Management traits

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ICBF Dairy Industry Consultation Meeting, October 2012

Management traits

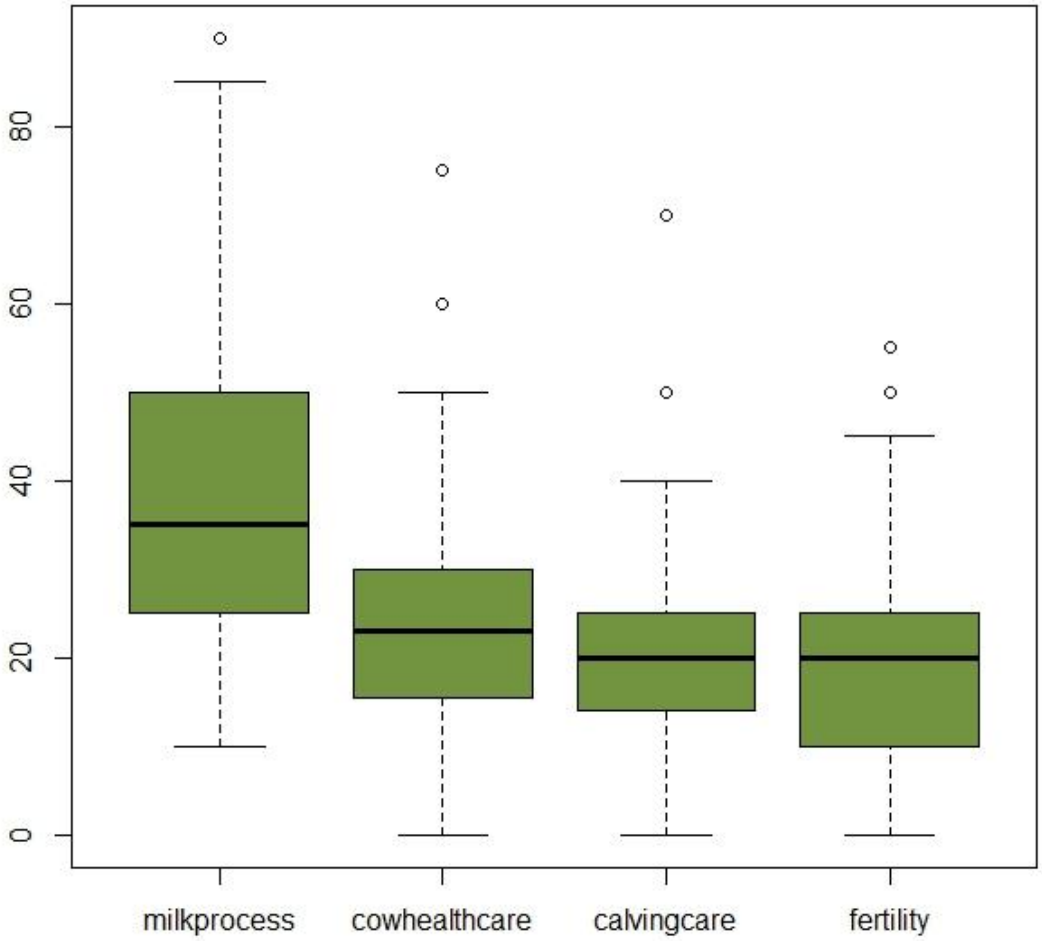
- Milking speed
- Temperament
- Farmer satisfaction, farmer opinion, workability, likeability

Labour study *(Yvette de Hass)*

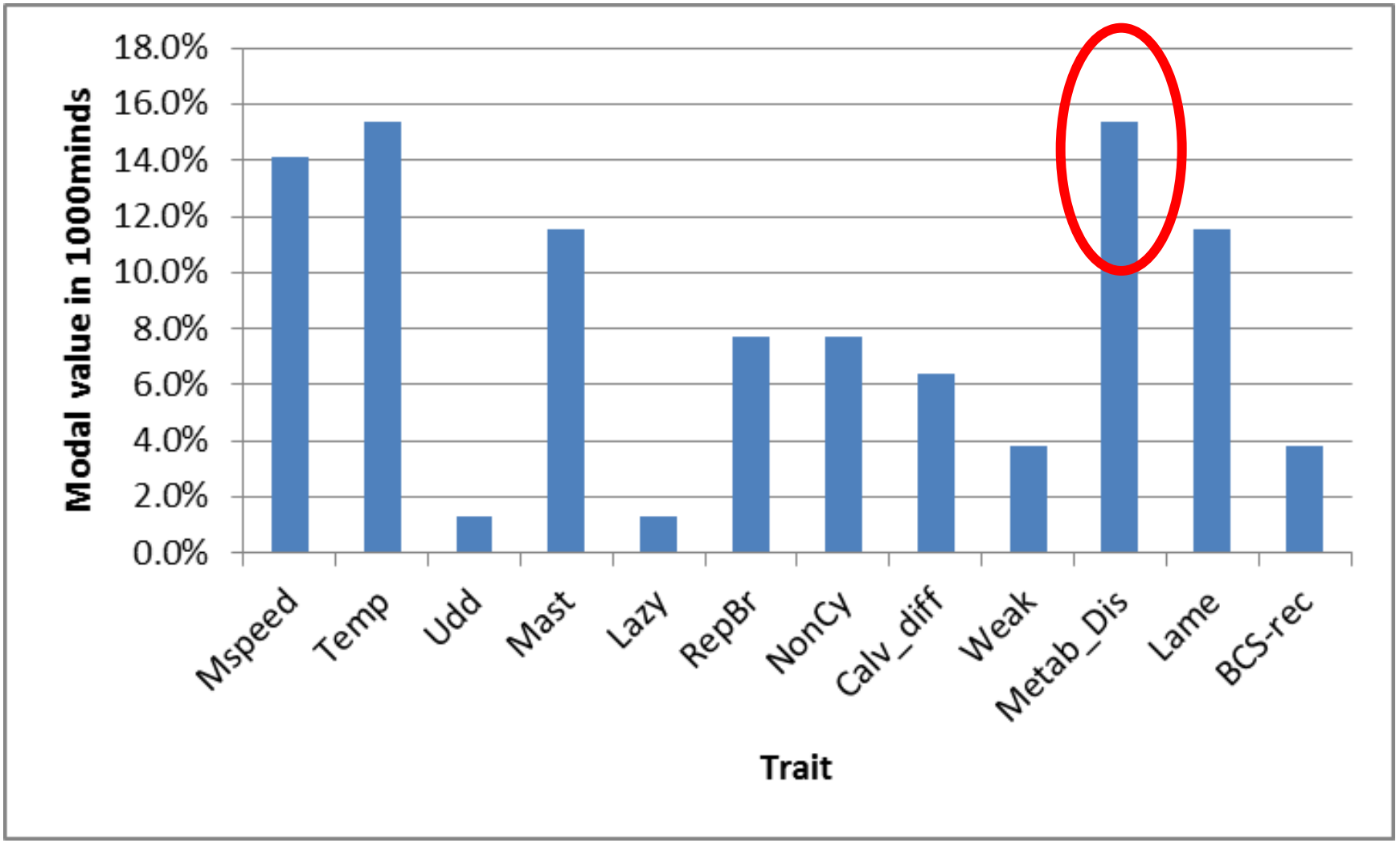
- Discussions with two discussion groups on characteristics of the easy-care cow
  - Milking process
    - Temperament, milking speed, lazy cows, mastitis, udder conformation
  - Cow health
    - Metabolic diseases, lameness, mastitis, BCS recovery
  - Calving and calf care
    - Calving difficulty, calf vitality
  - Fertility
    - Repeat breeders, silent heats

Relative importance

- 592 returned questionnaires from 4,000 surveyed farmers

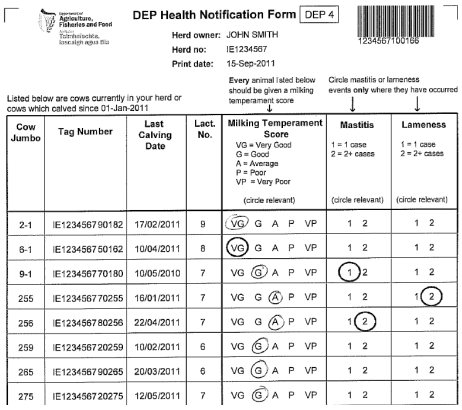


Relative importance



Data

- DIY milk meters
- Average milk yield recorded every 5 seconds
  - Milking duration
  - Flow rates (max., average)
- 370,597 records from 121,335 lactations on 1,365 farms during the year 2012
- DEP data for temperament



DEP Health Notification Form DEP 4

Herd owner: JOHN SMITH
Herd no: IE1234567
Print date: 15-Sep-2011

Listed below are cows currently in your herd or cows which calved since 01-Jan-2011

Every animal listed below should be given a milking temperament score

Circle mastitis or lameness events only where they have occurred

Cow Jumbo	Tag Number	Last Calving Date	Lact. No.	Milking Temperament Score (VG = Very Good, G = Good, A = Average, P = Poor, VP = Very Poor) (circle relevant)	Mastitis 1 = 1 case 2 = 2+ cases (circle relevant)	Lameness 1 = 1 case 2 = 2+ cases (circle relevant)
2-1	IE123456790182	17/02/2011	9	(VG) G A P VP	1 2	1 2
8-1	IE123456750162	10/04/2011	8	(VG) G A P VP	1 2	1 2
9-1	IE123456770180	10/05/2010	7	VG (G) A P VP	(1) 2	1 2
255	IE123456770255	16/01/2011	7	VG G (A) P VP	1 2	1 (2)
256	IE123456780256	22/04/2011	7	VG G (A) P VP	1 (2)	1 2
259	IE123456720259	10/02/2011	6	VG (G) A P VP	1 2	1 2
265	IE123456790265	20/03/2011	6	VG (G) A P VP	1 2	1 2
275	IE123456720275	12/05/2011	7	VG (G) A P VP	1 2	1 2

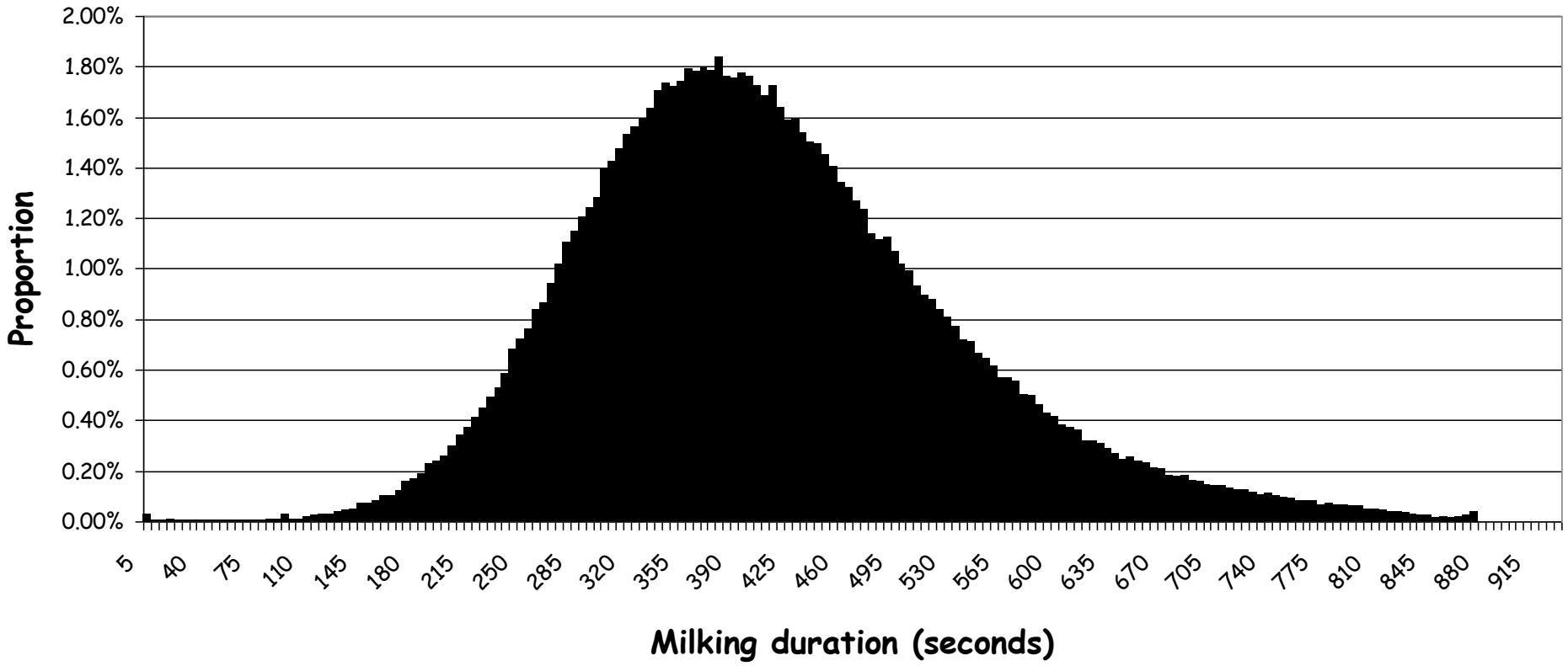
Objective

- To develop a new management sub-index for inclusion in the EBI
- Goal traits:
  - Milking speed – DIY meters
  - Temperament – DEP scheme

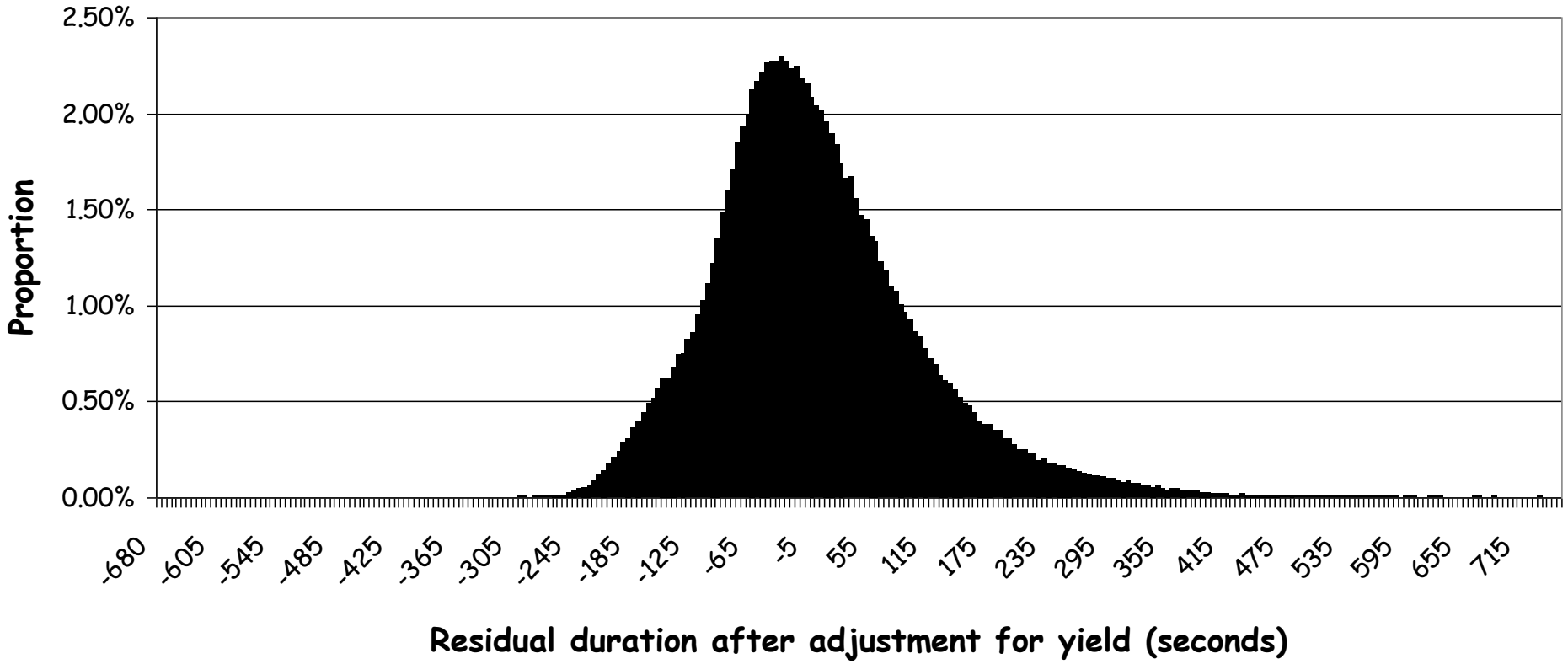
Milking speed

1. Ensure not selecting for lower yielding animals
   - Milking speed genetically independent of milk yield
2. Ensure not selecting for more mastitis through weaker teat end sphincter muscle
   - Include SCC and mastitis in EBI and monitor response to selection
   - Derive trait independent of both milk yield and SCC

Milking duration



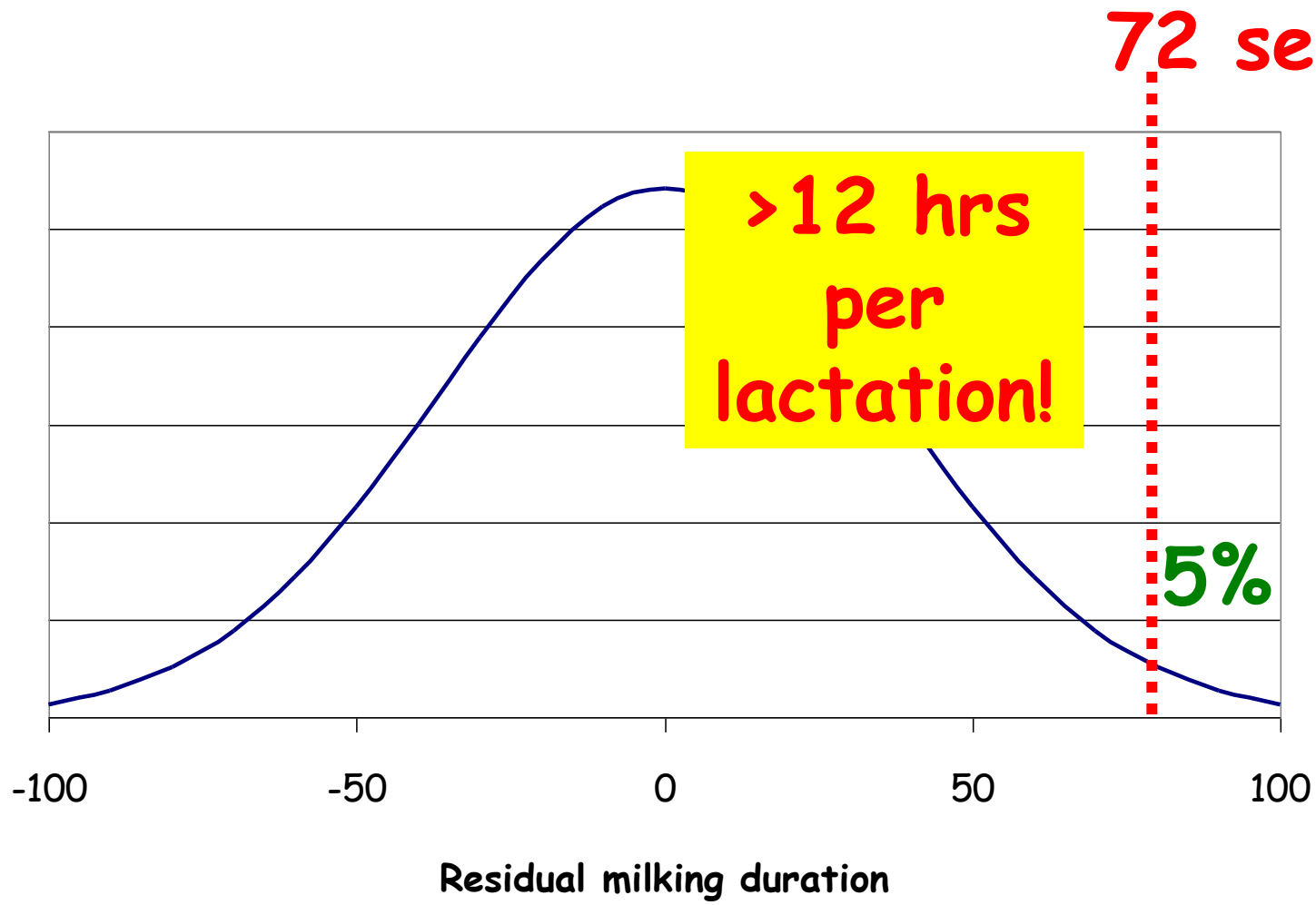
Residual milking duration – effect of milk yield removed



Approach

- Calculate milking duration from DIY meters
- Adjust genetically for milk yield and somatic cell count
  - Ensures selection for this trait will have zero impact on genetic change for either milk yield or somatic cell count
- Include in a multi-trait evaluation with temperament
- Investigate potential of type traits as predictor traits

Genetic variation



Genetics of residual milking duration

- Heritability: 0.18
- Zero genetic correlation with milk yield and somatic cell count
  - Genetic correlation of 0.14 with mastitis
- Genetic correlations with udder type traits: -0.11 to 0.07 (exception of teat length 0.29)

Genetic correlations with residual milking duration

Trait	Ease of milking	Farmer temp.	Linear temp
Milking duration	-0.28	0.25	0.22
RMD	-0.51	0.41	-0.12

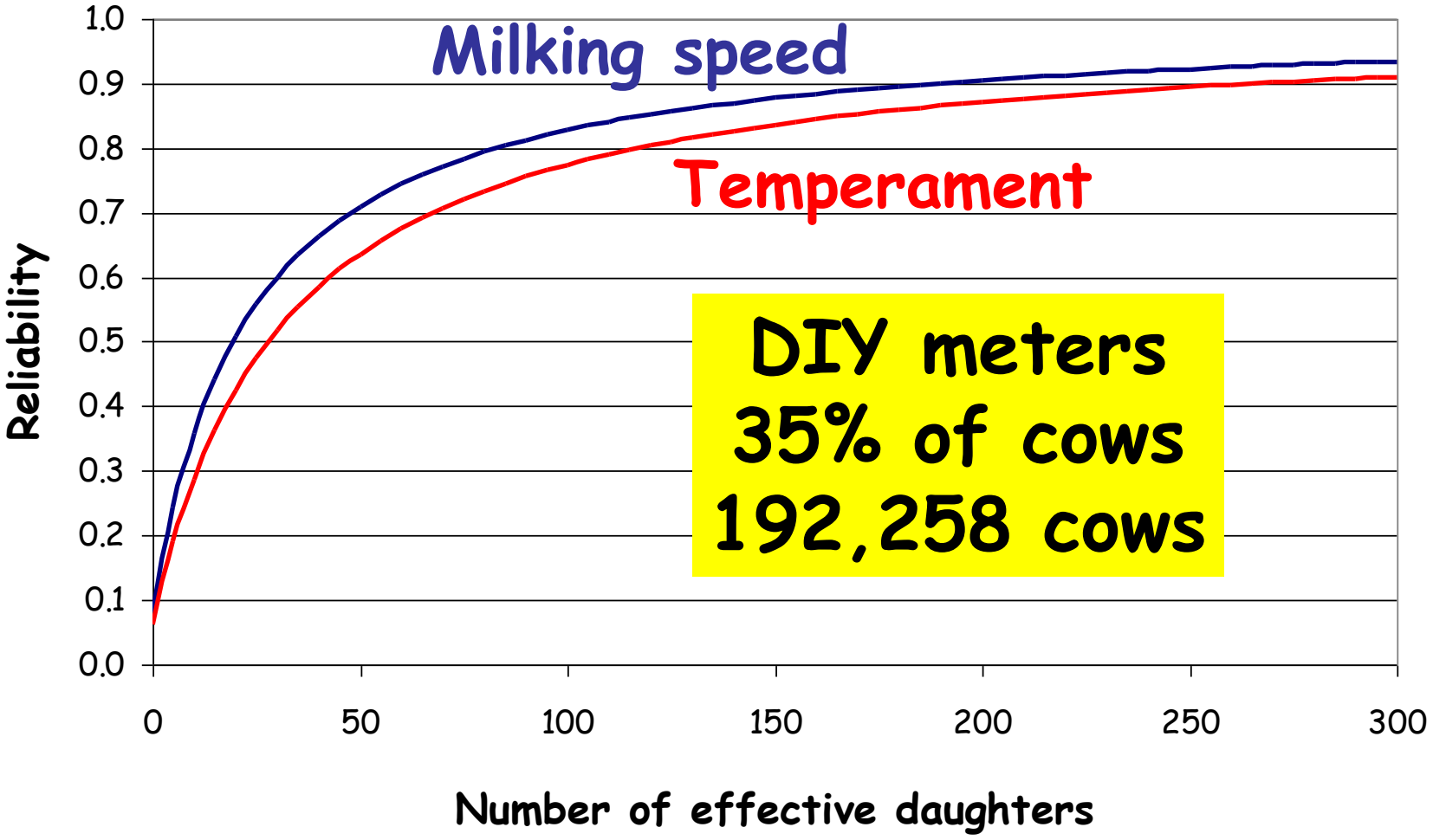
Genetics of temperament

- Heritability: 0.13
- Positive genetic correlation with somatic cell count (0.34) but not mastitis or lameness and negative genetic correlation with milk yield (-0.21)

Management genetic evaluations

- Multi-trait repeatability animal model Milking duration, milk yield, somatic cell score, farmer scored temperament, linear classified temperament & ease of milking
- Post-hoc genetic adjustment of milking duration for both milk yield and somatic cell score
- Goal traits:
  - Residual milking duration
  - Temperament

Reliability



Economic values – milking duration

- Assumption based on shortening the duration of milking of the entire herd
  - 305 days of lactation, milked twice daily
  - 12 unit milking parlour with 100 cows
    - Number of cows per unit is the important factor: 8.33
  - Discounted genetic expression of 1
- ~~Impact on survival, milk yield, SCC …~~
- Economic weight = -€0.25/second

Economic values – temperament

- Based on analysis of beef docility (Peter Amer)
- Cost of injury
  - 65% of the estimated 1731 farm injuries in 2007 were livestock related
  - Doctor charges & work days lost
  - Average cost of injury: €7030
- Death
  - 27 deaths between 1996 and 2007 resulting from livestock

Economic values – temperament

- Calculations include both cows and heifers
  - Assumed unity genetic correlation between cow and heifer docility
  - Accounts for cumulative discounted genetic expressions
- ~~Impact on survival …~~
- Economic weight: -€33.69

Relative emphasis in EBI

- EBI of 2012
- Milking duration – 2.20%
- Temperament – 2.05%
- Total: 4.25%

Health traits

Donagh Berry[1] John MacCarthy[2] and Andrew Cromie[2]

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ICBF Dairy Industry Consultation Meeting, October 2012

Health traits in EBI

- Mastitis
  - Economic value applied to somatic cell count through assumed genetic correlation (r_g=0.70)
- Somatic cell score
- Lameness
  - Economic value applied to linear type trait locomotion through assumed genetic correlation (r_g=-0.40)

- Application of economic value to correlated trait deflates weight within EBI

Dairy Efficiency Program (DEP)

- **Year 1:**
  - Calving events recorded (Animal Events)
- **Year 2:**
  - Calving events + health events (on a per lactation basis) recorded
  - Mastitis (cases during lactation: 0, 1, ≥2)
  - Lameness (cases during lactation: 0, 1, ≥2)
  - Cow temperament (VG, G, A, P, VP)

Department of Agriculture, Fisheries and Food
Aonghas Talmhaíochta, Iascaigh agus Bia

DEP Health Notification Form DEP 4

1234567100166

Herd owner: JOHN SMITH
Herd no: IE1234567
Print date: 15-Sep-2011

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Approach

- DEP mastitis and lameness data supplemented with recorded mastitis and lameness data
- "Other" recorded diseases
- Milk yield and somatic cell count
- Linear type traits

Genetics

- Heritability
  - Mastitis: 0.02
  - Lameness: 0.04
  - Other diseases: 0.01
- Genetic correlations:
  - Mastitis & lameness: 0.69
  - Mastitis & SCC (0.73) & milk yield (0.23)
  - Lameness & SCC (0.20) & milk yield (0.15)
  - Mastitis & udder-type traits: up to 0.34
  - Lameness & legs-type traits: up to 0.08

Genetic evaluations

- Multi-trait repeatability animal model
- Mastitis, lameness, somatic cell count, milk yield, udder depth, teat length, locomotion
- Goal traits:
  - Mastitis (DEP+recorded)
  - Lameness (DEP+recorded)

Economic values

- Apply economic values directly to the trait and not correlated traits

Economic values - mastitis

- Costs: labour, milk withdrawal, treatment
- Incidence of 25% of which 10% of them require veterinary assistance
- Impacting of shifting underlying liability distribution
- Economic value: -€77.10
- Economic value SCC: -€43.49
- Weighting on udder health: 2.8%

Economic values - lameness

- Costs: labour, milk withdrawal, treatment
- Incidence of 12% require mixture of farm-relief and farmer: €30.22
- Incidence of 3% require vet: €112.58
- Shift the underlying liability distribution
- Economic value -€54.26
  - Doubling of weight in EBI: 0.6%
  - Why so low?

Summary

- Improved genetic evaluation for health
- Increased emphasis within EBI
- Low apparent emphasis because of avoidance of double-counting
  - Bulls with lame/mastitic daughters will yield less and have inferior fertility which will be picked up in the PTAs for milk and fertility
- Still one of the weakest components within the EBI

Future health index

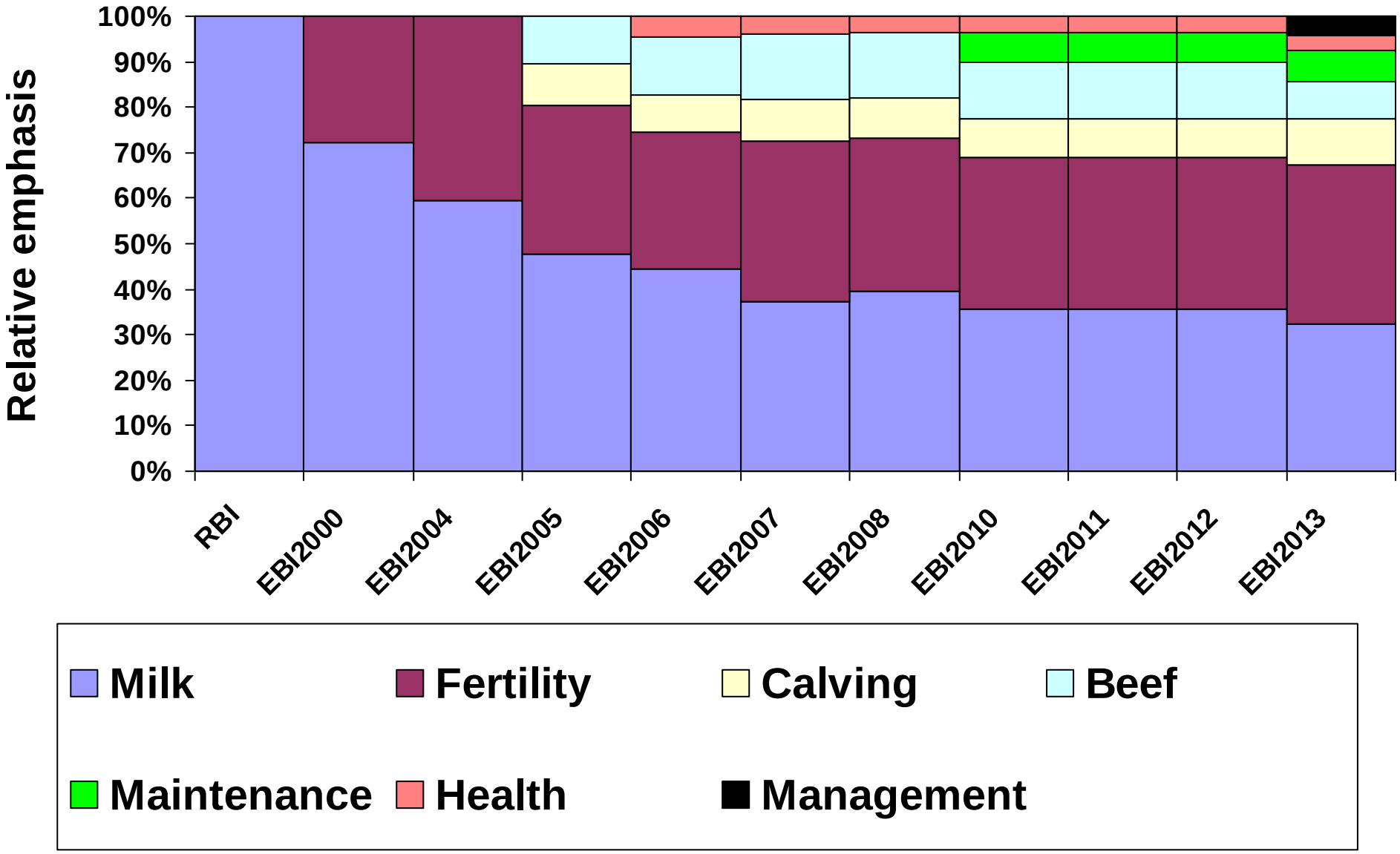
- Mastitis
- Somatic cell score
- Lameness

- TB, BVD, Johnes …..
- Factory reported ailments
- Reproductive tract ultrasound
- Others…..

EBI further developments

- Laurence Shalloo
- Combination of farm systems model and milk processor model

EBI


Relative emphasis
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
RBI
EBI2000
EBI2004
EBI2005
EBI2006
EBI2007
EBI2008
EBI2010
EBI2011
EBI2012
EBI2013
Milk
Fertility
Calving
Beef
Maintenance
Health
Management

Linear type traits update

Jessica Coyne[1], Sinead McParland[1], Francis Kearney[2] and Andrew Cromie[2]

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ICBF Dairy Industry Consultation Meeting, October 2012

INTERBULL test-run

- Submitted and passed INTERBULL test-run
- Revised data edits
- Revised statistical model
- Revised genetic parameters
- Revised genetic base

- UK and IRL base are no longer comparable

IRISH CATTLE BREEDING FEDERATION

ICBF Industry Meeting. Dairy

31st October 2012

National Development Plan
Transforming Ireland

Dairy Only (10-12)

- Genetic evaluations for health and management traits.
- Economic values for health and management traits.
- ICBF Active Bull List.
- G€N€ IR€LAND Breeding Program.
- EBI Survey

Genetic Evaluations for Health & Management Traits.

- Slides from Donagh.

Economic Values for Health & Management Traits.

- Slides from Donagh.

ICBF Active Bull List.

- Claims by certain AI companies re: “top bulls”.
- Has caused some “angst and confusion”.
- ICBF response – to identify “top bulls” associated with defined categories of animals.

Top Bulls – Defined Categories.

- Three categories defined (so far).
  - 1. Number 1 'GS' Dairy AI Bull
  - 2. Number 1 'DP-IRL' Dairy AI Bull
  - 3. Number 1 'DP-INT' Dairy AI Bull
- Reference relevant Active Bull List.
  - For example; LHZ, number 1 GS dairy AI bull, ICBF Active Bull List Autumn 2012.
- Further suggestions, contact Pat.

G€N€ IR€LAND Dairy Breeding Program

- Meetings with stakeholders underway.
  - AI companies, bull breeders & users.
  - Establish feedback ahead of “roll-out” for 2013 program.
- ICBF provide framework for “overall” program, but also facilitates individual requirements.

G€N€ IR€LAND – Issues/Updates.

- Promoting genetic diversity.
  - Current level of relatedness.
- Next Generation Dairy Herd.
  - 120 high EBI, genetically diverse heifers assembled.
- Sexed semen research project.
  - Sexed male semen for program?
  - Major field/research trial being developed.

EBI Survey (Jan 2013).

- Is EBI moving in right direction?
  - Milk kg in post quota environment.
  - Health and management traits.
  - Functional type for expansion…..
- Survey of farmers & industry.
  - Email survey – similar approach to “labour” survey.
- Establish views and then decide on course of action.

Dairy & Beef (12-1 PM)

- Calving evaluations.
- Beef performance evaluations.
- DNA archive.
- Genomics conference.

IRISH CATTLE BREEDING FEDERATION

Calving evaluation review

National Development Plan
Transforming Ireland

Changes

- New genetic parameters
- Adjusting for contemporary groups
- Splitting of contemporary groups for 1st vs later calvers
- Inclusion of predictor traits
  - Birth wts, liveweights, linears, carcass
- Integration of foreign proofs

Genetic parameters

Trait	Old parameters		New parameters	
	heritability	Genetic correlation	heritability	Genetic correlation
Calving difficulty				
Direct Maternal	0.23 0.03	-0.72	0.09 0.02	-0.22
Mortality				
Direct Maternal	0.01 NA		0.04 0.01	-0.03
Gestation				
Direct Maternal	0.39 NA		0.36 0.04	0.05

- An individual calving record will have less of an effect on an animal's proof
- Will need double the number of records to reach the same reliability as current evaluation for direct calving difficulty

Contemporary groups

- Currently treated as “Fixed Effects” in the evaluation
  - An historical statistical method since EBVs were first introduced
  - Not ideal in some situations
    - Contemporary group effect in small herd sizes cannot be estimated properly
    - Hence a restriction of a minimum of 5 animals per contemporary group over a 6 month period in Irish evaluations
    - This rules out information from many small herds

  Alternative:

    - Treat contemporary groups as random effects
    - Need to estimate the spread in order to use in evaluations
    - Done in Scandinavian dairy evaluations and Czech beef evaluations

1st versus later calvers

Two options here:

1. Treat as a different trait
   - Two sets of ebvs and reliabilities
   - What trait is published? Both?
   - Problems with differing use of bulls
2. Same trait but different contemporary groups for heifers versus cows within the same herd
   - One ebv and one reliability

For the moment opt for option 2 but in time explore option 1 more

Inclusion of predictor traits

Are there other traits available which can help to improve the accuracy of genetic merit for calving difficulty? Why?

- (A) No variation in calving scores due to management, age profile of cows
- (B) Under-reporting of calving difficulty
  - But how do you separate A from B? Not possible

2011 Calving score recording patterns

Spread in scores	Commercial Beef herds			Pedigree beef herds		
	Herds	% of herds	Animals	Herds	% of herds	Animals
1 - - -	19,271	46.6%	210,243	4,293	61.4%	15,110
1 2 - -	11,252	27.2%	190,646	1,115	15.9%	8,384
1 2 3 -	3,891	9.4%	88,166	168	2.4%	2,058
- 2 - -	794	1.9%	3,731	563	8.0%	1,012
1 2 - 4	1,827	4.4%	39,690	129	1.8%	1,589
1 2 3 4	1,507	3.6%	49,289	58	0.8%	954
1 - 3 -	873	2.1%	12,398	154	2.2%	1,043
1 - - 4	989	2.4%	15,210	173	2.5%	1,261
- 2 3 -	402	1.0%	5,309	68	1.0%	283
- - 3 -	155	0.4%	638	102	1.5%	144
- - - 4	82	0.2%	268	103	1.5%	143
1 - 3 4	169	0.4%	3,273	18	0.3%	140
- 2 3 4	94	0.2%	1,693	13	0.2%	114
- 2 - 4	45	0.1%	401	28	0.4%	87
- - 3 4	28	0.1%	266	12	0.2%	34

Inclusion of predictor traits

Predictor traits		
Trait	heritability	gen correlation with calving difficulty
Mortality at birth	0.04	0.12
Mortality 5 to 28 days	0.04	0.08
Gestation	0.36	0.25
Birth weight	0.46	0.37
150-250 day wt	0.30	0.26
250-350 day wt	0.35	0.20
350-450 day wt	0.43	0.17
Muscle	0.40	0.25
Skeletal	0.40	0.25
Carcass wt	0.38	0.25
conformation	0.33	0.20

As expected the best predictor of calving difficulty is Birth weight, But in the absence of birth weight the correlations with later traits will be more important!

Integration of foreign proofs

Currently foreign proofs are integrated post evaluation

- INTERBULL (dairy)
- Breed x country (beef)

- Aim with the new evaluations to

  Integrate proofs directly into the evaluation similar to beef

  – Benefit: Foreign proof should then flow down and up the pedigree

Current status

- EBV and reliabilities ran on a small dataset last week
  - 3 goal traits (direct and maternal)
    - calving difficulty, gestation, mortality at birth
    - 8 predictor traits: liveweight, linears, carcass
- Currently generating evaluation file of all animals
  - Hopefully will run ok

Current status

- New ebvs and reliabilities
- Apply same base as before
- Compare proofs with current proofs
- Release test proofs end of next week
- Feedback and decision on implementation and if positive
- Run a new evaluation with up-to-date calving and beef data for release in December/January

Beef Performance evaluation Review

Changes

- New genetic parameters
- New traits
- Adjusting for contemporary groups
- Change to the way the contemporary groups are formed for:
  - linear scored traits
  - Carcass traits

	Current evaluation: 20 traits
Weight traits Pedigree and Commercial	
	150-300 day weight
	300-600 day weight
Commercial weanling quality traits	calf quality score
	150-300 mart price
Pedigree weanling quality traits	Width at withers
	Width behind withers
	Loin Development
	Development of Hind Quarter
	Height at withers
	Length of back
	Length of pelvis
Performance station traits	Feed intake
	Ultrasound Muscle
Carcass traits	Carcass weight
	Carcass conformation
	Carcass fat
	Cull cow carcass weight
Foreign trait ebvs	Foreign EBV weaning wt
	Foreign EBV Muscle
	Foreign EBV Skeletal

Contemporary group changes

- Linear scoring:
  - No longer permit crossbreds and purebreds in same group
  - Split Age groups 150-250 and 250-350 day
  - Increasing the age limit for linear scoring?

- Carcass data
  - Currently all animals from a herd over a 2 month period are included in same contemporary group and adjusted for sex
  - New evaluation will break these up into heifers, steers and young bulls
  - Effect of herd prior to fattening

Current status

- Genetic parameter estimation should finish this week
- Formatting for a test run in Mix99
  - EBVs & reliabilities
  - Test run and circulation of proofs
  - Second week in November hopefully

DNA Archive.

- Update at Genomics Conference – 14th November 2012.

Genomics Conference.

- ICBF & Teagasc.
- Wednesday 14 November, Killeshin Hotel, Portlaoise.
- For industry & bull breeders.
  - Parentage verification, genomic evaluations & breeding programs.
  - Dairy & beef.
- Complimentary. Must pre-book.

Session 1 (Morning)

- Genomics, parentage identification & genetic evaluations.
  - Introduction to animal breeding, including genomics – Dr. Sinead McParland, Teagasc.
  - Genomics and parentage verification – Dr. Matt McClure, US Department of Agriculture.
  - Developing a customised chip for Ireland – Dr. Mike Mullen, Teagasc.
  - DNA archive – Pat Donnellan, ICBF.
  - Implementation of genomic services – Mary McCarthy, ICBF & John Flynn, Weatherby's.

Session 2 (Afternoon)

- Genomics and genetic improvement.
  - Role of genomics in Irish dairy and beef breeding programs – Dr. Andrew Cromie, ICBF.
  - Developments in beef genomics – Dr. Donagh Berry, Teagasc
  - Developments in dairy genomics – Dr. Francis Kearney, ICBF
  - Where next for genomics and cattle breeding – Dr. Matt McClure, US Department of Agriculture.

Beef Only (2-4 PM).

- Stock bull functionality.
- €uro-Star implementation.
- ICBF Active Beef Bull Lists.
- G€N€ IR€LAND Maternal Beef Program.

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STOCK BULL FUNCTIONALITY ANALYSIS

Fiona Hely, Peter Amer, Tim Byrne, Andrew Cromie, Ross Evans, John McCarthy, Francis Kearney

Analysis of data

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- Need to define what a “stock bull” is
- 16GB of data needs to be filtered and merged to find these stock bulls and their movements and progeny during their service life
- Determine how many progeny each stock bull has in each herd year of their service life

Stock bull categories

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1. Full pedigree status stock bull
2. Grade bull with no evidence of mixed breed background
3. Grade bull with evidence of mixed breed background

Number of bulls by category

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	Bull category	n
1	Full pedigree status bulls	3,522
2	Grade bull with no evidence of mixed breed background	970
3	Grade bull with evidence of mixed breed background	2,319

Stock bull progeny by category

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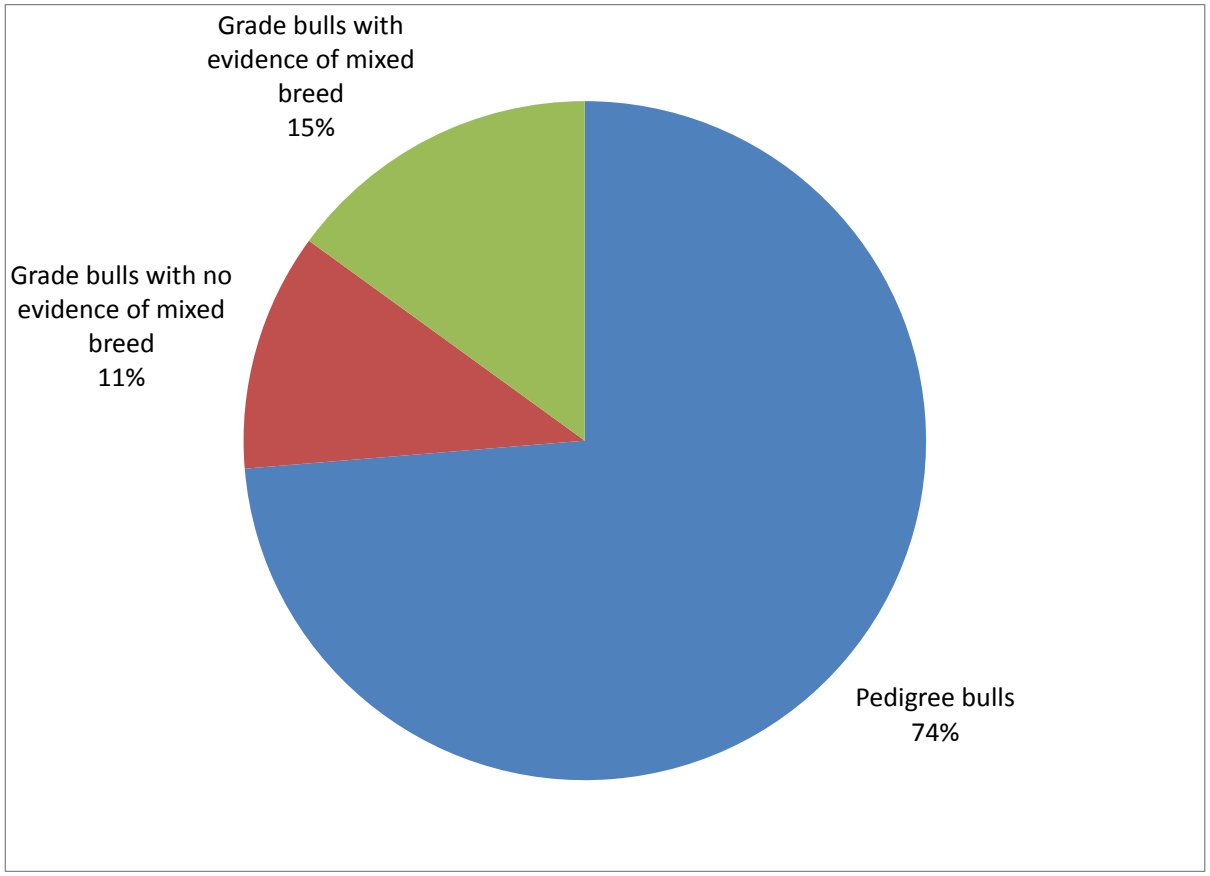

Around 50% of the bulls were full status pedigree bulls which produced 74% of the stock bull progeny

Measures of stock bull performance

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- Comparisons of service length can only be made between stock bulls that are already dead otherwise stock bulls still in service will be penalized.
- If the total number of progeny sired by a stock bull is used as a performance measure it must be corrected for herd size in order to fairly compare stock bulls used in smaller herds with those used in larger herds.

Total number of progeny per stock bull

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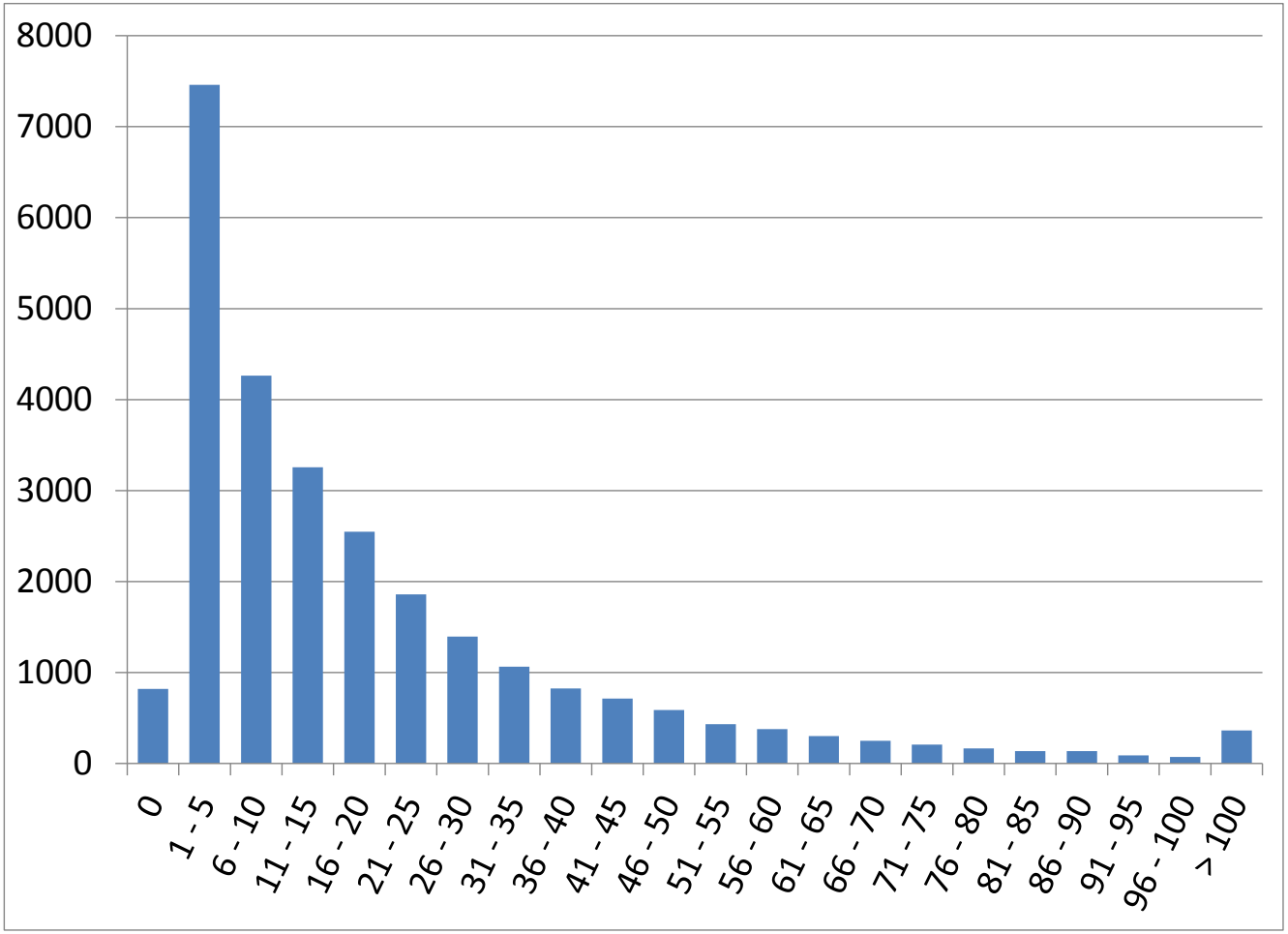

Progeny per bull

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Bull category	Progeny sired at age 2	Progeny sired by 4 years old	Total progeny sired	Cows available over lifetime
Full pedigree bulls	7.05	19.22	19.63	38.83
Grade bull with no evidence of mixed breed background	5.28	14.94	15.46	25.21
Grade bull with evidence of mixed breed background	4.54	12.62	13.24	17.72

The average number of progeny for each category is adjusted for the number of cows available to the stock bull, which accounts for stock bulls in smaller herds with less opportunity.

Index comparisons

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Index	Pedigree bulls	Grade bulls no mixed breed	Grade bulls mixed breed
Calving sub index	-11.32	-8.68	-4.77
Slaughter sub index	73.15	52.51	40.28
Maternal cow sub index	-41.87	-4.1	42.21
Daughter fertility sub index	7.46	17.49	27.51
Daughter milk sub index	-2.07	15.28	43.26
Overall suckler beef value	70.95	57.71	59.45
New suckler cow beef value	226.8	232.35	303.79

Linear score comparison

ABACUSBIO LIMITED

Index	Pedigree bulls	Grade bulls no mixed breed	Grade bulls mixed breed
Condition Score*	5.27	5.00	4.43
Docility*	8.23	7.82	7.38
Hindleg side view*	6.96	6.82	7.24
Hindleg rear view*	7.87	7.74	7.90
Foreleg front view*	8.29	7.9	7.52

*Raw scores on a scale of 1 to 10 where feet and leg scores have been transformed so higher is better for all scores

Average number of progeny per bull by breed

ABACUSBIO LIMITED

Breed	Average number of progeny sired between 2 and 3 years of age*	Average number of progeny sired by 4 years of age*
AA	5.01	14.96
AU	5.01	13.98
BA	5.39	12.41
BB	4.56	12.56
CH	6.88	18.26
HE	5.88	15.37
LM	5.78	15.82
SA	4.38	14.44
SH	4.44	13.57
SI	5.65	16.74

*These are means that have been adjusted for herd size

Genetic Parameter Estimation

ABACUSBIO LIMITED

- Heritabilities estimated for three measures of service length
  - Number of progeny at age 2
  - Number of progeny by age 4
  - Total number of progeny
- Determine a high quality set of data
  - Most promising results when only full pedigree status bulls are used
  - Some evidence of low h^2 but with high standard errors

Stock Bull Functionality. Where next?

- Comments/feedback?
- Undertake farmer survey re: stock bull satisfaction.
- Estimate genetic parameters.
- Produce genetic evaluations.
- Further comments/feedback.
- Implement 2013.

€uro-Star Implementation.

- €uro-Star material.
- Training & meetings.
- National events.
- Mart link-ups.
- Further research.

€uro-Star material.

- ICBF HerdPlus profiles.
- Herdbook on-line.
- €uro-Star catalogue.
- ICBF Active Bull List – now.
- €uro-Star report – Dec.
- Suckler cow report – Dec.
- Others…..

ICBF Active Beef Bull Lists.

- Based on feedback from €uro-Star implementation group.
- Two separate lists; maternal & terminal.
- Includes overall indexes & some key profit traits.
- Edits applied to “fool-proof” list.

Maternal – Edits.

- Calving Difficulty Reliability>=50%,
- Carcass Weight Reliability>= 50%,
- Daughter Calving Interval Reliability >=50%,
- Minimum of 2.5 stars (within or across breed) for Maternal Index,
- Minimum of 2.5 stars (within or across breed) for maternal milk, and
- Minimum of 2.5 stars (within or across breed) for calving interval days.
- No S or F coded bulls.
- Semen available.

Terminal – Edits.

- Calving difficulty reliability >=50%,
- Carcass weight reliability >= 50% and
- Minimum of 4.5 stars (within or across breed) for Overall Terminal Index.
- No “S” or “F” coded bulls.
- Semen available.

Comments & feedback (i)

- List should be “across breed”, ranked on €uro-Value.
  - Note: range of bulls & breeds at top of list for maternal and terminal.
- “Reduced list” for publication. Expand for general circulation, e.g., Top 75 bulls.

Comments & feedback (ii).

- List is too heavily edited. Need a list of “potential” bulls for breeders?
  - If the maternal index is correct, don’t need further edits.
- Is the maternal index correct?
  - How can a bull have a high maternal index, but be “poor” for female traits?
  - Further “help tools” being developed.
- Other feedback…….?

Maternal Index Contributions

Within breed star rating	Trait	Index €	Rel %	Across breed star rating
★½☆☆☆	**Maternal index €**	5	99	★½☆☆☆
★☆☆☆☆	(a) Calving difficulty	-63.93	99	★½☆☆☆
★★★★★	(b) Gestation	-3.95	99	★★★★☆
★½☆☆☆	(c) Mortality	-19.99	99	★½☆☆☆
★★★★½	(e) Docility	5.32	99	★★★★½
★★★★★	(f) Feed intake	18.19	97	★★★★☆
★★★★★	(g) Carcass weight	186.9	99	★★★★★
★★★★½	(h) Conformation	46.77	99	★★★★½
★★★★½	(i) Carcass fat	16.05	99	★★★★½
	Calf contribution (sum of a to i)	185.37	99	
★★☆☆☆	(j) Age 1st Calving	2.99	99	★★☆☆☆
★★★★☆	(k) Maternal calving	4.91	99	★★★★½
★☆☆☆☆	(l) Milk	-43.33	99	★½☆☆☆
★½☆☆☆	(m) Calving interval	-36.97	97	★½☆☆☆
★☆☆☆☆	(n) Survival	-10.78	99	★½☆☆☆
★★★★★	(o) Heifer feed intake	-88.64	97	★★★★☆
★★★★★	(p) Cow feed intake	-87.06	97	★★★★☆
★★★★½	(q) Cow docility	12.3	99	★★★★½
★★★★★	(r) Cull cow weight	64.15	99	★★★★★
	Cow contribution (sum of j to r)	-182.42	99	

Training & meetings.

- 120 Teagasc advisors.
- BTAP groups.
- Herdbook meetings (council & club meetings).
- AI meetings (staff).
- Others?

“National” events.

- ICBF & Teagasc Suckler cow conference.
  - Huge success. 280 people attended.
  - National strategy re: replacements.
- ICBF HerdPlus & G€N€ IR€LAND Open Day. Tully on Saturday 10th November.
  - Target 500-600 farmers.

Mart link-ups.

- Pilot project with 2 marts (Cork & Ennis). Key elements;
  - Farmer permission,
  - No interruption to “normal” business,
  - Display boards (existing & new),
  - Terminals & printers.
  - All categories of animals.
- Develop & test early 2013, roll-out thereafter..

Further research.

- Calving.
- Stock bull functionality.
- Beef performance evaluations.
- Maternal milk & influence of dairy genes.
  - 3k on-farm weights collected last week.
- Female fertility (age at first calving).
- Others?

IRISH CATTLE BREEDING FEDERATION

GENE IRELAND (GI) Maternal Beef Breeding program.
(Roll-out-plan)

Stephen Conroy, ICBF
31st October 2012

Bull breeder herds

- Letters sent out this week (Charolais breed)
    a. Cover letter
        - Joint letter
    b. Application form
    c. Terms & conditions
- Three main stages to the program
    1. Data assessment and validation
        a. Herd Data Quality Index
        b. Beef breeding chart
            - Missing pregnancy data
        c. Weight, docility & functionality records
            - ICBF personnel allocated to collect data
            - Pedigree animals only

Bull breeder herds cont'd

2. Herd Visit (GI personnel)
    a. Assess the current status of the herd
    b. Offer advise on the program
        - Focus on inconsistent management practices

3. Benefits of the program which include;
    a. Mating suggestions
    b. GI Bull breeding herd stamp
    c. Allocation of stored semen from GI AI bulls
    d. Potential purchase of a bull

AI companies

- Received the “agreement for services” contract
- Four main services to be provided
  1. Semen collection and processing
  2. Semen delivery to herd-owners
  3. Storage of semen
  4. Assembly and dispatch of semen on behalf of the program
- AI company informs ICBF of what services they would provide
  - Feedback has being positive to date
- Agree a standardised fee for services

Where to next

- Send out the GI material for each breed
  - Once agreed with the relevant Herdbook
- Establish working group for each breed
  - Initial meeting (November)
- Feedback welcome

IRISH CATTLE BREEDING FEDERATION

G€N€ IR€LAND Beef Progeny Test Centre – update.

31st October 2012

National Development Plan
Transforming Ireland

New intake

- 70 commercial bulls purchased
  - Over half are now at the centre
- Born: 1st Oct 11 to 30th November 11
- All from AI sires & MGS recorded
- 28 different sires represented (16 GI Sires)
- 9 breeds represented
- 12 herd owners
  - 10 GI Herds

Where to next

- Potential dates
  - *Current bulls (77 bulls):*
    - Start test: 21st August
    - Finish test: 19th November
    - Slaughtered: Late November/Early December
  - *New intake (70 bulls):*
    - Start test: 26th November
    - Finish test: 25th February 2013
    - Slaughtered: March 2013
- Feedback welcome

ICBF Beef Breeding Event

- Saturday, 10th November 2012
  - G€N€ IR€LAND progeny test centre, Tully, Co. Kildare
  - From 10.30am to 2.00pm

- Information includes:
  - New Terminal and Maternal indexes
  - HerdPlus
  - ICBF weight recording service
  - New GI Maternal Beef breeding program
  - GI progeny test
    - Feed intake
    - Health and carcass traits
  - Breeding industry stands
    - Space allocated upon request