

INTRODUCTION

The latest genomic test international evaluation for calving traits took place as scheduled at the Interbull Centre. Data from 18 countries were included in this evaluation.

International genetic evaluations for calving traits of bulls were computed from:
AUS BEL CAN CHE DEU DFS FRA GBR HUN IRL ISR ITA NLD NZL USA SVK ESP POL
Holstein data were included in this evaluation.

CAN, DEU, DFS, ESP, HUN, ITA, NLD and POL submitted GEBVs.

dce: CAN, DEU, , ESP, , HUN, ITA, NLD, POL
dsb: CAN, DEU, DFS, , , , ITA, NLD, POL
mce: CAN, DEU, DFS, ESP, , HUN, ITA, NLD, POL
msb: CAN, DEU, DFS, , , , ITA, NLD, POL
ges: , , , , , , , , ,

CHANGES IN NATIONAL PROCEDURES

Changes in the national genetic evaluation of calving traits are as follows:

A fifth trait (ges) has been added in the calving results to align the GMACE calving format to the MACE one. As no countries has, so far, chosen to provide GEBVs for this extra trait, all fields for this extra trait are set to zero. The addition was made merely to comply with a request to have the MACE and GMACE file formats aligned.

POL (HOL) dsb, msb: drop in reliability due to pedigree updates
ITA (HOL) dce: drop in reliability due to pedigree correction and data edit
CAN (HOL) dce: drop in reliability for some foreign bulls due to the impact of MACE
DFS (HOL) MACE data used for "dce"
GBR (HOL) MACE data used due to very old data and no more qualifying young bulls
BEL (HOL) Participating with MACE data due to very old data and no more qualifying young bulls

INTERBULL CHANGES COMPARED TO THE DECEMBER ROUTINE RUN

No changes in Interbull procedures

DATA AND METHOD OF ANALYSIS

Thirteen Holstein populations sent GEBV data for up to 38 traits, while classical EBVs for the same traits were used in the analyses. Young bull GEBVs from the GEBV providers have been converted to the scales of all countries participating in classical MACE. A bull will get a MACE EBV or a GMACE EBV but not both. From those thirteen countries, National GEBVs of bulls less than seven years of age and with no classical MACE proofs were included for the breeding value prediction with a further requirement of either a MACE-PA or a GMACE-PA (for young genomic bulls with young genomic sires) being available.

The parameter-space approach is used for the GMACE genetic evaluations (Sullivan, 2016)

SCIENTIFIC LITERATURE

The international genetic evaluation procedure is based on international work described in the following scientific publications:

Sullivan, P.G. 2016. Defining a Parameter Space for GMACE. Interbull Bulletin 50, p 85-93.

VanRaden, P.M. and Sullivan, P.G. 2010. International genomic evaluation methods for dairy cattle. Gen. Sel. Evol. 42:7

Sullivan, P.G. and Jakobsen, J.H. 2012. Robust GMACE for young bulls methodology. Interbull Bulletin 45, Article 1.

Sullivan, P.G. 2012a. GMACE reliability approximation. Report to the GMACE working group of Interbull. GMACE_rels 2013

Sullivan, P.G. 2012b. GMACE variance estimation. Report to the GMACE working group of Interbull. GMACE_vce 2013

Sullivan, P.G. 2012c. GMACE Weighting Factors. Report to the GMACE working group of Interbull. GMACE_gedcs 2013

Jakobsen, J.H. and Sullivan, P.G. 2013. Trait specific computation of shared reference population. Reference sharing Nov 2013

NEXT ROUTINE INTERNATIONAL EVALUATION

Dates for next routine run can be found on <http://www.interbull.org/ib/servicecalendar>

NEXT TEST INTERNATIONAL EVALUATION

Dates for next test run can be found on <http://www.interbull.org/ib/servicecalendar>

PUBLICATION OF INTERBULL ROUTINE RUN

Results were distributed by the Interbull Centre to designated representatives in each country. The international evaluation file comprised international proofs expressed on the base and unit of each country included in the analysis. Such records readily provide more information on bull performance in various countries, thereby minimising the need to resort to conversions.

At the same time, all recipients of Interbull results are expected to honour the agreed code of practice, decided by the Interbull Steering Committee, and only publish international evaluations on their own country scale. Evaluations expressed on another country scale are confidential and may only be used internally for research and review purposes.

Table 1. National evaluation dates in GMACE run August 2026

Country	Date
CAN	20260801
ITA	20260720
NLD	20260812
HUN	20260722
DEU	20260811
ESP	20260721
POL	20260610

Table 2.

Number of bulls in reference population for dce

CAN	43413.0						
ITA	39213.0	40870.0					
NLD	4035.0	3425.0	32583.0				
HUN	2271.0	2256.0	7690.0	8878.0			
DEU	13662.0	13767.0	31387.0	8213.0	44699.0		
ESP	42411.0	39967.0	32580.0	8829.0	44383.0	117805.0	
POL	4647.0	4198.0	27170.0	7576.0	29179.0	29891.0	29896.0

Number of bulls in reference population for mce

CAN	37095.0						
DFS	7195.0	37223.0					
ITA	32822.0	7245.0	34280.0				
NLD	3889.0	31328.0	3320.0	32839.0			
HUN	2228.0	7773.0	2217.0	7638.0	8740.0		
DEU	12373.0	36459.0	12470.0	31879.0	8211.0	43824.0	

ESP 36449.0 37164.0 33685.0 32836.0 8690.0 43557.0103505.0
POL 4552.0 28794.0 4141.0 27171.0 7597.0 29087.0 29840.0 29843.0

Number of bulls in reference population for dsb

CAN 41215.0
DFS 7391.0 36595.0
ITA 37243.0 7366.0 38788.0
NLD 3890.0 30303.0 3305.0 31778.0
DEU 13379.0 35735.0 13442.0 30816.0 43921.0
POL 4520.0 28099.0 4053.0 26266.0 28346.0 29026.0

Number of bulls in reference population for msb

CAN 36352.0
DFS 7099.0 37540.0
ITA 32033.0 7104.0 33444.0
NLD 3793.0 31560.0 3231.0 33001.0
DEU 12125.0 36734.0 12202.0 32114.0 43908.0
POL 4449.0 28907.0 4008.0 27185.0 29180.0 29900.0