

DESCRIPTION OF NATIONAL GENETIC EVALUATION SYSTEMS

Country (or countries)	BELGIUM (Walloon Region)
Main trait group¹ NOTE! Only one trait group per form!	Linear type traits
Breed(s)	Belgian Blue
Trait definition(s) and unit(s) of measurement² Attach an appendix if needed	<ul style="list-style-type: none"> - Height (cm) - Length (1-50) - Chest width (1-50) - Pelvis width (1-50) - Shoulder musculature (1-50) - Top muscling (1-50) - Rib (1-50) - Skin (1-50) - Rump (1-50) - Pelvis length (1-50) - Tail set (1-50) - Thighs by side (1-50) - Thighs rear view (1-50) - Bone structure (1-50) - Shoulder bone (1-50) - Top line (1-50) - Forelegs (1-50) - Hind legs (1-50) - Hocks (1-50) - walking (1-25) - General appearance (1-20) - Front toes in/out (1-50) - Rear toes in/out (1-50) - Muscling (50-100) - Meaty type (50-100) - Final score (50-100) - Legs conformation (50-100)
Method of measuring and collecting data	By technicians
Time period for data inclusion	All available data since 1998
Age groups (e.g. parities) included	All
Other criteria (data edits) for inclusion of records	Females
Criteria for extension of records (if applicable)	N/A
Sire categories	AI sires
Environmental effects³, pre-adjustments	Pre-adjustments for age
Method (model) of genetic evaluation³	Multiple trait animal model
Environmental effects³ in the genetic evaluation model	Herd Body condition
Adjustment for heterogeneous variance in evaluation model	No Adjustment
Use of genetic groups and relationships	No
Blending of foreign/Interbull information in evaluation	No blending

Genetic parameters in the evaluation	See Appendix GE
System validation	Trend validations, correlations between consecutive evaluations
Expression of genetic evaluations If standardised (e.g. RBV), give standardisation formula in the appendix	standardized breeding values, which are multiplied by a standard error of 10 and added to a mean value of 100
Definition of genetic reference base	All cows born 7 years before the current year
Next base change	Base changes every year
Calculation of reliability	Approximate reliabilities which combine contributions from records and relationships (parents and offspring)
Criteria for official publication of evaluations	Sires : REL \geq 50 % ; At least 10 calves in minimum 5 herds Females : REL \geq 15 % If reliability of height reaches the limit, height can be published. If reliability of muscling reaches the limit, all other traits can be published
Number of evaluations / publications per year	1
Use in total merit index⁴	No
Anticipated changes in the near future	No
Key reference on methodology applied	
Key organisation: name, address, phone, fax, e-mail, web site	<p>Organisation responsible for genetic evaluations and computing centre:</p> <p>Elevéo asbl</p> <p>R&D Department - Genetic Evaluation Unit</p> <p>Rue des Champs Elysées 4</p> <p>B-5590 Ciney</p> <p>0032/83/23.06.32.</p> <p>eval_gen@awenet.be</p> <p>WEB site for publication of sire breeding values: http://www.awenet.be</p>

1) Either: Production (e.g. milk, fat, protein), Conformation, Health (e.g. mastitis resistance, milk somatic cell, resistance to diseases other than mastitis), Longevity, Calving (e.g. stillbirth, calving ease), Female fertility (e.g. non-return rate, interval between reproductive events, number of AI's, heat strength), Workability (e.g. milking speed, temperament), Beef production, Efficiency (e.g. body weight, energy balance, body conditioning score), or Other traits.

2) Indicate frequencies per category if the trait is categorical and specify transformation of data if practiced.

3) Use abbreviations for most common effects (see document with list of abbreviations at http://www-interbull.slu.se/service_documentation/General/list_of_abbreviations.rtf) and indicate random (R) or fixed (F).

4) Please give economic weights and indicate how they are expressed (preferably in genetic standard deviation units).

Parameters used in genetic evaluation

Country (or countries): BELGIUM (Walloon Region)
Main trait group: Linear type Traits
Breed (repeat as necessary): Belgian-Blue

Trait	Definition	ITB ^a	h ^{2b}	Genetic variance ^b	official proof standardisation formula ^c
Height			0.39	3,8	
Length			0.18	0,6	
Chest width			0.20	2,0	
Pelvis width			0.26	0,9	
Shoulder musculature			0.30	2,3	
Top muscling			0.31	5,1	
Rib			0.25	5,0	
Skin			0.17	3,3	
Rump			0.29	5,1	
Pelvis length			0.14	0,4	
Tail set			0.24	6,6	
Thighs by side			0.42	2,5	
Thighs rear view			0.39	2,4	
Bone structure			0.18	2,7	
Shoulder bone			0.07	0,1	
Top line			0.14	0,3	
Forelegs			0.08	0,2	
Hind legs			0.08	0,3	
Hocks			0.19	2,5	
Walk			0.07	0,3	
General look			0.40	0,6	
Muscling			0.43	2,5	
Meaty type			0.32	1,4	
Final score			0.31	1,2	
Aplombs			0,05	1,3	

^a Indicate, with X, traits that are submitted to Interbull for international genetic evaluations.

^b If repeated records are treated as separate traits, provide heritability estimates and genetic variances separately for each trait, as well as for all traits pooled, i.e. for the trait submitted to Interbull.

^c Expressed as follows:

StandEval=((eval-a)/b)*c+d where a=mean of the base adjustment, b=standard deviation of the base, c=standard deviation of expression (include sign if scale is reversed), and d=base of expression.