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.

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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,      POL
msb:      CAN, DEU, DFS,    , ITA, NLD,           POL
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CHANGES IN NATIONAL PROCEDURES

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

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FRA (HOL)    Changes in information due to pedigree verification
DEU (HOL)    Base change
GBR (HOL)    Data from 2404r used due to the mismatch between MACE and GMACE parameter file
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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 December 2024

Country	Date
CAN	20241201
DFS	20241105
ITA	20241101
NLD	20241201
GBR	20240312
HUN	20241115
DEU	20241203
BEL	20201201
ESP	20241119
POL	20241011

Table 2.

Number of bulls in reference population for dce

CAN	42561.0								
DFS	6602.0	37260.0							
ITA	38497.0	6459.0	40315.0						
NLD	4066.0	31953.0	3461.0	33701.0					
GBR	37650.0	7507.0	38061.0	4392.0	40213.0				
HUN	2270.0	7737.0	2257.0	7691.0	2480.0	8881.0			
DEU	12152.0	36426.0	12168.0	32480.0	13188.0	8204.0	44233.0		
BEL	688.0	644.0	681.0	727.0	662.0	544.0	719.0	1320.0	
ESP	7566.0	35894.0	7417.0	32318.0	8523.0	8027.0	37617.0	696.0	38449.0
POL	5187.0	31200.0	5023.0	28270.0	6048.0	7577.0	31297.0	824.0	31335.0	32253.0

Number of bulls in reference population for mce

CAN	35290.0								
DFS	6238.0	38040.0							
ITA	31112.0	6128.0	32608.0						
NLD	3872.0	33082.0	3316.0	34545.0					
GBR	30316.0	7162.0	30649.0	4174.0	32303.0				
HUN	2223.0	7754.0	2213.0	7637.0	2378.0	8738.0			
DEU	10740.0	37230.0	10722.0	33563.0	11738.0	8197.0	43851.0		
ESP	7174.0	36820.0	7049.0	33436.0	8129.0	8038.0	38403.0	39232.0	
POL	5030.0	31664.0	4900.0	28876.0	5875.0	7598.0	31736.0	31809.0	32718.0

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Number of bulls in reference population for        dsb
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CAN 39277.0
DFS  6400.0 35685.0
ITA 35442.0  6224.0 37113.0
NLD  3880.0 30603.0  3307.0 32053.0
DEU 11736.0 34895.0 11716.0 31099.0 42382.0
POL  5009.0 29334.0  4821.0 26546.0 29426.0 30318.0

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Number of bulls in reference population for        msb
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CAN 34151.0
DFS  6099.0 36828.0
ITA 30091.0  5967.0 31613.0
NLD  3750.0 32048.0  3217.0 33411.0
DEU 10438.0 36053.0 10429.0 32534.0 42458.0
POL  4888.0 30256.0  4739.0 27611.0 30342.0 31263.0
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