IRISH CATTLE BREEDING FEDERATION

Beef Cattle Breeding in Ireland - data collection through an integrated database

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Chief Executive, ICBF.

BIF Conference – Bozeman, Montana, USA
Thursday 2nd June 2011

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Content

- Background
  - Industry
  - Organisation structure
- What do Irish beef farmers want?
- ICBF database
- Information outputs
- Progress
- Priorities

OUR BEEF INDUSTRY

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Our Cattle Industry

- 1.1 million dairy cows
  - 30% of dairy cows mated to beef bulls
- 0.9 million suckler cows
  - Large amount of cross breeding
  - Many small herds (<10 cows) and few large herds
  - 22% replacement rate
  - 16% live exports to mostly EU countries
  - 62% slaughtered in Ireland mostly for export as cuts
  - Poor economic margins

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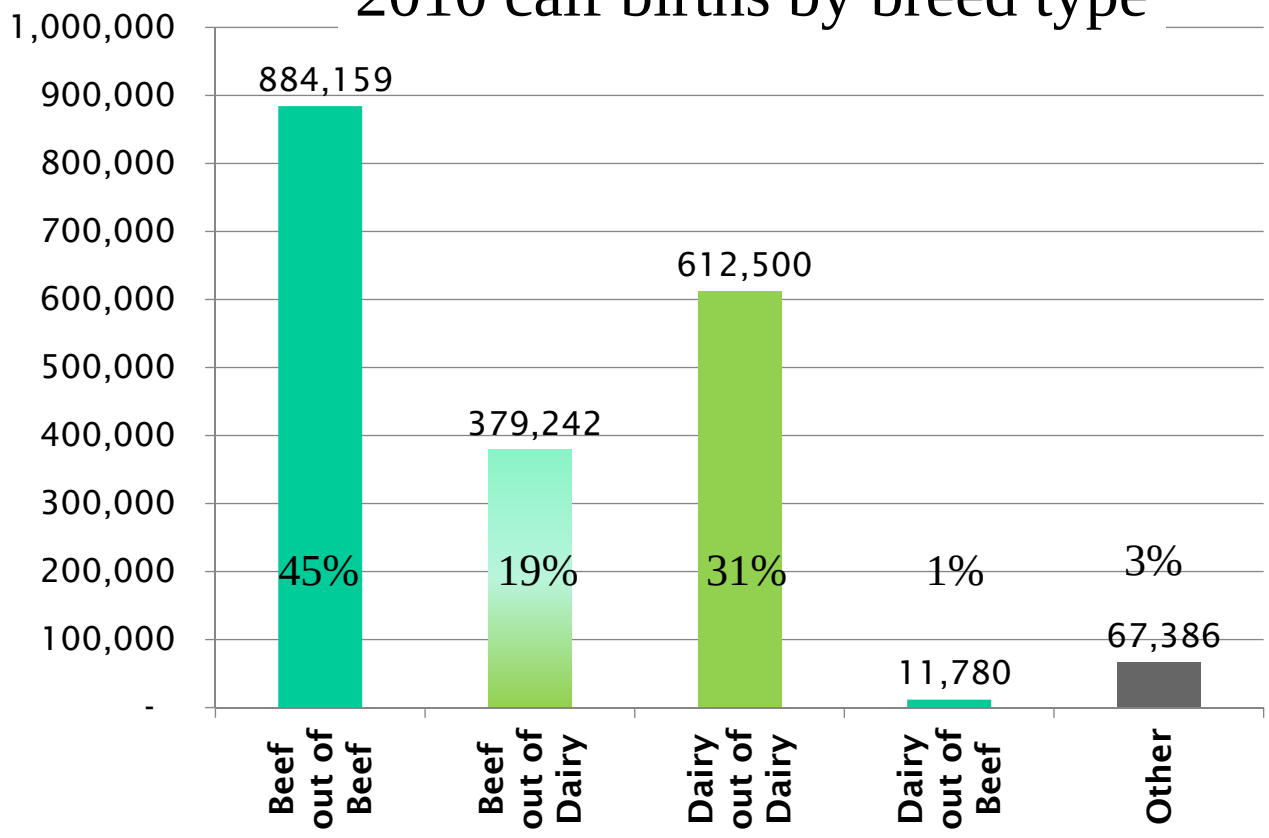
2010 calf births by breed type



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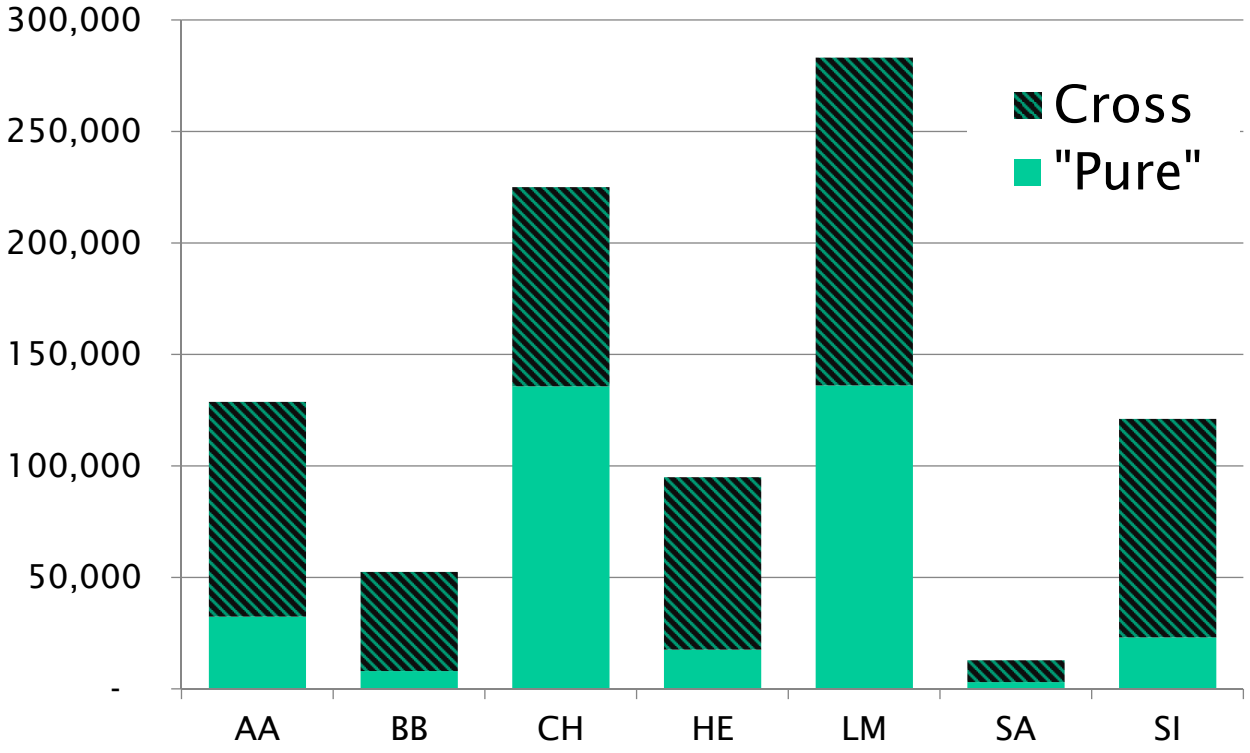
2010 births from **beef** cows



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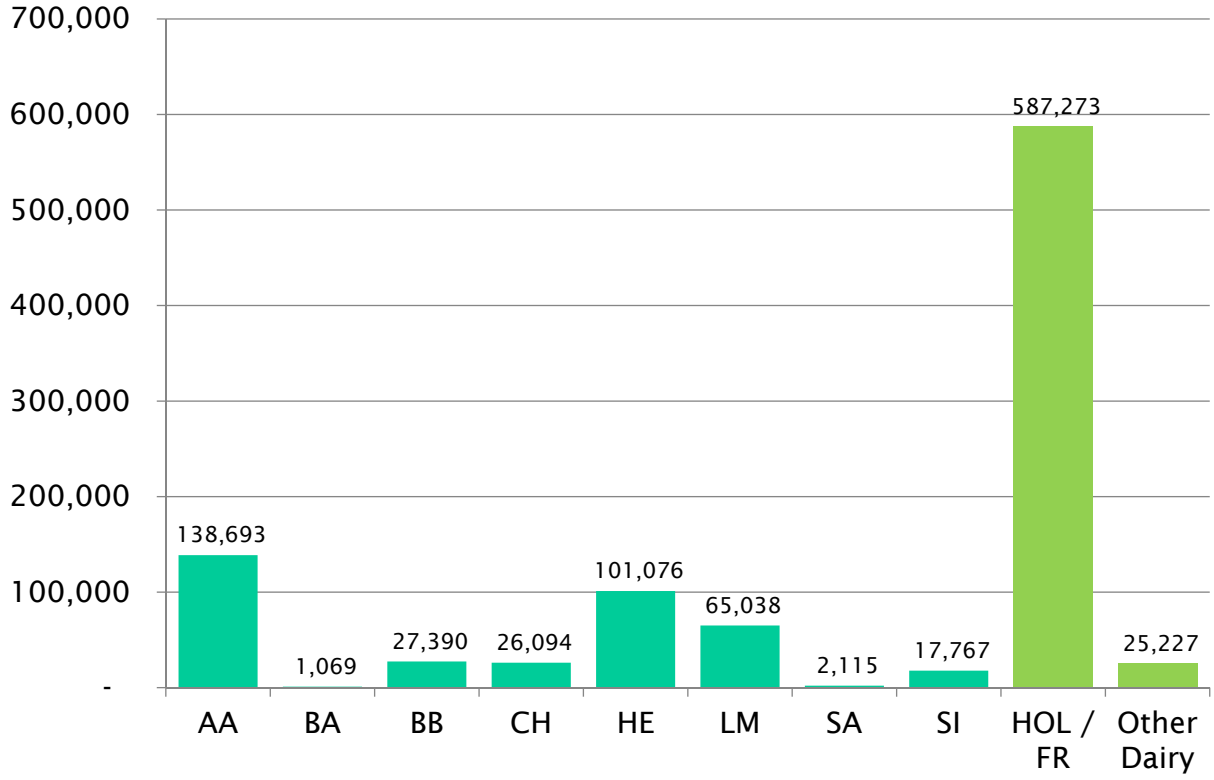
Sire breed for births from dairy cows



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OUR STRUCTURE

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Irish Cattle Breeding Federation Society Limited (ICBF)

- ***Established with interim Board in 1997***
- ***Commenced operations in 1998***
- ***Current structure in 2000***
- ***Mission: achieving the greatest possible genetic improvement in the national cattle herd - Dairy and Beef***

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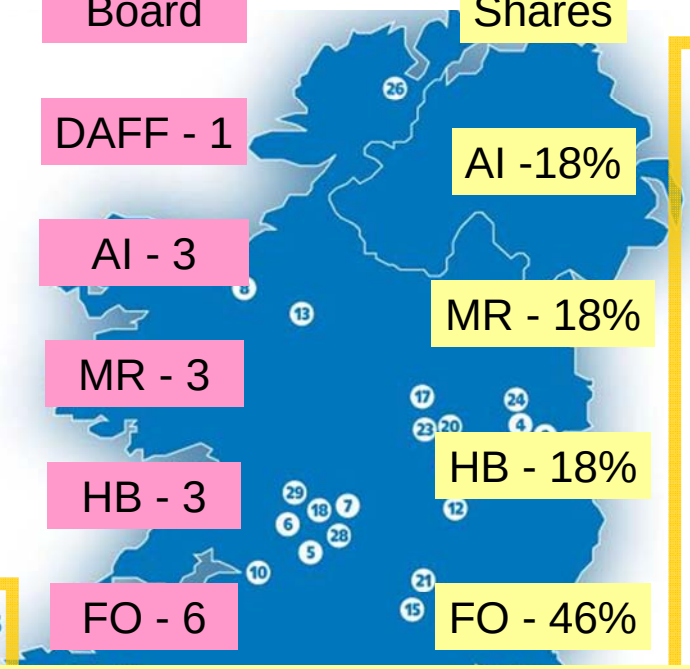
MEMBERS, BOARD & SHARES - ICBF

AI
Munster AI
1 - Dairygold
2 - Kerry
3 - SWS
4 Progressive Genetics
5 Dovea AI

Milk Recording
1 Dairygold
2 Kerry
3 SWS
4 Progressive Genetics
6 Arrabawn
7 Tipperary
8 Connacht Gold

Farm Organisations
9 IFA
10 ICMSA

Board	Shares
DAFF - 1	AI -18%
AI - 3	MR - 18%
MR - 3	HB - 18%
HB - 3	FO - 46%
FO - 6	



Herdbooks
Holstein Friesian 11
Belgian Blue 12
Angus 13
Aubrac 14
Blonde d'Aquataine 15
Charolais 16
Hereford 17
Limousin 18
Normande 19
Parthenais 20
Piedmontese 21
Shorthorn 22
Simmental 23
Jersey 24
Kerry 25
MRI 26
Montbeliarde 27
Rotbunt 28
Saler 29

ICBF 30

Stakeholders in cattle breeding control decision making.

WHAT IRISH BEEF FARMERS WANT

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What do Irish farmers want?

Dairy Breeding Objective	Beef Breeding Objective
• **Income** (€) ++++ – Milk (protein, fat, – lactose, - water) – **Meat** – **Surplus animals** – Breeding stock • **Expense** (€) ----- – Grass & purchased feed – Replacements – Health – Labour • **Profit** = Income - Expense	• **Income** (€) ++++ – Meat – Weaners – Breeding stock • **Expense** (€) ----- – Grass & purchased feed – Replacements – Health – Labour • **Profit** = Income - Expense

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Dairy Selection Criteria

Economic Breeding Index) =

- Milk sub index
- + Fertility sub index
- + Calving sub index
- + Beef sub index
- + Maintenance sub index
- + Health sub index

Beef Selection Criteria

Suckler Beef Value = wtd

- + Calving sub index
- + Weanling export sub index
- + Beef Carcass sub index
- + Daughter Fertility sub index
- + Daughter Milk sub index

Expressed as €uro-Stars

1 * to 5 *****

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ICBF DATABASE

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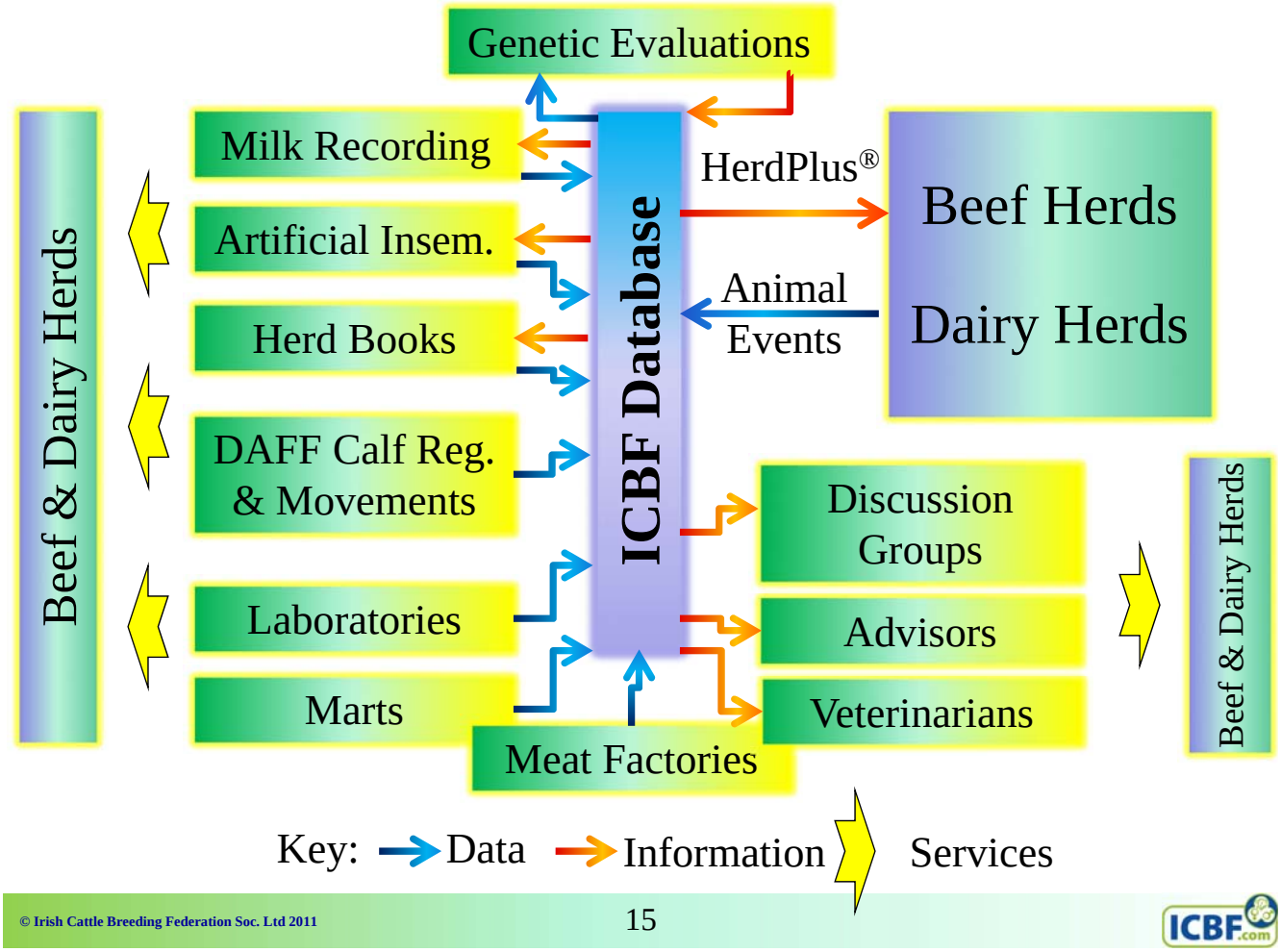

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Data & Information Sharing Agreement

- Contributors retain ownership
- Farm data through "Animal Events"
- Electronic sharing of data collected
- Data for research
- Integrated genetic evaluations
- Herd owner controls access
- Information for service providers
- HerdPlus® - information to owner for whole herd
- User-pays & full cost recovery

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NATIONAL INITIATIVE

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Animal Welfare, Recording, and Breeding Scheme (AWRBS)

- Launched on Jan 1st 2008 – for 5 years - €40/calf
- **Sire** of calf and calving ease recorded at birth via Animal Events
- Disbudding by 21 days
- Recording of castrations
- Meal feeding introduction – min 4 weeks prior to weaning, 2 weeks after weaning
- Calf quality and calf docility scores at weaning

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Key Elements of the AWRBS

- Driven by DAFF and Farmer Representative Organisations
- Launched on Jan 1st 2008 – for 5 years - €40/calf
- **Sire** of calf and calving ease recorded at birth via Animal Events
- Disbudding by 21 days
- Recording of castrations
- Meal feeding introduction – min 4 weeks prior to weaning, 2 weeks after weaning
- Calf quality and calf docility scores at weaning
- From a cattle breeding perspective, the results have been dramatic.

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CARCASS DATA

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Mechanical Grading (VIA)

VBS2000 (E+V,Germany)

- Approved since 2001 for EUROP beef grading in Ireland
- 2D + 3D image/carcass
- Used in 26 slaughter houses across Ireland
- Images stored at ICBF since July 2005

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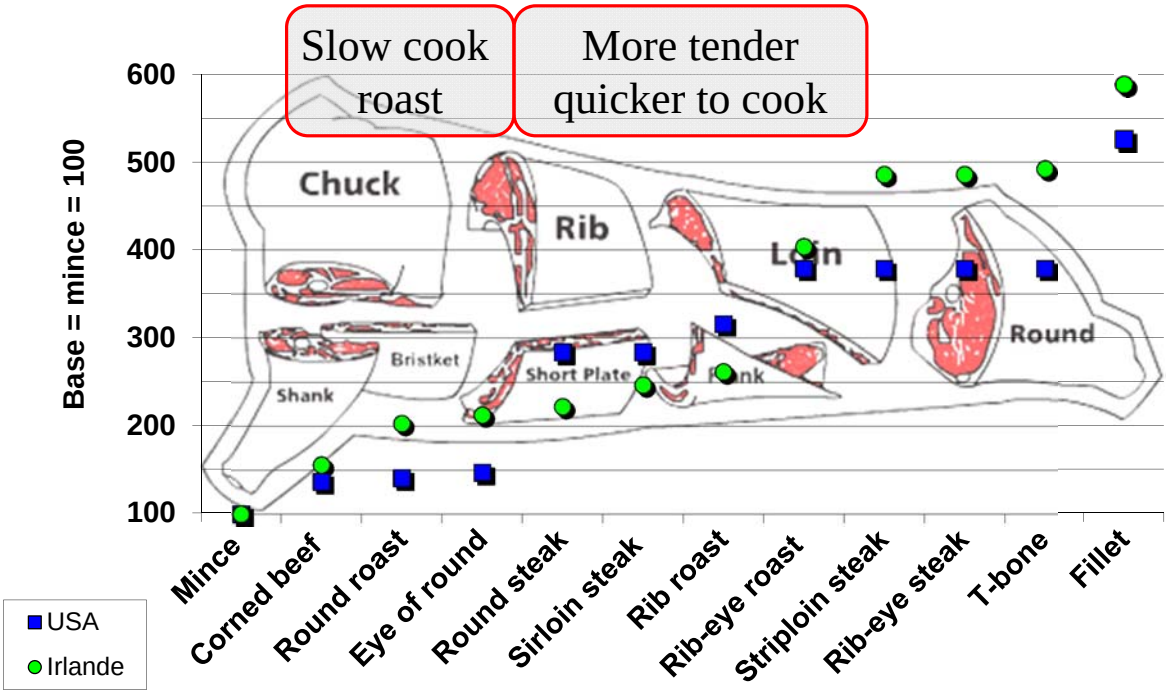
Variation in cut values



Source: 2 commercial butcher price list downloaded April 2011

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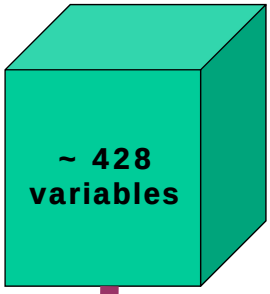
The Plan

E+V grading machine



Conf.	Fat
E	1
U	2
R	3
O	4
P	5

Meat cut genetic evaluations

Type of data = linear measurements, surface, volume, contour, colour

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PUBLIC BREEDING INFORMATION

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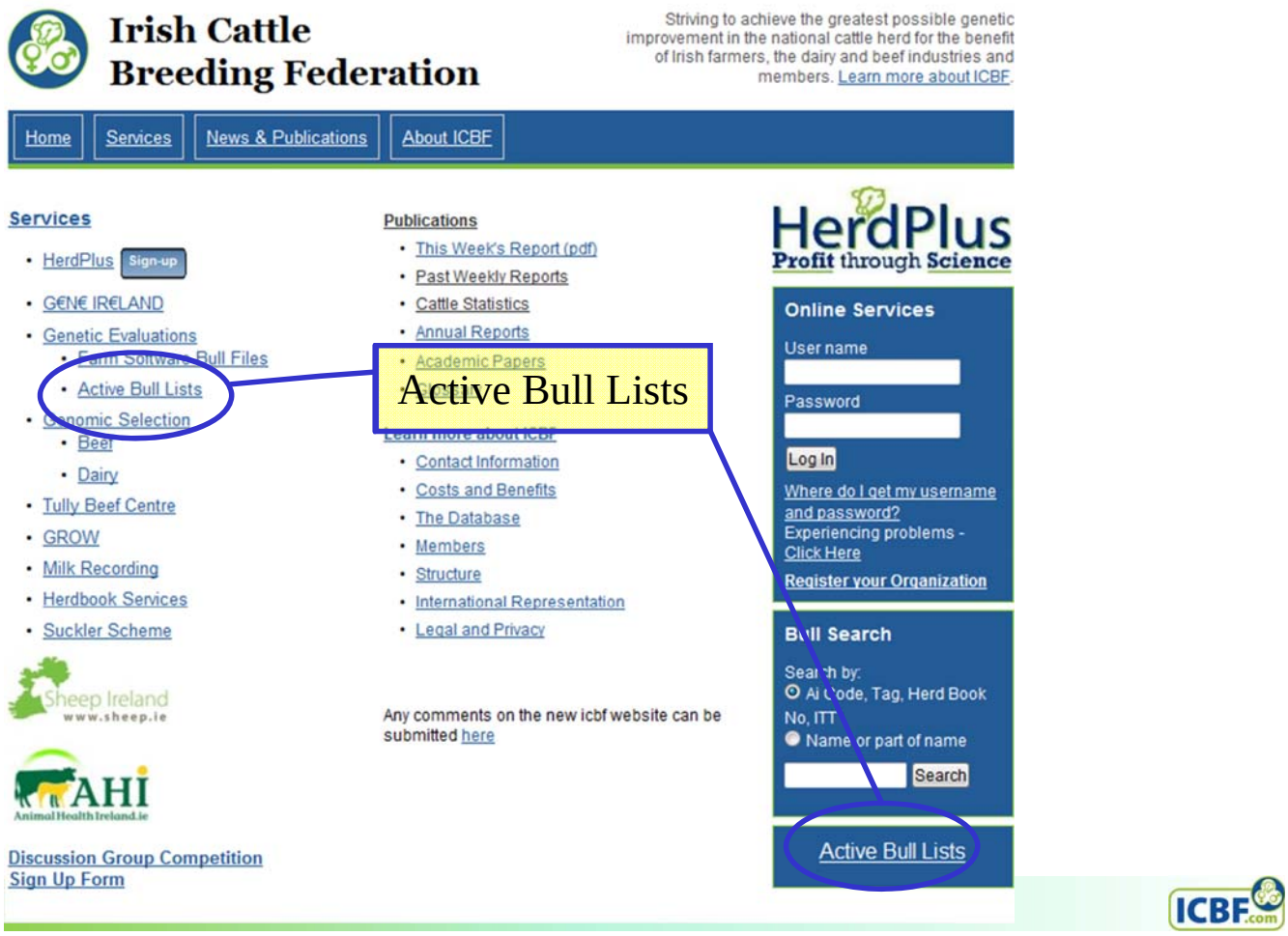

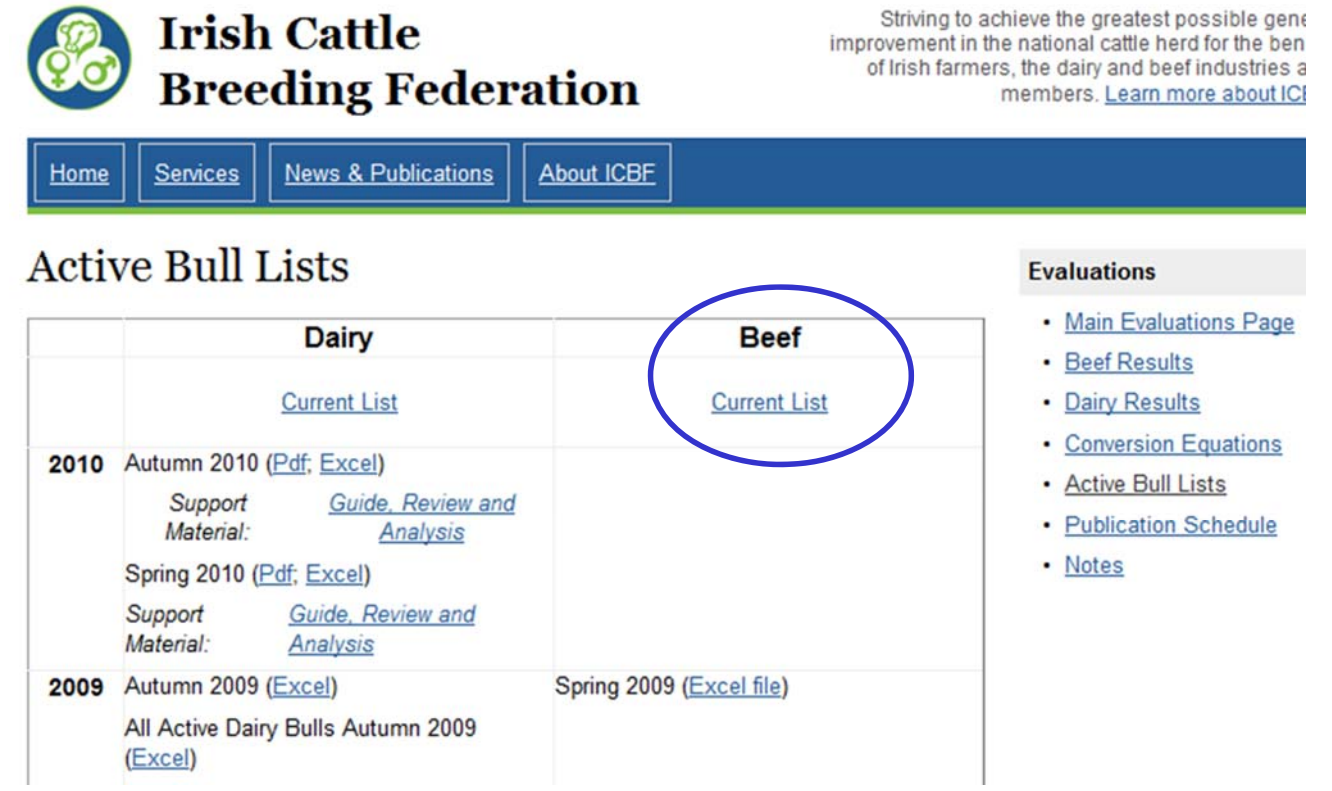

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Beef

View as Excel

Evaluation Date:Dec 2010

Tag	Bull Name	Breed	Suckler Beef Value		Weanling Export		Beef Carcass		Daughter Milk		Daughter Fertility		Calv Diff		Doc		Supplier	Price	Avail
			€ Star	Rel	€ Star	Rel	€ Star	Rel	€ Star	Rel	€ Star	Rel	Value Star	Rel	Value Star	Rel			
NFU	NETHERTON FLEUR'S LEGACY	AA	€ 138 *****	37%	€ 60 *****	41%	€ 57 *****	32%	€ 141 *****	13%	€ 36 *	2%	2.4 **	58%	-.03 **	46%	NCBC	40	Medium
RWB	RAWBURN LORD ROCKET F609	AA	€ 113 *****	66%	€ 17 *****	63%	€ 17 *****	58%	€ 304 *****	13%	€ 45 **	2%	5.7 *	94%	.07 ****	76%	Dovea	8	High

Evaluation Date:Dec 2010

Tag	Bull Name	Breed	Suckler Beef Value		Weanling Export		Beef Carcass	
			€ Star	Rel	€ Star	Rel	€ Star	Rel
NFU	NETHERTON FLEUR'S LEGACY	AA	€ 138 *****	37%	€ 60 *****	41%	€ 57 *****	32%
RWB	RAWBURN LORD ROCKET F609	AA	€ 113 *****	66%	€ 17 *****	63%	€ 17 *****	58%

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Beef Bull €uro-Star Evaluation

ICBF Genetic Evaluations Service « Search Again

€uro-Star Rating (ICBF, April 2010)

AI Code:	CF52	Breed:	CH (100%)	Sire:	HERMES / HME
Animal Name:	DOONALLY NEW	Owner:	NATIONAL CATTLE BREEDING CNTR	Dam:	INTRUSE / 7193100567
Date of Birth:	18-JAN-1997	Date of Evaluation:	April 2010	MGS:	CAMPAGNARD / 1887109836
National ID:		€uro-star Index	Calving Traits	Weanling	Beef Carcass	Milk
International ID:	CHLFRAM007197126709	Linear Type	Pedigree		

% Rank	Star Rating (within breed)	Index and Traits	€uro-Value	% Rank
94%	★★★★★	Suckler Beef Value (SBV)	€131	94%
98%	★★★★★	Weanling Export	€108	99%
99%	★★★★★	Beef Carcass	€176	99%
1%	★	Daughter Fertility	€-81	1%
1%	★	Daughter Milk	€-121	1%
		Other Key Traits		
11%	★	Calving Difficulty (% 3 or 4)	11.28%	5%
99%	★★★★★	Gestation Length (Days)	.79 Day(s)	78%
92%	★★★★★	Docility (1-5 score)	0.14	93%

Data Reliability: 40% - 60% = Average 20 - 40% = Below Average < 20% = Poor

Overall Index – SBV in €

Sub Indexes –in €

Key traits phenotype units

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PRIVATE HERD INFORMATION

HERDPLUS® - USER PAY SERVICE FROM ICBF

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HerdPlus®

What is Herdplus®?

- Cattle Breeding Information Service
- Provides reports to Beef (& Dairy) Farmers

What is so special about these reports?

- You can compare your Herd against National Av. Figures
- Reports are designed by Farmers for Farmers

How do I send in information for my herd?

- Register all calves through Animal Events

How much does it cost?

- €60/year – electronic, €120/year – postal

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HerdPlus® **Beef** Products

CALVING REPORT

NITRATES REPORT

SLAUGHTER REPORT

INBREEDING CHECKER

€URO-STAR REPORT

€URO-STAR CATALOGUE

SUCKLER COW REPORT

DIRECT HELPLINE TO ICBF STAFF

Herd Management Tools For Increasing Profit

© Iri

Suckler Cow Report

Animal Details	
Jumbo:	350
Official Tag:	IE301104090350
Animal Name:	BALLYAVILLE PLUS 1 (X)
Date of Birth:	24/02/2001
Breed:	HE (100%)
Herdbook:	Pedigree Registered
Scored:	
Weighed:	

BLUP Index (Reliability 32%)		
MUSCLE	SKELETAL	DOCILITY
108	122	0.21

Ancestry Details		
	Sire's Sire:	DHK DUNROBIN HALLMARK 10D X IN P CX
	Sire's Dam:	GLCD3118 AUGHMAREE DAISY
Sire:		GLCR02129 AUGHMAREE ROOKIE (X)
Dam:		IEJLQZ0155R BALLYAVILLE NELLIE
	Dam's Sire:	CGO CILL CORMAIC GENERATOR
	Dam's Dam:	SKA606392 BALLYAVILLE JUNE

€uro-Star Index				
Within Breed		Index	Rel%	Across Breed
★★★★★	Suckler Beef Value	€ 127	36%	★★★★★
	Beef Value			
★★★★★	Weanling Export	€ 43	37%	★★★
★★★★★	Beef Carcass	€ 43	36%	★★
	Replacement Value			
★★★★★	Daughter Fertility	€ 68		★★★★★
★★★★★	Daughter Milk	€ 154	42%	★★★★★
	Other Key Traits			
★★	Mat Calving Diff %	€ 7.77	42%	★★
★★★★★	Gestation Length	€ 0.19	47%	★★★★★
★★★★★	Docility	0.21	22%	★★★★★

	Calving & Fertility Performance									Weanling & Carcass Performance							
	Calving Date	Tag Number	Calving Survey	Calving Interval	Sex	Current Status	Sire	Sire Breed	Age days	Weight Kgs	Growth Kg/Day*	Price/Kilo	Calf Quality	Docility	Age at Slaught. (months)	Carcass Conf. & Fat	Carcass Weight
1	11/11/2003	IE301104**50586**			F	Dead	50063	HE		320	1.28			Quiet	28	R=4=	388
2	21/10/2004	IE301104**20699**	S. Assis	344	F	Dead	50063	HE		360	1.07				30	O4L	313
3	05/10/2005	IE301104**10806**	S. Assis	348	M	Dead	20557	SI		400	1.35				23	3R	414
4	01/11/2006	IE301104**90920**	Normal	391	F	Sold	10334	HE		330	1.26						
5	14/10/2007	IE301104**51015**	S. Assis	346	M	Dead	10334	HE		310	1.08				19		
6	10/09/2008	IE301104**71099**	Normal	331	M	Sold	10334	HE		370	1.12		Average	Quiet			
7	11/08/2009	IE301104**31186**	Difficult	334	M	Dead	90382	HE							0		
8	11/08/2009	IE301104**21185**	Difficult	334	F	Dead	90382	HE							0		

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PROGRESS – SO FAR

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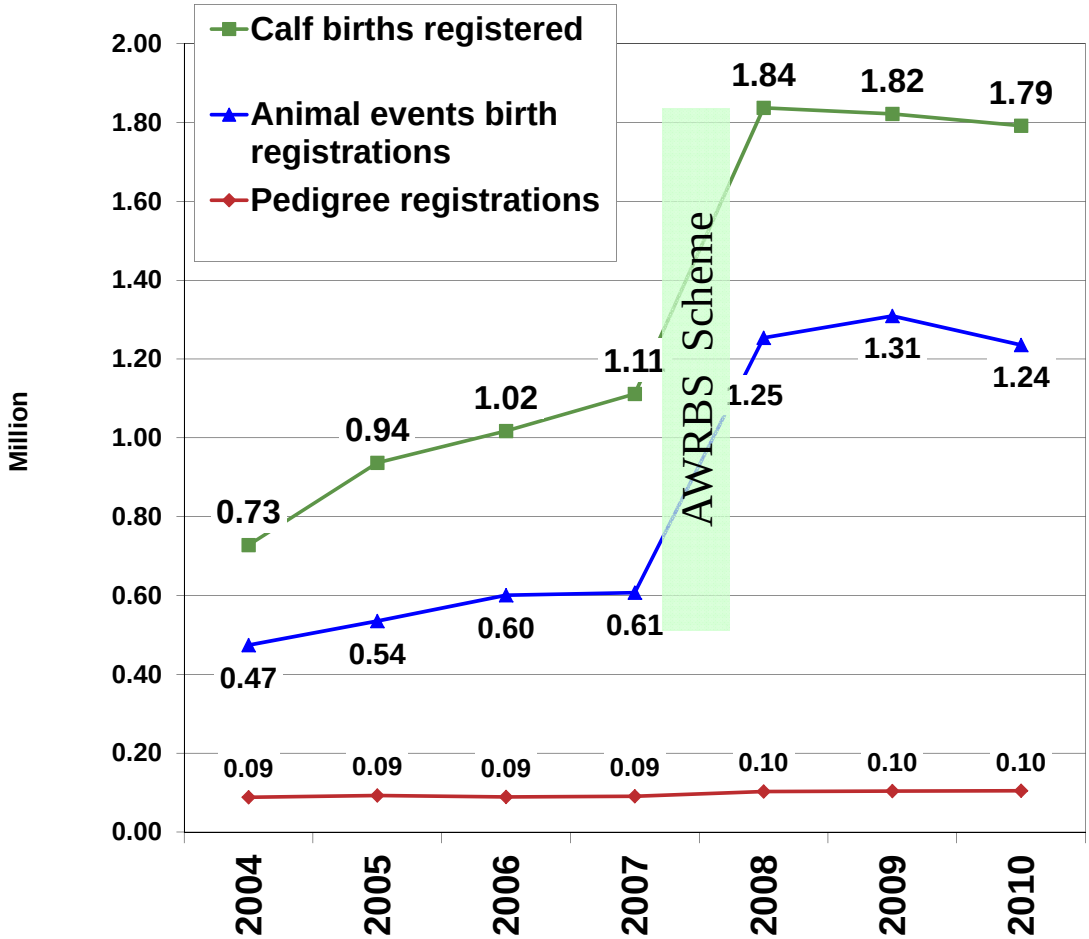
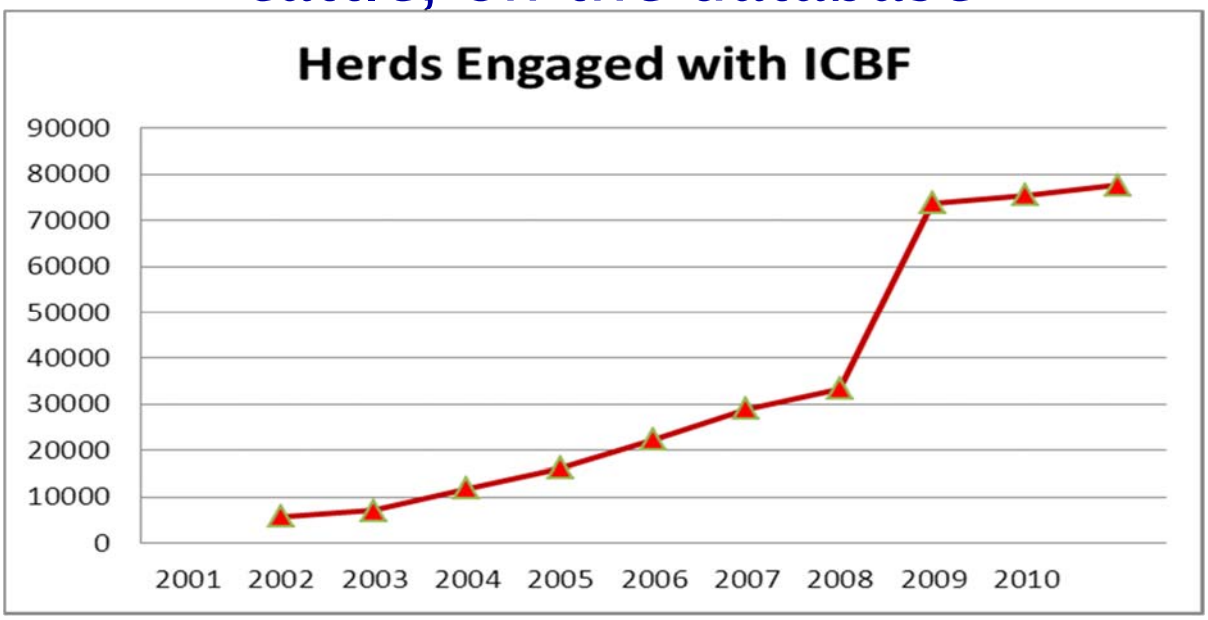


ICBF Database now has 77,000 breeding herds, and 90% of all cattle, on the database



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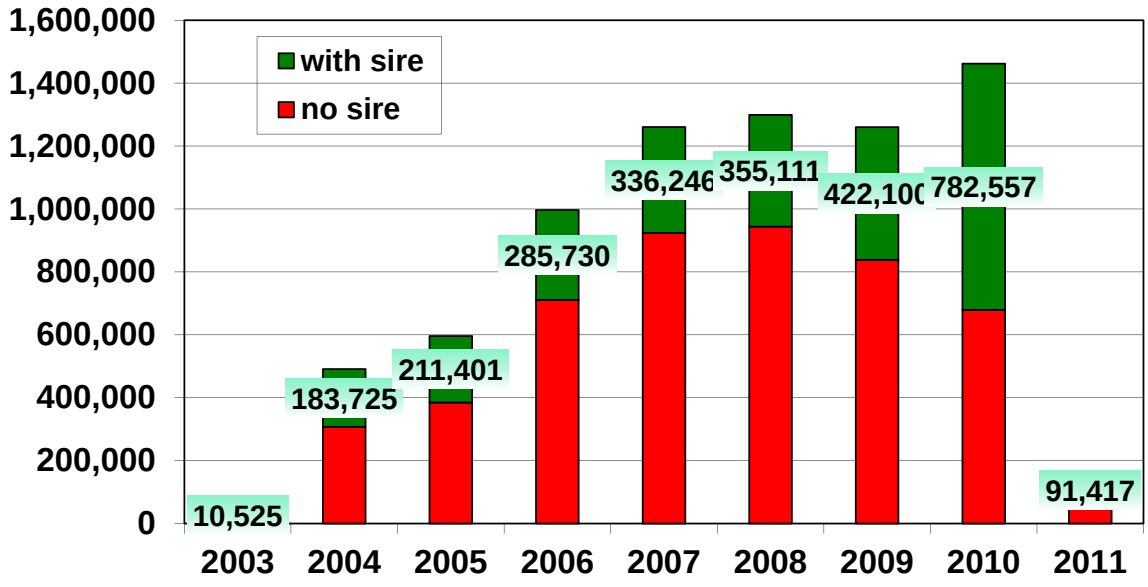
Sire recorded by year of slaughter for carcass data



Slaughter extract March 2011

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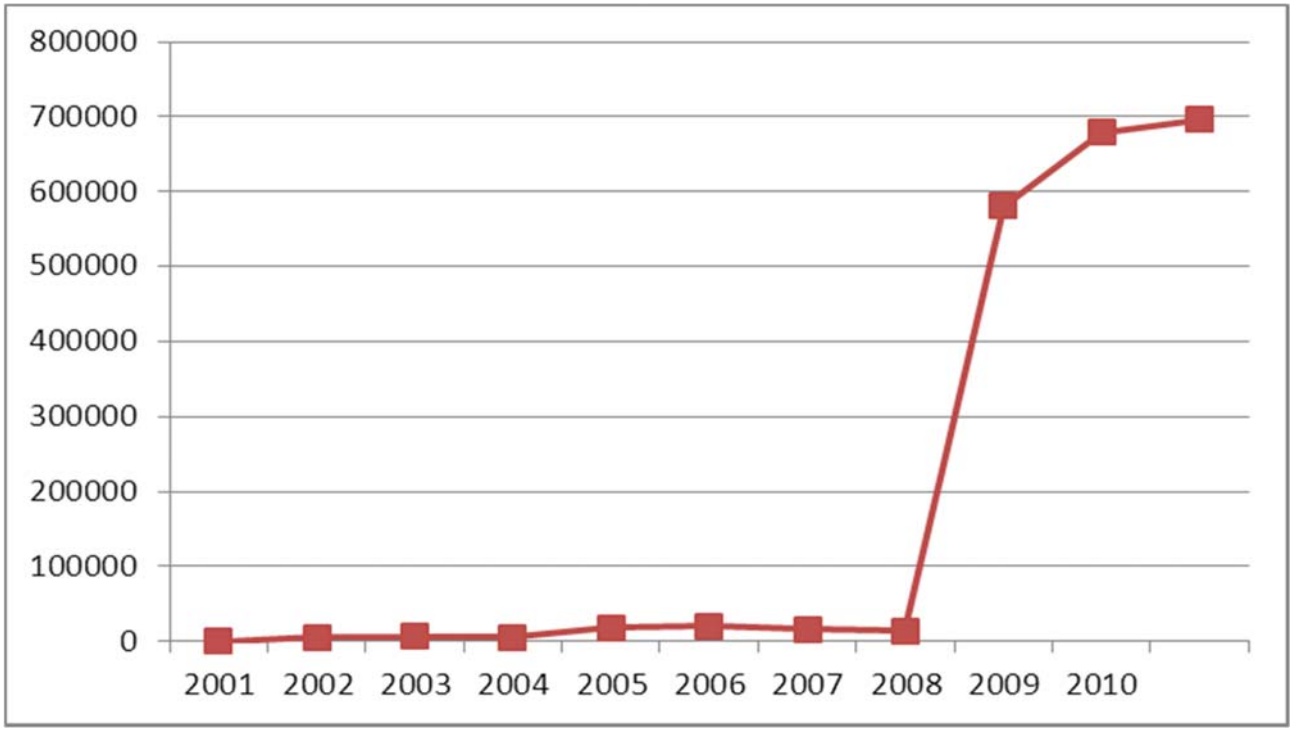
Docility Data



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FUTURE PRIORITIES

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Key areas to progress further

- Increase the number of **live-weight** records
- Develop integration with **disease testing** laboratories to assist with disease control
- Information quality index based on timeliness, completeness and deviations from normality is under active consideration as as tool to **improve data quality**

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In Summary….

- A central cattle breeding database has removed duplication across the cattle breeding industry and provides a platform to improve farm profitability through breeding
- A supportive DAFF has helped create a synergy between regulatory data and cattle breeding
- Creating a culture of sharing of data across the industry removes duplication and cost, and increases value for farmers & the breeding industry

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Mon 28th May
- Fri 1st June 2012
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