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 long term goal is to increase usage of milk recording to some 60% of dairy cows.

In 2010 the loss in uptake experienced due to the down-turn in 2009 was largely reversed with just under half a million milk recorded cows.

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 rela-
tively 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 2010 were recorded under the EDIY service.

**Marketing**

Our marketing focus has been reviewed and modified in 2010. Our primary tool for promotion is the *Best Practice in Cattle Breeding* campaign (see above). This is funded partly by NDP and partly from ICBF funds. It is targeted at helping dairy and beef farmers to understand and make good use of the information on cattle breeding available to them from ICBF and the wider breeding industry. The objective of the campaign is to enable farmers and the breeding industry to operate according to best practice.

Our campaign increased the uptake of HerdPlus® in 2010 (refer to figure 5) by 27%. To recruit herds our approach has moved to the use of targeted marketing using information from a number of sources to identify those herds that are in a position to realise the greatest returns from use of the HerdPlus® service.

**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. Results for 2010 show substantial growth in key website usage statistics (figure 3) – user sessions and reports accessed. The bull search on the ICBF website was used for some 500,000 searches in 2010.

The redevelopment of the ICBF website has been further extended in 2010 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 2010.

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 2010 some 623,000 inseminations were recorded through this system, an increase of 10% on 2009 (figure 4).

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. 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.
Health and Disease Service

Our strategy is to extend database reports and event recording to meet animal health needs for whole herd health management and DAFF requirements for animal remedy recording and reporting. We welcome the formation of Animal Health Ireland and have a strategic alliance with them for the provision of the information infrastructure to support their activities. In 2010 this included the provision of the AHI (Animal Health Ireland) website, several web based surveys and the design of systems to support the BVD initiative.

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 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® 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® (refer to figure 5):
- has grown by 27% in the last year,
- beef herds are 39% of service customers,
- the sire advice facility was used by 21% of customers, and
- 86% of customers choose the electronic option.

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 2011 incorporates 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. Consideration is given to all candidates available through AI as notified to us, via our website, by the AI companies operating in Ireland. The information is provided to the farmer, the farmer’s breeding adviser(s) and is downloaded to the handheld computers used by AI technicians.

Grow®

The Grow® 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. One of the objectives for the service in 2010 was to further increase the use of the weight recording part of the service. Compared with 2007 the percentage of all pedigree and commercial animals scored and weighed increased from 55% to 97% (figure 6). The service is also used in non-pedigree herds, mainly those associated with the G€N€ IR€LAND® beef progeny test. This is part of the reason that the percent of pedigree animals participating in the service has reduced from 75% to 63% over the last four years.

A review of the service was initiated in 2010. The review is addressing three main areas:
- **Weight recording**: to establish a service for recording growth of pedigree and commercial cattle. The service to be financially attractive to any farmer who is focused on profitable beef production.
• **Linear scoring**: our goal is to provide information that is valued by bull sellers and buyers.

• **Farm practice**: identify strategies for ensuring the data recorded in bull breeding and commercial herds can be reliably used in genetic evaluations which are valued by bull buyers.

Results of the review are expected to be available in 2011.

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Figure 6. GROW® 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**

A key performance indicator information service to dairy farmers has been developed in partnership with milk processors. 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. This service is being progressively rolled-out across the country.

**OptiMIR**

ICBF has joined a successful application for Interreg funding in partnership with Teagasc and Milk Recording and Research organisations other EU countries. The OptiMIR ([www.optimir.eu](http://www.optimir.eu)) project is focused on improving the sustainability of milk production by providing improved management information to herds. Milk recording organisations have a key role to play by facilitating the availability of mid-infra-red (MIR) spectral data. Funding was granted in late 2010 and the project commenced early in 2011.

**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.

**Disease Free Status**

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 and AHI. Progress has been slower than desirable. The outbreak of IBR detected at Tully early in 2007 and the more recent outbreaks in the major bull stud in 2010 and 2011 has further highlighted the consequences of not having adequate systems for ensuring disease free breeding stock in Ireland. The long term losses due to unrealised genetic gain is many tens of million euro.

ICBF is strongly supporting Animal Health Ireland by providing the required information infrastructure as an extension of the ICBF database.

**GENE IRELAND® 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 GENE IRELAND® progeny test schemes were launched in collaboration with the AI industry. The schemes have been reviewed annually according to available funds including those provided through the NDP (National Development Plan). The number of bulls (figure 7) progeny tested and herds participating (figure 8) grew steadily to 2008 for dairy and 2009 for beef but have since suffered a reversal in 2009 and 2010 due to the series of IBR outbreaks.
Figure 7. Bulls tested in GÉNÉIRELAND® dairy and beef progeny test programs.

Figure 8. Herds participating in GÉNÉIRELAND® dairy and beef progeny test programs.

Genetic Gain – Dairy
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 are shown in figure 9. The rate of increase over the last two years has been spectacular and resulted in rapid rates of gains in the female replacements being born into the dairy herd – approaching €20 per year. The gains are due in large part to the impact of genomic selection on the backlog of bulls in waiting.

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.

However, the recent IBR outbreaks are contributing to a plateau apparent in the 2011 active bull list (figure 9) which will slow rates of future gains in the Irish dairy herd.

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

- The establishment of an expert Animal Health group to advise on best practice for animal disease control.
- The establishment of the Tully Advisory Committee to advise the Board on the operational aspects of Tully.
- That Tully be an integral element of the GÉNÉIRELAND® 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, small outbreaks have occurred and been contained in most intakes since. 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 protecting the health status of their herds.

The future role of Tully is as an integral element of GENÈRELAND®. Tully’s role is to recruit the best bulls calves for beef according to the Euro-Star SBV, to performance test them and to ensure the elite go on to be progeny tested under GENÈRELAND®.

Genetic Gain – Beef

Genetic progress in the beef breeds and commercial beef cattle is illustrated in figure 10. While gain is positive, it is slow relative to the optimal rates that are achievable from well designed and well executed beef breeding programs. Ireland faces a major challenge in improving the profitability of its suckler industry and it is thus imperative that these slower than optimal rates of gain become the focus of ICBF’s attention in the future.

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 further built on in the years since and including 2010.

Contribution Model

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. ICBF has held these fees constant since and will undertake a service fee review in 2011.

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.

2010 Results

The final audited result for 2010 is a surplus of €82,353, which is €134,600 less than the surplus of €216,953 for 2009 (figure 11).

In 2010 ICBF cash income (figures 12, 13 and 14) included contributions from the following sources:

• DAFF in the form of a Grant, Suckler Scheme costs, and NDP contributions to infrastructure projects. NDP made contributions towards GENÈRELAND®, 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 (€0.87 million), and
The cattle breeding industry and farmers through service fees (€1.40 million). The income from this source has grown to 29% of total revenue in 2010 from 15% in 2003.

These funds cover the cost of on-going operations and the cattle breeding infrastructure projects undertaken in 2010 as outlined in the audited accounts.

**RESOURCES**

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

**People**

The ICBF team comprises a number of groups:

- 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 technician providing the EDIY milk recording service to Donegal.

ICBF is a small organisation employing a total of 35 people - 22 full time staff, and 13 contractors. During 2010, 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 DAFF. 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. During 2009 ICBF’s database underwent a significant upgrade. Elements of the upgrade included: a new server, and a new disk storage system. The upgrade provided the capacity required to deal with genomic data, and helped to further reduce the turnaround time on genetic evaluations and supported the increasing use of the website.

**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 eleventh time in April of 2011. 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.

The publications section of the website is a repository for copies of the many presentations made by members of the ICBF team in 2010 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.

**Training**

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

In 2010 training was provided for farmers, farmer-trainers and to technicians in the use of handheld computers.

**Dairy Cattle Breeding Conference**

This year’s Dairy Cattle Breeding Conference (January 26th, 2011) was attended by some 250 farmers. The morning session which was sponsored by FBD Trust comprised five presentations covering devel-
opments in Dairy Genetic Evaluations, Genomics, HerdPlus® and G€N€ IR€LAND®. At the conference the HerdPlus® team launched their new Genomic Service which opens up genotyping and genomic evaluations to dairy farmers for both male and female animals. This service is an application of the successful research done by Teagasc and introduces the low cost 3K chip which brings the cost of genotyping down to €50 (inc. VAT) per animal. Further details of this service and all presentations from the breeding day can be found in the publications section of our website.

In the afternoon the results of the EBI Discussion Group competition were announced. The competition continues to grow and the results being achieved by Discussion Groups demonstrate that the major benefit of the competition is in the form of improvements in farm profitability as a result of following best practice. Teagasc, the Irish Farmers Journal and ACC Bank are our partners in this event.

**Beef Breeding Conference**

Our first event dedicated to the beef herds that are using HerdPlus® & G€N€ IR€LAND® took place today at Tully on 8th October. Features of the event included:

- An update of recent developments in HerdPlus®. This service now includes sixteen features each of which provides information valuable in achieving profitability for beef farmers.
- The launch of the ICBF Catalogue service. This new service is being supported by ICBF and our Herd Book members. It is an easy to use service for preparing catalogues for the sale of both pedigree and commercial breeding stock.
- A demonstration of the extra profits that are being achieved by beef farmers by using €uro-Star indexes to select bulls for breeding.
- The sale of fifty bulls that had just completed their performance test at Tully.
- A presentation on beef cattle breeding in Ireland to International visitors who were in Ireland to attend the Beef Expo 2010 taking place at Kilkenny Mart on Sunday 10th Oct.
- This event was timed to support Beef Expo 2010. This event was sponsored by the FBD Trust.

**INTERNATIONAL**

ICBF maintains a number of importance international linkages including:

- membership of ICAR and Interbull, Ireland will be hosting the 2012 meetings in Cork,
- 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 Interreg 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 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 2010 including:

- Provision of sponsorship by the FBD Trust for: G€N€ IR€LAND® beef and dairy.
- Provision of sponsorship by the ACC Bank for the EBI competition organized jointly by Teagasc, the Irish Farmers Journal and ICBF.

The leadership and support provided by DAFF has been a 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, 2010 was a year in which ICBF delivered genomics to Irish dairy cattle breeding and utilised the data gathered through the SCWS to enhance the accuracy of beef genetic evaluations.

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. 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 SCWS. Collaboration with the Beef Breed Assns is helping GEN€ 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
Figure 15. Sponsors of major cattle breeding initiatives in Ireland.
FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2010

SOCIETY INFORMATION

COMMITTEE OF MANAGEMENT

Mr. J. O’Sullivan (Chairman)  Mr. K. Kiersey (appointed 21 Feb 2011)
Mr. D. Deane (resigned 21 Feb 2011)  Mr. K. Kinsella
Mr. D. Beehan  Mr. K. Meade (resigned 21 Mar 2011)
Mr. J. Bryan (resigned 25 February 2010)  Mr. M. Murphy (resigned 21 Feb 2011)
Mr. D. Cahill (resigned 1 April 2010)  Mr. R. Whelan
Mr. J. Comer  Mr. P. Mulvihill
Mr. K. Connolly (resigned 15 July 2010)  Mr. M. J. O’Donovan
Dr. D. Corridan  Mr. J. Brady (appointed 25 Feb 2010)
Mr. M. Doran (appointed 21 Feb 2011)  Mr. J. Lynch
Dr. B. Eivers  Mr. G. Ryan (appointed 1 April 2010)
Mr. V. Gorman (appointed 21 Mar 2011)  Mr. T. Wilson (appointed 15 July 2010)
Mr. J. Lynch (appointed 1 March 2010)

SECRETARY  Mr. J. Carty
Department of Agriculture, Fisheries 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

AUDITORS  Ernst & Young
Chartered Accountants
City Quarter
Lapps Quay
Cork

INDEPENDENT AUDITORS’ REPORT

We have audited the financial statements for the year ended 31 December 2010, which comprise the Income and Expenditure Account, Balance Sheet and the related notes 1 to 16. 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 committee of management and auditors**

The committee of management 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 committee of management 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 committee of management 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 committee of management 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 committee of management 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 2010 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 and Registered Auditors, Cork

29 March 2011
### INCOME AND EXPENDITURE ACCOUNT for the year ended 31 December 2010

<table>
<thead>
<tr>
<th>Note</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>INCOME</td>
<td>5,179,506</td>
<td>5,433,773</td>
</tr>
<tr>
<td>OPERATING EXPENSES</td>
<td>(5,097,215)</td>
<td>(5,218,133)</td>
</tr>
<tr>
<td>OPERATING SURPLUS</td>
<td>82,291</td>
<td>215,640</td>
</tr>
<tr>
<td>Bank interest received</td>
<td>62</td>
<td>1,313</td>
</tr>
<tr>
<td>SURPLUS ON ORDINARY ACTIVIES BEFORE TAXATION</td>
<td>82,353</td>
<td>216,953</td>
</tr>
<tr>
<td>Tax on surplus on ordinary activities</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>SURPLUS ON ORDINARY ACTIVITIES AFTER TAXATION</td>
<td>82,353</td>
<td>216,953</td>
</tr>
</tbody>
</table>

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

J. O’Sullivan : Chairman

K. Kinsella : Board Member

24 March 2011
BALANCE SHEET at 31 December 2010

<table>
<thead>
<tr>
<th>Note</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€</td>
<td>€</td>
</tr>
</tbody>
</table>

**FIXED ASSETS**

- Project development expenditure 4 4,342,243 4,684,221
- Tangible fixed assets 5 68,601 74,557

**CURRENT ASSETS**

- Stock 6 16,393 22,269
- Debtors 7 913,256 818,215
- Cash at bank 1,180,838 1,022,093

**CREDITORS: amounts falling due within one year** 8 (985,762) (752,591)

**NET CURRENT ASSETS**

1,124,725 1,109,986

**TOTAL ASSETS LESS CURRENT LIABILITIES**

5,535,569 5,868,764

**PROVISIONS FOR LIABILITIES AND CHARGES**

9 (176,920) (347,454)

**GOVERNMENT GRANTS**

10 (2,808,459) (3,053,473)

**TOTAL ASSETS LESS LIABILITIES**

2,550,190 2,467,837

**FINANCED BY**

**SHAREHOLDERS’ FUNDS**

- Share capital 11 2,027,022 2,027,022
- Income and expenditure account 12 523,168 440,815

Shareholders’ funds 12 2,550,190 2,467,837

On behalf of the Committee of Management

J. O’Sullivan : Chairman

K. Kinsella : Board Member

24 March 2011
NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2010

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 amortised over four to five years and depreciation begins in the year the society starts to benefit from the expenditure.

Government grants

- Grants for operating expenditure:
  Grants received from the Department of Agriculture, Fisheries 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.

- 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.

Pension costs
The society operates a defined contribution pension scheme for some employees and contributions are charged to the profit and loss account in the period to which they relate. In addition, all employees have the option of joining a Revenue approved scheme and the society facilitates the payment of contributions through its payroll system.

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.

2. STAFF COSTS

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages and salaries</td>
<td>1,585,559</td>
<td>1,574,416</td>
</tr>
<tr>
<td>Social welfare costs</td>
<td>161,113</td>
<td>159,297</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,746,672</td>
<td>1,733,713</td>
</tr>
</tbody>
</table>

The staff costs, including costs capitalised in project development, are comprised of:
The average number of persons employed by the society in the financial year was 35 (2009: 35) and is analysed into the following categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>2010 No.</th>
<th>2009 No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Administration</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Technical</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Fixed term subcontractors</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

The staff numbers and the staff costs exclude fixed term subcontractors which were recharged to Sheep Database Limited (note 15) during the year.

3. **TAXATION**

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. **PROJECT DEVELOPMENT EXPENDITURE**

<table>
<thead>
<tr>
<th>Description</th>
<th>€</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost:</td>
<td></td>
</tr>
<tr>
<td>At 1 January 2010</td>
<td>14,941,795</td>
</tr>
<tr>
<td>Additions</td>
<td>1,174,249</td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>16,116,044</td>
</tr>
<tr>
<td>Amortisation:</td>
<td></td>
</tr>
<tr>
<td>At 1 January 2010</td>
<td>10,257,574</td>
</tr>
<tr>
<td>Charge for the year</td>
<td>1,516,227</td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>11,773,801</td>
</tr>
<tr>
<td>Net book value:</td>
<td></td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>4,342,243</td>
</tr>
<tr>
<td>At 31 December 2009</td>
<td>4,684,221</td>
</tr>
</tbody>
</table>

Project development expenditure consists of computer hardware, software consultancy, database and other project costs.
### 5. TANGIBLE FIXED ASSETS

<table>
<thead>
<tr>
<th></th>
<th>Office equipment</th>
<th>Tully machinery</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 2010</td>
<td>195,553</td>
<td>19,504</td>
<td>215,057</td>
</tr>
<tr>
<td>Additions</td>
<td>11,193</td>
<td>-</td>
<td>11,193</td>
</tr>
<tr>
<td><strong>At 31 December 2010</strong></td>
<td>206,746</td>
<td>19,504</td>
<td>226,250</td>
</tr>
<tr>
<td><strong>Depreciation:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 2010</td>
<td>127,630</td>
<td>12,870</td>
<td>140,500</td>
</tr>
<tr>
<td>Charge for the year</td>
<td>15,822</td>
<td>1,327</td>
<td>17,149</td>
</tr>
<tr>
<td><strong>At 31 December 2010</strong></td>
<td>143,452</td>
<td>14,197</td>
<td>157,649</td>
</tr>
<tr>
<td><strong>Net book value:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>63,294</td>
<td>5,307</td>
<td>68,601</td>
</tr>
<tr>
<td>At 31 December 2009</td>
<td>67,923</td>
<td>6,634</td>
<td>74,557</td>
</tr>
</tbody>
</table>

### 6. STOCKS

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tully consumables</td>
<td>16,393</td>
<td>22,269</td>
</tr>
</tbody>
</table>

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

### 7. DEBTORS

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade debtors and prepayments</td>
<td>679,324</td>
<td>647,762</td>
</tr>
<tr>
<td>Amounts due from related party (note 15)</td>
<td>233,932</td>
<td>170,453</td>
</tr>
<tr>
<td></td>
<td>913,256</td>
<td>818,215</td>
</tr>
</tbody>
</table>

### 8. CREDITORS

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade creditors</td>
<td>628,257</td>
<td>533,878</td>
</tr>
<tr>
<td>Accruals</td>
<td>300,488</td>
<td>116,722</td>
</tr>
<tr>
<td>Value added tax</td>
<td>2,345</td>
<td>42,930</td>
</tr>
<tr>
<td>PAYE/PRSI</td>
<td>54,672</td>
<td>59,061</td>
</tr>
<tr>
<td></td>
<td>985,762</td>
<td>752,591</td>
</tr>
</tbody>
</table>
9. **PROVISION FOR LIABILITIES AND CHARGES**

*Provision for progeny test scheme*

<table>
<thead>
<tr>
<th>Year</th>
<th>Programme</th>
<th>Project grants</th>
<th>Government grants</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at 1 January</td>
<td></td>
<td></td>
<td></td>
<td>65,000</td>
<td>75,000</td>
<td>145,000</td>
<td>62,454</td>
<td>-</td>
<td>347,454</td>
</tr>
<tr>
<td>Provided during the year</td>
<td></td>
<td></td>
<td></td>
<td>(65,000)</td>
<td>(64,265)</td>
<td>(19,735)</td>
<td>(62,454)</td>
<td>40,920</td>
<td>(170,534)</td>
</tr>
<tr>
<td>At 31 December</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>10,735</td>
<td>125,265</td>
<td>-</td>
<td>40,920</td>
<td>176,920</td>
</tr>
</tbody>
</table>

*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 in respect of 2007, 2008 and 2010 matings.

10. **GOVERNMENT GRANTS**

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

(ii) Grant from Department of Agriculture, Fisheries and Food (DAFF).

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects (i)</th>
<th>Project grants</th>
<th>Government grants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1 January 2010</td>
<td>9,245,467</td>
<td>74,033</td>
<td>9,319,500</td>
<td></td>
</tr>
<tr>
<td>Received during year</td>
<td>757,229</td>
<td>-</td>
<td>757,229</td>
<td></td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>10,002,696</td>
<td>74,033</td>
<td>10,076,729</td>
<td></td>
</tr>
<tr>
<td>Amortisation: At 1 January 2010</td>
<td>6,191,994</td>
<td>74,033</td>
<td>6,266,027</td>
<td></td>
</tr>
<tr>
<td>Credited to the income and expenditure account in year</td>
<td>1,002,243</td>
<td>-</td>
<td>1,002,243</td>
<td></td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>7,194,237</td>
<td>74,033</td>
<td>7,268,270</td>
<td></td>
</tr>
<tr>
<td>Net amount: At 31 December 2010</td>
<td>2,808,459</td>
<td>-</td>
<td>2,808,459</td>
<td></td>
</tr>
<tr>
<td>At 31 December 2009</td>
<td>3,053,473</td>
<td>-</td>
<td>3,053,473</td>
<td></td>
</tr>
</tbody>
</table>
11. SHARE CAPITAL

<table>
<thead>
<tr>
<th>Share Capital</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorised:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28,768 “A” ordinary shares of €12.697381 each</td>
<td>365,278</td>
<td>365,278</td>
</tr>
<tr>
<td>28,768 “B” ordinary shares of €12.697381 each</td>
<td>365,278</td>
<td>365,278</td>
</tr>
<tr>
<td>28,768 “C” ordinary shares of €12.697381 each</td>
<td>365,278</td>
<td>365,278</td>
</tr>
<tr>
<td>73,696 “D” ordinary shares of €12.697381 each</td>
<td>935,746</td>
<td>935,746</td>
</tr>
<tr>
<td>______________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>2,031,580</td>
<td>2,031,580</td>
<td></td>
</tr>
</tbody>
</table>

Issued and fully paid:

<table>
<thead>
<tr>
<th>Share Capital</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>28,768 “A” ordinary shares of €12.697381 each</td>
<td>365,278</td>
<td>365,278</td>
</tr>
<tr>
<td>28,768 “B” ordinary shares of €12.697381 each</td>
<td>365,278</td>
<td>365,278</td>
</tr>
<tr>
<td>28,409 “C” ordinary shares of €12.697381 each</td>
<td>360,720</td>
<td>360,720</td>
</tr>
<tr>
<td>73,696 “D” ordinary shares of €12.697381 each</td>
<td>935,746</td>
<td>935,746</td>
</tr>
<tr>
<td>______________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>2,027,022</td>
<td>2,027,022</td>
<td></td>
</tr>
</tbody>
</table>

All shares rank pari passu in all respects.

12. RECONCILIATION OF SHAREHOLDERS’ FUNDS AND MOVEMENT ON RESERVES

<table>
<thead>
<tr>
<th>Share Capital</th>
<th>Income and expenditure account</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>At 1 January 2009</td>
<td>2,026,509</td>
<td>223,862</td>
</tr>
<tr>
<td>Surplus for year</td>
<td>-</td>
<td>216,953</td>
</tr>
<tr>
<td>Share issue</td>
<td>513</td>
<td>-</td>
</tr>
<tr>
<td>______________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>At 31 December 2009</td>
<td>2,027,022</td>
<td>440,815</td>
</tr>
<tr>
<td>Surplus for year</td>
<td>-</td>
<td>82,353</td>
</tr>
<tr>
<td>______________</td>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>2,027,022</td>
<td>523,168</td>
</tr>
</tbody>
</table>

13. PENSIONS

The society operates a defined contribution pension scheme for some employees and contributions are charged to the profit and loss account in the period to which they relate. In addition, all employees have the option of joining a Revenue approved scheme and the society facilitates the payment of contributions through its payroll system. Pension cost charged to the income and expenditure account in the year was €19,359 (2009: €26,853).

14. OPERATING LEASE COMMITMENTS

At the balance sheet date the society had annual commitments of €55,000 under operating leases for land and buildings which expire within two years.
15. 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 balance due by the company to the society at the year end is included in debtors.

16. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the committee of management on 24 March 2011.