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 submitted GEBVs.

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

CHANGES IN NATIONAL PROCEDURES

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

CAN HOL Corrected some coding of proof types to better reflect the information included in the GEBV calculations for each bull

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 minimizing the need to resort to conversions.

At the same time, all recipients of Interbull results are expected to honor 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 2017

Country	Date
CAN	20170801
DFS	20170306
ITA	20170712
NLD	20170801
GBR	20170605
DEU	20170808
BEL	20170801

Table 2.

Number of bulls in reference population for dce							
CAN	30378.0						
DFS	2319.0	26714.0					
ITA	26942.0	1529.0	27413.0				
NLD	2618.0	26078.0	1822.0	28170.0			
GBR	27705.0	2206.0	25962.0	2470.0	28175.0		
DEU	2725.0	26042.0	1954.0	26639.0	2561.0	28360.0	
BEL	1182.0	855.0	1085.0	960.0	840.0	969.0	2105.0

Number of bulls in reference population for mce						
CAN	24536.0					
DFS	2257.0	27206.0				
ITA	21956.0	1518.0	22300.0			
NLD	2522.0	26585.0	1775.0	28022.0		
GBR	22025.0	2155.0	20909.0	2388.0	22399.0	
DEU	2606.0	26581.0	1885.0	27069.0	2459.0	28740.0

Number of bulls in reference population for dsb					
CAN	27945.0				
DFS	2305.0	26417.0			
ITA	24683.0	1520.0	25149.0		
NLD	2590.0	25789.0	1799.0	27268.0	
DEU	2693.0	25745.0	1933.0	26247.0	27916.0

Number of bulls in reference population for msb					
CAN	22885.0				
DFS	2233.0	27369.0			
ITA	20413.0	1507.0	20754.0		
NLD	2495.0	26756.0	1755.0	28195.0	
DEU	2585.0	26754.0	1877.0	27331.0	28965.0