

ICBF / FBD Beef Breeding Event

Tully, 8th October 2010









Agenda

Welcome 2pm

2.15 Beef Herdplus ®

3pm €uro-Stars & Genomics

3.45 GENE IRELAND®

4pm Dinner 5pm

Bull Sale





ICBF



Beef Herdplus Demonstration

Martin Burke & Pat Donnellan **ICBF**









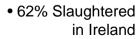
Transforming Ireland

Beef Production in Ireland

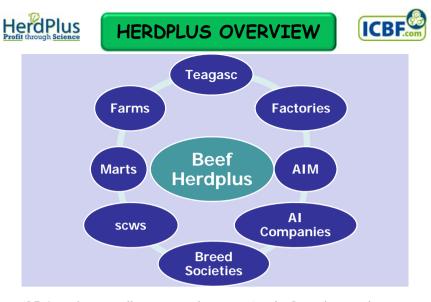
Key Statistics

- •2.2 million cows
- 1.0 million beef cows
- 17 cows / herd
- 6 major beef breeds
- •350k Dairy cows also bred to beef sires
- Heavily export focused.

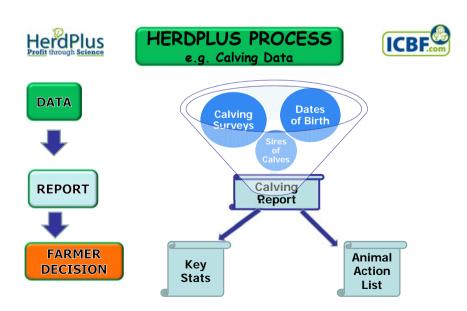








- ICBF Database well connected in our Cattle Breeding Industry
- Beef Herdplus Reports have very deep data sources behind them.

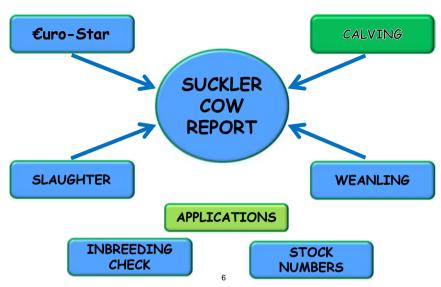


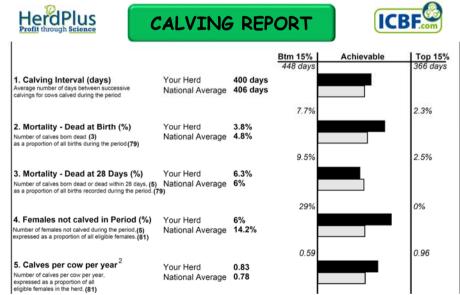
- All Products follow the same process.
- Reports & Action Lists in 'User Friendly' formats.



HERDPLUS PRODUCTS







- Calving Performance of your herd analysed.
- Gauge how your herd rates Nationally.



CALVING REPORT



Beef Calving Report - Section A - 8/10/10

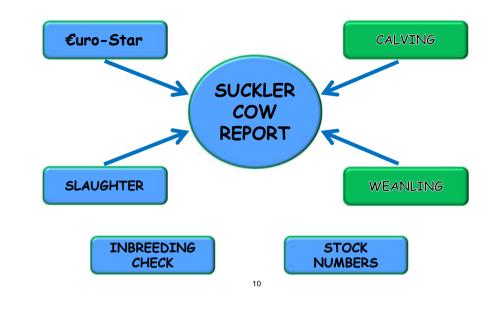
Cows calved more than once (ordered by last Calving Interval)

					Age at First			
				*No of	Calving		Avg. Calving	Last Calving
Jumbo	Animal Number	Breed	Age	Calvings	(Months)	Last Calving	Interval	Interval
372	IE123456789372		6у	3	29	15/11/2009	474	584
677	IE123456789676		5y 2m	2	29	27/09/2009	557	556
224	IE123456789224		6y 6m	3	24	17/11/2009	479	551
622	IE123456789622		5y 7m	2	30	06/12/2009	453	452
682	IE123456789682		6y 1m	3	30	07/12/2009	491	449
723	IE123456789723		5y 6m	3	30	23/12/2009	405	421
991	IE123456789991		7y 7m	4	32	10/12/2009	373	416
234	IE123456781234		8y 7m	5	25	08/12/2009	422	411
321	IE123456784321		12y 8m	8	31	14/11/2009	493	405
321	IE123456784321		6y 7m	3	31	25/11/2009	385	404

- Every Female Listed.
- Possible problem animals identified.

*Animal Flushed: Calving Interval Figures may be inaccurate.

a



HERDPLUS PRODUCTS



WEANLING REPORT



Weanling Performance Report											
					Weight Performance						
Anima	l Details		And	estry		Age		Nbr of	Weight	Daily	Gain
7			,,			(Days)	Weight	Days		From Last Weighing	From Birth
Jumbo:	523	Cina.	HIH	H.Triumph							
Official Tag:	IE151013714523	Sire:	Sire: LM (100%)			0	40 Kg	-	-	-	-
Breed:	LMX	Dam:	IE151	521520321	09/06/2010	275	294 Kg	275	254 Kg	0.92	0.92
Date of Birth:	07-Sep-09	Daiii.	BA (50%), FR (50%)			316	370 Kg	41	76 Kg	1.85	1.04

					Weight Performance						
Anima	Animal Details			estry		Age		Nbr of	Weight	Daily Gain	
Aililla	Details		AIIC	Jesti y	Date	(Days)	Weight	Days	Gain	From Last Weighing	-
Jumbo:	524	Sire:	HIH	H.Triumph							
Official Tag:	IE151013701524	Sire.	LM (10	00%)	12/10/2009	0	63 Kg	-	-	-	-
Breed:	LMX	Dam:	IE151	521520324	09/06/2010	240	325 Kg	240	262 Kg	1.09	1.09
Date of Birth:	12-Oct-09	Daiii.	BA (50	%), FR (50%)	20/07/2010	281	429 Kg	41	104 Kg	2.54	1.3

- Easily identify good & poor performers.
- Earmark particular cows for breeding/culling.



HerdPlus

HERDPLUS PRODUCTS



ICBF



STOCK NUMBERS

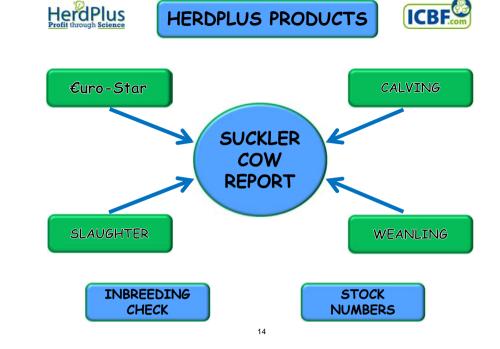


SLAUGHTER REPORT



Table 1	Table 1. Summary Data - Based on all Home Bred Heifers slaughtered in the period (progeny of suckler beef cows)												
	Anim	al Details			Fact	ory perform	ance	KPI					
	Average £uro-Star Carcass Index (£)	Average Age (months)	Range in Age (months)	Average days on farm		Cents per kg Cold Weight		Average Daily Gain (ADG Kg)	Lifetime Value per day (£)				
73	8	23	13 - 35	712									

Table 2.	Table 2. Quality Payment System Grid (Home Bred Heifers)											
	Е	U+	U=	U-	R+	R=	R-	0+	0=	0-	Р	
1												
2-												
2=			1									
2+												
3-												
3=				1	1		2					
3+				2	7	2						
4- (L)			1	4	3	4	1					
4=			1	1	6	6		1	1			
4+ (H)			3	3	7	4	2					
5				1	4	4						





€URO-STAR REPORT

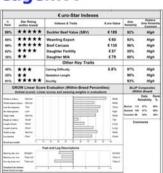


Would you buy a car without knowing the mileage...??

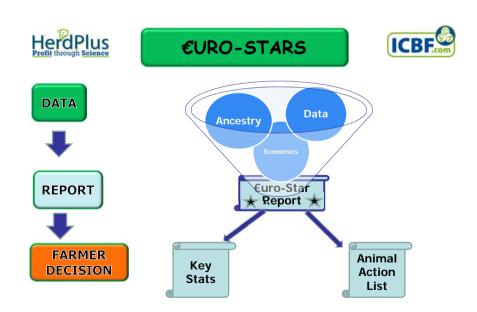








- €uro-Stars being increasingly used as a Selection, Culling & Purchasing tool.
- Whether Pedigree or Commercial You need to know the genetics that you are working with.

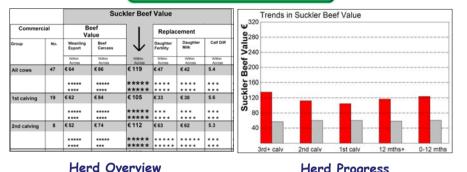


• What are the Genetic Strengths / Weaknesses of your herd



€URO-STAR REPORT





Herd Progress

Jumbo ID Animal tag	DOB Dam ID Sire ID	Weanling Export (Rel %)	Beef Carcass (Rel %)	\downarrow	Daughter Fertility (Rel %)	Daught Milk (Rel %)	Calv Diff % (Rel %)	Gestation Length % (Rel %)		Muscle Skeletal (Rel %)
Animal name Breed	Mat GSire ID	Within Across	Within Across	Within Across	Within Across	Within Across	Within Across	Within Across	Within Across	(1101 70)
CH065	26/09/07	€ 134	€ 161	€ 151	€ 15	-€80	14.8	2.4	-0.02	114
IE381160550065	FR7121391742	(45%)	(45%)	(42%)	(15%)	(21%)	(58%)	(28%)	(45%)	104
D CLASSIC (ET) CH (100%)	OSC 8594100771	****	****	*****	****	** *	*	**	** ***	(54%)

Individual Animal



HerdPlus €URO-STARS - IN ACTION! ICBE



Sex	Data	1 Star	5 Star
	Age at sale (days)	226 days	226 days
Male Weanlings	Weight at sale (kg)	294 Kg	354 Kg
J	Price (€animal)	€485	€669
	Price (€/kg)	€1.65	€1.89
	Average SBV	€20	€100

- 10,783 Weanligs sold in Aug, Sep, Oct
- Animals performed in line with their €uro-Stars
- 5 Star animals were more profitable.



HERDPLUS PRODUCTS







INBREEDING CHECK







INBREEDING CHECK



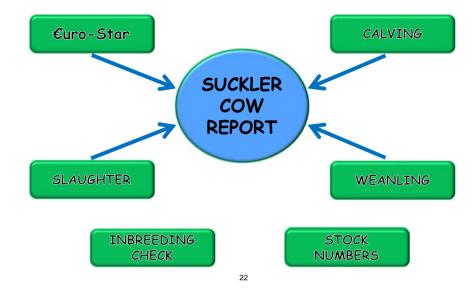
Jumbo	Animal Number	DOB	HTA
48P	IEWPLS0048P	01/02/96	OK
332	IE211063450332	11/02/99	25
334	IE211063470334	11/02/99	/ ок
338	IE211063420338	17/02/99	25
397	IE211063440397	13/04/99	OK
423	IE211063450423	26/01/00	ОК
548	IE211063460548	09/02/01	OK
684	IE211063420684	03/03/02	ОК
751	IE211063430751	12/11/02	ОК
829	IE211063460829	02/03/03	ОК
888	IE211063480888	15/11/03	OK
937	IE211063470937	15/02/04	ОК
965	IE CONTRACTOR OF THE CONTRACTO		
976	IE CONTRACTOR OF THE CONTRACTO		120170
	A		X

Identify possible Inbreeding problems before Bull is used!



HERDPLUS PRODUCTS







STOCK NUMBERS







STOCK NUMBERS



Nitrates Report

				Nit	rates Re	port - 2	009							1			
Animal Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	kg/hd	Total	kg/hd	Total
Dairy Cows	0	0	0	0	0	0	0	0	0	0	0	0	0	85	0	13	0
Suckler Cows	74	73	73	75	76	75	75	75	73	79	82	82	76.1	65	4947	10	761
Total Cattle 9 - 12 mths	70	65	58	63	60	61	61	62	62	80	90	76	67.3	24	1615	3	202
Total Cattle 12 - 24 mths	67	75	78	82	80	76	58	58	57	54	54	62	66.7	57	3802	8	534
Total Cattle 24+ mths	21	18	24	27	33	35	34	34	34	26	22	29	28.2	65	1833	10	282
Total	232	231	233	247	249	247	228	229	226	239	248	249	238.3		12197		1775

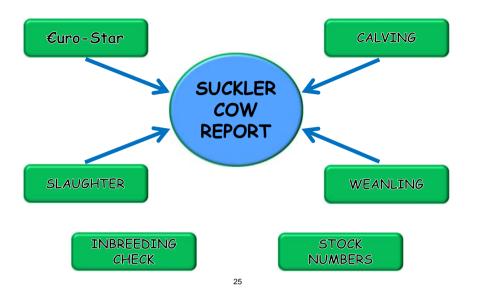
This report calculates the average number of animals in the herd each month and calculates the kgs of Nitrogen (N) and Phosphorus (P) produced in the herd based on these figures.

- Calculates the average number of animals in the herd each month
- Calculates the kgs of Nitrogen (N) & Phosphorus (P) produced



HERDPLUS PRODUCTS







SUCKLER COW REPORT



		Anima	al Details	s				Anc	estry	Deta	ails		€uro-Star Index					
Jum	ibo:	888			\neg		2000000	1988	800059	R			Within Breed	ų.		Index R		ross Bree
Offic	cial Tag:	IE21106	3480888				Sire's Sire:	BILL					****	Suckler Beef	Value	€180 42	1% **	***
Anir	nal Name:							1982	2005426	8		0		Bee	f Value			
Date	of Birth:	15/11/20	03				Sire's Dam	TUR	COISE				****	Weanling Exp	€89 47	% **	***	
							HOU						****	Beef Carcass € 119 48			3% ★★	***
Bree		(71.88%)	5%), FR (25°	%), LM	Sin	0.	HYMOUR					- 1		Replace	ment Val	ue		
Hero	dbook:	0 10			Dai		IE2110634	0508					****	Daughter Fertility €56			*1	***
Sco	red:				Dai								****	Daughter Mill		€85 33	3% **	***
Wei	ghed:	07/07/20	04					BBL							Key Traits			
BLU	BLUP Index (Reliability 31%)					Dam's Sire:	BEN	BULBE	N CHA	RLIE		****	Mat Calving I	Oiff %	€3.84 45	i% ★★	***	
м	MUSCLE SKELETAL DOCILITY					Dam's Dam	WN	A24439	5			*	Gestation Le	ngth	€2.91 35	5% **	k	
	102	12	28	-0.18					DAUT	JN KAI	RINA 4		*	Docility		-0.18 28	3% ★	
		С	alving 8	Fertility	Perf	orm	ance					V	Veanling &	& Carcass	Perfor	mance		
	Calving Date		Tag Number	Calving Survey			Current Status	Sire	Sire Breed	Age days	Weight Kgs	Growth Kg/Day*		Calf Quality	Docility	Age at Slaught (months		S Carca Weig
1	15/01/20	06 TIE21	10634 8114 3	Normal		M	Dead	IKG	SI	-				т —		24	TU3	459
2	07/02/20	07 IE21	1063431320	Normal	387	M	Dead	HKG	SI	176	374	1.45				25	U4L	460
3	17/03/200	08 IE21	1063471547	7 Normal	403	M	Dead 9	0346	CH					V.Good	Quiet	22	U-3+	429
4	22/02/200	09 IE21	1063421674	Normal	341	M	In herd	BUF	LM	208	347	1.48		V.Good	Quiet			
5	07/03/30	O DEST	1063451751	Normal	349	F	In herd	0065	CH						_		-	+

- Key Beef HerdPlus Report
- Allows you to evaluate every Syckler Cow in your herd in detail



HERDPLUS PRODUCTS





Calving

- 1. Report
- 2. Action List



Weanling

- 3. Report
- 4. Action List



Slaughter

- 5. Report
- 6. Action List
- Number of Beef Herdplus Products has steadily increased.
- Data is only limiting factor in product design.



HERDPLUS PRODUCTS





€uro-Star

- 7. Report
- 8. Action List



ar Profiles

- 9. Herd
- 10. €uro-Star
- 11. Fertility
- 12. Slaughter



Applications

- 13. Record Data
- 14. Inbreeding
- 15. Stock Report
- 16. Catalogue

- 16 Beef Herdplus Products
- All Products developed in conjunction with Suckler Farmers
- Constantly being improved based on feedback



In the Pipeline....









Discussion Group

Beef Output

Sire Advice

- More Beef Herdplus Products on the way
- Design & Delivery to be finalised following input from Suckler Farmers

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The Suckler Beef Value index

- A brief description of the system
- Where to get most up-to-date information on stock bulls, Al sires?
- Proof that the indexes are working



HERDPLUS SUMMARY



- Excellent uptake of the service
- Reports constantly improved
- Currently 7400 Farmers joined
 - 4550 Dairy
 - 2850 Beef



 Hassle free way to get Breeding information on your Herd

Lo-Call 1850-600-900

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The Suckler Beef Value Index: SBV

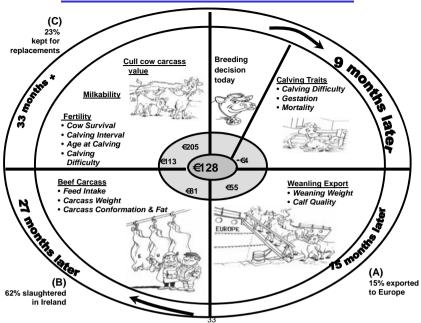








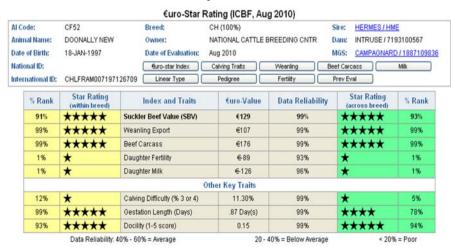
€uro-star Suckler Beef Index: SBV



Finding information: www.icbf.com

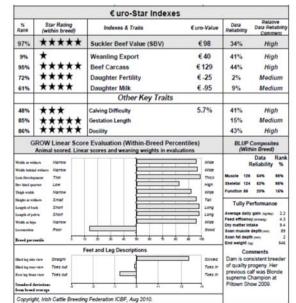


Uniform template for all bulls



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Sales catalogues



- Extra reliability comment
- Info on whether animal was scored
- Linear trait prediction

€uro-Star SBV indexes

- Aims to be an objective assessment of genetic merit of animals after removing the effects of different management
- **BUT**... Differences in indexes between animals must be reflected on farm otherwise no value to using them
- Validation is important

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Validation: Weanling performance

Al sires with > 10 progeny through marts

Across breed Star Rating	*	****	1
Number of Al bulls	34	81]
Average no. of progeny	63	259	• 50 kg heavier sale time
Weanling Export Index	-€15	€90	
Weanling reliability %	89	92	• 5kg heavier th herdmates
Average age at sale	227	228	nerumates
Average weaning weight	269	319	
Average herdmate weight	280	314	• Extra
Average price per kg	€1.58	€1.89	<u>31cents/kg</u>
Average herdmate pperkg	175	185	

Validation: Calving performance Al sires with > 50 progeny recorded

Calving diffic	culty		
Across breed Star Rating	*	****	
Number of Al bulls	221	132	50/ Jana annia
Average no. of progeny	861	888	5% less serious calving difficulty
Calving difficulty reliability	92	91	out on farm
Calving difficulty index (%)	12	2	1 /
Actual calving difficulty %	9	4	
Actual herdmate difficulty %	6	5	
Gestation	1		1 week less
Across breed Star Rating	*	****	gestation
Number of Al bulls	60	112	1
Average no. of progeny	355	89	
Gestation reliability %	93	93	1 /
Gestation index (days)	5	0] 🖊
Actual gestation (days)	291	284]_

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Validation: Carcass performance

sires with > 10 progeny slaughtered

Across breed Star Rating	*	****	l
Number of Al bulls	25	91	• <u>1 month younger but</u> 69kg heavier
Average no. of progeny	52	309	osky fleavier
Beef Carcass Index	-€23	€139	
Carcass reliability %	80	91	
Average age at slaughter	724	693	• 2 points better on
Average carcass weight	322	391	EUROP scale
Average herdmate weight	339	372	<u>======</u>
Average conformation	R-	R+	
Average herdmate conf	R-	R+	• High feed intake in
Average fat	3+	3	Tully also hitting 1*
			bulls
No. of bulls with Tully sons	5	47	
No of sons	18	332	
pd feed intake	0.18	0.04	

Validation: Daughter Milk Al sires with > 20 daughters with progeny weaning weights

Across breed Star Rating	*	****	
No. of Al Bulls	53	52	
Daughter Milk Index	-€96	€131	8kg h 1* sir
Daughter Milk Reliability	70	67	
Average no. of progeny mat wwt	104	68	
Average no. of herdmates mat wwt	743	343	8kg thei
Av weight of grandprogeny (kgs)	317	325	
AV. herdmate weaning weight (kgs)	320	317	

Level of quality weaning weights recorded very low!!

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Current Tully intake

- 51 Bulls in Test Measured for
 - Liveweight at 3 week intervals
 - Feed intake on a daily basis
 - Ultrasonic muscle and fat depth
- New information then incorporated into indexes

. . . Daily DM

		since birth	Feed intake		Musc	le		
	min	1.06	8.8		62			
	avg	1.44	10.8		85			
	max	1.74	13.4		100			
	SBV old	SBV new	Change	С	arcass		cass	Change
min	€19	-€15	-€61		-€7		€30	-€48
average (€102	€99	-€2		€93	€	91	-€3
max 6	€215	€205	€98		€174	€	158	€65

23 sires increased in SBV, 26 sires dropped

Validation: Fertility performanceAl sires with > 10 daughters

Across breed Star Rating	*	****	• lower age 1 st calving
No. of Al Bulls	134	152	• lower calving
Fertility Index	-€65	€89	problems
Average no. of progeny	176	103	• shorter calving
age 1st Calving (days)	948	907 🔫	interval
Maternal calving diff (%)	7	4 👉	Better survival
herdmate maternal cdiff (%)	6	4	
Calving Interval (days)	408	389	
herdmate calving interval	400	393	
Survival (%)	81	87	
herdmate survival (%)	82	83	

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Summary

- Indexes validating well for well proven sires
- · Low amounts of maternal data
- New developments are ongoing:
 - Across breed Docility evaluations: a worlds first
 - New fertility evaluations incorporating later parities
 - Carcass cut traits from digital imagery
- Farmers should use the figures when selecting AI bulls, stock bulls and replacement heifers
- Use website to track your bulls indexes over time

Genomics

- Biggest advance in animal breeding since AI
- DNA is <u>another</u> source of information in addition to pedigree, performance and progeny
- By looking at the DNA profile of a young animal we can predict with more accuracy how good they will be at breeding

Current Status

- Collecting tissue (semen, blood) from highly proven AI and stock bulls
- · List of AI bulls wanted on ICBF website
- Check your AI tanks for wanted bulls €€!

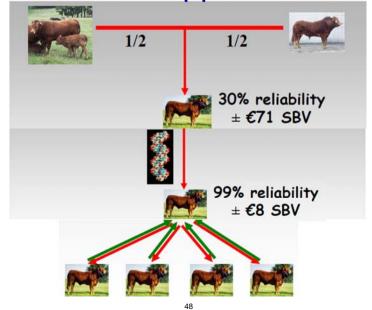
BREED	Al bulls	Tully bulls	Stock bulls '09	Moorepark	Stock bulls '10	TOTAL	Missing Al bulls	Potential
AA	40	29	9	25	31	134	121	255
AU	2	2	3		1	8	28	36
BA	13	9			1	23	42	65
BB	48	9	1		5	63	118	181
CH	73	73	22	1	126	295	194	489
HE	39	21	10	8	22	100	139	239
LM	71	98	36	1	124	330	157	487
PI	2	3	1			6	23	29
PT	4	4				8	12	20
SA	10	12			2	24	27	51
SI	49	58	15	1	19	142	96	238
TOTAL	351	318	97	36	331	1133	957	2090

Genomics

• Use proven bulls to see what constitutes 'good' DNA

Gene	Carcass	Calving	Docility
1	+3	-1	-0.3
2	+2.5	-2	-0.09
3	-0.3	+0.9	+0.3
4	+4	-0.2	-0.54
5	-7	+2	+0.14
	•		•
800,000	-14	+3	+1.1

New Approach



Implementation

- Once the DNA profiles of proven bulls has been received an analysis will be undertaken to determine the effects of DNA on €uro-Star traits
- Can then estimate how good the DNA of the young calf is and combine with all other information
- Same €uro-Star information but more reliable indexes for stock bulls and young Al bulls (and females)
- Potentially available in end 2011

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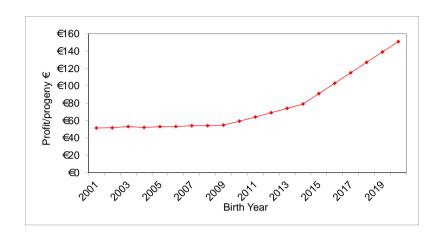


8TH October 2010.





Potential - SBV



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Background

- ICBF are focused on genetic gain (€ profit).
- Genetic Gain is only €5/year. It could be €20/year worth €15m/year to farmers.
- 80% of beef calves are from stock bulls.
- Only 55% of stock bulls are Al bred.
- Need to increase the quality of AI bulls and stock bulls
- G€N€ IR€LAND is a focused breeding program

G€N€ IR€LAND - Breeders G€N€ IR€LAND - Breeders

- ICBF.com
- Best bulls from Tully selected for G€N€ IR€ progeny test.
 - Purchased by AI stations/breeders.
- Nationwide across breed progeny test programme.
- Bulls selected for a combination of maternal and beef traits
- 700 straws per bull. Aim to get 100 daughters per bull
- Bull fully maternally tested in 3 years
- What will your legacy be as a breeder?

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G€N€ IR€LAND®



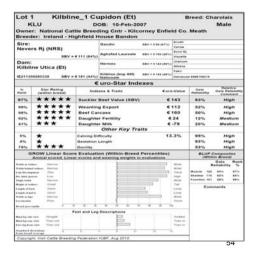
SUMMARY OF 34 BULLS TESTED

	# BULLS TESTED	AVG SBV	AVG INSEMS	AVG BIRTHS	AVG L. SCORE	AVG DAUGHTERS CALVED
AA	1	89	1334	408	14	0
ВА	1	12	341	135	22	0
ВВ	4	55	470	129	28	0
СН	9	134	1200	751	71	6
LM	11	109	943	489	68	6
PT	1	68	446	138	9	0
SH	1	71	690	424	5	0
SI	6	173	1278	833	102	10
TOTALS	34	89 (4 STAR)	838	413	40	3





EXAMPLE OF GENE IRELAND BULL





- •BORN FEB 2007
- •TULLY NOVEMBER 2007
- •IN AI SUMMER 2008
- •TESTED ON GI SPRING 2009
- •619 BIRTHS ALREADY
- •EXCELLENT REPORTS ON FIRST CALVES





G€N€ IRELAND REVIEW 2010

- PROGRAM BEGAN IN SPRING 2007
- 726 HERDS TOOK PART IN 2009
- MORE BULLS NEEDED
- COST OF TESTING WAS AN ISSUE
- MORE EMPHASIS ON MATERNAL TRAITS
- NEW LOW COST MODEL DESIGNED
 - MORE BULLS = MORE PROGRESS = MORE GENETIC GAIN

GENE IRELAND[®] 2010 AUTUMN PANEL



CODE	NAME	BREED	SBV	SBV STARS	MILK STARS
MLJ	MOGEELY JOE	AA	56	5	5
KCE	KILMONEY BRUCE	BA	92	5	3
BCZ	BOHERARD CAPTAIN	BB	137	5	4
CXY	CLOVERFIELD EXCELLENT	СН	150	5	5
DEZ	COTTAGE DEVON	СН	186	5	4
LGL	LISNAGRE ELITE	CH	160	5	2
GHX	GOLDSTAR ECHO	CH	126	5	3
GCT	GOULDINGPOLL CAPTAIN	HE	110	5	5
ADX	ARDLEA DAN	LM	129	5	5
NHL	NETHERHALL EPIC	LM	114	5	3
CZH	CARMORN DAUPHIN	LM	85	3	5
CBQ	CAMBRIDGE	PT	54	2	5
BHU	BALLYMACKEOGH HUGH	SA	121	5	5
LYJ	LISSOY JUMBO	SH	71	5	5

OVERALL AVERAGE IS 5 STAR SBV AND 4 STAR MILK





AUTUMN 2010 PANEL

• LGL







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