

ICBF Weekly Update 27th January 2012

1 Important Dates

- ✚ **Herdbook Technical Breeding Consultation Meetings** – Tuesday 28th February, 10:30 to 13:00, Portlaoise.
- ✚ **Breeding Consultation Meetings** – Wednesday 14th March, 10:30 to 17:00, Portlaoise.
- ✚ **Sheep 2012** – Saturday 30th June, Athenry.

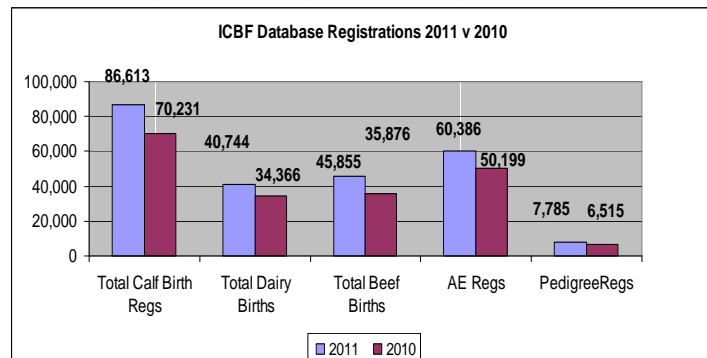
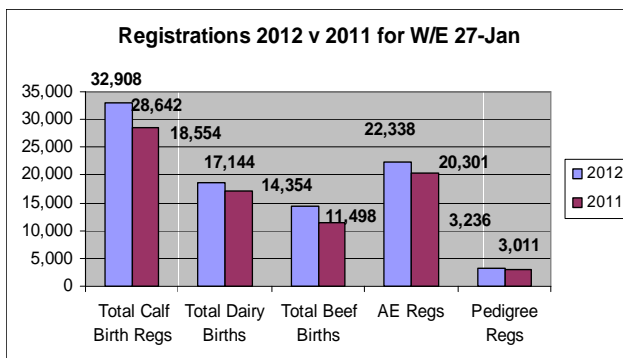
2 Sheep Board Meeting

At the meeting on Thursday the Board received a progress report (copy available in the publications section of www.sheep.ie). The Board also discussed future structure and funding options which are currently under consideration by the wider sheep industry.

3 Sheep Ireland

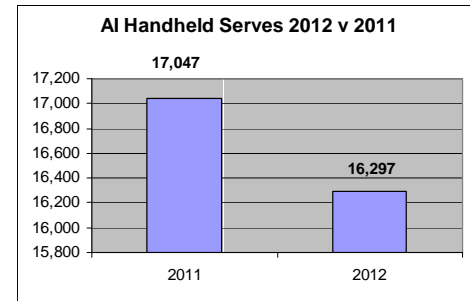
- ✚ Growth in our LambPlus participant numbers continues. We have ambitious plans for promotion and expansion of the Euro-Star evaluations in 2012 and this is being rewarded by the interest shown by breeders thus far. So far we have some sixty new breeders signed up to start performance recording for 2012, and this number is growing as every week passes.
- ✚ Pregnancy scanning is almost complete on most of our MALP & CPT farms, with just the later lambing upland flocks in the West to be assessed. Overall results have been very good so far. Awaiting the results of conception rates on our CPT flocks after AI is always a nervous time, but thankfully the results this year are in-line with other years. We will detail the official results in this update next week.
- ✚ The window for signing up new breeders for the coming season is closing fast, so I would urge existing LambPlus breeders to encourage fellow pedigree breeders to join up now. The more breeders that participate the greater gain each individual breeder can expect to make.

4 Database



- ✚ The stats above are compiled with the assistance of DAFF AIM systems.
- ✚ In the Suckler scheme, the number of 2011 born calves with meal introduced is 570,553 with the number of animals weaned at 479,668.

- ✚ BVD test results continue to be received at ICBF and are being processed accordingly. Around 5,200 herds have purchased a total of 257,000 tissue tags for BVD testing at this stage. Around 4,200 samples have been returned at this stage, with a 1% BVD PI Positive rate.
- ✚ 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 has been completed and it will be released over the coming weeks.
- ✚ We are working with the manufacturer of the blue-tooth weighing scales with a view to further waterproofing the unit. A weight recording report has been designed, and building of this report will continue next week.
- ✚ Some further developments to enhance the loading of genotype information to the database is continuing.
- ✚ The graph above shows Inseminations recorded on AI Handhelds in 2012 compared with 2011.



5 Genetic Evaluations

- ✚ A new run for the beef linear evaluation has commenced. Results will be available next week.
- ✚ The first batch of the new low density (LD) SNP arrays used for genomic selection was received this week. Quality of the samples was excellent with much less variation seen in these arrays compared to the 3k arrays used previously. Imputation is currently underway. The use of the LD array (~7,000 markers) will result in higher imputation accuracy and also does not require a sire to have been done on a 54k previously.

6 British Cattle Breeding Conference Report

The British Cattle Breeders Club (BCBC) held their 2012 Conference at the Telford Golf and Spa Hotel in Shropshire this week (23rd – 25th January). Pat Donnellan, Niall Kilrane & Stephen Conroy attended the conference and also promoted the ICAR Conference, to be held here in Cork from the 28th May to the 1st June 2012.

It was an excellent conference with very informative talks. What was particularly impressive was how efficiently the conference was run with all speakers being kept on time and the question and answers sessions also being very well time managed. The audio visual aspect of the conference was also very impressive with social media (Twitter) also being used, which added to the event.

Picture below shows Stephen Conroy, Pat Donnellan and Niall Kilrane from ICBF with Duncan Sinclair (BCBC Chairman) in front of the ICBF ICAR 2012 stand at the conference earlier in the week.



A Summary of the main talks of interest for ICBF at the conference follows together with some comments from the speakers & attendees:

Monday 23rd January

✚ Implementation of Genomic Selection in the UK

Mike Coffey and Marco Winters gave a talk explaining how the UK has rapidly gained sufficient genotypes to form a large reference population due to genotypes swapped with the North American Consortium. They provided details of the results of that process and outlined the development of UK genomic PTA's.

- *'It is important that the level of traditional progeny performance recording does not decrease with the advent of genomics. In the age of the genotype – the recording of the phenotype is king.'*
- *'Donagh Berry gave a talk to us before about genomics saying how they had done the genomic evaluation work in Ireland in 12 months. Well we are happy to say that we have done it in 9 month, so we have beaten them on that one.'*
- *'The Competition that exists between Breeding Companies is what generally drives on improved breeding practises in the UK. Likewise – competition between Milk Recording Organisations is what has driven on the level of Milk Recording. The developments in Genomic Testing & evaluations must rise above this and progress in this area will be dependent on good collaboration between Organisations in this area.'*
- *One of the drawbacks of trying to get organisations to collaborate together in the UK is that there is nobody in overall charge that can ensure that this will definitely happen.*

Using Genotype Information to detect Genetic Defects

This session outlined how genotypes can be used very effectively to determine the presence of harmful recessives in a population. It covered how breeders could use information to enable the benefits of bulls to be realized without the disbenefits of introducing recessives.

- *'Since testing has commenced- the frequency of each mutation in the Belgian Blue Breed has decreased.'*
- *'In future – every AI Sire that is used will be tested for genetic defects by the British Belgian Blue Society.'*

Tuesday 24th January

Cattle Breeding – Meeting the Future Challenges

Andrew Robinson explained how the UK Government has committed to legally binding commitments on climate change. His presentation set out some of the main challenges currently facing the agriculture industry in the UK and also discussed the potential role cattle breeding could play in meeting the challenges and opportunities that lie ahead.

Genetic Improvement – a Promise Unfulfilled

Dr Maurice Bichard described how effective methods of improving farm animal performance, based upon quantitative genetic principles have been around for over 50 years and have transformed production efficiency and product quality in the pig and poultry sectors. However, his presentation argued that they have not had the same impact in the cattle and sheep sectors.

- *'The rate of genetic improvement in beef is way behind that of poultry, pigs & dairy cattle and is limited by biological, management and structural issues. It can however be addressed if Breeders, Processors & Geneticists unite & come together.'*
- *'There is a demand for but a lack of formally trained Animal Breeders in the UK.'*

Breeding for improved feed efficiency in Beef Cattle

This presentation discussed the measures of efficiency including correlated traits, economic benefits and effects on farming system efficiency.

Developing Dairy-Origin Beef Systems for the Next Generation

Dr John Basarab explained how recent research at AFBI Hillsborough had evaluated various rearing and finishing systems for dairy-origin beef production. His paper evaluated the impact; labour input, calf health, genotype and production systems have on lifetime performance and gave an indication as to how monitoring performance throughout the lifecycle can ensure efficient profitable production for the next generation.

- *'AFBI is developing a simple tool to aid growth monitoring – comparing an animal's growth rate to a trend line. The 'Online Growth Monitoring tool will show if an animal is on target or below performance. It will be available to each farmer in Northern Ireland in 2012.'*
- *'Bovis which is an online monitoring tool for Greenhouse Gas monitoring is also being developed.'*

Efficient Low Input Beef Systems

Suckler farmer Charley Walker and his wife run a beef and sheep farm in the eastern Scottish Borders. He gave a talk describing how they specialise in the production of breeding stock suitable for low input farming systems and as a Nuffield Scholar how he studied easier managed beef systems. He explained how he felt that the quest for maximising production can often lead to high levels of input, particularly labour. His paper showed how he reduces inputs whilst maintaining outputs.

- *'A couple of criteria that are simply compulsory in our system are; 1. A tight calving pattern 2. Cows calving down at 2 years old 3. Any cows causing difficulty being culled. 4. Heifers not receiving any preferential treatment.'*

Strategic Investment in Long Term Health Planning, Monitoring and Implementation

Patrick Lambert manages a large, self-contained beef herd on different holdings. He described how he has tackled the long term scourge of BVD and Johne's in his herd.

Sub-Fertility in Bulls – Myth or Reality?

This presentation by Colin Penny gave a thorough overview on the area of Bull Fertility. He explained how many surveys worldwide had found that around 20% of bulls can be classified as unsound for breeding when put through a standard breeding soundness examination. He also explained that whilst complete infertility is rare, sub-fertility is common. The definition and significance of sub-fertility in the UK pedigree bull population was discussed.

Lessons from America – Breeding through Scale

Todd Sears from Power Genetics explained how the company was set up 15 years ago by a group of beef farmers and today it is a truly integrated beef supply chain recording data on over 200,000 cattle. The chain was formed to record and measure efficiencies which would be fed back down the chain in order to continually breed the next generation of bulls that would improve the efficiency and profitability for everybody involved.

- *'Genomics will add a bit to a Bull's proof but traditional progeny testing is a big part of their core business.'*

A UK Case Study from the Pig Sector

Mrs Alison Johnson explained in her paper how the use of terminal sire evaluations in an integrated approach has changed the direction of the UK pig industry and the outcomes as a result.

Wednesday 25th January

How Genetics, the Environment and Collaboration can help to secure the Future of British Dairy Farming

Marco Winters & Dr Karen Wonnacott gave a presentation explaining how increasing pressure to reduce the environmental impact of dairy farming. Genetics may hold the key to tackling this important challenge. The link between reducing environmental impact and improving profitability on UK dairy farms was also discussed.

Just how well are Dairy Herds performing in the UK?

Ben Bartlett presented a paper on an analysis of routine milk records from 500 herds which provided a description of fertility, production and health in commercial dairy herds in 2011. As well as demonstrating wide variation across the industry, the findings were used to highlight problems in individual herds and focus technical input on areas of greatest need.

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