

DESCRIPTION OF NATIONAL GENETIC EVALUATION SYSTEMS

Country (or countries)	USA
Main trait group¹ NOTE! Only one trait group per form!	Workability traits
Breed(s)	BSW
Trait definition(s) and unit(s) of measurement² Attach an appendix if needed	Milking speed, rated on a scale of 1 (slow) to 8 (fast)
Method of measuring and collecting data	Owner assigned scores are collected by the Brown Swiss Association as part of their linear type appraisal program
Time period for data inclusion	2004 and later plus pedigree from birth years 1985 and later
Age groups (e.g. parities) included	Age at calving \leq 68 months
Other criteria (data edits) for inclusion of records	Valid sire identification required
Criteria for extension of records (if applicable)	N/A
Sire categories	AI and NS
Environmental effects³, pre-adjustments	None
Method (model) of genetic evaluation³	AM
Environmental effects³ in the genetic evaluation model	Herd-appraisal date (F), parity (1-3)-lactation stage (5 stages) (F), PE (R)
Adjustment for heterogeneous variance in evaluation model	No
Use of genetic groups and relationships	Unknown parents grouped by birth year into four year groups
Blending of foreign/Interbull information in evaluation	None
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, as applicable, if you participate in the international genetic evaluations of Interbull
System validation	Evaluations are compared with those from previous run; Means, SD, and large differences are examined
Expression of genetic evaluations If standardised (e.g. RBV), give standardisation formula in the appendix	Relative breeding value with a mean of 100 and SD of 5
Definition of genetic reference base	Bulls born 1994 to 1999 with \geq 10 daughters
Next base change	2010
Calculation of reliability	Iterative method that estimates contributions from parents, animal's own record, and progeny
Criteria for official publication of evaluations	10 or more daughters

Number of evaluations / publications per year	Four – Feb., May, Aug., Nov.
Use in total merit index⁴	No
Anticipated changes in the near future	Eventual extension to other breeds and use of actual milking times being investigated
Key reference on methodology applied	Wiggans, G.R., Thornton, L.L.M., Neitzel, R.R. and Gengler, N. Genetic evaluation of milking speed for Brown Swiss dairy cattle in the United States . J. Dairy Sci. ACCEPTED AUGUST 2006
Key organization: name, address, phone, fax, e-mail, web site	United States Department of Agriculture Agricultural Research Service Animal Improvement Programs Laboratory Building 005, BARC-West 10300 Baltimore Avenue Beltsville, Maryland 20705-2350 U.S.A. Voice: 301-504-8334 Fax: 301-504-8092 E-mail: inquiry@aipl.arsusda.gov web site: http://aipl.arsusda.gov

1) Either: Production (e.g. milk, fat, protein), Conformation, Health (e.g. mastitis resistance, milk somatic cell, resistance to diseases other than mastitis), Longevity (e.g. direct longevity, combined 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 for national genetic evaluations for workability traits as provided to Interbull

Country (or countries):

Main trait group:

Workability

Breed(s):

Trait	h^2	genetic variance	official proof standardisation formula ^a
Milkability:	.22	.377	StandEval = (eval - 0.147)/ 0.477)*5 +100
Temperament			

^a 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.