

DESCRIPTION OF NATIONAL GENETIC EVALUATION SYSTEMS

Country (or countries)	SLOVENIJA
Main trait group¹	PRODUCTION
NOTE! Only one trait group per form!	
Breed(s)	HOL, SIM, BSW
Trait definition(s) and unit(s) of measurement² Attach an appendix if needed	Test day observations for milk (kg), protein (kg) and fat (kg)
Method of measuring and collecting data	ICAR Milk recording method to 29.2.2004 A4 method from 1.3.2004 AT4 method
Time period for data inclusion	Calving from 01.01.2004
Age groups (e.g. parities) included	1-5 parity
Other criteria (data edits) for inclusion of records	Days in milk 6-305. Number of herds ≥ 3 .
Criteria for extension of records (if applicable)	
Sire categories	AI
Environmental effects³, pre-adjustments	No
Method (model) of genetic evaluation³	ST Repeatability TD
Environmental effects³ in the genetic evaluation model	F – calving season, parity R – herd*year, permanent environment FR – Ali, Schaeffer
Adjustment for heterogeneous variance in evaluation model	
Use of genetic groups and relationships	
Blending of foreign/Interbull information in evaluation	No
Genetic parameters in the evaluation	Use Appendix GE for heritability/genetic variance estimates; for multiple-trait genetic evaluations, provide genetic correlation estimates between traits separately. Use also appendices PR, CO, BCO, SM, LO, CA, as applicable, if you participate in the international genetic evaluations of Interbull
System validation	Genetic trend validation – method 3
Expression of genetic evaluations If standardised (e.g. RBV), give standardisation formula in the appendix	$BV12 = ((BV-a)/b) * 12 + 100$ a – mean of BV b – standard deviation of BV
Definition of genetic reference base	Mean of cows born in 2010
Next base change	2016
Calculation of reliability	Yes

Criteria for official publication of evaluations	reliability(sire) \geq 0.5, reliability(dam) \geq 0.4
Number of evaluations / publications per year	3
Use in total merit index⁴	HOL: Fat yield 4%, protein yield 16% BSW: Fat yield 4.5%, protein yield 17% SIM: Fat yield 5%, protein yield 20%
Anticipated changes in the near future	Change of genetic base
Key reference on methodology applied	Web site: http://www.bf.uni-lj.si/zootehnika/struktura/katedre-in-enote/center-za-strokovno-delo-v-zivinoreji/govedo/
Key organisation: name, address, phone, fax, e-mail, web site	University of Ljubljana, Biotechnical Faculty, Department of Animal Science, Groblje 3, 1230 Domzale, Slovenija Tel. +386 1 3203 872 Fax: +386 1 7241 005 Jurij.Krsnik@bf.uni-lj.si , Klemen.Potocnik@bf.uni-lj.si

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): SLOVENIJA
Main trait group: PRODUCTION
Breed (repeat as necessary): HOL

Trait	Definition	ITB ^a	h ^{2b}	genetic variance ^b	official proof standardisation formula ^c
Milk	TD record in kg	X	0.25	10.708 kg ²	BV12=((BV-(0.9291))/2.1399)*12+100
Fat	TD record in kg	X	0.19	0.016 kg ²	BV12=((BV-(0.0359))/0.0819)*12+100
Protein	TD record in kg	X	0.21	0.01 kg ²	BV12=((BV-(0.0348))/0.0627)*12+100

Country (or countries): SLOVENIJA
Main trait group: PRODUCTION
Breed (repeat as necessary): SIM

Trait	Definition	ITB ^a	h ^{2b}	genetic variance ^b	official proof standardisation formula ^c
Milk	TD record in kg	X	0.38	9.309 kg ²	BV12=((BV-(1.1229))/2.4415)*12+100
Fat	TD record in kg	X	0.299	0.016 kg ²	BV12=((BV-(0.0448))/0.0985)*12+100
Protein	TD record in kg	X	0.308	0.009 kg ²	BV12=((BV-(0.0325))/0.0712)*12+100

Country (or countries): SLOVENIJA
Main trait group: PRODUCTION
Breed (repeat as necessary): BSW

Trait	Definition	ITB ^a	h ^{2b}	genetic variance ^b	official proof standardisation formula ^c
Milk	TD record in kg	X	0.32	7.756 kg ²	BV12=((BV-(1.0938))/2.0097)*12+100
Fat	TD record in kg	X	0.23	0.012 kg ²	BV12=((BV-(-0.0436))/0.0788)*12+100
Protein	TD record in kg	X	0.25	0.007 kg ²	BV12=((BV-(0.0401))/0.0618)*12+100

^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.

Parameters for national genetic evaluations for production traits as provided to Interbull

Country (or countries): SLOVENIJA
Main trait group: Production
Breed(s): HOL

Trait	h^{2a}	Genetic variance ^a	official proof standardisation formula ^b
Milk yield:	0.25	10.708 kg ²	$BV12 = ((BV - (0.9291)) / 2.1399) * 12 + 100$
Fat yield:	0.19	0.016 kg ²	$BV12 = ((BV - (0.0359)) / 0.0819) * 12 + 100$
Protein yield:	0.21	0.01 kg ²	$BV12 = ((BV - (0.0348)) / 0.0627) * 12 + 100$

Country (or countries): SLOVENIJA
Main trait group: Production
Breed(s): SIM

Trait	h^{2a}	Genetic variance ^a	official proof standardisation formula ^b
Milk yield:	0.38	9.309 kg ²	$BV12 = ((BV - (1.1229)) / 2.4415) * 12 + 100$
Fat yield:	0.299	0.016 kg ²	$BV12 = ((BV - (0.0448)) / 0.0985) * 12 + 100$
Protein yield:	0.308	0.009 kg ²	$BV12 = ((BV - (0.0325)) / 0.0712) * 12 + 100$

Country (or countries): SLOVENIJA
Main trait group: Production
Breed(s): BSW

Trait	h^{2a}	Genetic variance ^a	official proof standardisation formula ^b
Milk yield:	0.32	7.756 kg ²	$BV12 = ((BV - (1.0938)) / 2.0097) * 12 + 100$
Fat yield:	0.23	0.012 kg ²	$BV12 = ((BV - (-0.0436)) / 0.0788) * 12 + 100$
Protein yield:	0.25	0.007 kg ²	$BV12 = ((BV - (0.0401)) / 0.0618) * 12 + 100$

- ^a If lactations, or part of lactations, are treated as separate traits, provide heritability estimates and genetic variances separately for each lactation, as well as for all lactations pooled, i.e. for the trait submitted to Interbull.
- ^b 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.