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:

DFS (HOL)	Decrease in reliability due to the bug fixation in a program used to create files for April MACE evaluation, merging reliability and GEBVs incorrectly for some foreign bulls
FRA (HOL)	Some bulls with missing pedigree due to pedigree update
	Some bulls changed from official to unofficial because they have been blocked from publication by Holstein breed society
ITA (HOL)	Some bulls missing pedigree due to the authority issue
NLD (HOL)	Some bulls with type of proof 13, with unexpected type of proof, because of not being eligible for daughter testing breeding values.
ESP (HOL)	Base change
GBR (HOL)	Some bulls with missing pedigree because they either younger than 10 months or they don’t have sireID or they have international IDs
	Change in status of some bulls, due to the decrease in number of daughters
DEU (HOL)	Introduction of single step evaluation
POL (HOL)	Change in status of some bulls due to the increase in number of daughters
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 2025

Country	Date
CAN	20250801
DFS	20250812
ITA	20250707
NLD	20250813
GBR	20240312
HUN	20250725
DEU	20250812
ESP	20250710
POL	20250617

Table 2.

Number of bulls in reference population for	dce
CAN	43593.0
DFS	7063.0 38136.0
ITA	39512.0 6995.0 41077.0
NLD	4077.0 32224.0 3458.0 33950.0
GBR	38598.0 8038.0 39087.0 4402.0 41253.0
HUN	2273.0 7784.0 2255.0 7697.0 2481.0 8886.0
DEU	12885.0 37326.0 12913.0 32710.0 13943.0 8221.0 45321.0
ESP	43331.0 38107.0 40831.0 33947.0 40974.0 8837.0 45228.0118731.0
POL	4665.0 30549.0 4210.0 28521.0 5239.0 7582.0 30752.0 31562.0 31568.0

Number of bulls in reference population for	mce
CAN	36134.0
DFS	6691.0 38587.0
ITA	31925.0 6646.0 33263.0
NLD	3874.0 33043.0 3311.0 34493.0

GBR 31116.0 7681.0 31510.0 4175.0 33181.0
HUN 2224.0 7795.0 2211.0 7636.0 2380.0 8737.0
DEU 11467.0 37829.0 11483.0 33512.0 12495.0 8208.0 44658.0
ESP 35994.0 38566.0 33134.0 34490.0 33070.0 8687.0 44589.0104136.0
POL 4534.0 30780.0 4125.0 28827.0 5105.0 7597.0 30959.0 31800.0 31805.0

Number of bulls in reference population for dsb

CAN 40220.0
DFS 6840.0 36317.0
ITA 36380.0 6733.0 37791.0
NLD 3882.0 30746.0 3301.0 32167.0
DEU 12438.0 35565.0 12426.0 31198.0 43186.0
POL 4484.0 28525.0 4025.0 26663.0 28711.0 29388.0

Number of bulls in reference population for msb

CAN 34993.0
DFS 6529.0 37354.0
ITA 30909.0 6462.0 32176.0
NLD 3755.0 32070.0 3211.0 33419.0
DEU 11141.0 36636.0 11141.0 32543.0 43198.0
POL 4384.0 29391.0 3959.0 27621.0 29581.0 30295.0