

## 1 Important Dates

- ✚ **Audit & Finance Sub-Committee Meeting** – Thursday 30<sup>th</sup> June, 10:00 to 10:30 – Maldron Hotel, Portlaoise.
- ✚ **ICBF Board Meeting** – Thursday 30<sup>th</sup> June, 10:30 to 13:00 – Maldron Hotel, Portlaoise.
- ✚ **Sheep Ireland Board Meeting** – Thursday 30<sup>th</sup> June, 14:00 to 16:30 – Maldron Hotel, Portlaoise.

## 2 BIF (Beef Improvement Federation)

Further to my brief report last week, I have now had time to reflect on the many informative and interesting presentations and discussions from the BIF meeting in Bozeman, Montana that I attended late last week.

There were a few very clear messages that I took from the meeting and these were:

- ✚ Beef cattle breeding is the subject of a lot of high quality research in the USA, Canada and Australia. The Irish beef industry needs to build on and further develop its relationships with these efforts.
- ✚ Ireland has made excellent progress in establishing the type of integrated database that is seen by many as essential to enabling the benefits of genomic technologies to be fully exploited. Further work is need in three areas: integration of research animals into the ICBF database, more focus on meat quality and further development of genetics to improve animal health.
- ✚ International collaboration in genetic evaluations (Interbeef), sharing of genotypes (IgenoP) and genomic research is essential if Ireland is to improve the profitability of its beef industry.

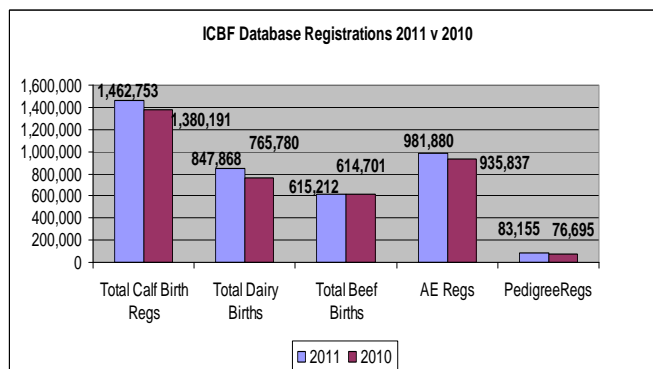
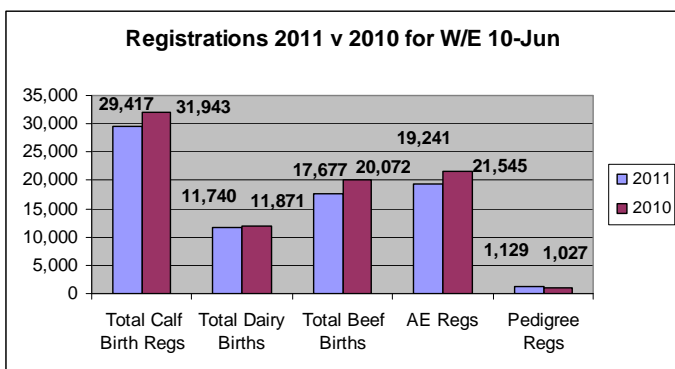
Other points from the BIF included:

- ✚ **Mark Enns (Colorado State University)** – there is good evidence that susceptibility to diseases in beef cattle is under genetic control. There is a clear opportunity to eliminate genetic-caused disease from populations through the use of gene marker tests. These tests have been very successful in identifying animals carrying a specific deleterious recessive gene. For pathogen-associated diseases, genetic variability exists, but development of data collection systems and DNA marker tests will be essential to the delivery of selection tools to the beef industry.
- ✚ **Michael Gonda (Animal and Range Sciences Department, South Dakota State University)** – presented results of a study using animal response to vaccination. He concluded that this study is the first step towards development of a DNA test for vaccine response that producers could use to select for healthier cattle. With the development of dense single-nucleotide polymorphism (SNP) genotyping panels (e.g., 850K SNP), the number of DNA markers found to be associated with economically important traits should increase substantially throughout this decade. For animal health traits, the limiting factor will now be collection of a sufficient number of phenotypes on animal health that can be used for DNA testing. For this reason, development of a DNA test for vaccine response will be a long and laborious process.
- ✚ **Erika Downey (Iowa State University)** – in a study of animal responses to BVD vaccination concluded that *“collectively, these data suggest ranchers may be able to improve the value of vaccination by avoiding this activity at weaning and by consideration of the age of the dams, and the age of the calves at vaccination”*.
- ✚ **Alison Van Eenennaam (Animal Science Department, University of California, Davis)** – *“In the United States, 1.4% of all feedlot cattle perish before reaching harvest weight and of those, the majority are due to bovine respiratory disease (BRD). ... Our preliminary data based on this terminal sire selection index suggest that there would be considerable value associated with the successful development of DNA tests to enable selection for BRD resistance.”* She went on to describe a \$US10million five-year research project which the

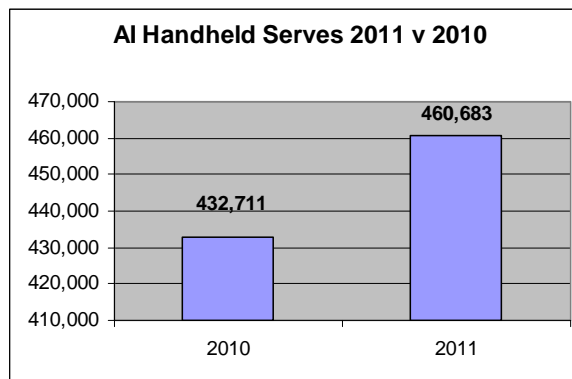
USDA have recently funded to develop genetic markers for resistance to BRD. She concluded that the beef industry needs to evolve a more integrated structure, from seed stock producer to meat processors, to enable the research and exploitation of these technology opportunities. Recent developments in Ireland were quoted as a model for how this can be achieved.

- ✚ **David Johnston (University of New England, NSW Australia)** – addressed the question of Improving genetic prediction of female reproduction. He demonstrated with Australian research that substantial genetic gains can be made for a wide range of female reproduction traits in Angus and in tropically adapted breeds.
- ✚ **Matt Spangler (University of Nebraska)** – reported on a project to investigate the robustness of SNP predictions across breeds, called the Weight Trait Project (WTP) utilizing both industry and academic resources. Weaning weight records (3,328) of calves from the US Meat Animal Research Center were used in the selection of SNP from the Bovine SNP50 associated with adjusted weaning weight. He concluded, *“Although the goal is the consolidation of information into one of two basic forms, EPD and economic index values, the industry has witnessed several intermediate steps in an effort to quickly commercialize technology that has created confusion. Integrated projects such as the WTP that engage researchers, extension personnel, producers, and breed associations are critical to the further development and employment of genomic selection tools. The WTP has created a vast resource that continues to grow in order to investigate the plethora of questions that still exist related to the use of this technology.”*
- ✚ **Megan Rolf (University of Missouri)** - in an essay titled **Genomic Selection: Delivering on the Promise** concluded, *“The future for genomic technologies seems very bright. Decreases in the cost of whole genome sequencing and new research into epigenetics will provide more opportunities for selection in the beef industry. ... What was once viewed to be the future in the beef industry is now a reality with the arrival of genomic-enhanced EPDs. Genomic Selection (GS) has the opportunity to provide added value for seed-stock and commercial producers and their customers alike. These improvements will be passed along to the consumer and strengthen demand by enhancing the quality of beef products. It may still be too soon to judge the future impacts of GS in the beef industry, but if current research and the success of genomic-enhanced EPDs in the Angus breed are any indication, GS is poised to revolutionize the beef industry.”*
- ✚ **Brian Brigham (Colorado State University)** - in an essay on **Selection Tools for Optimal Genetic and Economic Improvement**, concluded *“Advancements in our ability to better evaluate the next generation with higher accuracy using genomic tests is occurring at a rate that is difficult to keep up with. An ideal approach to address the new technology and available information may lie in a decision support system (DSS) that simultaneously accounts for all economically relevant traits and combines information into an economic form. Using a simulation model as the engine to power such a DSS and requiring the user to enter only minimum information such a system can remain user friendly yet powerful and robust. Focusing selection on profit through use of all available information will allow producers to make more informed decisions.”*

### 3 Database



- ✚ The stats above are compiled with the assistance of DAFF AIM systems.
- ✚ In the Suckler scheme, the number of 2010 born calves with meal introduced is 612,912 with the number of animals weaned at 544,678.
- ✚ The numbers of records from marts continue to increase, with two other marts joining the automated reporting system this week. This continues to leverage the value being generated by the Suckler Scheme.
- ✚ The fertility report batches continue to be generated as they come due.
- ✚ Weight recording forms will be distributed to all Herdplus Beef herds at the end of next week.
- ✚ Work is on-going in establishing electronic links to the commercial animal health laboratories. A meeting with the commercial labs took place last Friday in Backweston.
- ✚ The DEP scheme recording sheet and web screens have now been completed. DAFF will be launching the 'health recording' phase of the scheme over the coming weeks.



- ✚ The graph shows Inseminations recorded on AI Handhelds in 2011 compared with 2010.

#### 4 Genetic Evaluations

- ✚ As part of on-going improvements to beef genetic evaluations genetic parameter estimation for different age classes of weight records has commenced. This analysis will look at the heritability and genetic relationships between 8 different age classes between birth and 700 days of age and their relationship to cow milk score as assessed by farmers in spring 2011. The results of this research in time may be integrated into routine beef evaluations.
- ✚ The results from the monthly run of beef evaluations have been loaded to the database for animals linear scored between 15<sup>th</sup> April and 15<sup>th</sup> May.

#### 5 Beef Herdplus

The Beef Herdplus packs are currently being sent out to all Beef Herdplus Farmers. Following is what is included in each pack:

- ✚ **€uro-Star Report** – This report shows all of the €uro-Star values for all animals in your herd as well as showing how the herd is progressing compared to National Average figures. Use this report to see the genetic strengths and weaknesses in your herd. (*N.B. We cannot create Euro-Stars for animals that are missing their Sires. In that case, contact our office at 1850 600 900*).
- ✚ **Suckler Cow Report** – This is the main Beef HerdPlus report. It is a booklet which devotes a page for each Suckler Cow in your herd. It combines all of the available information for each Suckler cow in the herd - including Ancestry & €uro-Stars but most of all, it lists all progeny in the herd with their calving & performance information.
- ✚ **Breeding Chart** – If you have registered a calf as being sired by an AI Sire in 2010 or 2011 this will be included in your pack. It is a chart which will allow you to record insemination data for your herd.

 New for 2011 – Beef Herdplus Journal

This is a new publication. It contains articles describing what is available to a farmer that is in HerdPlus together with reports from Beef Herdplus Farmers as to how they find the service. It also contains articles on the Euro-Star system, 5 Star AI & Stockbills, GENIreland, Tully, Beef Genomics & the BETTER Beef Farms Programme.

There are many HerdPlus Applications available to each user through their logons on [www.icbf.com](http://www.icbf.com). The 'HerdPlus Journal' devotes a full section to where a full explanation is given on how to use these HerdPlus applications as well as accessing all of the online HerdPlus data for your herd.

Very positive feedback has been received from recipients of the Journal thus far. It is seen by Beef Herdplus as the official reference guide for all Herdplus products as well as a source of technical & farming accounts as to how the Beef Herdplus is benefitting users.

This is the first time that such a Journal has been published. It is available in hard copy from ICBF and will also be posted online in the coming days.



Photographed at the launch are Pat Donnellan ICBF, Beef Herdplus Suckler Farmer Ger Dineen & Ross Evans ICBF on Ger's farm in Knockroe, Kilnamartyra, Macroom, Co.Cork

## 6 Milk Recording

National Milk Recording Results by County - 10 day Period 31/05/11 to 10/06/11								
	No. Herds Recorded	No. Cows Recorded	Average Herd Size	Average 24hr Milk kg/Cow	Average Fat %	Average Protein %	Average F + P kg	Average SCC
CARLOW	8	615	77	26.6	3.63	3.34	1.85	177
CAVAN	25	1,353	54	29.4	3.57	3.36	2.04	177
CLARE	51	2,841	56	25.9	3.61	3.34	1.80	296
CORK STH	286	20,480	72	25.6	3.83	3.38	1.85	219
CORK NTH	248	19,148	77	26.6	3.74	3.39	1.90	247
DONEGAL	8	652	82	29.0	3.78	3.28	2.05	196
DUBLIN	4	418	105	25.4	4.07	3.25	1.86	337
GALWAY	29	1,958	68	27.0	3.67	3.23	1.86	264
KERRY	164	11,307	69	28.2	3.67	3.29	1.96	287
KILDARE	15	1,304	87	26.1	3.87	3.37	1.89	287

KILKENNY	40	3,304	83	25.2	3.70	3.36	1.78	180
LAOIS	35	2,916	83	25.1	3.88	3.35	1.81	202
LEITRIM	4	163	41	30.2	3.74	3.22	2.10	163
LIMERICK	97	7,207	74	28.2	3.61	3.29	1.95	260
LONGFORD	6	320	53	31.2	3.77	3.32	2.21	253
LOUTH	18	1,696	94	25.6	3.66	3.27	1.77	191
MAYO	20	1,222	61	29.8	3.27	3.21	1.93	299
MEATH	37	4,766	129	25.6	4.04	3.30	1.88	278
MONAGHAN	24	1,547	64	26.7	3.64	3.28	1.85	234
OFFALY	15	879	59	28.3	3.63	3.37	1.98	210
ROSCOMMON	4	272	68	32.0	4.25	3.29	2.41	228
SLIGO	11	638	58	24.5	4.06	3.33	1.81	220
TIPPERARY NTH	38	3,394	89	25.4	3.85	3.38	1.84	231
TIPPERARY STH	48	3,978	83	25.7	3.80	3.36	1.84	184
WATERFORD	53	4,795	90	25.5	3.80	3.37	1.83	213
WESTMEATH	17	1,835	108	23.0	5.38	3.46	2.03	215
WEXFORD	53	4,534	86	25.4	3.62	3.39	1.78	231
WICKLOW E	15	1,186	79	24.5	3.43	3.35	1.66	287
WICKLOW W	15	1,266	84	27.1	3.69	3.30	1.89	275
	<i>No. Herds Recorded</i>	<i>No. Cows Recorded</i>	<i>Average Herd Size</i>	<i>Average 24hr Milk kg/Cow</i>	<i>Average Fat %</i>	<i>Average Protein %</i>	<i>Average F + P kg</i>	<i>Average SCC</i>
National	1,388	105,994	77	26.9	3.80	3.33	1.91	236

National Milk Recording Averages by Province - 10 day Period 31/05/11 to 10/06/11

Provincial	No. Herds Recorded	No. Cows Recorded	Average Herd Size	Average 24hr Milk kg/Cow	Average Fat %	Average Protein %	Average F + P kg	Average SCC
Munster	985	73,150	74	26.4	3.74	3.35	1.87	242
Leinster	278	25,039	90	26.1	3.86	3.34	1.88	240
Connacht	68	4,253	63	28.7	3.80	3.26	2.02	235
Ulster	57	3,552	62	28.4	3.66	3.31	1.98	202

National Milk Recording Statistics - Herds, Cows & EDIY 10/06/11

Milk Recording Organisation	Total Herds Recorded YTD 10/06/11	No. EDIY Herds YTD 10/06/11	% Herds EDIY	Total No. Cows Recorded YTD 10/06/11	No. EDIY Cows YTD 10/06/11	% Cows EDIY
Munster	3,626	1,019	28%	277,980	85,046	31%
Progressive	2,284	829	36%	192,472	68,880	36%
Tipperary	140	61	44%	11,887	5,608	47%
<b>Total</b>	<b>6,050</b>	<b>1,909</b>	<b>32%</b>	<b>482,339</b>	<b>159,534</b>	<b>33%</b>

Recorded Cows by Milk Recording Organisation - Year on Year Comparison			
Milk Recording Organisation	YTD 2010 Cows Recorded 01/01/10 - 10/06/10	YTD 2011 Cows Recorded 01/01/11 - 10/06/11	2011 vs. 2010 Year on Year Difference (%)
Munster	252,295	277,980	9.2%
Progressive	171,525	192,472	10.9%
Tipperary	10,595	11,887	10.9%
<b>Total</b>	<b>434,415</b>	<b>482,339</b>	<b>9.9%</b>

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