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 and 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:

CAN (HOL) Base change
CAN (HOL) Some bulls changed from official to unofficial due to change in qualification for publication
FRA (HOL) Base change
FRA (HOL) Some bulls changed from official to unofficial due to change in publication rules from breed societies
ITA (HOL) Base change
ESP (HOL) Base change
DEU (HOL) Base change
NLD (HOL) Base change
NLD (HOL) Drop in information due to introduction of DGV BLUP
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 2026

Country	Date
CAN	20260401
DEU	20260408
DFS	20260204
FRA	20260408
ITA	20260302
NLD	20260401
GBR	20260312
AUS	20241203
ESP	20260320
CZE	20260323
HUN	20260318
POL	20260310

Table 2.

Number of bulls in reference population for mil

CAN	48025.0											
DEU	13966.0	50983.0										
DFS	7667.0	41977.0	43143.0									
FRA	5800.0	37959.0	37318.0	39838.0								
ITA	41992.0	14089.0	7666.0	5301.0	43927.0							
NLD	4262.0	36924.0	36304.0	34930.0	3602.0	38786.0						
GBR	40772.0	15125.0	8711.0	6280.0	41428.0	4600.0	44024.0					
AUS	1501.0	959.0	817.0	807.0	1326.0	812.0	1279.0	4596.0				
ESP	46936.0	50669.0	42847.0	39824.0	42855.0	38780.0	43064.0	4595.0	161326.0			
CZE	2361.0	2832.0	2084.0	1961.0	2319.0	1735.0	2319.0	416.0	4239.0	4306.0		
HUN	2292.0	8294.0	7825.0	7645.0	2274.0	7827.0	2515.0	769.0	9064.0	1433.0	9115.0	
POL	5031.0	34309.0	34048.0	32689.0	4541.0	32029.0	5529.0	695.0	35926.0	2567.0	7640.0	35973.0

Number of bulls in reference population for fat

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CAN 48025.0
DEU 13966.0 50980.0
DFS  7667.0 41977.0 43142.0
FRA  5800.0 37959.0 37318.0 39838.0
ITA 41992.0 14086.0  7666.0  5301.0 43913.0
NLD  4262.0 36924.0 36304.0 34930.0  3602.0 38786.0
GBR 40772.0 15125.0  8711.0  6280.0 41428.0  4600.0 44024.0
AUS  1501.0   959.0   817.0   807.0  1326.0   812.0  1279.0  4596.0
ESP 46936.0 50666.0 42846.0 39824.0 42843.0 38780.0 43064.0  4595.0161306.0
CZE  2361.0  2832.0  2084.0  1961.0  2319.0  1735.0  2319.0   416.0  4239.0  4306.0
HUN  2292.0  8294.0  7824.0  7645.0  2274.0  7827.0  2515.0   769.0  9063.0  1433.0  9114.0
POL  5031.0 34309.0 34048.0 32689.0  4541.0 32029.0  5529.0   695.0 35926.0  2567.0  7640.0 35973.0

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Number of bulls in reference population for        pro
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CAN 48025.0
DEU 13966.0 50980.0
DFS  7667.0 41977.0 43142.0
FRA  5800.0 37959.0 37318.0 39838.0
ITA 41992.0 14086.0  7666.0  5301.0 43913.0
NLD  4262.0 36924.0 36304.0 34930.0  3602.0 38786.0
GBR 40772.0 15125.0  8711.0  6280.0 41428.0  4600.0 44024.0
AUS  1501.0   959.0   817.0   807.0  1326.0   812.0  1279.0  4596.0
ESP 46936.0 50666.0 42846.0 39824.0 42843.0 38780.0 43064.0  4595.0161228.0
CZE  2361.0  2832.0  2084.0  1961.0  2319.0  1735.0  2319.0   416.0  4239.0  4306.0
HUN  2292.0  8294.0  7824.0  7645.0  2274.0  7827.0  2515.0   769.0  9063.0  1433.0  9114.0
POL  5031.0 34309.0 34048.0 32689.0  4541.0 32029.0  5529.0   695.0 35926.0  2567.0  7640.0 35973.0
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