

Status as of: 2008 03 26

**Form BEEF**

**DESCRIPTION OF BEEF NATIONAL GENETIC EVALUATION SYSTEM**

**Country (or countries)**      **Republic of Ireland**

**Trait name**                      **Weaning Weight**

***DATA COLLECTION***

Breed(s) population	Charolais (25%), Limousine (25%), Aberdeen Angus (14%), Hereford (11%), Simmental (11%), Belgian Blue (8%), Blonde d'Aquitaine (1%), Salers (1%), Aubrac (1%), Shorthorn (1%), Parthenaise, Piemontese, Romagnola.
Trait definition	Average from performances recorded from 150 to 300 days.
Method of measuring and collecting data	Weighing of animals
Who does the recording?	Linear scorers, farmers (on-farm recording) and marts/markets
Which animals get recorded?	All animals (pure & cross bred) present on the farm should be recorded.
Is embryo transfer applied?	Yes
How are ET animals been identified? <sup>1</sup>	'ET' is added at the end of the animal's name.
Is recipient mother ID recorded?	Yes

Is birthday recorded?	Yes
Is day of recording available?	Yes
Do you apply any adjusting criteria on the data? If yes please describe the methodology applied	No adjusting criteria Performances between 150 and 300 days are averaged. In case of multiple weighting, HYS is set to the first weighting date.
Time period for inclusion of records	Since 1980
Criteria (data edits) for inclusion of records	-3std =< breed x sex mean=< +3std
How do you treat incomplete data?	Missing data (herd...) leads to exclusion from evaluation.

**MODEL**

Model used for genetic evaluation <sup>2a</sup>	15traits MT AM across dairy and beef breeds
Environmental effects <sup>2b</sup>	Sex (F) Age at weighting (F) Parity of dam (F) HYS (F) HYS for previous herd (F) sex(age at weigh) Sex(age at weigh x age) Sex(age at weigh x age x age) Heterosis (R) Recombination (R)
Use of genetic groups and relationships	Genetic group = breed (taken from the 1 <sup>st</sup> breed faction of the animal)
Genetic parameters in the model <sup>3</sup>	
Adjustment for heterogeneous variance in evaluation model	No
System validation	All new proofs is tested against the previous one (Pearson correlation and scatter plots). Computation of differences between the runs for AI bulls.
Definition of genetic reference base Next base change	Base = 96547 dairy and beef animals born between 1996 and 2000.
Calculation of reliability	As per MIX99

**PUBLICATION**

Expression of proofs	<p>Weaning weight proofs are expressed as predicted differences in kilo.</p> <ul style="list-style-type: none"> <li>– Combined with a measure of calf quality (price per kg in marts), it produces the economic sub index ‘Weanling Export’.</li> <li>– Combined with 3 slaughter traits and feed intake, it contributes to the economic sub index ‘Beef Carcass’.</li> <li>– Combined with all traits above and the direct calving traits, it contributes to one of the economic sub index for replacement ‘Calf Value’.</li> </ul> <p>These sub index are compiled in an overall economic ‘Suckler Beef Value’ expressed in Euros value and stars (1 star per 20% percentiles within and across breed).</p>
Criteria per official publication of evaluations	Active AI sires with reliability greater than 58% are published in an active bull list. No restriction on stock bulls and cows.
Number of evaluations/publications per year	4 (January – April – September – October) including 2 extra runs for performance test bulls.
Anticipated changes in the near future	Specific heterosis and recombination
Key reference on methodology applied	
Key organization: Contact person, address, phone, fax, e-mail, website	<p>Ross Evans ICBF Highfield House Shinagh Bandon Co Cork Ireland Tel +353 2320220 Revans(a)icbf.com <a href="http://www.ICBF.com">www.ICBF.com</a></p>

- 1) Use Appendix II BEEF for sample ID of ET animals
- 2a) Use abbreviation listed in the attached list of abbreviation to define the type of model.
- 2b) Use abbreviation for most common effects as listed in the attached list of abbreviation indicating, also, if the effect is treated as random (R) or fixed (F).
- 3) Use Appendix I BEEF for heritability/genetic variance estimates.

## Parameters used in genetic evaluation

Country: Republic of Ireland

Main trait group: Weaning weight

Breed: all breeds

Trait	Definition	$h^2$	$\sigma_g^2$	$\sigma_p^2$	$t^1$	$c^2$
WW	Direct weaning weight	0.54	242.195	207.582		
MWW	Maternal weaning weight	0.06	35.7	645.5		

1) Repeatability of trait

2) Environmental correlation between records within sub-classes

## Sample of ET animal IDs

**Country: Republic of Ireland**  
**Main trait group: Weaning weight**  
**Breed: all breeds**

### **ET animal ID**

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LISDUFF MC ELAINE ET

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SABBIONA CORKY GAZZER ET TL CV

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BELAMY-ET

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COYNE-FARMS VIC THEO-ETS

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SHAEN CALYPSO (ET)

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