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:

DFS (HOL) New model and new method of calculating reliabilities

BEL (HOL) participating for the first time for dce

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 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 December 2015

Country	Date
CAN	20151201
DFS	20151103
ITA	20151104
NLD	20151201
GBR	20151022
DEU	20151201
BEL	20151201

Table 2.

Number of bulls in reference population for dce

CAN	26158.0						
DFS	1603.0	25320.0					
ITA	23851.0	1101.0	24282.0				
NLD	1874.0	24802.0	1338.0	26450.0			
GBR	24729.0	1448.0	23704.0	1693.0	24861.0		
DEU	1496.0	24122.0	1124.0	24364.0	1348.0	25780.0	
BEL	731.0	795.0	668.0	872.0	678.0	837.0	2003.0

Number of bulls in reference population for mce

CAN	20463.0					
DFS	1570.0	25717.0				
ITA	18899.0	1086.0	19116.0			
NLD	1804.0	25206.0	1295.0	26390.0		
GBR	19419.0	1423.0	18814.0	1641.0	19524.0	
DEU	1481.0	24570.0	1114.0	24823.0	1336.0	26250.0

Number of bulls in reference population for dsb

CAN	23847.0				
DFS	1598.0	25082.0			
ITA	21641.0	1096.0	22068.0		
NLD	1853.0	24564.0	1318.0	25686.0	
DEU	1491.0	23874.0	1120.0	24024.0	25412.0

Number of bulls in reference population for msb

CAN	18811.0				
DFS	1558.0	25575.0			
ITA	17331.0	1083.0	17544.0		
NLD	1778.0	25074.0	1275.0	26161.0	
DEU	1474.0	24443.0	1110.0	24693.0	26100.0