Status as of:

Form BEEF

DESCRIPTION OF BEEF NATIONAL GENETIC EVALUATION SYSTEM

Country (or countries) Czech Republic

Trait name: Carcass traits – carcass weight, carcass conformation, carcass fatness

DATA COLLECTION

Breed(s)	aberdeen angus, beef simmental, belgian blue, blonde d'Aquitaine, galloway, gasconne, hereford, highland, charolais, limousine, piemontese, salers
Trait definition	Carcass weight in kg Carcass conformation is evaluated by a six-class scale (S, E, U, R, O, P) from the best carcass conformation S to the worst P. Carcass fatness is evaluated by a five-class scale from 1 (lowest carcass fatness) to 5 (highest carcass fatness).
Method and frequency of measurement	Classification on slaughter-house.
Who does the performance recording?	Official classificators
Method of collecting data	Data from slaughter-houses are collected in the central database.
Which animals get recorded?	All animals pure and cross bred.
Is birthday recorded?	Yes
Is day of recording available?	Yes
Are the data adjusted and/or selected? If yes please describe the methodology applied	No
Time period for inclusion of records	Since 2004
Criteria (data edits) for inclusion of records	Animals slaughtered by two years of age.
Is embryo transfer applied? How are ET animals been	Not recorded.

identified?[1] Is recipient mother ID recorded?	
How do you treat incomplete data?	Delete
MODEL	
Model used for genetic evaluation[2a]	MT-AM, multibreed. In the model carcass weight, carcass conformation and carcass fatness are included. Ranking of animals separately for each breed.
Environmental effects[2b]	Herd x year x season x slaughter-house (many, R) Sex (2, F) Breed (F) Age at slaughter (FR – legendre polynomial) Heterosis (FR) Classificator (F)
Use of genetic groups and relationships	Relationship matrix with genetic groups based on the country.
Genetic parameters in the model [3]	
Adjustment for heterogeneous variance in evaluation model	No
System validation	Comparison of subsequent evaluation results.
Definition of genetic reference base Next base change	Rolling base.
Assessment of index quality (computation of reliability, connection)	No
PUBLICATION	
Expression of genetic evaluations	Estimated and expressed as a relative breeding value
Criteria per official publication of evaluations	Developing
Number of evaluations / publications per year	Developing
Anticipated changes in the near future	Developing
Key reference on methodology applied	Developing
Key organization: Contact person, address, phone, fax, e-mail, website	Czech Moravian Breeders' Corporation Inc. (Českomoravská společnost chovatelů, a.s.) Hradištko 123, Hradištko, Czech Republic Ing. Pavel Bucek Phone: +420 257 896 223 E-mail: bucek@cmsch.cz http://www.cmsch.cz

	Czech Beef Breeders Association (Český svaz chovatelů masného skotu) Těšnov 17, 117 05 Praha 1, Czech Republic Kamil Malát, executive director Phone: +420 221 812 865, Cell phone: +420 724007860 E-mail: malat@cschms.cz http://www.cschms.cz Institute of Animal Science, Department of Genetic and Breeding of Farm Animals Přátelství 815, 104 00 Praha Uhříněves, Czech Republic Ing. Zdeňka Veselá, PhD. Phone: +420267009664 E-mail: vesela.zdena@vuzv.cz http://www.vuzv.cz

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.

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Appendix I BEEF

Parameters used in genetic evaluation

Country: Czech Republic
Main trait group: Carcass traits – carcass weight, carcass conformation, carcass fatness
Breed: aberdeen angus, beef simmental, belgian blue, blonde d'Aquitaine, galloway, gasconne, hereford, highland, charolais, limousine, piemontese, salers

Trait(1)	Definition	h_d^2	h_m^2	$r_{g(d,m)}$	c^2	σ^2_p
Carcass weight		0,29				2517,2
Carcass conformation		0,18				0,32
Carcass fatness		0,09				0,38

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 provide the correlations between traits.

	Carcass weight	Carcass conformation	Carcass fatness
Carcass weight		0.82	0.33
Carcass conformation			0.07
Carcass fatness			

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Appendix II BEEF

Sample of ET animal IDs

Country:
Main trait group:
Breed:

ET animal ID