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:

DEU (HOL) Optimisation of the SNP BLUP genomic model and update of genomic reliabilities. Many bulls missing compared to the previous run due to a new editing in the national genomic evaluation.

Base change

CAN (HOL) Update of reliability calculations
Corrected status of about 7500 bulls from 0 to 10

FRA (HOL) -Base change
-corrected proofs status and bull status for some records

DFS (HOL) -corrected proofs status and bull status for some records

NLD (HOL) -corrected proofs status for some records

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.

SCIENTIFIC LITERATURE

The international genetic evaluation procedure is based on international work described in the following scientific publications:

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 April 2016

Country	Date
CAN	20160401
DFS	20160202
ITA	20160308
NLD	20160401
GBR	20160309
DEU	20160405
BEL	20160401

Table 2.

Number of bulls in reference population for							dce
CAN	27671.0						
DFS	1687.0	25542.0					
ITA	23923.0	1107.0	24244.0				
NLD	2004.0	25108.0	1347.0	26806.0			
GBR	25153.0	1558.0	23711.0	1847.0	25415.0		
DEU	1911.0	25152.0	1273.0	25592.0	1755.0	27013.0	
BEL	1064.0	786.0	662.0	870.0	728.0	875.0	1952.0

Number of bulls in reference population for mce

CAN	22211.0				
DFS	1662.0	25970.0			
ITA	19010.0	1095.0	19193.0		
NLD	1937.0	25533.0	1310.0	26774.0	
GBR	19870.0	1539.0	18870.0	1796.0	20089.0
DEU	1855.0	25580.0	1249.0	26008.0	1716.0 27426.0

Number of bulls in reference population for dsb

CAN	25344.0				
DFS	1681.0	25304.0			
ITA	21710.0	1102.0	22026.0		
NLD	1982.0	24870.0	1327.0	26051.0	
DEU	1900.0	24908.0	1266.0	25250.0	26635.0

Number of bulls in reference population for msb

CAN	20583.0				
DFS	1654.0	25841.0			
ITA	17457.0	1090.0	17636.0		
NLD	1913.0	25408.0	1289.0	26555.0	
DEU	1843.0	25451.0	1243.0	25874.0	27264.0