

ICBF Weekly Update 6th January 2012

1 Important Dates

- ✚ **ICBF Board Meeting** - Thursday 26th January, 10:30 to 14:00, Portlaoise.
- ✚ **Sheep Board Meeting** - Thursday 26th January, 14:00 to 16:30, Portlaoise.
- ✚ **Sheep 2012** – Saturday 30th June, Athenry.

2 Priorities for 2012

One of the first tasks for 2012 has been to review our priorities in light of indicative DAFF funding. There has been some fine tuning and an additional focus on ensuring good value for every € spent. I believe the priorities for 2012, established during our budgeting process in 2011, will be largely achievable. This is reflected in ICBF's and Sheep Ireland's detailed priorities for 2012 which are attached as **appendix 1**. These include:

- genomics, making full use of suckler scheme data, increasing HerdPlus® uptake,
- enhancing our web services,
- supporting AHI's (Animal Health Ireland) initiatives and
- making better use of Irish bred cattle to accelerate genetic gains for dairy and beef breeds.

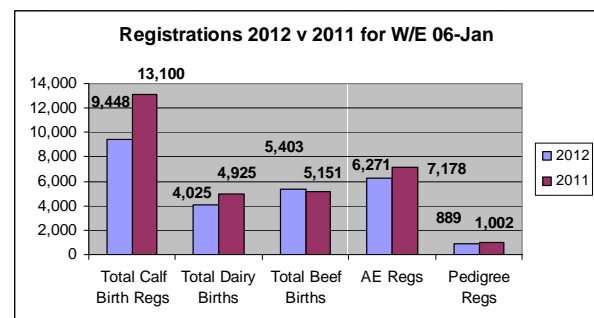
Our sheep priorities have moved from system building in 2011 to growing the use of the LambPlus and helping sheep farmers to make better use of the new Euro-Star genetic evaluations for sheep.

Our priorities reflect the marvellous opportunities that are created by the rapidly developing technologies in computing, genetics and statistics. Cattle and sheep breeding are in the middle of a technological revolution. It is at times like these that we have to be focused on our mission – farm profitability – and be prepared to change from systems and structures developed in a different technological environment. At the same time, we must be cautious and ensure the promising new technologies really are able to deliver the benefits that enthusiastic promoters claim.

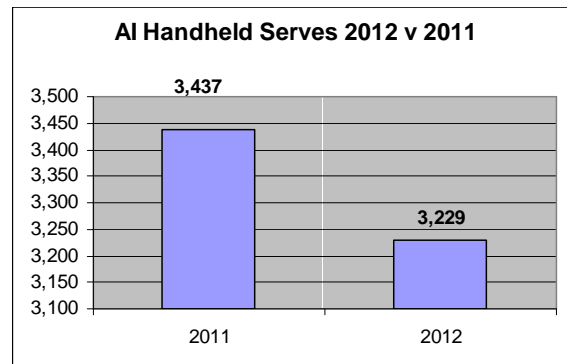
We have a very ambitious program for 2012. It builds on the breeding systems and extensive database built up over the last few years. The ICBF team has become increasingly capable and is well placed to achieve our goals for 2012. We look forward to working with the breeding industry and Irish farmers and delivering increased value through our services and to overcoming the unexpected challenges that will inevitably arise in 2012.

3 Database

- ✚ The stats are compiled with the assistance of DAFF AIM systems.
- ✚ In the Suckler scheme, the number of 2011 born calves with meal introduced is 554,627 with the number of animals weaned at 453,778.
- ✚ BVD test results continue to be received at ICBF and are being processed accordingly. Around 2500 herds have purchased a total of 180,000 tissue tags for BVD testing at this stage.



- ✚ Around 5,600 herds have already completed their Dairy Efficiency Programme (DEP) health recording requirements for 2011.
- ✚ The development of a new 'Bull-Tracker' report for pedigree herds is on-going. The focus of the report is to show the performance of stock-bull offspring. Testing on this report will begin next week.
- ✚ We are working with the manufacturer of the blue-tooth weighing scales company with a view to further waterproofing the unit. A weight recording report has been designed, and building of this report will begin next week.
- ✚ Some further developments to further enhance the loading of genotype information to the database is continuing.
- ✚ The graph shows Inseminations recorded on AI Handhelds in 2012 compared with 2011.



4 Sheep Ireland

- ✚ Over the past number of weeks we have been busy getting new breeders set up on the Sheep Ireland system for the upcoming lambing season. Our LambPlus lambing notebooks have also been circulated to breeders to facilitate the recording of the necessary information for our evaluations. Lamb birth weights and lambing difficulty scores must be recorded by every breeder.
- ✚ The number of new LambPlus breeder sign-ups has been very strong. We are at a critical time now, with most breeders aiming to begin lambing sometime in January, so now is the time to join and to encourage other breeders to do the same.
- ✚ Sheep Ireland would like to take this opportunity to thank all those who helped progress our genetic improvement programme in any way throughout the past year. There is no doubt that a great deal of progress has been made, but there is still much to do. Hopefully in 2012 we have another very positive year in the sheep sector and I have no doubt we will. Sheep 2012 in Athenry on the 30th June will be a fantastic opportunity to display all that is good about our sheep industry.
- ✚ To all our LambPlus breeders, I wish you a fruitful and easy lambing, if you made the choice to use a 5 Star ram this year, I have no doubt you will.....

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ICBF Strategic Plan for 2012.

Strategy No.	Priorities for 2012
<p>1 Genetic evaluations</p>	<p>Ensure ready availability of accurate genetic evaluations for all traits, breeds and animals (national & international) of significance to Irish farmers</p>
<p>1.1 Common to beef and dairy</p>	<ul style="list-style-type: none"> • Incorporate calving and birth traits from Interbull in national evaluations. • Implement and roll-out research findings for fertility evaluations to incorporate insemination data, all lactations and age at first calving as predictor traits. • Implement and roll-out use of carcass cut data as provided by mechanical grading machines in the genetic evaluation of beef performance. • Extend the genetic evaluation systems to make full use of extra maternal and live-weight data as it becomes available from Marts and the Suckler Cow Welfare scheme. • Review and update methods of accounting for heterosis and recombination effects in dairy and beef evaluations. • Establish data sources for disease susceptibility (mastitis, lameness), milking speed, temperament (dairy), birth defects and gross abnormality traits and integrate with Vet diagnostic systems. • Roll-out genetic and phenotypic evaluations for male fertility utilizing relevant data (inseminations, pregnancy diagnosis etc) for reporting fixed effects, bull results, technicians results and herd results. • Implement the use of calf price data from Marts for calves from dairy herds as a further element of the beef component in the dairy EBI and calf quality part of the SBV.
<p>1.2 Dairy</p>	<ul style="list-style-type: none"> • Research & implement enhanced systems for incorporating genomic data in the EBI for domestic and foreign bulls. Includes development of international genomic data sharing systems (IGenoP). • Pilot the use of test day model for milk production traits. • Research the use of a culling index. • Research, develop and implement evaluations for new traits including; mastitis, lameness, milking speed and temperament. • Review the economic values in the EBI. • Consult with industry, survey farmers and implement enhancements to EBI. • Research and implement separate (from UK) linear trait evaluations on an across breed basis for Ireland. Ensure these evaluations are linked to all other relevant dairy cattle populations through Interbull.
<p>1.3 Beef</p>	<ul style="list-style-type: none"> • Participate fully in the Interbeef project to ensure ready access to data and evaluations on beef cattle from other populations. • Support and participate in research by Teagasc and UCD into ways of improving the measurement of feed intake. • Research the value of an index for stock bull satisfaction. • Research the benefits of genomic data in the SBV. • Review economic values in beef €uro-Star indexes. • Consult with industry and implement enhancements to SBV and €uro-Star indexes and ensure issues associated with maternal traits are fully addressed.
<p>1.4 Knowledge & information</p>	<ul style="list-style-type: none"> • Provide training and support, making good use of new low cost communications technologies, to advisors, veterinarians and breeding organizations so that they effectively provide genetic evaluation knowledge to cattle farmers. • Review and, if justified, hold EBI competition for discussion groups and provide full publicity to enhance farmer understanding of the EBI and the benefits for farm profitability. • Develop a competition in collaboration with Teagasc & Irish Farmers Journal that enhances farmer understanding of the €uro-Star indexes and the benefits for farm profitability.

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1.5 Service quality	<ul style="list-style-type: none"> • Further enhance the ICBF website to provide easier to access and more comprehensive genetic evaluation information. • Publish annual timetable, in advance, for genetic evaluations and monitor performance against this timetable. • Three dairy evaluations to coincide with routine Interbull evaluations. • Monthly evaluations for beef linear traits. • Genomic evaluations according to agreed timetable. • Review timetable for implementation of model, method and economic weight changes.
1.6 Suckler Scheme	<ul style="list-style-type: none"> • Establish and implement strategy for ensuring the large majority of participants in the scheme receive sufficient benefits to ensure they become regular users of HerdPlus. • Provide rapid turnaround of reports. • Ensure DAFF requirements are fully met. • Engage with DAFF on planning for future of SCWS.
1.7 Dairy Efficiency Program (DEP)	<ul style="list-style-type: none"> • Provide technical support for DEP.
2 Uptake & cost of services	<p>Increase participation and substantially reduce unit cost of cattle breeding services to farmers.</p>
2.1 Data Collection	<ul style="list-style-type: none"> • Provide a high quality animal events recording service to cattle herds engaged in cattle breeding and herd health activities. • Grow the uptake of electronic animal events recording through collaboration with software providers and provision of web services. • Extend service to incorporate “on-line” calf registration facility. • Maintain interfaces with DAFF systems for calf registration and animal movements ensuring accurate animal location information. • Develop and operate interfaces with Mart, Meat Factory, Laboratory and Milk Processors to facilitate access to data relevant to cattle breeding, herd health and farm management. • Operate a high quality database and web access service for all users. • Develop and implement herd data quality index with initial priority on pedigree beef herds.
2.2 Milk Recording Services	<ul style="list-style-type: none"> • Maintain a high quality milk recording information processing service to MR service providers. • Maintain a high quality service to support the EDIY milk recording system.
2.3 Weight Recording Services	<ul style="list-style-type: none"> • Establish infrastructure and roll-out some 50 cells in 2012. • Develop sustainable operational service model.
2.4 AI Services	<ul style="list-style-type: none"> • Revise the Handheld software as required in order to continue to add value as part of the technician service to farmers including: capture of semen batch information, and recording of pregnancy scanning results. • Expand use of web-based information services for AI companies (GENEIRLAND®, genomic services).
2.5 Herd Book Services	<ul style="list-style-type: none"> • Support and enhance web based herd book processing service. • Ensure services to herd books are maintained in accordance with established service levels. • Extend embryo transfer recording to field operators to ensure as much ET data as possible is captured at source. • Promote pedigree catalogue service. • Operate GROW® beef linear scoring service.
2.6 HerdPlus® Service	<ul style="list-style-type: none"> • Review marketing of HerdPlus® services in consultation with professional marketing expertise and implement findings.

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	<ul style="list-style-type: none"> • Expand usage of HerdPlus® services to 10,000 herds (dairy & beef). • Enhance service features to ensure customers are highly satisfied with service value and the service is very attractive to new customers. • Promote trading of animals on basis of available genetic merit information.
<p>2.7 Farm Advisor service</p>	<ul style="list-style-type: none"> • Target markets for service to include Teagasc dairy and beef advisors, private consultants, Veterinarians, Dairy and Meat factory field service providers. • Enhance services to “discussion groups” by extending range and relevance of group reports and other features. • Implement KPI’s for discussion groups based on those developed for EBI competitions. • Continue to develop services to assist organizations that provide farmer services.
<p>2.8 Health and disease service</p>	<ul style="list-style-type: none"> • Support the AHI initiatives (e.g. BVD, Cell Check, Johnes, Calf Health, Biosecurity, Reproduction) to establish whole herd health schemes in Ireland. • Support research initiatives (incl. Teagasc) for improving dairy and beef herd health by providing database services, access to data and investigating future services. • Lead with AHI in the development and provision of herd health information services for beef and dairy farmers. • Finalize pilot and roll-out integrated health testing information system to support sample collection, laboratory testing and result analysis service for use by herd owners and specialists (Veterinarians, Technicians, Consultants...) working with herd owners. • Finalize pilot and roll-out integrated web based herd health monitoring and diagnostic reporting system for use by herd owners and their advisors (Veterinarians, Teagasc, service providers, ...). • Finalize pilot and roll-out information service for farm advisors (Veterinarians, Teagasc, service providers) to service herds participating in herd health programs.
<p>2.9 Promotion of best practice in cattle breeding</p>	<ul style="list-style-type: none"> • Implement a “Profit through Breeding” promotion campaign to: <ul style="list-style-type: none"> ○ Ensure enough high EBI replacements for the dairy herd – to support expanding industry for when quota goes. ○ Ensure enough high SBV replacements for suckler herds to achieve most profitable levels of meat production. ○ Increase uptake of HerdPlus® ○ Maximum use of GENEIRLAND® procurement. ○ Optimal uptake of GENEIRLAND® progeny testing. ○ Farmers make well informed choice between use of AI & stock bulls. ○ Farmers using AI increase use of heat detection aids – tail painting. ○ Farmers maximize their use of data gathering and information services provided by ICBF and ICBF’s milk recording and herd book members. ○ Ensure farmers understand and make good use of genomic information on breeding stock. • Conduct survey of stakeholders to determine their perceptions of the value of this initiative.
<p>2.10 Promotion of ICBF information services</p>	<ul style="list-style-type: none"> • Provide education of key stakeholder staff who deal with farmers of ICBF developments to help them do their jobs more effectively and efficiently. • Develop and provide ICBF website demonstration and learning system that covers all key electronic services available to farmers and services users.
<p>3 Breeding Schemes - GENEIRLAND®</p>	<p>Ensure the cattle breeding industry delivers optimal economic returns for Irish cattle farmers from genetic improvement.</p>
<p>3.1 Funding & Structure</p>	<ul style="list-style-type: none"> • Establish in collaboration with stakeholders (AI, Herd Book, Farmers, Processors) a structure and funding mechanism that ensures the optimal breeding scheme is operating in Ireland for all breeds, dairy and beef. • Ensure that the structure delivers long-term genetic gains and avoids long-term risks by considering such issues in all key decisions. This is a key role for ICBF and Teagasc in the structure.

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	<ul style="list-style-type: none"> • Ensure the independence of Teagasc and ICBF is not compromised by in-appropriate involvement in commercial aspects of the breeding program. • Establish a high level support structure that is an integral part of the ICBF management team.
<p>3.2 Optimal Breeding Scheme Design</p>	<ul style="list-style-type: none"> • Establish optimum for dairy and beef breeds: for size of progeny test, for use of genomics, and for collection of relevant performance data. • Monitor and report rates of genetic gain in economic terms and in performance terms for all important traits for each breeding population of cattle in Ireland. • Support implementation of strategies to protect Irish farmers from breeding scheme risks including the use of Next Generation Herds.
<p>3.3 Elite Female Information Service</p>	<ul style="list-style-type: none"> • Work with bull breeders and industry stakeholders on annual basis to: <ul style="list-style-type: none"> ○ Identify worldwide the most suitable sires for use on elite cows. ○ Determine the best matings for elite cows. ○ Ensure matings are arranged and information support is provided.
<p>3.4 Sires for Progeny Test</p>	<ul style="list-style-type: none"> • Work with bull breeders and industry stakeholders on annual basis to: <ul style="list-style-type: none"> ○ Identify bulls for entry to progeny test. ○ Ensuring candidate bulls are reared under health protocols appropriate for bulls entering AI. ○ Ensure candidate bulls are procured and enter AI to produce sufficient semen to meet the needs of progeny testing, the generation of future sons and research.
<p>3.5 Progeny Test Service</p>	<ul style="list-style-type: none"> • Operate progeny test in 2012 according to agreed design, operating procedures and funding. • Operate ongoing phases of 2008, 2009, 2010 and 2011 G-EN-IR-ELAND® beef and dairy progeny test schemes.
<p>3.6 Genomic Selection</p>	<ul style="list-style-type: none"> • Provide active leadership to the cattle industry in the harnessing of DNA technologies for the benefit of farmers and the breeding industry. • Establish research and operational collaborations with other countries to ensure Ireland is able to implement efficient genomic selection programs. • Establish DNA testing and integrated genetic evaluation systems required to enable the Irish breeding industry and Irish farmers to benefit from the application of genomic technologies. • Secure DNA samples (or 800K chip results) for use in genomic research from all beef bulls with accurate genetic evaluations in Ireland. • Secure a facility for DNA storage, extraction and genotyping on a long term basis to underpin both research and the provision of DNA based services. • Maintain the ability of the ICBF database to support research into genomic selection and the provision of DNA technology based services to the breeding industry. • Periodically review the optimal breeding scheme for beef and dairy for utilizing DNA technologies and use the results as the basis for decisions on the 2012 and subsequent G-EN-IR-ELAND® schemes. • Expand the uptake of genomic testing in the dairy industry from some 3,000 3K tests in 2011 to some 30,000 6K tests in 2012.
<p>4 Service development and other services</p>	<p>Develop and market a range of information services that make effective use of the cattle breeding database, compliment the services provided by members and spread the overhead cost of maintaining and operating the ICBF database and genetic evaluation systems.</p>
<p>4.1 Research and technical services</p>	<ul style="list-style-type: none"> • Promote facilities that ICBF can provide to support research and education. • Provide support, facilities and research material to researchers (including but not limited to Teagasc & Universities), including research on; <ul style="list-style-type: none"> ○ Genetic variation in disease resistance. ○ Genetic aspects of production efficiency in cattle. ○ Genetic aspects of reproduction in dairy and beef cattle. ○ Potential role of genomic technology for the Irish dairy & beef industries.

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	<ul style="list-style-type: none"> • Contribute expertise and support to EU funded FP7 projects: OptiMIR, Robust-Milk, Green-House-Milk, and Euro-Val. • Maintain mechanism for industry good and national good benefits of database and genetic evaluation system to be funded in longer term. • Support education initiatives for use of HerdPlus® in education. • Support genetic conservation programs.
<p>4.2 Information</p>	<ul style="list-style-type: none"> • Review website design to facilitate access to information.
<p>4.3 Member business growth service</p>	<ul style="list-style-type: none"> • Encourage members to actively engage in enhancing information services and reports available to Irish farmers. • Facilitate member services to herds by providing access to relevant HerdPlus® reports. • Provide screens and reports that facilitate customer relationships between service providers and farmers.
<p>4.4 Other</p>	<ul style="list-style-type: none"> • Code EFFABAR - Breeders Code. • ICAR Certificate of Quality. • Host ICAR 2012.

Reference: <Z:\Update\2012\January\Priorities for 2012 v2.docx>~~Z:\Update\2012\January\Priorities for 2012.docx~~

No.	Title	Priority:
1	<i>Industry engagement - Enhancement of performance recording culture</i>	Sheep Ireland strive to increase the awareness of commercial sheep farmers and sheep breeders as to the value of and opportunity from performance recording in sheep, both for genetic improvement and farm management purposes.
2	<i>Industry engagement - Breed societies</i>	Sheep Ireland investigates opportunities to develop services of interest to pedigree breeders and breed societies.
3	<i>Industry engagement - Focus on MALP results in industry publicity</i>	Sheep Ireland develops and implements a plan with a concrete timeframe for promotion of Sheep Ireland based around the MALP flocks.
4	<i>Industry engagement - meat processors</i>	Sheep Ireland actively engages with as many meat processors as practical in the development of commercial farmer services.
5	<i>Technical - Development of commercial farm services</i>	Sheep Ireland develops commercial farm services over the next 2 to 4 years based on the G Potterton report in anticipation of demand from progressive farmers to capture spin-off benefits from their EID tagging investment.
6	<i>Technical - Improved phenotypic recording methods</i>	Sheep Ireland facilitates research by partner research organisations within Ireland and internationally into phenotypic recording of traits including disease traits as well as maternal (ewe) and feed efficiency (including methane yield) traits.
7	<i>Breeding Scheme Structure - An evaluation of options for more extensive recording</i>	Sheep Ireland undertake a study to evaluate the anticipated cost per phenotype captured through either more extensive MALP recording, more CPT flocks, or on-farm recording for commercial benefit.
8	<i>Breeding Scheme Structure - Evolution of MALP flocks</i>	Sheep Ireland undertakes a restructure of the MALP program, with a view to dividing flocks into second generation MALP flocks which perform a linkage and genetic evaluation role, plus a set of test flocks for commercial farm services
9	<i>Provision for Genomics - Sampling and inventory of DNA</i>	Sheep Ireland develops a tissue sample and DNA inventory for sheep, along with a protocol and calendar to ensure that all relevant DNA is collected and stored.
10	<i>Provision for Genomics - International co-operation on genome wide selection</i>	Sheep Ireland encourages and engages in international research collaboration efforts in partnership with relevant research institutions in Ireland.
11	<i>Provision for Genomics - Genomics research direction</i>	Sheep Ireland encourages and engages in research efforts that are of specific relevance to development of options and tools for implementation of genomic technologies in sheep.
12	<i>Provision for Genomics - Gene test validation</i>	Sheep Ireland recorded sheep resources be the preferred source of phenotyped individuals for validation of potential commercial tests, and Sheep Ireland closely monitor claims made by commercial interests in relation to test efficacy prior to testing within Ireland.
13	<i>Provision for Genomics - Genomic breeding strategies</i>	Sheep Ireland keep a watching brief on implementations of genomic technologies in New Zealand and Australia and encourage a research project at post graduate student level to model suitability of options for use within Ireland.