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, GBR, ITA, NLD, HUN, ESP, POL submitted GEBVs.

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

CHANGES IN NATIONAL PROCEDURES

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

CAN (HOL)	Base change
FRA (HOL)	Base change
	Bulls changed from official to unoffcial due to their genotypes were not longer valid because of incompatible parentage
	Bulls missing pedigree due to the pedigree update
ITA (HOL)	Base change
NLD (HOL)	Base change
DEU (HOL)	Base change
	Submitted GEBVs using single-step methodology
POL (HOL)	Change in status of bulls due to having more daughters and assigned new code
GBR (HOL)	Data from 2404r used due to the mismatch between MACE and GMACE parameter file
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 April 2025

Country	Date
CAN	20250401
DFS	20250204
ITA	20250305
NLD	20250401
GBR	20240312
HUN	20250312
DEU	20250401
ESP	20250310
POL	20250303

Table 2.

Number of bulls in reference population for dce

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CAN 43228.0
DFS  6872.0 37836.0
ITA 39148.0  6777.0 40677.0
NLD  4079.0 32199.0  3458.0 33952.0
GBR 38283.0  7823.0 38738.0  4403.0 40895.0
HUN  2273.0  7751.0  2255.0  7698.0  2481.0  8887.0
DEU 12217.0 36674.0 12159.0 32709.0 13235.0  8210.0 44430.0
ESP 43163.0 37819.0 40658.0 33947.0 40805.0  8837.0 44421.0118524.0
POL  4661.0 30459.0  4211.0 28521.0  5239.0  7583.0 30715.0 31505.0 31572.0
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Number of bulls in reference population for mce

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CAN 35818.0
DFS  6497.0 38295.0
ITA 31622.0  6429.0 32935.0
NLD  3873.0 33029.0  3310.0 34498.0
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GBR 30829.0 7463.0 31202.0 4175.0 32866.0
HUN 2225.0 7761.0 2212.0 7638.0 2381.0 8739.0
DEU 10815.0 37200.0 10753.0 33513.0 11805.0 8198.0 43811.0
ESP 35789.0 38284.0 32925.0 34493.0 32853.0 8688.0 43805.0103891.0
POL 4525.0 30688.0 4120.0 28829.0 5099.0 7598.0 30915.0 31737.0 31804.0

Number of bulls in reference population for dsb

CAN 39864.0
DFS 6647.0 36015.0
ITA 36023.0 6513.0 37399.0
NLD 3884.0 30718.0 3300.0 32169.0
DEU 11784.0 34919.0 11691.0 31196.0 42315.0
POL 4479.0 28433.0 4023.0 26663.0 28668.0 29388.0

Number of bulls in reference population for msb

CAN 34707.0
DFS 6339.0 37061.0
ITA 30630.0 6242.0 31867.0
NLD 3757.0 32050.0 3210.0 33418.0
DEU 10517.0 36002.0 10432.0 32537.0 42369.0
POL 4380.0 29303.0 3958.0 27618.0 29532.0 30286.0