

STATUS AS OF 22/01/2019

Form BEEF

DESCRIPTION OF BEEF NATIONAL GENETIC EVALUATION SYSTEM

Country (or countries): Australia

Trait group: Weaning Weight

DATA COLLECTION

Breed(s)	Limousin
Trait definition	Weight at 200 Days
Method and frequency of measurement	Scale
Who does the performance recording?	Breeder
Method of collecting data	Weigh Scale; Record sent to BREEDPLAN
Which animals get recorded?	Pure Breeds
Is birthday recorded?	Yes
Is day of recording available?	Yes
Are the data adjusted and/or selected? If yes please describe the methodology applied	Pre-adjusted for age at weighing and age of dam, using sex-specific multiplicative factors.
Time period for inclusion of records	Since 1990 (for inclusion in extract)
Criteria (data edits) for inclusion of records	No Twins; no ETs; satisfies BREEDPLAN data edits.
Is embryo transfer applied? How are ET animals been identified?¹ Is recipient mother ID recorded?	ET data has been excluded from the Interbeef extract.
How do you treat incomplete data?	Record is excluded
MODEL	
Model used for genetic evaluation^{2a}	Animal Model BLUP
Environmental effects^{2b}	Contemporary group defined by BREEDPLAN

Use of genetic groups and relationships	Genetic groups; country of origin + temporal groupings.
Genetic parameters in the model³	h^2 – direct + maternal genetic; c^2 ; r_{AM}
Adjustment for heterogeneous variance in evaluation model	Yes
System validation	
Definition of genetic reference base Next base change	Fixed; birth year
Assessment of index quality (computation of reliability, connection)	BREEDPLAN accuracies
PUBLICATION	
Expression of genetic evaluations	EBV
Criteria per official publication of evaluations	Minimum accuracy
Number of evaluations / publications per year	12 (monthly)
Anticipated changes in the near future	Migration to Single-Step
Key reference on methodology applied	
Key organization: Contact person, address, phone, fax, e-mail, website	Dr Brad Crook Manager, Genetics Research and Development BREEDPLAN, Agricultural Business Research Institute Armidale, NSW Australia Email: brad.crook@abri.une.edu.au

- ¹Use 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). ³Use Appendix I BEEF for heritability/genetic variance estimates.

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Appendix I BEEF Parameters used in national genetic evaluation Country: Australia

Main trait group: Weaning Weight

Breed: Limousin

Trait ⁽¹⁾	Definition	h_d^2	h_m^2	$r_{g(d,m)}$	c^2	σ_p^2
AWW		124.32	70.133	-12.538	80.879	545.65
		0.23	0.13	-0.13	0.15	

- h_d^2 : direct heritability; h_m^2 : maternal heritability; $r_{g(d,m)}$: genetic correlation between direct and maternal effects; c^2 : repeatability of (maternal) permanent environmental effects; σ_p^2 : phenotypic variance. ⁽¹⁾If you have more than one trait (e.g. AWW at 120d and 210d) provide the correlations between traits.

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Appendix II BEEF Sample of ET animal IDs Country:

Main trait group:

Breed:

ET animal ID
