

IRISH CATTLE BREEDING FEDERATION

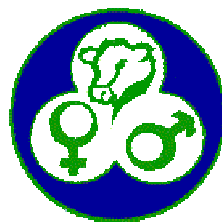
GENE IRELAND Meeting AI Company Participants

Radisson Hotel, Cork Airport

21st January 2009

Agenda.

- Summary of Progeny Test to date
- Overview of Spring 2009
 - Bull owner Progeny Test service
 - Bull owner Procurement service
 - AI field service
 - Genomic services
- Any other business



IRISH CATTLE BREEDING FEDERATION

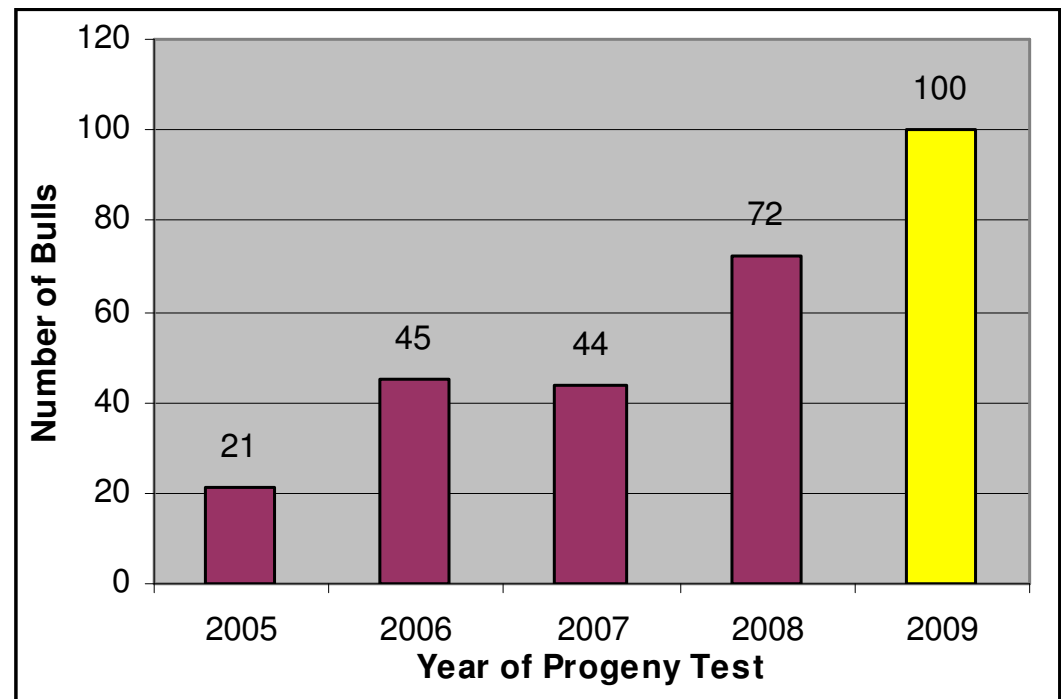
***Review of GENE IRELAND
Programs (2005-2008)***

GENE IRELAND – Objectives

- Dairy Program launched in 2005.
- Three main objectives.
 1. Increase scale of progeny test program
 - 100 bulls each with 100 daughters.
 2. Increase efficiencies of progeny test.
 - Targeted herd approach.
 3. Increase EBI of young bulls.
 - New “top 10” bull each year.

1. Scale of program – *Spring Only.*

- Target = 100 bulls.
- Scale increasing each year.
 - Late start in 2007
- Additional ~10 bulls in Autumn.
- Target 100 bulls for Spring 2009.



2. Efficiency of program – *Spring Only.*

- Target; 700 straws = 100 dtrs in proof.
- Improvements in efficiency (~10-15 straws/dtr is accepted “norm”)

Year	Dtrs/Insem	Dtrs
2005	9.4	80
2006	7.5	92
2007	6.8	104
2008	6.0	117

- 2005 program; ave 80 daughters, but only 50 in current proof....*“carry-over, sold, culled”*.
- 2006 & 2007 programs – will “lose” 15-20 daughters for each bull.
- 2008; need ~117 live heifers next Spring.
- Need farmers to use semen in current season.

3. Average EBI of young bulls – *Spring Only.*

- Major increases in EBI of bulls teams.
 - Doubled compared “old programs”
 - Increasing emphasis on fertility.
 - Target = €155 for Spring 2009

Year	EBI	Milk	Fert
2005	€105	€68	€29
2006	€120	€58	€48
2007	€125	€61	€50
2008	€142	€55	€58
2009	€155	€60	€60

- Can the program deliver a “new top 10 bull” each year?
- *The key objective of the program.*

Herd Sign-ups – Spring Only.

- 1205 herds involved in 2008 program.
 - Industry support, e.g., Teagasc Disc Groups.
 - High EBI HF pack.
 - Range of breeds.
 - Started “sign-ups” early. Completed by Mar

Program	No Bulls	No Herds
2005	20	150
2006	45	482
2007	44	686
2008	71	1205
2009	90	1575

- Spring 2009 program - need ~1575 herds.

Testing the Science – Does GENE IRELAND “work”?

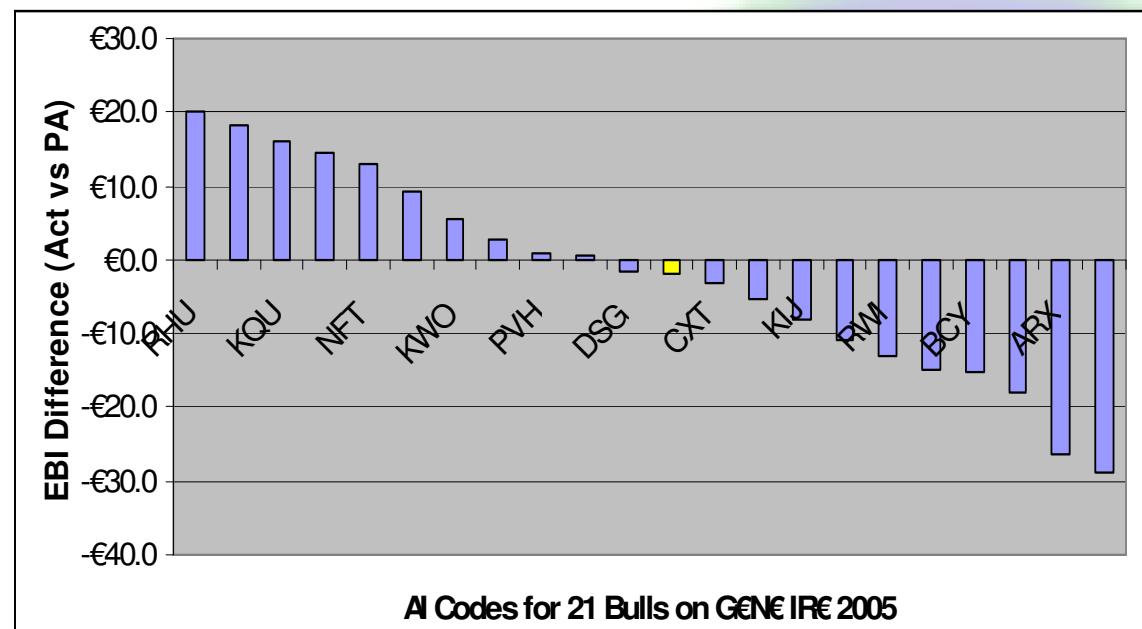
- 2005 bull team.
 - “Parent Average” EBI = €102
 - Average reliability of team (5 bulls * 5 straws) = 85%
- What does the “science” tell us?
 - “Actual EBI” for team of bulls = +/- €10 (€92-€112)
 - “Range of EBI’s” for individual bulls = +/- €70 (€32-€172)

G€N€ IRELAND - Spring 2005 Crop

Code	Name of Bull	Sire	EBI	PAve	Diff	Rel	Dau	Hrds	Milk	Fert
AIB	CARRIGOON ARCHIBALD	AHD	€115	€106	€10	61	33	28	€59	€43
ARX	COOLTEEN ARCHIE	AHD	€81	€103	-€22	66	55	41	€55	€40
BCY	BALLINDINAS CAREY	GMI	€98	€100	-€2	63	44	38	€67	€30
BSG	BALLYBROOK DESIGN	DXD	€93	€99	-€6	63	48	43	€45	€49
CXT	CARRACOUSH EXTASY 4	WIM	€122	€110	€11	56	25	18	€128	-€19
DSG	BALLYMARTIN DESIGN 2	DXD	€44	€67	-€23	61	29	23	€44	-€1
HTO	HILLSDALE LOOSTER	LOO	€97	€113	-€15	62	41	35	€78	€19
KDI	KILCOLMAN DESIGN	DXD	€91	€95	-€4	65	53	40	€32	€50
KIJ	KILLINGLEY SIJKE SLOGAN	ESZ	€71	€77	-€6	69	108	78	€22	€39
KQU	KILQUANE TAUS	RGK	€72	€50	€21	65	64	51	€62	-€2
KSY	KILLINGLEY SIJKE DELCOY 2	DCD	€135	€105	€30	63	70	50	€91	€18
KTX	KILLINGLEY BET EXCELLENC' LYE		€85	€117	-€32	69	100	73	€32	€56
KWO	KILCLUTOWN DESIGNER JOM	DXD	€89	€89	€1	64	45	30	€38	€58
LNH	CARRIGOON LENA ARCHIE	AHD	€120	€118	€2	57	28	20	€20	€73
NFT	COOLNASOON FAIRGALT 2	GMI	€112	€111	€1	49	12	10	€58	€34
PVH	PINEVILLE HUGO	UYC	€112	€123	-€11	64	51	39	€75	€29
RCI	CARRAIGBUI MERCI	GMI	€100	€108	-€9	61	29	26	€33	€61
RHU	BALLYBROOK ROYAL HUGO	UYC	€141	€134	€8	67	65	49	€103	€31
RMC	REARY MCGINLEY	NHS	€93	€106	-€12	71	96	70	€60	€12
RVS	RAHEENVARREN SJOERD	NHS	€115	€103	€12	61	36	26	€96	€12
RWI	REENBAWN MERCI	GMI	€109	€120	-€11	60	26	22	€66	€46
Average G€N€ IRELAND 2005			€100	€102	-€2	63	50	39	€60	€32

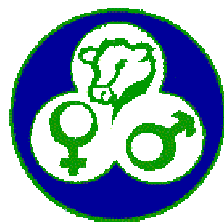
Yes. The Science Works!

- Parent Average EBI of 2005 Bull Team = €102
- Actual EBI of 2005 Bull Team = €100 (-€2)
- Across all bulls; EBI Difference Range = +/- €30
- Best bull = RHU (€141)
- ***“Science” has been proven.***
- ***Major +++ for GENE IRELAND***



GENE IRELAND – Summary

- GENE IRELAND is delivering on its 3 main objectives.
 - Scale = 100 bulls.
 - Efficiency = 700 straws & 100 daughters
 - EBI = €20/year increase.
- The “science” is now proven.
- Continue to build on what has already been achieved.



IRISH CATTLE BREEDING FEDERATION

Bull Owner Progeny Test service

Overview of Program

Overview

- AI companies purchase bulls, collect semen & forward semen to ICBF for dispatch (700 straws/bull).
- ICBF sign-up herds, dispatch semen, collect data & produce EBI's
 - Herd recruitment starting this week (to test 90 bulls, require ~1,575 herds)
 - Target dispatch start date mid-Feb

Semen Collection

- Key is to get semen moving early.
- **But**.....many of the bulls are only 1 year old @ semen collection.
- Reliant on bulls carried over from previous season.
- Critical to send ICBF weekly updates on semen collection.
- Some problems at end of breeding season, esp. non-HOFR.
 - AI Start dates vs <700 doses collected??

Data monitoring

- ICBF have large number of extracts for monitoring data collection.
- Bull Data File generated weekly
 - Summary of key data (i.e. count of rec'd insems, calvings, MR dtrs, Linears)
 - Latest Genetic Evaluation
- Output emailed to respective AI companies when time allows

Web screen developments

- Allow AI Companies on-line access to details of their GENE IR test bulls and herds assigned to them.
 - Latest bull indexes
 - Bull stats (from Bull Data File)
 - Herds signed up
 - Individual herd details
 - Progeny count (not restricted to GI bulls)

Homepage

The screenshot shows the ICBF Web Application homepage in a Windows Internet Explorer browser. The browser's address bar displays the URL: `\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\geneireland_ai_company\index.html`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains various icons for navigation and search. The browser's status bar at the bottom shows the Windows taskbar with the Start button and several open applications: EN, Inbox - Micro..., Gene Ireland..., Breeding_Da..., Gene Ireland..., Home. Irish..., and GENE IRE AI ... The system clock in the bottom right corner shows 12:19.

The web application interface is titled "ICBF Web Application" and shows the user "MICHAEL DOWNING" is logged in at "19-Jun-2008 15:24". The interface includes a navigation bar with "Home", "Contact Support", and "Logout" buttons. The main content area is divided into several sections:

- GENE IRELAND**: A section with a map of Ireland.
- YOUNG BULL PROFILE**: A section with a map of Ireland.
- PEDIGREE & LACTATION CERTIFICATES**: A section with a map of Ireland.
- Data Info**: A section displaying registration statistics:
 - 8 Pending Calf Registrations
 - 15 Animals without Jumbos
 - EBI report Available
- AI CODE APPLICATION**: A section with a map of Ireland.
- TARGET BULL MOTHERS**: A section with a map of Ireland.
- TARGET MALE PROGENY**: A section with a map of Ireland.
- Bull Search**: A section with a search form:
 - Search by: ☒ Ai Code, Tag ☐ Name
 -
 -

The footer of the web application contains the text: "Contact Support | ICBF © 2007 | Disclaimer".

Bull Analysis

GI Bull Details. Irish Cattle Breeding Federation (ICBF) - Windows Internet Explorer

\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\geneireland_ai_company\bulldetails.html

File Edit View Favorites Tools Help

Google g Search Find Check AutoFill Sign In

ICBF - Web Application GI Bull Details. Irish Cattl...

Home Feeds (1) Print Page Tools

ICBF Web Application

MICHAEL DOWNING
Logged in at : 19-Jun-2008 15:24

Home Contact Support Logout

Bull Indexes Bull Analysis Signed-Up Herds Herd Details Progeny Count

GENE IRELAND Bull Analysis

Download Print Year: 2008 Season: Spring Programme: Dairy Go Last Updated: 23-Sep-2008

AI Code	Straws Dispatched	Recorded Insems	Live Female Progeny	Dead Female Progeny	Live Male Progeny	Dead Male Progeny	Gest Length Rec's	Calf Perf Rec's	Dtrs With Insems	MR Dtrs	Linear Scored
ABC	150	150	50	1	49	0	140	139	90	5	5
BDS	40	30	12	0	12	0	35	22	21	0	0
WEF	175	170	80	0	82	0	160	160	1	0	5
SDF	42	40	16	3	16	1	42	30	0	0	0
WEA	930	900	400	2	455	5	900	840	500	50	2

(either beef or dairy is visible at a time, not both)

AI Code	Straws Dispatched	Recorded Insems	Live Female Progeny	Dead Female Progeny	Live Male Progeny	Dead Male Progeny	Gest Length Rec's	Calf Perf Rec's	Weaning Wgts	Weaning Linear	Dtrs With Insems	Mat Calvings	Mat Calf Wgts
ABC	150	150	50	1	49	0	140	139	139	139	90	139	139
BDS	40	30	12	0	12	0	35	22	22	22	21	22	22
WEF	175	170	80	0	82	0	160	160	160	160	1	160	160
SDF	42	40	16	3	16	1	42	30	30	30	0	30	30
WEA	930	900	400	2	455	5	900	840	840	840	500	840	840

Done Local intranet 100%

start Inbox - Microsoft Out... 2 Windows Explorer GI Bull Details. Irish C... GENE IRE AI Compan...

12:46

Signed up herds

GI Herds. Irish Cattle Breeding Federation (ICBF) - Windows Internet Explorer

\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\geneireland_ai_company\viewherds.html

File Edit View Favorites Tools Help

Google Search

ICBF - Web Application

Home Feeds (3) Print Page Tools

ICBF Web Application

MICHAEL DOWNING
Logged in at : 19-Jun-2008 15:24

Home Contact Support Logout

Bull Indexes Bull Analysis Signed-Up Herds Herd Details Progeny Count

GENE IRELAND Herds

[Download File](#)

Year: 2008 Season: Spring Programme: Dairy Go

BTE	First Name	Surname	Address	Mobile No.	Type	Packs Requested					Agent Name	AI Start Date	
						Brd 1	B1 No.	Brd 2	B2 No.	Brd 3			B3 No.
N1233456	John	Smith	Ashfield, Knocklong, Cashel, Co. Tipperary	0861233241	DIY	Ho Fr	36	RB	36	JE	36	Terry Dillon	20-Oct-07
N1233456	William	Smith	Pullerick Upper, Crookstown, Co. Cork	0871241245	DIY	Ho Fr	36	RB	36	JE	36	Trevor Hanley	20-Oct-07
N1233456	James	Scott	Ballinaboy, Ballinhassig, Co. Cork	0861235642	DIY	Ho Fr	36	RB	36	JE	36	Kevin Loughlin	20-Oct-07
N1233456	Barry	Scott	Ross, Kilmeaden, Co. Waterford	0870923453	DIY	Ho Fr	36	RB	36	JE	36		20-Oct-07
N1233456	Harry	Crooks	Clonoughter, Glin, Co. Limerick	0869878432	Tech	Ho Fr	36	RB	36	JE	36	Joe Tobin	20-Oct-07

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start

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Local intranet 100% 12:48

Herd details

GI Herds. Irish Cattle Breeding Federation (ICBF) - Windows Internet Explorer

\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\geneireland_ai_company\herddetails.html

File Edit View Favorites Tools Help

Google Search

Bookmarks Find Check AutoFill Sign In

ICBF - Web Application

Home Feeds (J) Print Page Tools

Home Contact Support Logout

Bull Indexes Bull Analysis Signed-Up Herds Herd Details Progeny Count

GÈNÈ IRÈLAND Herd Details

Customer Number Customer Name Herd Name

Customer Number Search

Customer Details

BTE Number : N1234567 National Id : IE1234567

Name: John Smith Phone:  01 4540600

Address: Highfield House, Shinagh, Bandon, Co.Cork

AI Details

AI Start Date: 01-Apr-2008 Type: DIY

Service Provider: Progressive Genetics Agent: Joe Tobin 046-254587

GÈNÈ IRÈLAND Involvement

Year: 2008 Season: Spring Programme : Dairy Go

Requested		Dispatched			
Breed	Number	Bulls	Breed	Number	Packed
HO FR	35	BUJ	HO	7	18 April
XBRED	35	DZB	HO	7	18 April
		LZI	HO	7	18 April
		...	...	...	...

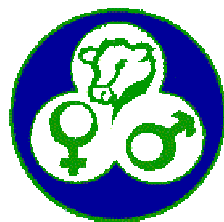
Done Local intranet 100%

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12:49

Summary

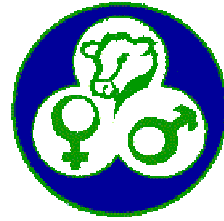
- Regular updates on semen collections critical to test group allocations and distribution.
- New on-line web screens under development to allow better access of test bull and herd information to AI Companies.



IRISH CATTLE BREEDING FEDERATION

***Bull Owner
Progeny Test service***

Contracts for 2009.



IRISH CATTLE BREEDING FEDERATION

***Bull Owner
Procurement service***

Current processes

- To date providing AI Companies with data from various extracts
 - Weekly young bull report
 - Expected calving report
 - Top cow listing (available on ICBF website)
 - Contract Mating files
 - Pedigree and Lactation Certificates

On-line application

- Files currently produced in cvs, txt or exl formats and emailed to respective companies.
- Move to an on-line application via ICBF website.
 - Improved access to information
 - Increased efficiency

On-line developments

- AI Companies log on as per herd owners.
 - AI Code application.
 - Request Pedigree & Lactation Certs (for a group or individual animal)
 - Targeting bull mothers
 - Others (still under draft)
- Restrictions will be applied to some extracts.

Homepage

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The web application interface features a header section with the ICBF logo on the left and the user's name, "MICHAEL DOWNING", along with the login time, "Logged in at : 19-Jun-2008 15:24", on the right. Below the header is a navigation bar with buttons for "Home", "Contact Support", and "Logout".

The main content area is divided into several sections:

- Left Sidebar:** Contains three links: "GENE IRELAND", "YOUNG BULL PROFILE", and "PEDIGREE & LACTATION CERTIFICATES".
- Central Data Info Section:** Displays the following statistics:
 - 8 Pending Calf Registrations
 - 15 Animals without Jumbos
 - EBI report Available
- Right Sidebar:** Contains three links: "AI CODE APPLICATION", "TARGET BULL MOTHERS", and "TARGET MALE PROGENY".
- Weather Widget:** A small map of Ireland with a weather forecast for "Today".
- Bull Search Section:** A search form with the following options:
 - Search by:
 - ☒ Ai Code, Tag
 - ☐ Name
 - A text input field for the search term.
 - A "Search" button.

The footer of the web application contains the text: "Contact Support | ICBF © 2007 | Disclaimer".

The Windows taskbar at the bottom shows the "start" button, the system clock at "12:19", and several open applications: "EN", "Inbox - Micro...", "Gene Ireland...", "Breeding_Da...", "Gene Ireland...", "Home. Irish ...", and "GENE IRE AI ...".

AI Code application

AI Code Application. Irish Cattle Breeding Federation (ICBF) - Windows Internet Explorer

\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\ai_approval\aiapproval.html

File Edit View Favorites Tools Help

Google Search

ICBF - Web Application

Home Feeds (3) Print Page Tools

ICBF Web Application

MICHAEL DOWNING
Logged in at : 19-Jun-2008 15:24

Home Contact Support Logout

AI Code Application

Applicant Details	Owner: NCBC	Keeper: NCBC						
Bull Details								
Country of Origin:	IRELAND	Date of Birth: 01-Jan-2005						
	Herd Name	Fore Name Bull Name						
Bull Name:	BIGHILL	TOM BIGHILL TOM						
ID Number 1:	IE123456789101	Tag Type: HBF						
ID Number 2:	IE123456789101	Tag Type: AB2						
Breed Code :	Ho (75%), Fr(25%)	Purpose: Beef						
Herdbook Class:	HFH	Type: XSR						
		Genetic Defects:						
	<table><thead><tr><th>Sample Type</th><th>Sample Identification</th></tr></thead><tbody><tr><td>Blood Type: C</td><td>B194873</td></tr><tr><td>DNA: Y</td><td>B194873</td></tr></tbody></table>	Sample Type	Sample Identification	Blood Type: C	B194873	DNA: Y	B194873	
Sample Type	Sample Identification							
Blood Type: C	B194873							
DNA: Y	B194873							
Particulars of Storage Centre								
Name and address of approved centre where semen was collected:	NCBC, KILCORAN, ENFIELD, CO.MEATH							
Name and address of approved centre where semen is stored in Ireland: (if different from where semen was collected)	NCBC, KILCORAN, ENFIELD, CO.MEATH							
Approval status applied for:								
Semen is for: a) Unrestricted Use	Please tick if ICBF genetic evaluations* are not required for ☐							

Done

start

Inbox - Microsoft Out... 2 Windows Explorer AI Code Application. ... GENE IRE AI Compan... Local intranet 100% 13:01

Young bull profile

GI Herds. Irish Cattle Breeding Federation (ICBF) - Windows Internet Explorer

\\icbf-server1a\public\Craig\Web\herdplusfarmpackage\geneireland_ai_company\youngBullProfile.html

File Edit View Favorites Tools Help

Google Search

ICBF - Web Application

GI Herds. Irish Cattle Bre...

Home Feeds (3) Print Page Tools

ICBF Web Application

MICHAEL DOWNING
Logged in at : 19-Jun-2008 15:24

Home Contact Support Logout

Weekly Young Bull Profile

Last Updated: 05-Sep-2008

Total : 5 animals
Selected: 0 animals

Herd ID	Farmer Name	Calf Tag	Hol %	Date of Birth	EBI (calculated)	SIRE	MGS	Tick for Cert
IE1510137	John Smith	IE151013715435	100	09-Sep-2008	122.22	QUR	RUD	☐
IE1421345	William Smith	IE142134554631	62.5	10-Sep-2008	100.38	ADS	WSD	☐
IE1874551	James Scott	IE187455122123	78.13	11-Sep-2008	128.62	RTT	ADS	☐
IE3811007	Barry Scott	IE381100745755	81.25	12-Sep-2008	106.86	RUD	RTT	☐
IE3215467	Harry Crooks	IE321546775422	96.88	13-Sep-2008	137.83	WSD	FDS	☐

Request Certs

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start

Inbox - Microsoft Out...

2 Windows Explorer

GI Herds. Irish Cattle...

GENE IRE AI Compan...

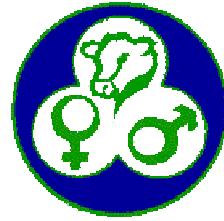
Local intranet

100%

13:01

Summary

- **Expand GENE IRELAND® web based procurement service to meet needs of AI Companies and Breed Associations with active breed improvement programs.**



IRISH CATTLE BREEDING FEDERATION

Genomic service

ICBF Genomic Services.

- Farmers/AI companies wanting genomic EBI's this Spring?
- Owner.....DNA....lab.....genotype.....ICBF database.....EBI (including genomic data)owner..... genotype stored in database.....EBI in public domain.....
- *Genotype only available to 3rd party, on consent of owner.*
- Terms & conditions (including cost) – not yet finalised
- Interbull meeting next week.