



Pure Friesian AGM

Tuesday 8th November 2011

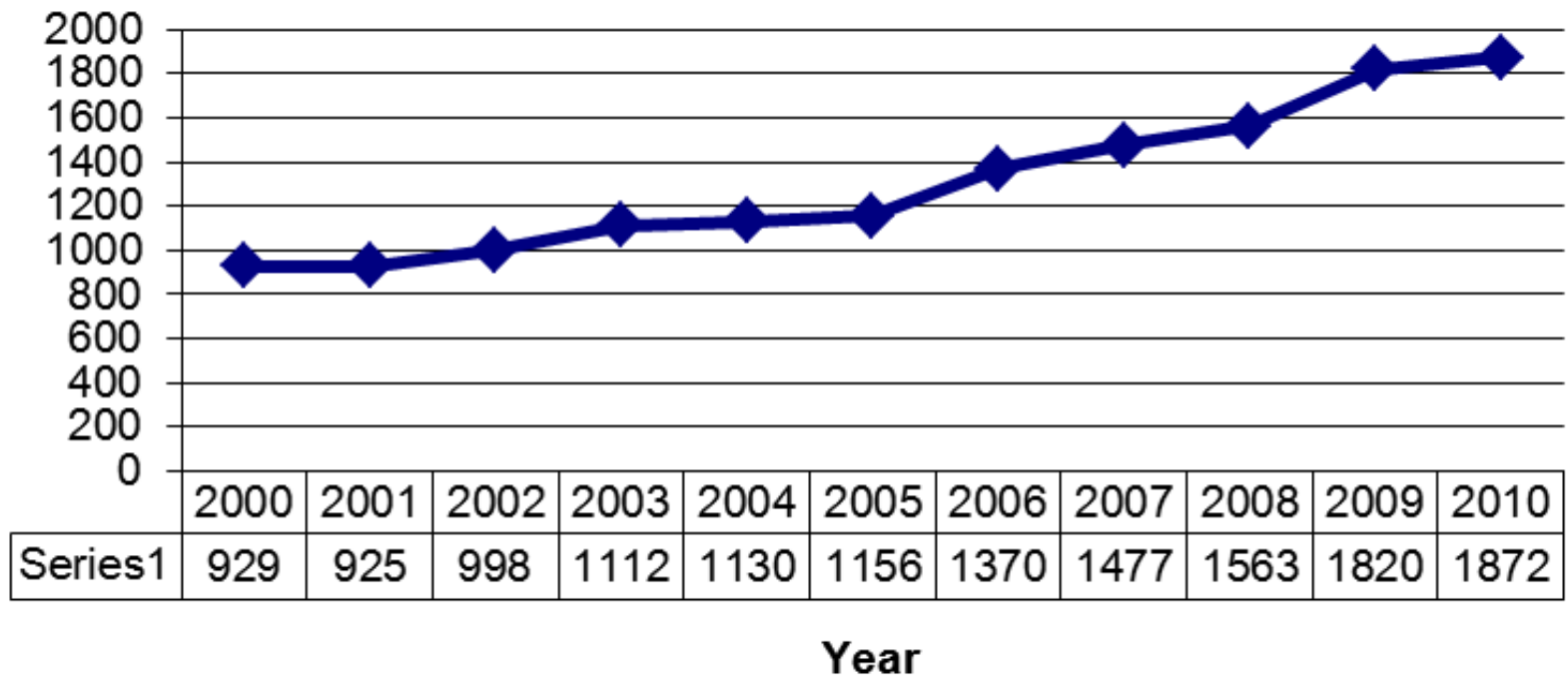


Overview

- **Pedigree & Commercial Friesian Registration Trends**
- **AI & Stockbull Usage Trends**
- **Friesian - Active AI Sires Summary**
- **G€N€ Ireland Progeny testing**
- **Genomics**
- **Friesian Diversity & Opportunities**

Friesian Statistics

Pedigree Friesian Registrations 2000-2010



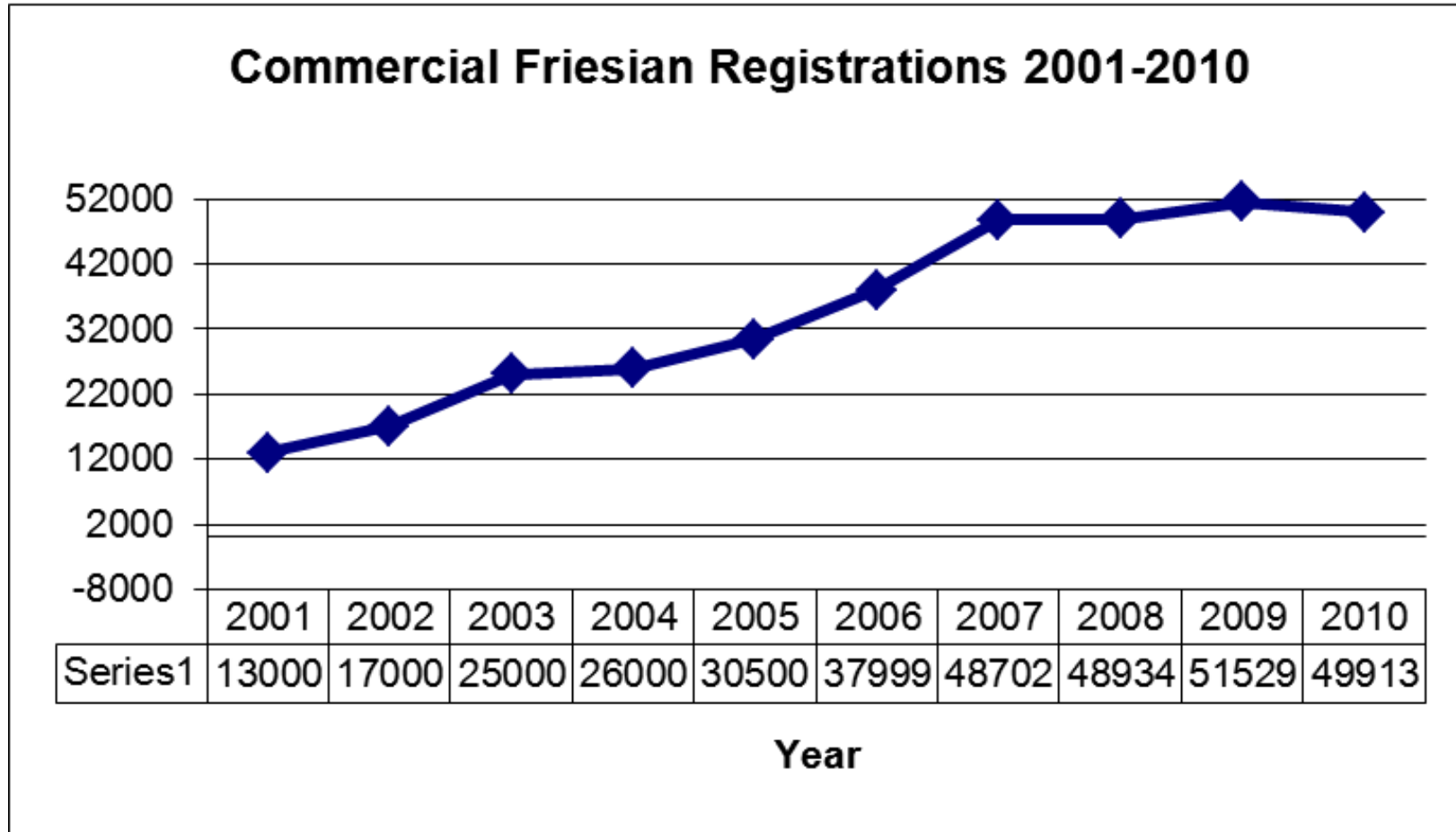
- **Number of Pure Friesian pedigree calves has doubled in 10 years**
- **Pedigree; Calf with at least 87.5% Friesian**

Friesian Statistics

Pedigree Registrations Trend 2004-2010			
Breed	2004	2010	Change
Holstein	53697	73022	+30%
Friesian	1130	1872	+65%
B.Blue	299	700	+134%
Blonde	313	360	+15%
Charolais	10,093	8710	-14%
Hereford	2707	2957	+9%
Limousin	7125	7903	+11%
Simmental	2409	2086	-13%

•**Friesian Pedigree Registrations Growth well ahead of most other breeds.**

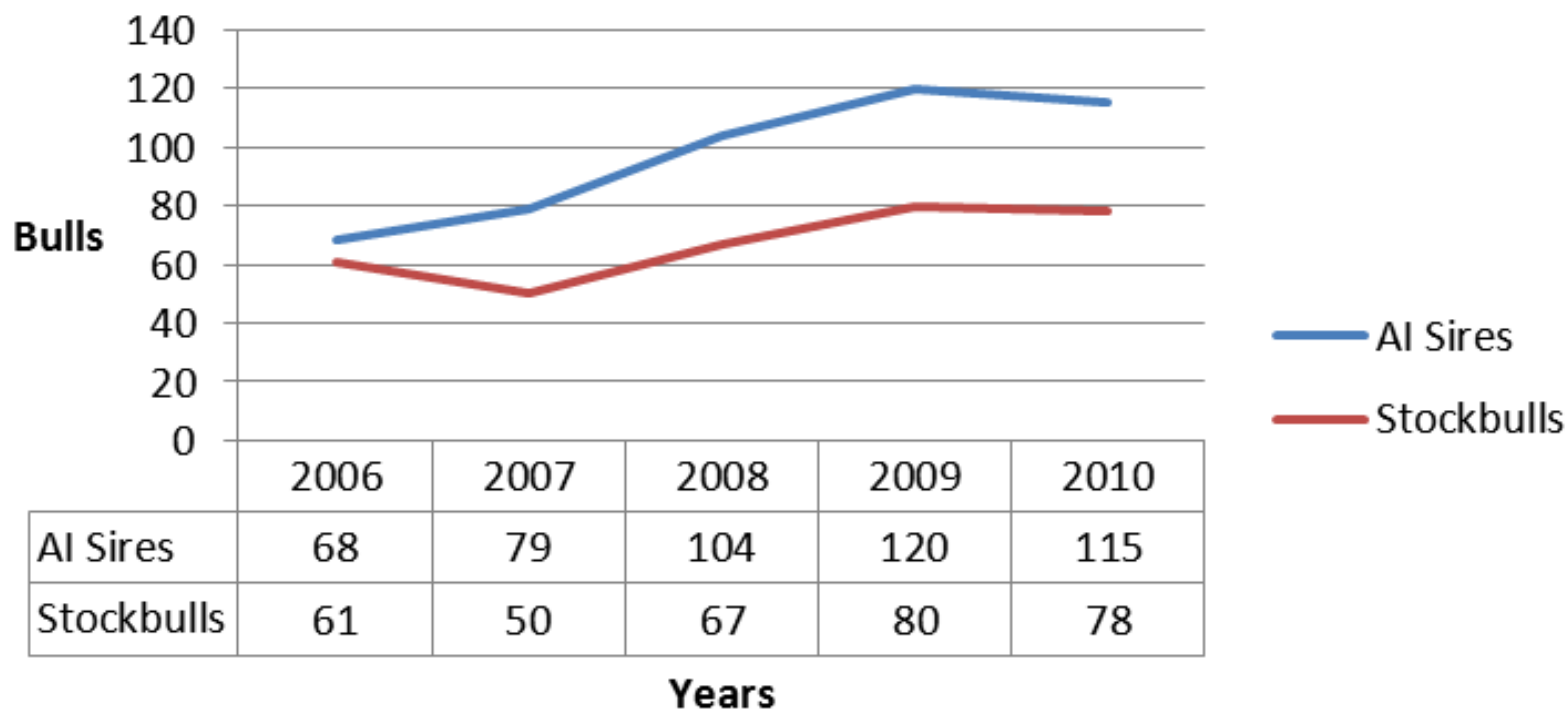
Friesian Statistics



- ICBF Figures incomplete. Not all Sires recorded. Not all dairy herds in ICBF
- However for herds in ICBF – Trend has increased & maintained its level.
- Commercial; Sire is at least 87.5% Friesian

AI & Stockbull Sire Trends

**AI & Stockbull Sire Usage Trends
2006 - 2010**



- **AI Sires account for 80% of Pedigree Friesian calves.**
- **Number of AI Sires used has increased over past 5 years.**

Most Popular Sires of Pedigree Friesian Calves in 2010

Code	Name	Calves	Owner
AFS	Arenberg Frans 233	117	Dovea AI
PIA	Piet Adema 179	98	Dovea AI
GIZ	Grietman	88	Dovea AI
CDQ	Castledale Odyssey	75	Dovea AI
TIH	Tittenser Hylke	74	Dovea AI
BEI	Ballinfad Bertie 3	51	NCBC
KLX	Liskilla Image 2	42	Eurogene
SMZ	Sem 7	40	Dovea AI
SVD	Dovea Bass	39	Dovea AI
DZR	Dovea Nero	38	Dovea AI
VJO	De Vennen Jonas	37	Dovea AI
MEU	Dovea Millenium Et	35	Dovea AI
SLN	Dovea Sailorman	35	Dovea AI
TMI	Tittenser Meinse	34	Dovea AI
CZS	Catlane Sunshine	27	Eurogene
TIX	Blackisle Matrix Et	25	Bova AI
WUI	Winnoch Umpire Et	23	ABS

•Above AI Sires account for nearly half of all Pedigree FR Calves in 2010

Top 10 Sires of Pedigree Friesian Calves 2010



AFS – Arenberg Frans 233



WUI – Winnoch Umpire



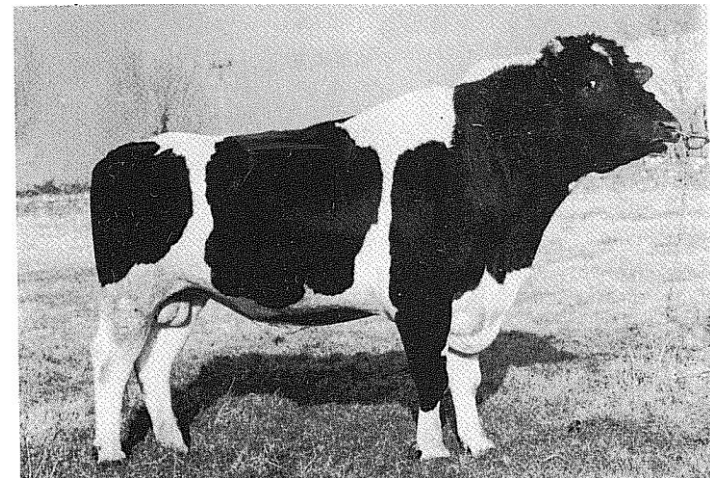
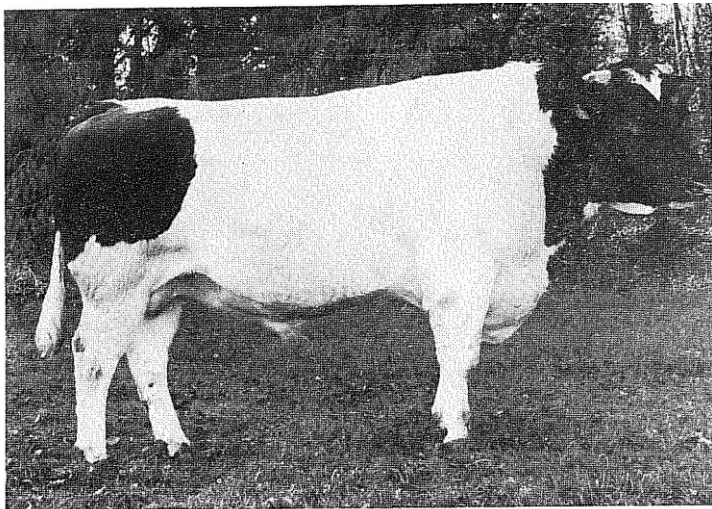
TIX – Blackisle Matrix



CZS – Catlane Sunshine

AI – Rolling back the Years!

Code	Name	Date of Birth	2010 Ped Calves	
			Heifers	Bulls
RHW	Raddlehurst Warder 2	27/09/1967		1
GHN	Grove Helmsman	07/10/1970		1
GBW	Grove Breadwinner	18/09/1973	4	1
DCR	Deri Creator	09/03/1977	2	
CPR	Churchwell Camper	19/03/1977	2	
WRT	Warmingham Royalist	11/10/1980	1	2
HFN	Huddlesford Doraman	16/02/1981	5	



RHW – ‘Raddlehurst Warder 2’ Progeny



Active AI Sires – Autumn 2011

Breed	Bulls	
	Number	%
Holstein Friesian	340	71%
Friesian (>87.5% FR)	59	13%
Jersey	29	6%
Montbeliarde	25	5%
Nor/Swe Red	12	2.5%
MRI/Rotbunt	11	2%
Ayrshire	1	0.5%
Total	477	100%

- 477 Dairy AI Sires being marketed in Ireland.
- 59 Pure Friesian AI Sires are marketed (13%).
- Numbers of Jerseys being marketed has increased dramatically.
- Only 2 Jersey AI Sires being marketed in 2009.

Active Friesian AI Sires

Top 10 Active Friesian AI Sires on EBI - August 2011

		EBI Details			EBI Sub Indexes						Key Profit Traits								
Code	Name of Bull	EBI	Rel%	Proof	Milk	Fert	Calv	Beef	Maint	Health	M Kg	F Kg	P Kg	F %	P %	CI	SU%	CD%	GL
RVJ	RAHEENARRAN BCG SOCHAR	€195	67%	DP-IRL	€3	€141	€47	-€22	€13	€12	-340	-5.5	-3.5	0.16	0.17	-6.8	5.0	1.0	-4.8
RHS	RAHEENARRAN MEB SOCHAR	€181	62%	DP-IRL	€13	€134	€37	-€24	€14	€7	-164	1.0	-0.5	0.15	0.10	-7.7	3.5	1.3	-3.3
CZI	CATLANE MISSILE	€168	61%	DP-IRL	-€1	€165	€17	-€39	€22	€3	-294	-5.0	-3.5	0.14	0.14	-9.2	4.6	1.7	-1.0
TIH	TITTENSER HYLKE	€164	99%	DP-IRL	€9	€133	€25	-€19	€16	-€1	-357	-7.0	-2.5	0.15	0.21	-7.0	4.1	1.4	-2.0
CDQ	CASTLEDALE ODYSSEY	€163	51%	GS	-€34	€174	€22	-€15	€11	€5	-274	-7.1	-8.3	0.07	0.02	-9.5	5.1	3.0	-2.3
FAE	(IG) FIRODA GRIETMAN	€162	58%	GS	€12	€122	€37	-€18	€11	-€2	21	-0.3	2.3	-0.02	0.03	-6.0	4.2	0.8	-3.6
LVI	LANGLEY EVOLUTION	€156	63%	DP-IRL	-€46	€187	€16	-€29	€23	€6	-597	-9.0	-14.5	0.34	0.13	-11.1	4.6	2.2	-1.7
SXN	CATLANE SAMARITAN	€151	39%	GS	-€18	€155	€24	-€32	€23	€0	-350	-5.5	-7.0	0.16	0.09	-9.4	3.5	1.9	-2.0
SKX	CATLANE SPEAKER	€151	84%	DP-IRL	€34	€104	€26	-€43	€26	€4	-84	4.5	3.5	0.15	0.13	-4.5	4.2	2.1	-2.0
ALZ	ARKEM HEEN 92	€143	73%	DP-IRL	-€1	€115	€22	-€19	€21	€4	-387	-4.0	-5.0	0.24	0.18	-6.2	3.5	2.5	-2.8
	Average	€163	66%		-€3	€143	€27	-€26	€18	€4	-283	-3.8	-3.9	0.15	0.12	-7.7	4.23	1.79	-2.6

- Average EBI for top 10 Sires of €163.
- Majority are 'Daughter Proven' Bulls.
- Superb Fat & Protein %, Fertility, Survival & Calving Ease.

Active Friesian AI Sires

Top 10 Active Friesian AI Sires on Milk Kgs - August 2011

		EBI Details			EBI Sub Indexes						Key Profit Traits									
Code	Name of Bull	EBI	Rel%	Proof	Milk	Fert	Calv	Beef	Maint	Health	M Kg	F Kg	P Kg	F %	P %	CI	SU%	CD%	GL	
SVD	DOVEA BASS	€62	97%	DP-IRL	€24	€52	-€1	-€17	€6	-€1	216	5.5	6.0	-0.05	-0.02	-2.2	2.1	2.5	0.3	
RYL	REARY MARTEL	€83	80%	DP-IRL	€15	€70	€11	-€15	€1	€0	173	2.5	4.5	-0.08	-0.02	-2.9	3	4.5	-1.0	
SEX	DOVEA SEM	€46	98%	DP-IRL	€9	€43	€8	-€20	€11	-€5	146	6.5	2.5	0.02	-0.04	-2.5	1.1	2.2	-0.2	
KJY	KIRKBY JAYSON	€89	63%	DP-IRL	€8	€68	€19	-€23	€10	€7	72	4.5	1.5	0.04	-0.02	-3.5	2.2	2.9	-1.7	
PZI	PIET ADEMA 186	€119	73%	DP-IRL	€37	€82	€14	-€12	€2	-€5	40	6.5	5.5	0.10	0.08	-4.4	2.5	3.4	-1.3	
GIZ	GRIETMAN	€97	92%	DP-IRL	€5	€88	€17	-€8	-€3	-€2	35	2.0	1.0	0.02	-0.01	-4.9	2.5	4.8	-2.2	
TXU	BRADASH TOURNAMENT	€100	67%	DP-IRL	-€1	€68	€28	-€8	€12	€3	33	4.8	-0.5	0.07	-0.03	-3.7	1.9	2.2	-2.7	
FAE	(IG) FIRODA GRIETMAN	€162	58%	GS	€12	€122	€37	-€18	€11	-€2	21	-0.3	2.3	-0.02	0.03	-6	4.2	0.8	-3.6	
JAC	JACOB 13	€67	94%	DP-IRL	€0	€69	€9	-€23	€19	-€8	-32	0.0	-0.5	0.03	0.01	-2.8	3	1.7	-1.5	
WUI	WINNOCH UMPIRE ET	€131	59%	DP-IRL	-€17	€139	€16	-€38	€23	€8	-50	-2.1	-3.2	0.00	-0.03	-7.9	3.8	2.5	-1.5	

•Friesian Bulls with good Milk Production also available.

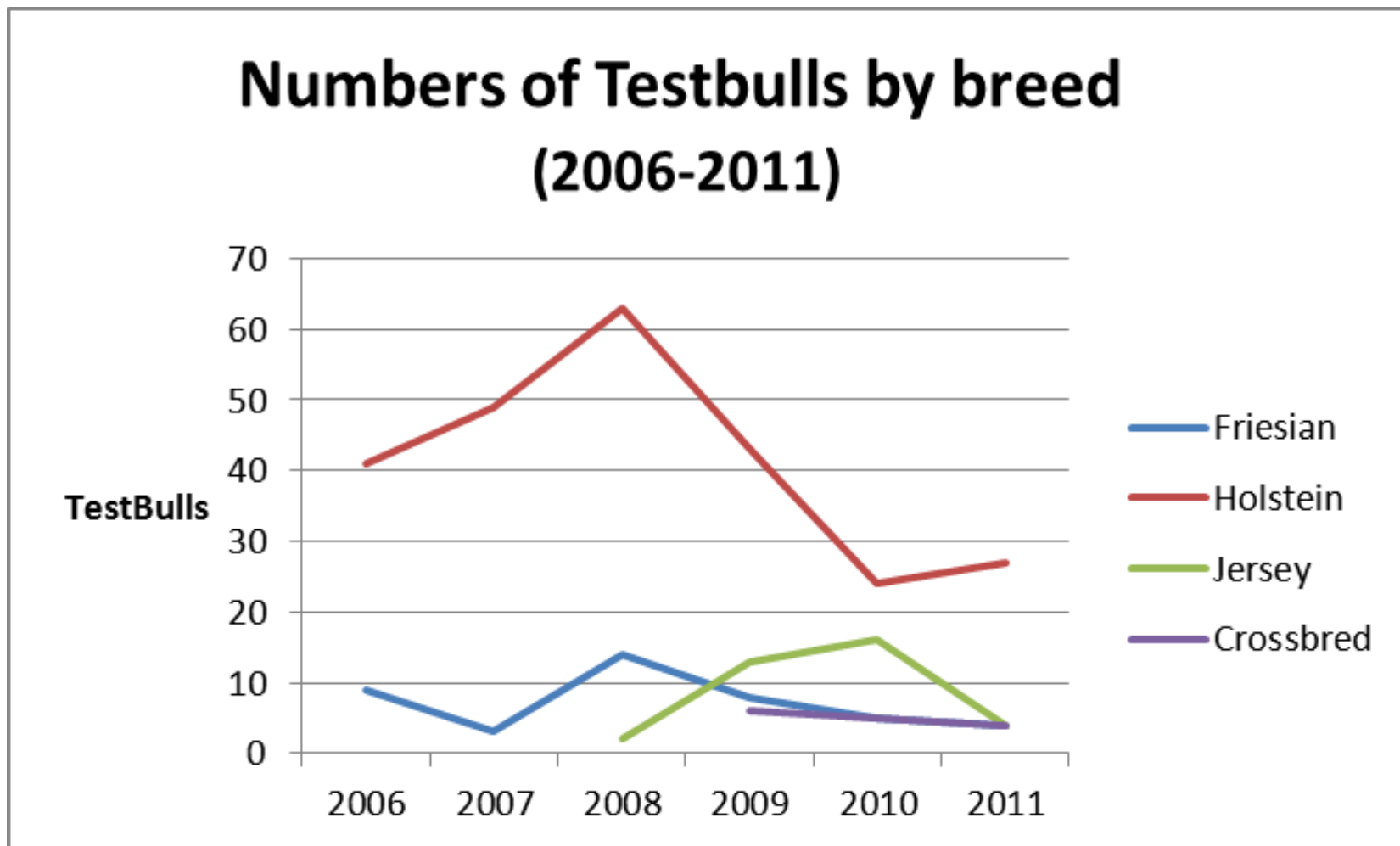
•Important for diversity of Breed that such Bulls exist.

Progeny Test Bulls – G€N€ Ireland

Number of Testbulls by breed (2006-2011)				
Year	Friesian	Holstein	Jersey	Crossbred
2006	9	41		
2007	3	49		
2008	14	63	2	
2009	8	43	13	6
2010	5	24	16	5
2011	4	27	4	4

- **Number of Bulls Progeny Tested – directly related to number of Proven Bulls.**
- **Friesian Breed must ensure that adequate numbers of Bulls are Progeny Tested.**
- **RVJ & RHS both Progeny Tested in 2008.**
- **More numbers of Friesians on Progeny Test – more chances of success.**

Progeny Test Bulls – G€N€ Ireland



- Friesians must monitor number of Bulls being Progeny Tested annually.

Pure FR Genomics

- Currently official since August 2011
- In 2011
 - – 1550 animals $\geq 50\%$ FR
 - – 612 animals $\geq 81.25\%$
 - – 313 animals 100% FR

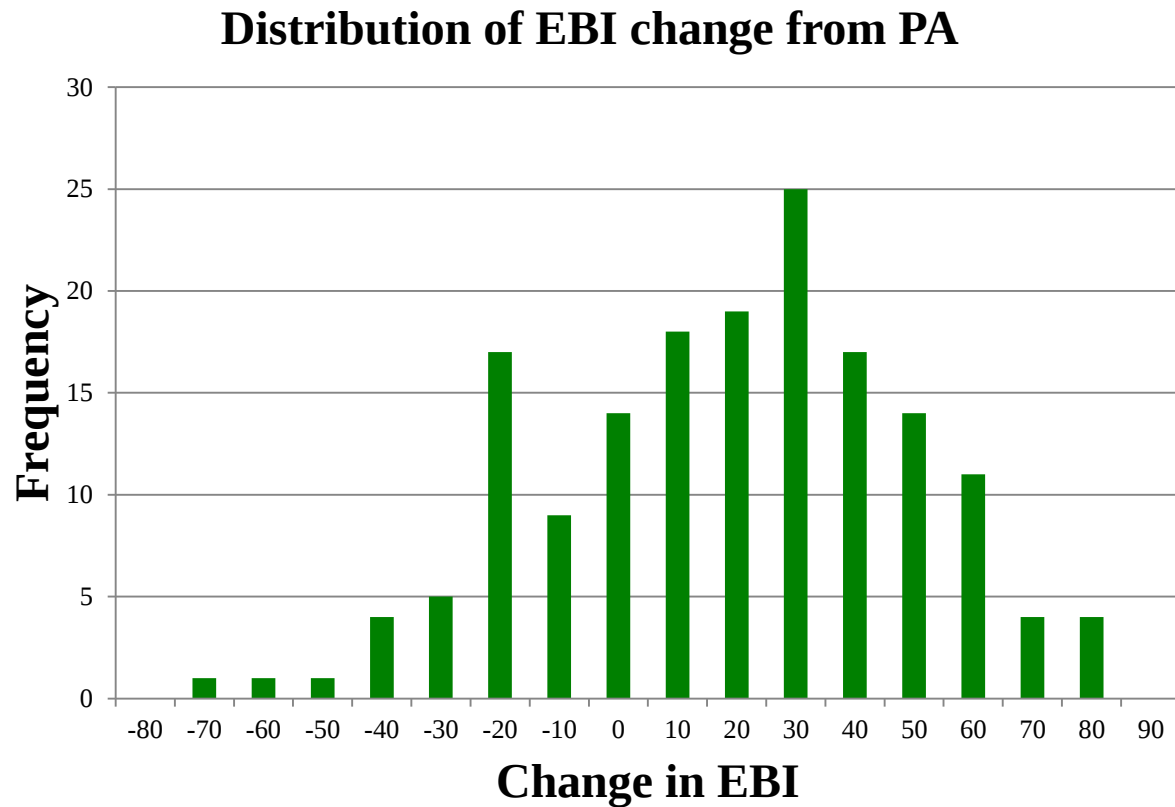
Pure FR Genomics

- Currently pure FR animals have to be done on 50k as imputation is too low on 3k due to smaller number of pure FR animals
- A new 7k chip available shortly to replace current 3k which should allow pure FR animals to be imputed at high accuracy
- Sire will have to have 50k genotype
- 7k chip will be approx. same cost as the 3k(~€50)

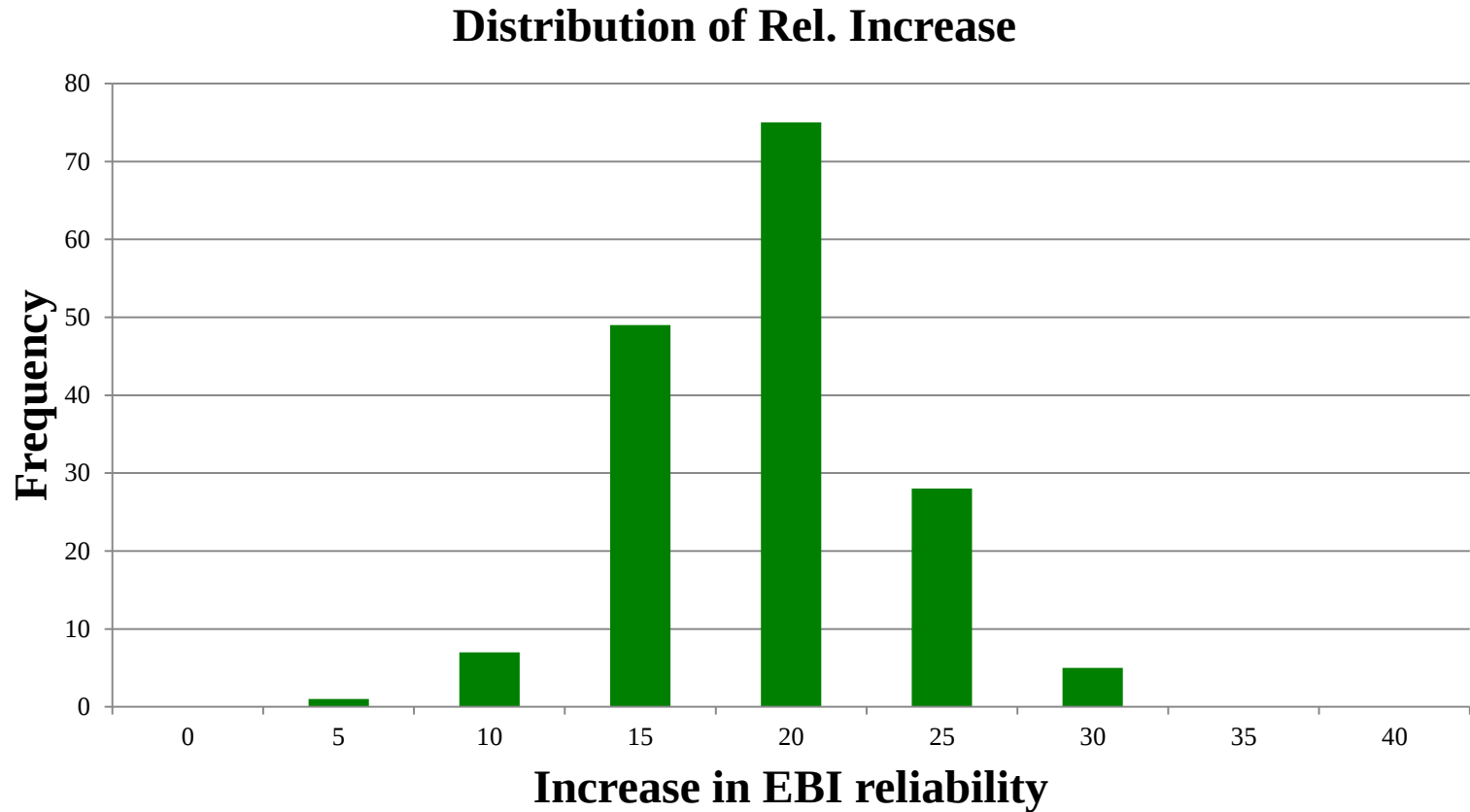
Pure FR Genomics

- Animals have to have >5% relationship to bulls in the reference population to get a genomic EBI
- Not known in advance but we will have good guide
- If sire (possibly MGS) has **proven daughter** proof this rule should be satisfied

GEBI - What to Expect?

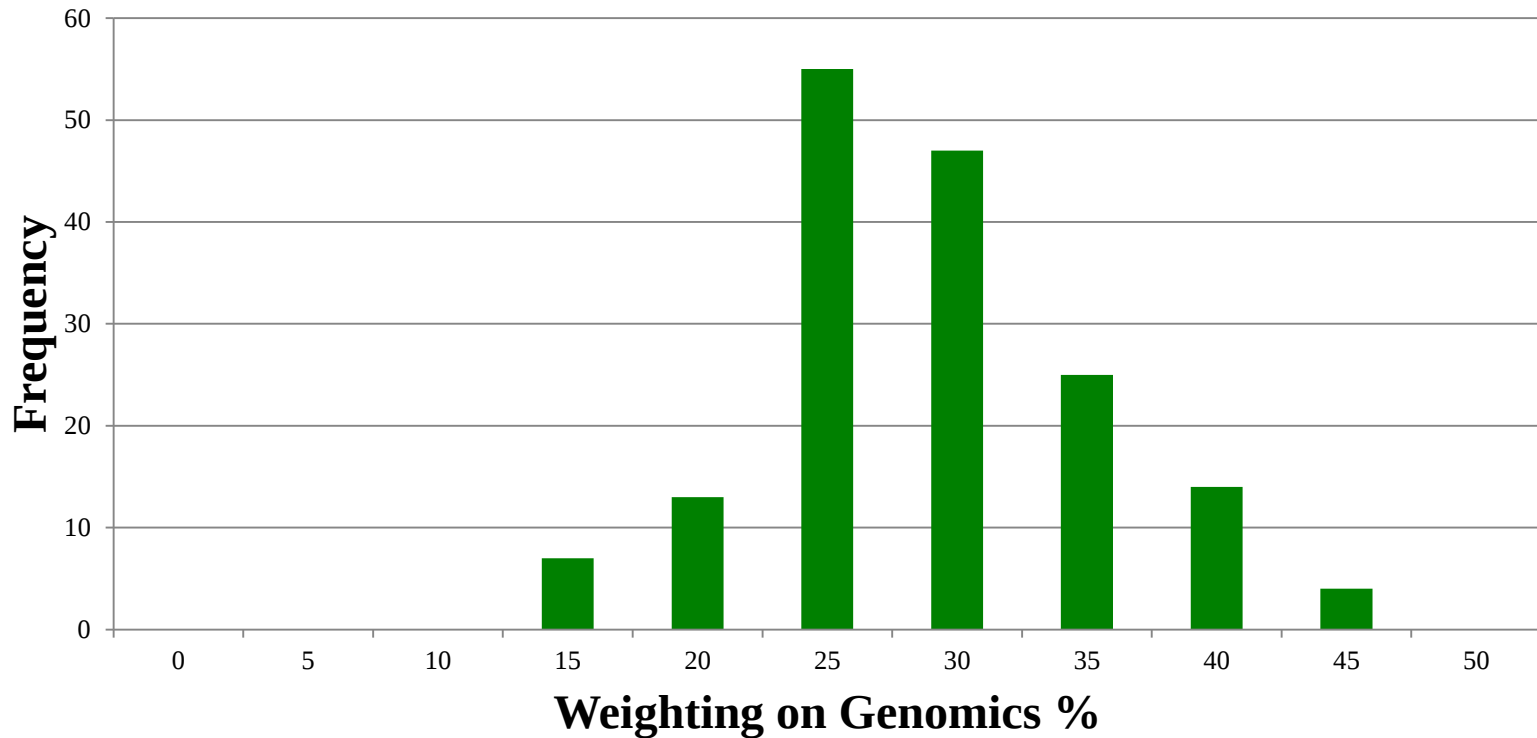


GEBI - What to Expect?



GEBI - What to Expect?

Distribution of Weighting on Genomics



Pure FR Genomics

- New Fertility evaluations will cause changes to genomic proofs
- Correction for overestimation in GEBI (~€16) will be addressed
- Expect Pure FR genomic service to be available next spring for current 3k rate (~€50 or less)

New fertility evaluation

- More parities
 - Old evaluation based on 1st 3 parities
 - New evaluation based on 1st 5 parities
- Insemination data used as early predictor
- Better handle on heterosis effect between different breeds
- Tighter contemporary group definition
 - 6 month comparison to 2 month comparison
- Reliabilities on cows will reflect how much data they have, currently only sire+mgs reliability

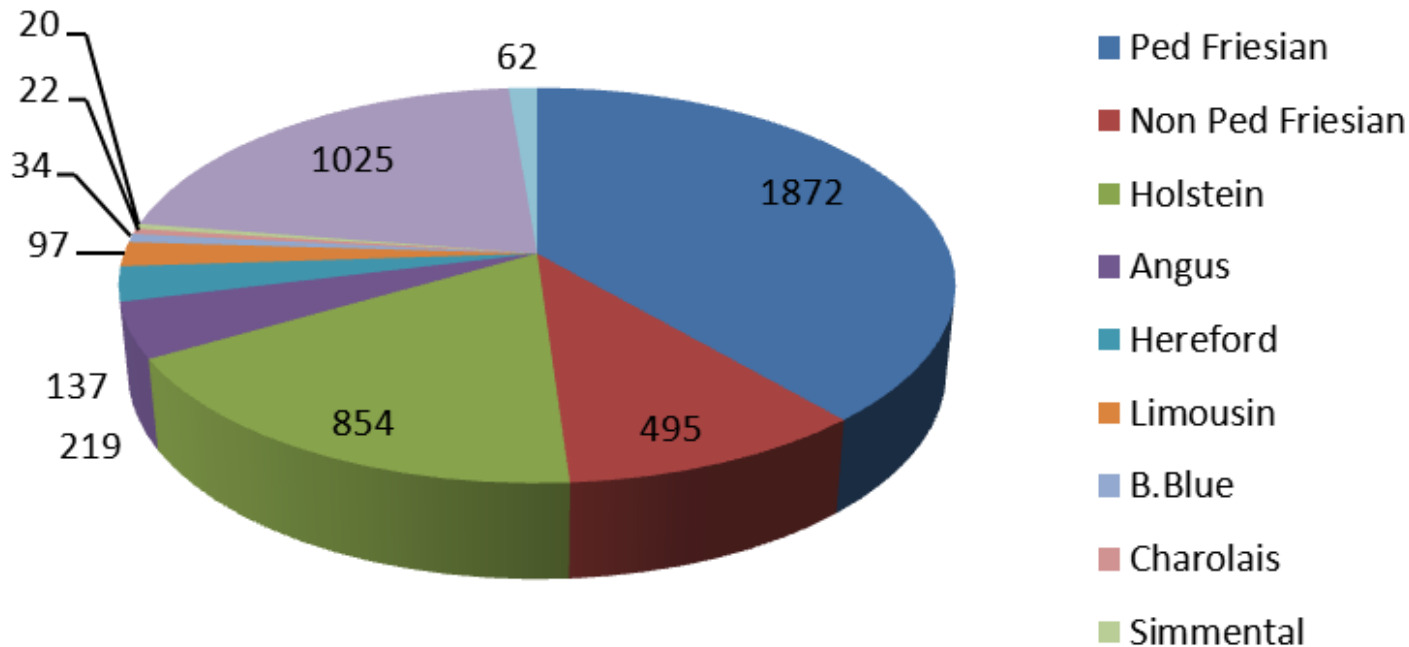
Breed effects using AI sires with 60% reliability on new indexes

Breed	No of sires	Fertility SI old	Fertility SI new	Age 1st Calving (days)
FR	213	€83	€94	-2
HO	870	-€6	-€5	0
JE	14	€85	€72	2
MO	29	€78	€94	14
NR	4	€89	€112	1
SR	2	€85	€90	7

- Rise for FR and MO sires
- Reduction in JE sires due to better handle on specific heterosis
- Age at 1st calving not factored into

Friesian - Diversity

Ped Friesian Cows - Calf Crop Breakdown 2010



Calves	Sire Breed
1872	Ped Friesian
495	Non Ped Friesian
854	Holstein
219	Angus
137	Hereford
97	Limousin
34	B.Blue
22	Charolais
20	Simmental
1025	No Sire
62	13 Other Breeds
15	Jersey
12	Kerry
10	Shorthorn
7	MRI
4	Norwegian Red
3	Montbeliarde
2	Aubrac
2	Blonde
2	Galloway
2	Rotbunt
1	Danish Red
1	Saler
1	Swedish Red

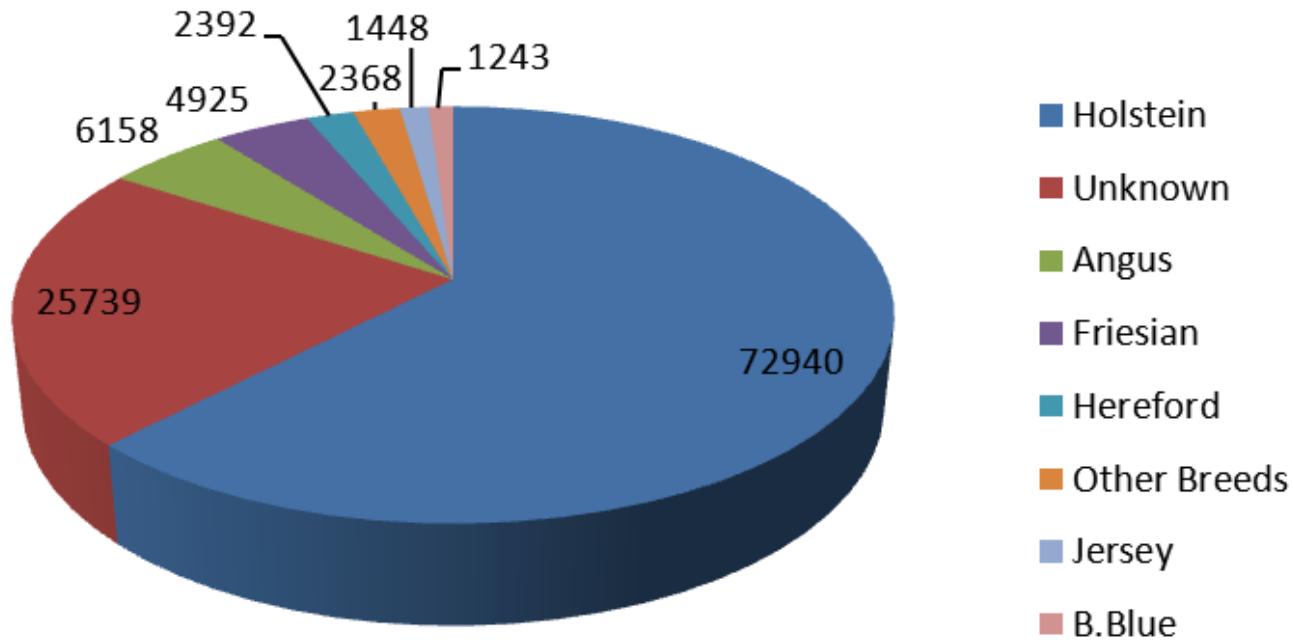
- 4844 Pedigree Friesian Cows (>87.5% Fr) - calved in 2010.
- 1872 Pedigree Friesian Calves (1st slide).
- @ 250 Beef x Ped British Friesian Heifers – marketing opportunity

Easy Calving Beef AI Sires

Tag	Bull Name	Breed	Calving Diff	Calving Diff Rel %	Calving Diff Stars	Gest	Gest Rel %	Gest Stars	Supplier	Price	Avail.
HTV	HALLINGTON ENDEAVOUR G136	AA	1.4	62	*****	0.62	32	*	Eurogene	10	Low
MLJ	MOGEELY JOE H979	AA	1.7	93	*****	-0.43	91	*****	Dovea	8	High
ERW	CHEEKLAW EIRWYN D165	AA	1.9	99	****	0.27	99	**	Eurogene	10	High
SFL	DU STORDEUR FLANEUR	BB	6.1	99	*****	-1.55	95	*****	Bova	8	Medium
FDI	FERMENT 9709 DES TIENNES	BB	7.5	97	*****	-1.64	98	*****	NCBC	10	Medium
GAU	GALOPEUR DU SARTAY	BB	7.8	89	*****	-0.36	54	****	Eurogene	20	Medium
PNY	PINAY	CH	3.6	90	*****	0.57	80	*****	NCBC	38	High
OSI	OLDGRANGE SINDURAIN	CH	5.4	99	*****	2.96	99	*	Dovea	8	High
TUT	THRUNTON NOSTRADAMUS	CH	5.9	92	*****	1.98	68	****	Eurogene	10	Low
GSQ	GLASLOUGH ESQUIRE	HE	4	98	***	-0.5	98	*****	Dovea	10	High
ICB	CLOONBRACKEN CICERO (ET)	HE	4.7	97	**	-0.19	87	*****	Bova	8	Medium
RSL	RH STAR BURST LAD 7G	HE	5.1	98	**	-0.27	98	*****	NCBC	10	High
GZP	GRAHAMS APACHE	LM	1.6	89	*****	3.89	24	***	Sligo AI	10	Medium
AIA	AMPERTAINE ABRACADABRA	LM	2.6	90	*****	3.43	80	*****	Low Error Genetics	25	Low
PCH	PACHA 08	LM	3.8	95	*****	3.29	80	*****	Dovea	30	High
HUZ	HARUM	SI	3.3	86	*****	1.09	75	*****	Dovea	8	High
GFY	GLEBEFARM TYSON	SI	5	86	****	1.06	81	*****	Sires	50	Low
HUR	HAUER	SI	5.2	86	****	2.05	73	****	Dovea	8	Low

Holstein - Diversity

Ped Holstein Cows - Calf Crop Breakdown 2010



Calves	Sire Breed
72940	Holstein
25739	Unknown
6158	Angus
4925	Friesian
2392	Hereford
2368	Other Breeds
1448	Jersey
1243	B.Blue

- 117,213 Pedigree Holstein Cows (>87.5% HO) - calved in 2010.
- 72940 Pedigree Holstein Calves
- Nearly 5000 calves where Sire is known to have a main breed of Friesian

Summary

- Numbers of Pedigree Friesian calves being born has increased steadily.
- Number of AI Sires siring pedigree calves has increased – greater diversity.
- Usage of Friesian sires in commercial dairy herds has also steadily increased.
- Friesian is 2nd most marketed breed of Dairy AI Sire after Holsteins in Ireland.
- Top 10 Friesian AI Sires have an average EBI of €163 (Range: €195 – €143).
- Number of Progeny Test Bulls must be constantly monitored.
- Genomics – Has arrived for Friesians and has an important role to play.
- Potential market for Beef Replacement Heifers could be exploited.
- Friesian breed in good shape.



Thank You