

ICBF Weekly Update 7th September 2012

1 Important Dates

- + **Dairy & Beef Industry Consultation Meetings** – Tuesday 9th October, *Please note date change.*
- + **Interim Sheep Board** – Friday 21st September, 11:00 – 14:00, Killeshin Hotel, Portlaoise. *Please note new date.*
- + **Launch of Beef Breeding Day at Tully** – Tuesday 2nd October from 11:00 to 13:00 at Tully.
- + **Beef Breeding Day at Tully** – Saturday 10th November from 10:00 to 14:00 at Tully. Sponsored by FBD.

2 Summary of Fourteen Years and Seven Months

The following is a copy of the report I provided to the Board of ICBF on Thursday this week.

This will be my last report to the Board as Chief Executive. I commenced work for ICBF on Monday 2nd March 1998. Since then there have been many challenges, much debate, a vast amount of research and tremendous progress. I have compiled, in this brief summary, my assessment of the key factors that have enabled ICBF to make so much progress. My purpose in doing this is to ensure the Board, many of whom have joined more recently, is informed on the key reasons for ICBF's current strength.

Mission & Culture

The culture of ICBF as established early¹ as:

- *Open and honest in all of its dealings.*
- *Is constantly seeking to improve its methods of operation.*
- *Is constantly seeking to improve the quality of the cattle breeding services provided to commercial farmers.*
- *Places great emphasis on its mission.*
- *Firmly believes in the use of scientific methods to guide its decision-making.*
- *Seeks to establish a work environment in which individuals are valued for their ability to meet and exceed customer expectations.*

The mission of ICBF has not fundamentally changed. At the time of my appointment it was: ***“To lead the development of cattle breeding in a way which will best serve the national commercial livestock sector”***,

and today it is: ***“Striving 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.”***

By focusing on **genetics, commercial** in a financial sense, and the **national herd**, ICBF has been able to deliver in these areas.

It is the mission of ICBF that has driven most of our initiatives in cattle breeding. The EBI, and the recently revised beef indexes, are driven from our mission. While genetic evaluation was one of the first operations established by ICBF it was very clear to me, and the Interim Board of ICBF, that we needed both a stable long term funding basis and much better data on which to base genetic evaluations.

Funding

It took two and half years to move from an interim to a permanent structure for ICBF. During this period there was a lot of negotiation associated with establishing the Rules and the Services Terms & Conditions. The Rules²,

¹ CE Report to Interim Board of ICBF on 20th March 1998.

² Amended ICBF Rules, Adopted at Special General Meeting held on Thursday 27th July, 2000.

developed with the assistance of ICOS, dealt with share capital and the Board composition. Since their adoption, there has only been one amendment, in 2003, to enable ICBF to be recognized as a Charity by Revenue³.

ICBF was established in 2000 with a share capital of £1,600,000 (€2,031,581) divided into 28,768, “A” shares of £10 each; 28,768, “B” shares of £10 each; 28,768, “C” shares of £10 each; and 73,696 “D” shares of £10 each. The issued share capital is currently⁴ €2,027,022. All categories of shares, except “C” – Herd Book – are fully subscribed. There has been no increase in share capital or call for additional capital from shareholders since the inception of ICBF. Also, there has been no distribution of capital.

ICBF’s net capital funding, since its inception, has come from three sources as summarized in figure 1. The contributions from NDP make up the vast majority of ICBF’s capital which is appropriate given that a large part of ICBF’s function is the delivery of an industry wide infrastructure which will provide benefits to future farmers, the wider industry and community.

ICBF’s operating income can be summarized into four sources, as shown in figure 2.

- **DAFM** provides annual operating grants and has made special grants including one in relation to Tully in 2008.

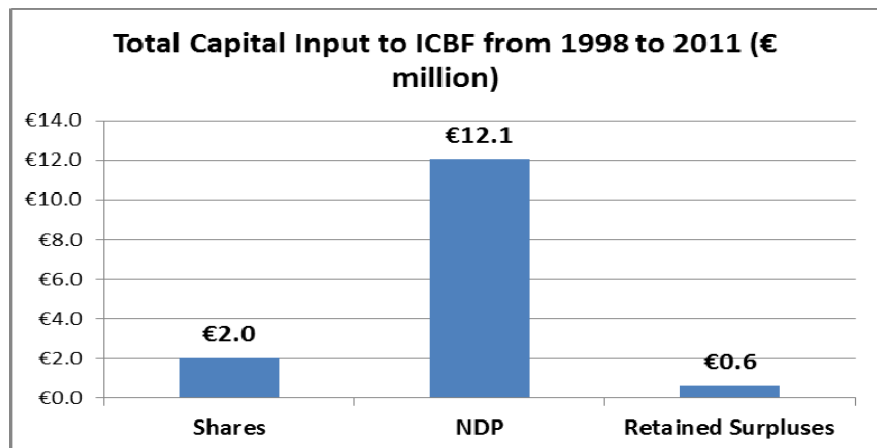


Figure 1. Sources of ICBF’s capital funding.

- **Tag Contributions** are collected on cattle tags sold in Ireland as an industry contribution to the funding of ICBF.
- **Member Services** are the services developed and provided to the Artificial Insemination, Milk Recording and Herd Book members of ICBF.
- **ICBF Services** include HerdPlus[®], GENÉIRÉLAND[®], Animal Evaluations, Genomic Services, support for Suckler Cow Welfare, Information Services for Advisors, Milk Processor Reports and support for Sheep Ireland. These are all services which have been developed, where a need has been identified, and provided to a wide range of farming and industry customers.

³ Amended Rules of Irish Cattle Breeding Federation Society Limited. Adopted at Special General Meeting held on Tuesday 17th June, 2003.

⁴ Page 31 ICBF Annual Report for 2011.

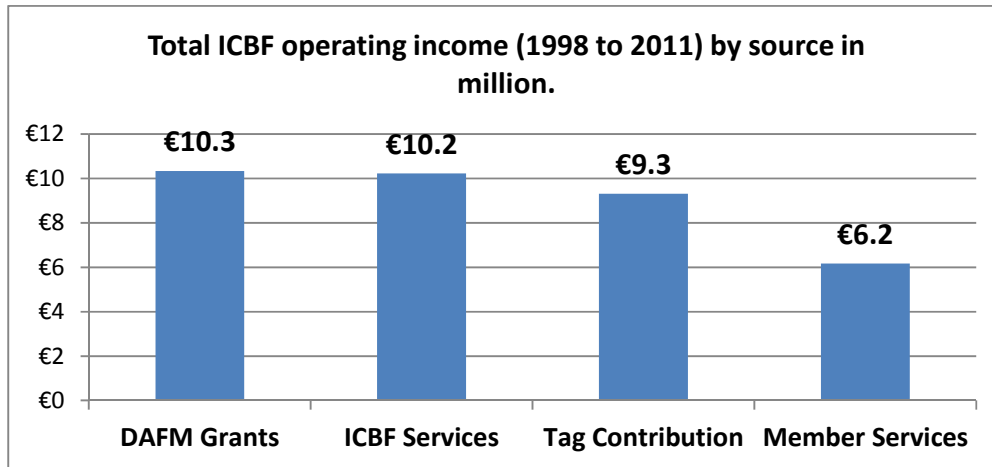


Figure 2. Summary of ICBF operating income (€million) from 1998 to 2011 inclusive.

What started out as a “three legged stool” – DAFM, Farmers and Service Providers – has grown into a “four legged stool” with consequent greater financial stability and organizational reputation.

Data

At the center of ICBF is the cattle breeding database. This facility was envisaged⁵ as a key function of ICBF when it was first established. The database is now a major strategic asset for ICBF and the wider cattle industry. It is reaching, in one way or another, 90% of all cows calving in Ireland.

Key elements in establishing and operating the database include:

- **Initial Population** from the many databases that existed previously. Data was loaded from 40 cattle breeding related databases and from systems operated by DAFM to create the ICBF database.
- **Standardization** of animal identifications across all of the services being provided to herd owners. There were more than 20 forms of identification used for cattle in Ireland when ICBF was established.
- **Removal of Duplication** in data recording and data capture. The first initiative, of many, was the development of Animal Events. This has been followed a many electronic sharing systems which are now taken for-granted by our industry. The most important of these is that with DAFM for birth registrations, animal movements and slaughter data.
- **Shared Access** for multiple service providers, for herd owners, advisors and researchers. In this respect, the ICBF database is envied by many other countries.
- **Innovation** in the use of information technology. EDIY milk recording was our first major initiative and this has been followed by numerous hand-held computer developments and most recently with the new weight recording infrastructure. Our role in supporting industry initiatives such as the Suckler Cow Welfare Scheme (SCWS), Dairy Efficiency Program (DEP), Beef Technology Adoption Program (BTAP), the establishment by Animal Health Ireland (AHI) of the BVD eradication initiative are all examples of innovation in the use of information technology to facilitate wider industry and community goals.
- **Research** scientists have ready access and make good use of the data in the database to support innovation in all aspects of cattle breeding and profitable farming.

ICBF has established a very efficient system for collecting a wide range of data relevant to cattle breeding and profitable cattle farming as summarized in table 1. This table illustrates the growing importance and relevance of

⁵ Ernst & Young, October 1995. Future Organisation of Cattle Breeding in Ireland.

other organisations (the columns to the right of ICBF) as a source of a range of data relevant to cattle breeding. It also illustrates how the whole data collection and processing system has been able to reduce complexity, and save costs, by removing duplication of data collection and processing.

One point of considerable discussion during the formation of ICBF, which is raised periodically, is that of “data ownership”. Reference to table 1 illustrates why this is often contentious. Take, for example the birth details of a calf. The herd owner makes the original observation (of the birth) and is responsible to tagging the resulting calf, and providing details to DAFM for calf registration. The details subsequently transfer to ICBF and, where relevant, pedigree registration follows and the calving date of the cow also becomes available to milk recording. Who owns the data? Do any and all of the organizations involved have the right to use this data for any purpose they choose?

To date ICBF has resolved such questions, by applying the following:

- The herd owner decides their service provider(s).
- Service providers have access to the data of their customers for the purpose of providing the service.
- Service provider members of ICBF can obtain a copy of the data they contributed at any point.
- All data, with few exceptions, is available for use in research providing the researcher agrees to a small set of conditions designed to ensure privacy and that the research results are available for the benefit of Irish farmers without extra costs applying.
- The herd owner can designate which Advisors can have access to the information for their herd.
- Service fees are set to ensure full cost recovery in the longer term.
- When new services are established issues related to data access are fully considered.

Expertise

One of the first challenges I faced in getting ICBF up and going was obtaining access to the expertise and skills required by a world-class cattle breeding organization. Our strategy to do this has three main components:

- **Contracting => Collaboration => Self Reliance**

Where the skills or knowledge are not immediately available within ICBF we seek, on a worldwide basis, the most skilled and knowledgeable contractor to undertake the required work.

While our initial thrust was to use contractors, over the course of time, our network of collaborators, especially with Teagasc, the Farmers Journal and our members, has grown to the point where Ireland now possesses a strong capability in the general field of animal breeding and related skills.

- **Team Development**

ICBF has built and is maintaining a team of people with the motivation, skills and knowledge required to operate and develop its services. We have placed a strong emphasis on building a culture in which well-motivated individuals can thrive, make a large contribution and enjoy being a member of the ICBF Team.

- **Education**

The skills required in animal breeding are evolving very rapidly in the three core technologies: information, genetics and statistics. It is satisfying to reflect back on the support provided by Teagasc Walsh Fellowships in developing PhD level skills in key members of the ICBF team and the wider breeding industry.

This investment in education is long term and must extend to identifying and encouraging talented undergraduates. It is also important that the training provided is part of a concerted effort to build and maintain an international network of expertise.

Type of Data	Herd Owner	Service Providing Organisation			ICBF			DAFM	Marts	Milk Proc's	Meat Proc's	DNA Testing Lab.	Disease Testing Lab.
		Artificial Insem.	Milk Record.	Herd Book	Animal Events	File Transfers	Service						
Matings & inseminations	O	O					X						
Brith	O				X								
Birth registrations	O					X		X					
Genotype	S	S					X					O	
Disease test result	S	S					X						O
Movement	O					X		X	O		O		
Genetic evaluations		S					O						
Pedigree registration	S, O			X	X								
Growth (weights)	S, O						O						
Growth (feed intake)							O						
Beef Linear scores	S						X						
Sale weights & prices						X			O				
SCWS Traits	O						X						
Milk yield & composition	S		X				X						
Bulk Milk							X			O			
Dairy Linear scores & classification	S			O									
Deaths	O					X		X			O		
Carcass weight & grade						X		X			O		
Carcass images						X					O		

Table 1. Data collection for ICBF database.

Key: "O" = originator, "S" pays for service which collects data on farm, "X" = process and or transfer data to ICBF database.

Breeding Schemes

Our efforts in establish breeding schemes that deliver optimal rates of genetic gain have been focused on the GENE IRLAND[®] related services. While the genomic technologies have provided breathing space for the dairy sector there are still a number of fundamental long term considerations that need to be adequately addressed. For beef we are in the middle of implementing what I believe has the potential to revolutionize beef cattle breeding in Ireland. ICBF has a major role to play in ensuring Irish farmers have access to a world class breeding scheme in which long term considerations are given just as much importance as shorter term financial benefits of interest groups.

Benefits

As outlined in my paper to ICAR⁶ the benefits from the establishment of ICBF are well spread over all the key stakeholders. That is;

- **Farmers** – both the current generation and future generations. We can now demonstrate trends in the Irish dairy herd which are the result of the investment made in ICBF and the services that have been delivered by our members and other service providers.
- **Breeders** – current generation dairy and beef breeders have access to information for guiding breeding decisions as good as, if not better, than those in any other country worldwide.
- **Service Providers** – our service providing members (AI, Milk Recording and Herd Book) have enjoyed growth in service uptake, reduced costs associated with information processing, and are now providing services of an international standard. Service providers are also well placed to deliver to customers the benefits of developments in information and genetic technologies in the future.
- **Dairy & Beef industry** – the wider dairy and beef industries are benefitting from improved genetics and are well served by an information infrastructure which is capable of improving farm production efficiency, improving processing efficiency and improving product quality.
- **Wider Community** – animal agriculture is a major strength in the Irish economy and ICBF's achievements go some way toward ensuring this vital industry becomes increasingly competitive in the future.

Concluding Remarks

I have enjoyed being your Chief Executive and want to help, in any way that I can, to ensure ICBF succeeds in the future. Please feel free to call on me at any time. Equally, I will not be offended nor too surprised, if you find the team under Sean's leadership has no need for me.

We will continue to live in Ireland and I am establishing an independent international consultancy in animal breeding with the aim of, "*ensuring a healthy, high quality and sustainable food supply for the future*".

3 Irish Grassland Assn (IGA) Beef Conference & Farm Walk 2012

ICBF's HerdPlus® was a major sponsor for the IGA event earlier this week. The event was sold out two weeks in advance. It comprised four presentations at Horse & Jockey followed by a farm walk.

Pat Donnellan, speaking at the IGA visit to Jim & Audrey Parkinson's herd, commented on the results for the Bull Tracker report for the herd:

- The 30 pedigree cows in the herd have produced 55 pedigree bulls which between them sired almost 3,000 calves in other herds over the last 5 years.
- All of Jim's bulls are sold off farm. The Bull Tracker allows him to monitor how they have performed for their new owners post-sale.
- Every bull has a page devoted to him in the report which summarises the performance of each bull's progeny (Calving, Growth, Carcass & Daughter Fertility), gives a breakdown of the breed of cows that he was mated to and also indicates if the bull is still alive.
- The most prolific bull that was bred in the herd and is still alive, is now 12 years old, and has sired 251 calves to-date.

⁶ June 1st 2012. An information infrastructure for facilitating the delivery of improved profits on Irish cattle farms and improving the commercial viability of the Irish breeding industry. http://www.icar.org/Cork_2012/Manuscripts/Published/Wickham.pdf.

- The owner of the bull also receives a Bull Tracker report and so can compare the performance of various stock bulls used in the herd.
- 2012 is the first year that this report has been released and it has proven to be very popular – completing the link between Pedigree Breeder and Commercial Farmer.



Jim Parkinson speaking at IGA visit to his farm. Tuesday 4th September.



ICBF Team at IGA farm walk on farm of Jim & Audrey Parkinson. L to R: Brian Wickham, Chris Daly, Pat Donnellan, Andrew Cromie and Martin Burke.



Jim & Audrey Parkinson's beef farm, visited by IGA on 4th September, is on either side of the Dublin ⇄ Cork motorway near New Inn, Co. Tipperary. His beef cattle are, for good reason, often admired by passing farmers.

Chris Daly spoke about the benefits of weight recording and advised beef breeders to take advantage of the new weight recording infrastructure that is now available in all counties.

4 Tully Progeny Test

The first progeny test at Tully has now entered into its third week. Over the first two weeks the bulls have an average daily weight gain of 1.85kg.

The test started on 20th August and will finish on 20th November. During the test all animals will be fed the same diet with feed intake being measured on each animal. Animals were acclimatised for 30 days prior to the start of test where they were built up on to an ad-lib concentrate diet and received their vaccinations and anthelmintic treatment.

Pre and post-slaughter measurements that will be obtained are the following:

- *Average daily gain (kg/day)*: A key indicator of growth rate, which is an important factor in all aspects of beef production.
- *Feed conversion efficiency (DMI/ADG)*: The ratio describing the amount of feed consumed per unit of production. It is important to identify animals that are efficient users of feed.
- *Scanned muscle and fat depth (mm)*: Are accurate indicators of meat and fat yield, respectively.
- *Scrotal circumference (cm)*: Increased scrotal circumference is associated with earlier age at puberty, increased semen production and improved semen quality. It also has a favourable relationship with female fertility in daughters produced.
- *Carcass and meat eating quality measurements*: Animals will be slaughtered at the end of the test with information such as carcass grades and weight, primal yields and meat eating quality being obtained on individual bulls. The current crop of bulls will be slaughtered in late November/early December.
- *Health and disease traits*: Information will be collected on animals at Tully to quantify the relationship between genetics and health/disease of an animal.
- *Genomics*: All progeny will be genotyped on 54k chip. Given the excellent phenotypes and parentage information being obtained on animals at Tully, this will provide the industry with excellent data that can help validate genomics in beef.

5 Roel Veerkamp – Full Professor

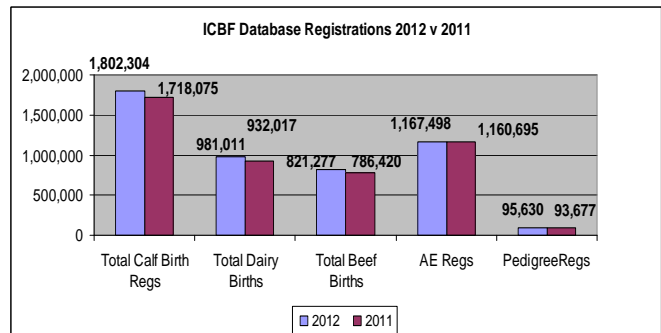
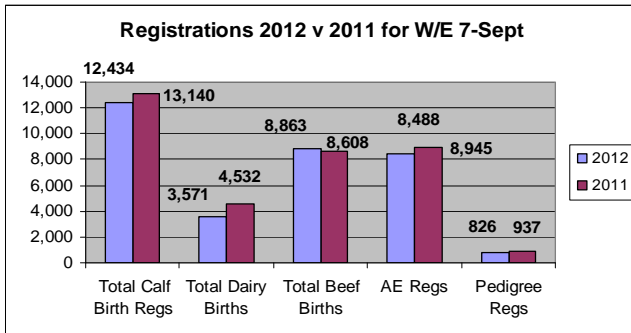
This week Roel was promoted to full professor by Wageningen University and as part of the process must give a formal lecture. His presentation was recorded and is available at this link -

http://wurtv.wur.nl/P2GPlayer/Player.aspx?path=aulatv/2012/09/06/2/video_post.wmv&mediaType=recordings.

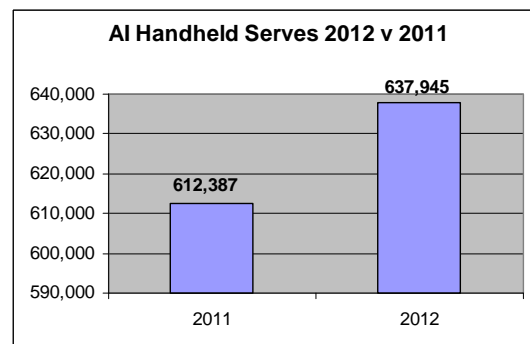
Please have a look at his lecture which is an excellent summary of the state-of-knowledge in animal breeding.

6 Database

- ✚ The stats (next page) are compiled with the assistance of DAFM AIM systems.
- ✚ In the Suckler scheme, the number of 2012 born calves with meal introduced is 207,953, with the number of animals weaned at 31,303.
- ✚ BVD test results continue to be received at ICBF and are being processed accordingly. Around 581,000 tissue tags for BVD testing have been purchased at this stage. Around 430,000 samples have been returned at this stage, with a 0.62% BVD Virus Positive rate.



- The new Dairy and Beef bull search on the website continues to get a lot of use following the release of the latest proofs. Over 20,000 individual bull searches have been logged in the past week.
- While some of the components have been released, work continues on the modification for other outputs to incorporate proposed changes to the Beef EuroStar indexes.
- Work is continuing on the back-end ICBF web infrastructure with a view to making it more standardised and robust.
- The graph shows Inseminations recorded on AI Handhelds in 2012 compared with 2011.




7 Sheep Ireland

- The 2012 Sheep Ireland Euro-Star sale on Saturday 25th August was a great success. In total 159 lots were entered for sale, all meeting the high entry criteria which insisted that rams were of high genetic potential as highlighted by the Euro-Star evaluations. Many ram sales have seen a difficult trade this year, so it is very encouraging that commercial farmers came in numbers, and were willing to compete in price for rams of quality conformation and condition with top Euro-Star evaluations.
- The signs are that commercial flock owners are now beginning to realise the potential that better genetics can have on the future profitability of their flocks. Hopefully this trend will continue to grow and the presence of the Euro-Stars will become more and more visible at all individual society ram sales, which has been the case this year. Producing rams of higher genetic potential is in the interests of the entire industry, ram breeders and ram buyers alike, and the Sheep Ireland sale has proven that there is now an appetite for this information.
- A great clearance in the sales ring of 86% was recorded with many more rams sold privately afterwards. An average price of €10 for rams (across the total number of entries) was a great reward for those breeders who have supported the Euro-Stars at this sale, and will serve to help us increase breeder participation across the breeds. Commercial demand is integral to the future success and growth of the Euro-Stars. If a high starred ram is what the ram buyer demands, then I have no doubt breeders will be only too happy to provide them.


8 Milk Recording

National Milk Recording Statistics - Herds, Cows & EDIY 07/09/12						
Milk Recording Organisation	Total Herds Recorded YTD 07/09/12	No. EDIY Herds YTD 07/09/12	% Herds EDIY	Total No. Cows Recorded YTD 07/09/12	No. EDIY Cows YTD 07/09/12	% Cows EDIY
Munster	3,734	1,088	29%	304,003	94,922	31%
Progressive	2,459	997	41%	221,358	91,755	41%
Tipperary	119	42	35%	9,961	3,295	33%
Total	6,312	2,127	34%	535,322	189,972	35%

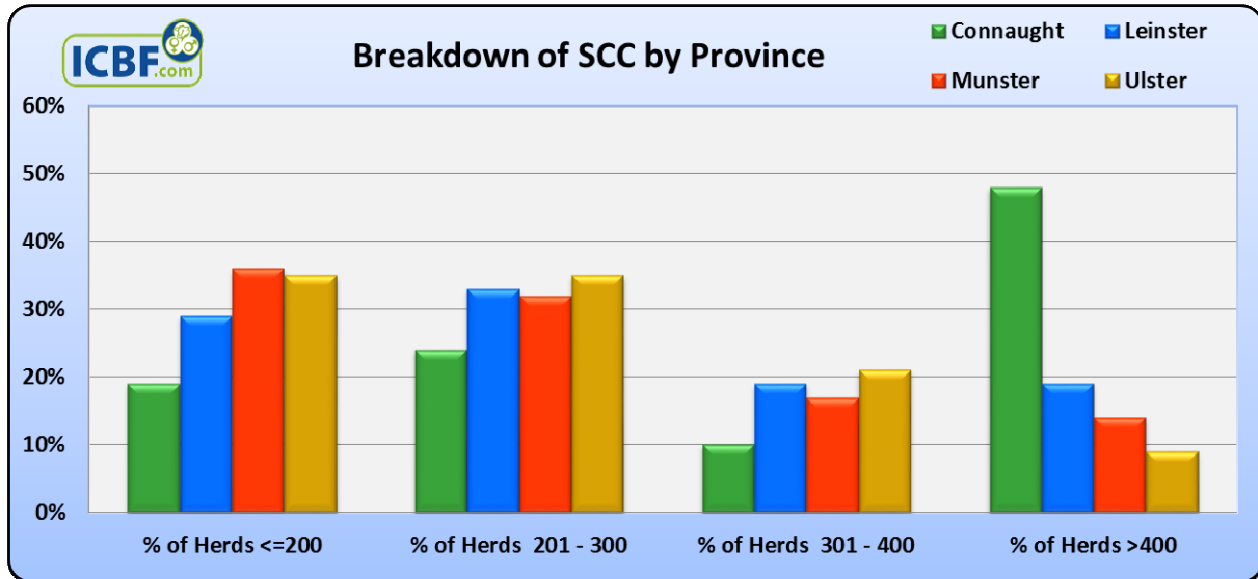
Recorded Cows by Milk Recording Organisation - Year on Year Comparison			
Milk Recording Organisation	YTD 2011 Cows Recorded 01/01/11 - 07/09/11	YTD 2012 Cows Recorded 01/01/12 - 07/09/12	2012 vs 2011 Year on Year Difference (%)
Munster	300,705	304,003	1.1%
Progressive	212,590	221,358	4.0%
Tipperary	13,067	9,961	-31.2%
Total	526,362	535,322	1.7%

National Milk Recording Results for the 10 day period, 29-AUG-2012 To 07-SEP-2012								
	No. Herds Recorded	No. Cows Recorded	Avg Herd Size	Avg Milk kg/Cow	Average Fat %	Average Protein %	Average F+P kg	Average SCC*
Connaught	21	1,158	55	19.6	3.83	3.44	1.42	333
Leinster	149	11,788	79	18.7	4.12	3.47	1.41	255
Munster	569	42,950	75	18.0	4.10	3.52	1.37	240
Ulster	34	2,186	64	20.9	3.91	3.39	1.52	231
National Statistics	773	58,082	75	18.3	4.09	3.50	1.38	245

* Geometric Mean Herd SCC

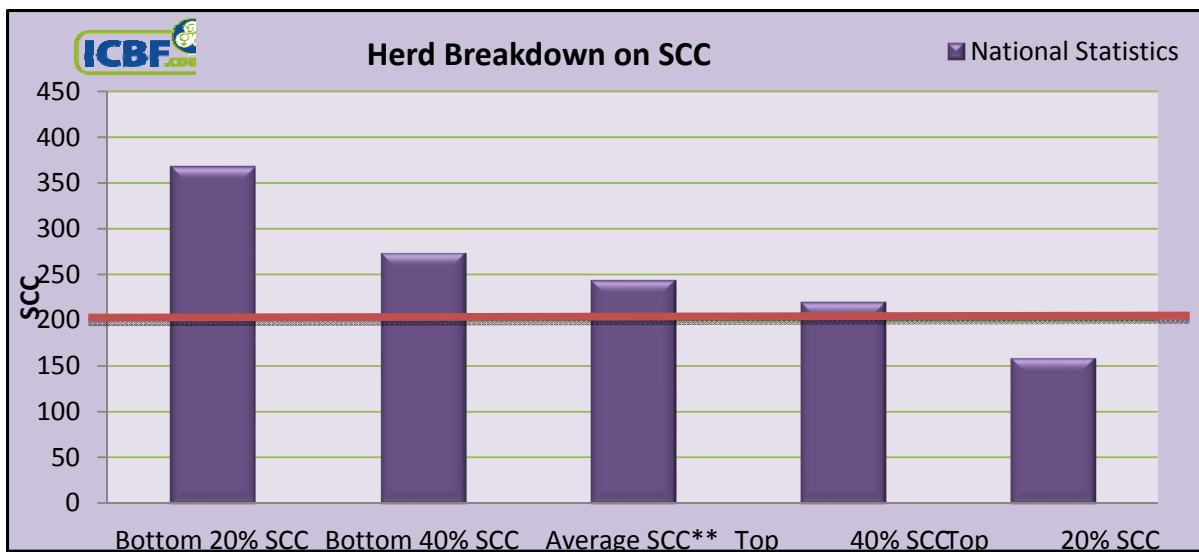
SCC Distribution for the 10 day period, 29-AUG-2012 To 07-SEP-2012								
	No. Herds Recorded	No. Cows Recorded	Avg Herd Size	% of Herds <=200	% of Herds 201 - 300	% of Herds 301 - 400	% of Herds >400	Average SCC*
Connaught	21	1,158	55	19%	24%	10%	48%	333
Leinster	149	11,788	79	29%	33%	19%	19%	255
Munster	569	42,950	75	36%	32%	17%	14%	240
Ulster	34	2,186	64	35%	35%	21%	9%	231
National Statistics	773	58,082	75	34%	32%	17%	16%	245

* Geometric Mean Herd SCC



% Herd Breakdown for the 10 day period, 29-AUG-2012 To 07-SEP-2012								
ICBF.com	No. Herds Recorded	No. Cows Recorded	Avg Herd Size	Bottom 20% SCC	Bottom 40% SCC	Average SCC**	Top 40% SCC	Top 20% SCC
Connaught	21	1,158	55	479	445	360	293	244
Leinster	149	11,788	79	393	284	248	226	176
Munster	569	42,950	75	361	269	240	214	156
Ulster	34	2,186	64	329	256	235	216	143
National Statistics	773	58,082	75	368	274	244	220	159

** Percentile Herd SCC Rank (Median SCC)



Brian Wickham (PhD) Chief Executive, ICBF & Sheep Ireland , Highfield House, Shinagh, Bandon Co. Cork., Phone: +353 238 820 222, Mobile: +353 86 826 9911, Email bwickham@icbf.com,

Registered Office: Irish Cattle Breeding Federation Society Ltd trading as "ICBF", Highfield House, Shinagh, Bandon, Co Cork. Registered Dublin, Ireland. Registration Number 4914R, Industrial and Provident Societies Acts, 1893 to 1978. Web: www.icbf.com.

Registered Office: Sheep Database Ltd trading as "Sheep Ireland". Highfield House, Shinagh, Bandon, Co Cork. Registered Dublin, Ireland. Registration Number 465004, Companies Acts 1963 to 2006. Web: www.sheep.ie.