INTRODUCTION

The latest genomic routine international evaluation for calving traits took place as scheduled at the Interbull Centre. Data from 16 countries were included in this evaluation.

International genetic evaluations for calving traits of bulls from Australia, Austria-Germany, Belgium, Canada, Denmark-Finland-Sweden, France, Germany, Hungary, Ireland, Israel, Italy, Netherlands, Norway, Switzerland, the United Kingdom, and the United States of America were computed. Holstein data were included in this evaluation.

BEL, CAN, DEU, DFS, GBR, ITA, NLD, HUN submitted GEBVs.

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

CHANGES IN NATIONAL PROCEDURES

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

BEL (HOL) Changes in the reference population

INTERBULL CHANGES COMPARED TO THE DECEMBER ROUTINE RUN

No changes in Interbull procedures

DATA AND METHOD OF ANALYSIS

Eleven 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 eleven 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 routine 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 2019

Country	Date
CAN	20190801
DFS	20190812
ITA	20190711
NLD	20190801
GBR	20190703
HUN	20190723
DEU	20190813
BEL	20190801

Table 2.

Number of bulls in reference population for dce

CAN	34339.0							
DFS	3543.0	30001.0						
ITA	31420.0	2898.0	32094.0					
NLD	3505.0	28788.0	2850.0	30987.0				
GBR	31574.0	3638.0	30388.0	3637.0	33181.0			
HUN	1567.0	6722.0	1463.0	6932.0	1574.0	7568.0		
DEU	4315.0	28954.0	3813.0	28982.0	4386.0	6957.0	31804.0	
BEL	1576.0	1067.0	1518.0	1172.0	1216.0	727.0	1243.0	2597.0

Number of bulls in reference population for mce

CAN	27790.0							
DFS	3399.0	30718.0						
ITA	25914.0	2832.0	26411.0					
NLD	3335.0	29527.0	2749.0	31017.0				
GBR	25215.0	3511.0	24797.0	3409.0	25937.0			
HUN	1537.0	6342.0	1437.0	6553.0	1548.0	7162.0		
DEU	4059.0	29759.0	3614.0	29744.0	4151.0	6578.0	32445.0	
BEL	1552.0	1063.0	1505.0	1135.0	1156.0	724.0	1240.0	2348.0

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Number of bulls in reference population for        dsb
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CAN 31611.0
DFS  3413.0 28588.0
ITA 28960.0  2816.0 29614.0
NLD  3344.0 27389.0  2747.0 28940.0
DEU  4140.0 27620.0  3689.0 27637.0 30375.0

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Number of bulls in reference population for        msb
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CAN 25920.0
DFS  3274.0 29557.0
ITA 24211.0  2749.0 24692.0
NLD  3204.0 28386.0  2657.0 29768.0
DEU  3913.0 28661.0  3508.0 28646.0 31264.0
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