INTRODUCTION

The latest genomic test international evaluation for dairy production traits took place as scheduled at the Interbull Centre. Data from 29 countries were included in this evaluation.

International genetic evaluations for milk, fat and protein yields of bulls were computed from:
AUS BEL CAN CHE CZE DEU DFS ESP EST FRA GBR HUN IRL ISR ITA JPN KOR LTU LVA NLD NZL POL PRT SVK SVN URY USA ZAF HRV

Holstein breed data were included in this evaluation.

CAN, DEU, ESP, FRA, AUS, DFS, GBR, ITA, NLD, POL, HUN, CZE submitted GEBVs.

fat: CAN, DEU, ESP, FRA, AUS, DFS, GBR, ITA, NLD, POL, HUN, CZE
mil: CAN, DEU, ESP, FRA, AUS, DFS, GBR, ITA, NLD, POL, HUN, CZE
pro: CAN, DEU, ESP, FRA, AUS, DFS, GBR, ITA, NLD, POL, HUN, CZE

CHANGES IN NATIONAL PROCEDURES

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

AUS (HOL)	Some missing bulls due to the pedigree updates and not having dam or sire
CAN (HOL)	Base change
ITA (HOL)	Base change
NLD (HOL)	Base change
CZE (HOL)	Base change
FRA (HOL)	Base change
	Bulls changed from official to unoffcial due to correction in some genotypes because of incompatible parentage check
	Some bulls missing pedigree due to the pedigree update
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
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
DEU	20250401
DFS	20250204
FRA	20250402
ITA	20250305
NLD	20250401
GBR	20250304
AUS	20241203
ESP	20250310
CZE	20250317
HUN	20250312
POL	20250224

Table 2.

Number of bulls in reference population for	mil									
CAN	46731.0									
DEU	12686.0	49335.0								
DFS	7132.0	41017.0	42407.0							
FRA	5782.0	37858.0	37281.0	39728.0						
ITA	40817.0	12652.0	7020.0	5278.0	42578.0					
NLD	4266.0	36919.0	36384.0	34930.0	3600.0	38786.0				
GBR	39667.0	13733.0	8089.0	6248.0	40218.0	4591.0	42755.0			
AUS	1501.0	951.0	795.0	806.0	1323.0	812.0	1314.0	4594.0		
ESP	46666.0	49330.0	42390.0	39720.0	42553.0	38779.0	42657.0	4593.0	161095.0	
CZE	2145.0	2632.0	1969.0	1954.0	2101.0	1734.0	2044.0	414.0	4062.0	4064.0
HUN	2292.0	8280.0	7812.0	7643.0	2273.0	7827.0	2513.0	769.0	9063.0	1428.0	9114.0
POL	5028.0	34261.0	34032.0	32611.0	4538.0	32027.0	5479.0	695.0	35849.0	2562.0	7639.0	35931.0

Number of bulls in reference population for fat

CAN 46731.0
DEU 12686.0 49333.0
DFS 7132.0 41017.0 42406.0
FRA 5782.0 37858.0 37281.0 39728.0
ITA 40817.0 12650.0 7020.0 5278.0 42567.0
NLD 4266.0 36919.0 36384.0 34930.0 3600.0 38786.0
GBR 39667.0 13733.0 8089.0 6248.0 40218.0 4591.0 42755.0
AUS 1501.0   951.0   795.0   806.0 1323.0   812.0 1314.0 4594.0
ESP 46666.0 49328.0 42389.0 39720.0 42542.0 38779.0 42657.0 4593.0161076.0
CZE 2145.0 2632.0 1969.0 1954.0 2101.0 1734.0 2044.0   414.0 4062.0 4064.0
HUN 2292.0 8280.0 7811.0 7643.0 2273.0 7827.0 2513.0   769.0 9062.0 1428.0 9113.0
POL 5028.0 34261.0 34032.0 32611.0 4538.0 32027.0 5479.0   695.0 35849.0 2562.0 7639.0 35931.0

Number of bulls in reference population for pro

CAN 46731.0
DEU 12686.0 49333.0
DFS 7132.0 41017.0 42406.0
FRA 5782.0 37858.0 37281.0 39728.0
ITA 40817.0 12650.0 7020.0 5278.0 42567.0
NLD 4266.0 36919.0 36384.0 34930.0 3600.0 38786.0
GBR 39667.0 13733.0 8089.0 6248.0 40218.0 4591.0 42755.0
AUS 1501.0   951.0   795.0   806.0 1323.0   812.0 1314.0 4594.0
ESP 46666.0 49328.0 42389.0 39720.0 42542.0 38779.0 42657.0 4593.0160998.0
CZE 2145.0 2632.0 1969.0 1954.0 2101.0 1734.0 2044.0   414.0 4062.0 4064.0
HUN 2292.0 8280.0 7811.0 7643.0 2273.0 7827.0 2513.0   769.0 9062.0 1428.0 9113.0
POL 5028.0 34261.0 34032.0 32611.0 4538.0 32027.0 5479.0   695.0 35849.0 2562.0 7639.0 35931.0