



UPDATE – for period 10th – 16th February 2007

1 Important Dates

- ✚ **Thursday 1st March.** Audit & Finance Sub-Committee (9:00 – 11:00) and ICBF Board (11:00 – 14:00).
- ✚ **Saturday 3rd March.** Tully beef bull sale. Launch of new beef indexes, Show 11.00 am Sale 12.00 pm.

2 Visit by IHFA Board

The Board of the Irish Holstein Friesian Assn (IHFA) and their office staff from Clonakilty visited Highfield House on Tuesday afternoon this week. We provided a tour of our facility and a presentation covering recent developments under each of the three headings in ICBF's strategic plan. That is, genetic evaluations, service uptake and breeding schemes. Our presentation included a demonstration of HerdPlus and the latest version of the newly developed Sire Advice service. The general discussion following the presentation covered a range of topics and highlighted the potential benefits that IHFA and ICBF can deliver to Irish farmers by working together in a forward looking partnership.

Any other organisation that wishes to visit Highfield House would also be very welcome. We find that these visits help greatly by providing a clearer understanding of the role ICBF plays and its capacity to help the Irish cattle breeding industry to deliver benefits to Irish farmers. If your organisation would like to visit please contact us directly.

3 Genetic Evaluations

This week the updated genetic evaluations for dairy and beef have been released to the industry. These evaluations will be used by many farmers in making their decisions on AI and stock bulls for 2007. They are available on individual bulls from the bull search facility on our website (www.icbf.com). Summarised here is important information about these evaluations.

Dairy EBI

This is the first run where **fertility** has been evaluated on an international basis by Interbull. The following countries participated in the evaluation for fertility: BEL ESP GBR IRL ITA NLD NZL USA.

The most notable absentees are Canada, France, Germany, and Australia.

For **survival** all the above countries have supplied data as have Canada, France, Germany, Australia and the Scandinavian countries.

The criteria for determining what proof i.e. Interbull or Domestic a bull received is as follows:

- If a bull has been tested in Ireland or has reliability for fertility sub index of 90% or greater then the bull's Irish calving interval and survival is used.
- If the bull has been imported into Ireland he will receive an Interbull proof for calving interval and survival until his fertility sub index reaches 90%, at which point the proof will switch to a domestic proof. It is anticipated that at 90% the switch from Interbull to domestic will be very small. (For consistency, this convention has also been applied to milk production traits. Previously, a bull switched at 75 daughters in 50 herds in Ireland, which is approximately 90% so there should be no noticeable changes for bulls)
- For countries that did not supply fertility data, a bull will receive the Interbull survival proof and a foreign converted fertility proof. This will affect bulls from countries that did not participate in the fertility evaluation.



Beef

- ✚ **Calving Traits.** There were no changes made to the calving evaluation model since the November '06 run. The new Calving evaluations include an extra 320,000 records which entered through Animal Events since July 2006. All predicted differences (PDs') for direct and maternal calving difficulty proofs for beef bulls are expressed on a phenotypic scale. In the case of direct calving difficulty the PD is the expected % of difficult calvings when the bull is mated to an average suckler herd and in the case of the maternal calving difficulty it is the expected % of difficult calvings when the bull's daughters are mated to average beef bulls. This has resulted in positive values for the PD of all direct and maternal calving difficulty proofs.
- ✚ **Beef Production Traits.** The new Beef Evaluations include new slaughter data which was received from the factories since April 2006. There was also new linear type and mart weight data available. Table 1 shows the increase in number of records since Nov 2006.

Table 1. Increase in records since Nov 2006.

Trait	Nov-06	Feb-07	New Records
carcass weight	270,929	304,888	33,959
carcass conformation	270,630	304,589	33,959
carcass fat	221,766	304,345	82,579
cull cow weight	58,138	65,000	6,862
weaning weight	47,800	52,162	4,362
liveweight	54,256	59,045	4,789
Linear traits	75,976	80,473	4,497
calf price from Marts		6,349	6,349

- ✚ **Use of Mart Data.** A major advance from previous runs is the inclusion of weanling price data from the marts into the evaluation. 1.5 million weight and price records on animals was collected from 20 marts in November 2006. A range of edits were carried out to create a file of useable records for inclusion in the genetic evaluation. This included:
 - Animal had to be on the ICBF database
 - An age limit of 150-300 days.
 - Sold as a single animal
 - Animal had to be sold from a herd which had at least 3 calves sold in that 2 month period
 - Animal had to have a known sire on the ICBF database.

At The end of the editing procedure as above there were 6,349 useable records which were included in the evaluation. 3000 of these were by AI sires. The most number of progeny with calf price data for an AI sire was 319 price records. The calf quality trait was predicted in previous evaluations using a combination of 14 other genetically related traits. The correlation between the new and old calf quality traits for AI sires was 0.87 with no restriction on reliability. The correlation between the new and old WCSI values for AI sires was 0.899 with no restriction on reliability. The correlation between the new and old BPSI values for AI sires was 0.987 with no restriction on reliability.

- ✚ **Changes in Beef Carcass €Index.** Table 2 shows the relationship between the reliability of a group of bulls and the movement in proofs between runs. As is expected there is less movement in the proof of a SIRE with increasing reliability. What is also apparent is that the average BPSI of 3,041 AI sires with a reliability of less that 50% only changed by €1 whereas some individual bulls changed considerably due to the inclusion of more data on these animals.



Table 2. Relationship between data reliability in November '06 and change in Beef Carcass €Index in latest evaluation run (Feb. 2007).

Data reliability Nov06	Number of AI sires	Average Difference in Beef Carcass (€) Index	Largest reduction in Beef Carcass (€) Index	Largest increase in Beef Carcass (€) Index	Average change in Beef Carcass (€) data reliability	Average Beef Carcass (€) data reliability Nov 06	Average Beef Carcass (€) data reliability Feb 06
90 +	140	0	-7	13	2	93	95
80 to 90	271	1	-13	20	4	84	88
70 to 80	395	1	-19	31	4	74	78
60 to 70	454	0	-18	33	6	64	71
50 to 60	443	1	-20	27	8	55	63
< 50	3041	1	-56	152	16	14	30

✚ Suckler Beef Value. The Suckler Beef Value index is calculated as follows:

$$0.77 * \text{Calving Traits Index} + 0.15 * \text{Weanling Export index} + 0.62 * \text{Beef Carcass Index} + 0.23 * ([\text{Milk \& Fertility Index}] + [\text{Calf Quality Index}])$$

The weightings on each index, in this overall index is determined by a combination of the variation in each index and the expected number of times the trait is expressed in the progeny of the animal being evaluated. The following table shows how each trait contributes to the €beef indexes.

Suckler Beef Value (€)			This figure combines all of the indexes below into an overall profit index
Beef Value			
Calving Traits (€) (was BCSI)	Calving Difficulty (%)	53%	This Index places a direct cost on calving problems estimated for each bull when used in a Suckler Herd. It takes into account calving difficulty, gestation length and calf mortality.
	Gestation Length (Days)	25%	
	Calf Mortality (%)	22%	
Weanling Export (€) (was WCSI)	Weaning Weight (Kgs)	55%	This Index estimates how good a bull is at producing high value weanlings for export. Suckler farmers who are exporting their weanlings should seek bulls with high values for this Index.
	Calf Quality (€)	45%	
Beef Carcass (€) (was BPSI)	Carcass Weight (Kgs)	46%	This Index estimates how good a bull is at producing progeny with high value carcasses. Bulls that are producing cattle that have a high carcass weight, good conformation at slaughter and good lifetime feed conversion efficiency will score highly on this index.
	Weaning Weight (Kgs)	24%	
	Carcass Conformation (Grade)	11%	
	Dry Matter Intake (Kgs)	12%	
	Carcass Fat (Grade)	7%	
Replacement Value			
Milk & Fertility (€) (was MSI)	Cow Survival (%)	12%	These two Indexes can be used where a suckler farmer is choosing a bull to breed replacements. The Milk & Fertility Index focuses on the performance of daughters of a sire for true maternal traits including maternal calving difficulty whereas the Calf Quality Index focuses on the future profit of calves from these daughters. The two indexes need to be used in tandem when considering replacements as considerable genetic variation exists in suckler cows for the two sets of attributes.
	Calving Interval (Days)	12%	
	Age at First Calving (Days)	19%	
	Maternal Calving Difficulty (%)	8%	
	Maternal Weaning Weight (Kgs)	45%	
	Cull Cow Carcass Weight (Kgs)	3%	
Calf Quality (€)	Calving Difficulty (%)	12%	
	Gestation Length (Days)	6%	
	Calf Mortality (%)	6%	
	Weaning Weight (Kgs)	26%	
	Dry Matter Intake (Kgs)	7%	
	Carcass Weight (Kgs)	31%	
	Carcass Conformation (Grade)	8%	
Carcass Fat (Grade)	5%		



International

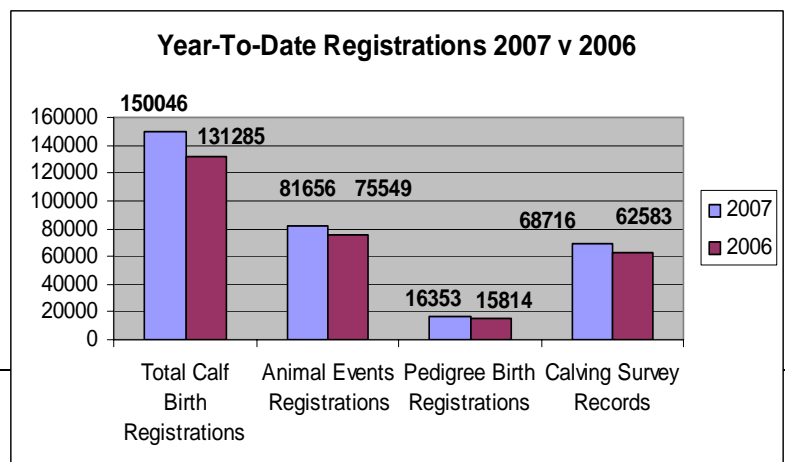
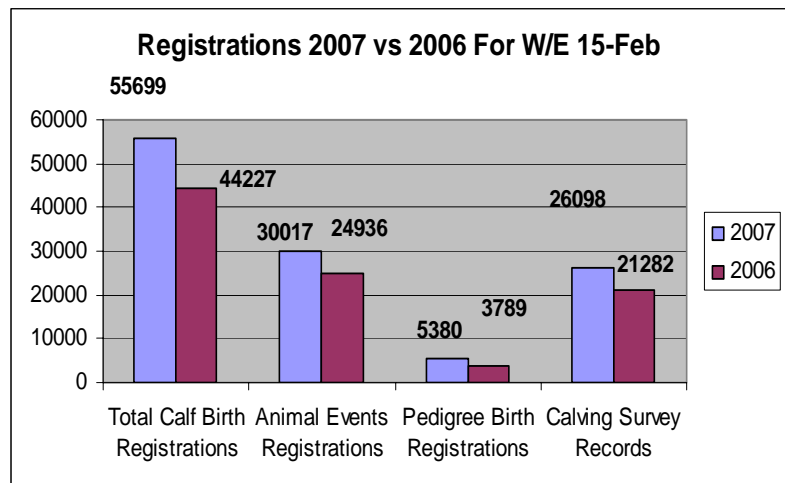
- ✚ Two files containing some 7,000 Charolais and 6,000 Limousine females with a French identification tag and used in Ireland have been extracted and put together from the Irish database and will be sent to France shortly to retrieve possible French proofs. These proofs will then be used in the conversion equations work. At the same time, 70,000 Charolais and 40,000 Limousine international tags wrongly labeled as 'FRA' have been passed to the database office for correction to 'IRL'.
- ✚ A short version of the InterBeef guidelines has been put together and sent to the partners for feedback; this document describes all the files needed for a country to participate in the proposed international beef genetic evaluation service.

4 HerdPlus

- ✚ The **Sire Advice** breeding tool is released and available to farmers on the website from today Feb 16th. We urge all farmers and stake holders (AI, Herdbooks, Teagasc etc) to use and familiarize themselves with the application. We encourage and welcome all feedback.
- ✚ Customised **EBI and Fertility reports for Teagasc Discussion Groups** have been available to advisors and dairy specialists since last week – this saves advisors and group chairman pulling together data for discussion group meetings. Again we seek feedback on these reports.
- ✚ **Bulls on Spring 07 EBI reports** – we will be including bulls less than 6 months and pedigree bulls irrespective of age. This change is under test.
- ✚ We have received some feedback on **Pocket Notebook** where farmers would like to see a blank section at front of book to record the calvings as they happen – these changes are being made and are under test this week.
- ✚ Development work continues on output file for **PC Download to Farm Packages**. New version will include EBI sub-indices, and planned bulls from farmers Sire Advice selections.

5 Database Update

- ✚ 190,202 inseminations have now been recorded on the AI handhelds. Next week will see software updated on the handhelds of the majority of technicians. The updated software will include a streamlining of the process by which a technician records a service, as well as better feedback to the technician on whether the connection to the ICBF database has been successful or not.
- ✚ Production of the personalised Animal Events notebook for farmers is continuing as farmers sign up. Based on farmer feedback, some changes will be made over the coming week.
- ✚ The Sire Advice program is released this weekend, and we will be closely monitoring progress. A number of AI organisations have already held training sessions, and





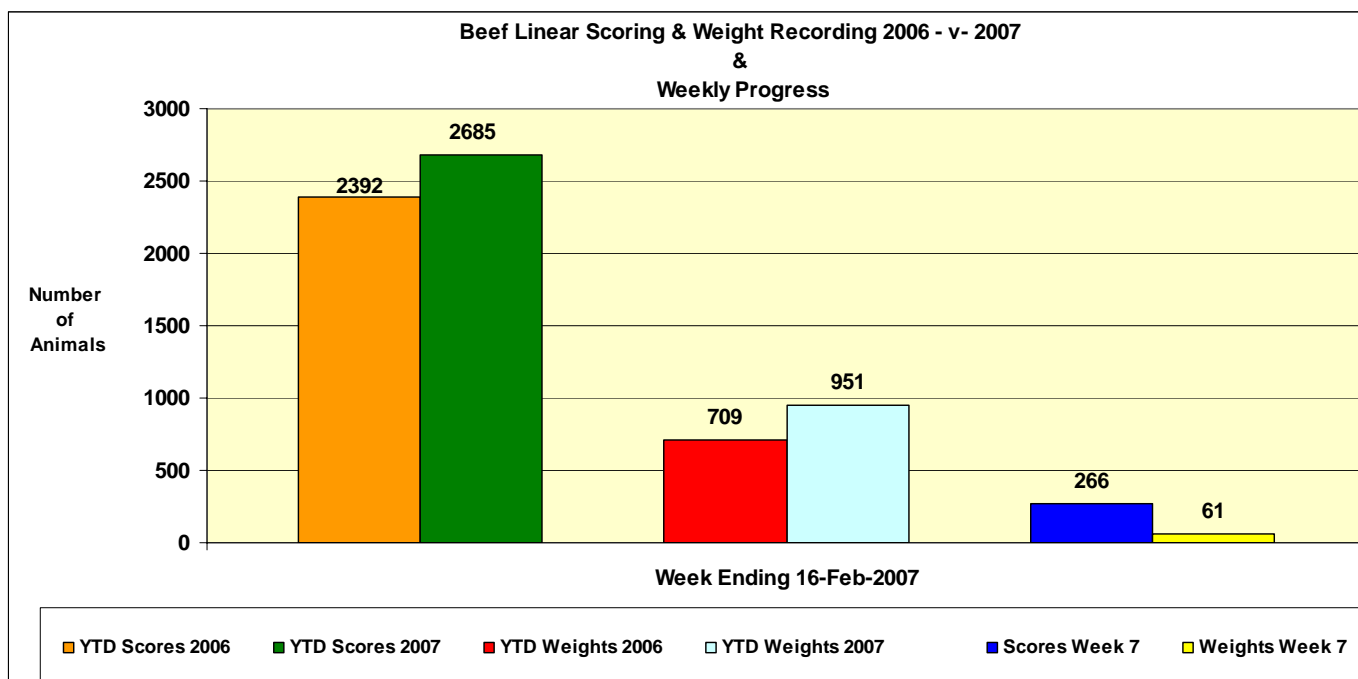
more training sessions are being held next week.

- ✚ The new Teagasc Discussion Group application released last week is being used by Teagasc advisors. Feedback thus far has been very positive.
- ✚ The Gene Ireland application is in its final stages of testing, with the use of it in a live environment expected to begin next week.
- ✚ The re-design of the Tully catalogue, which will now include the Euro Star indexes is underway.

6 Milk Recording

Milk Recording Organisation	2007 Herds Recorded Week 09/02/07 - 16/02/07
Progressive	261
SWS	107
Dairygold	58
Kerry	55
Connacht	5
Tipperary	2
Arrabawn	2
Total	490

7 Beef Linear Scoring



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