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) Bulls older than 17 months year old and not selected yet have been removed from the national evaluation

ESP (HOL) Elimination of many Eurogenomics bulls from the national evaluation. These bulls had already MACE proof or have not been selected for AI

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 August 2016

Country	Date
CAN	20160801
DFS	20160809
ITA	20160629
NLD	20160801
GBR	20160629
DEU	20160809
BEL	20160801

Table 2.

Number of bulls in reference population for dce

CAN	28422.0						
DFS	1816.0	26003.0					
ITA	24894.0	1246.0	25387.0				
NLD	2198.0	25555.0	1574.0	27343.0			
GBR	25913.0	1694.0	24780.0	2048.0	26228.0		
DEU	2031.0	25364.0	1507.0	25881.0	1883.0	27288.0	
BEL	1110.0	811.0	701.0	910.0	770.0	901.0	2009.0

Number of bulls in reference population for mce

CAN	22815.0					
DFS	1783.0	26396.0				
ITA	19909.0	1236.0	20195.0			
NLD	2115.0	25951.0	1532.0	27262.0		
GBR	20459.0	1669.0	19838.0	1981.0	20731.0	
DEU	1976.0	25793.0	1474.0	26294.0	1841.0	27703.0

Number of bulls in reference population for dsb

CAN	26067.0				
DFS	1810.0	25764.0			
ITA	22678.0	1240.0	23167.0		
NLD	2175.0	25315.0	1552.0	26571.0	
DEU	2019.0	25119.0	1497.0	25537.0	26908.0

Number of bulls in reference population for msb

CAN	21172.0				
DFS	1770.0	26265.0			
ITA	18356.0	1229.0	18638.0		
NLD	2088.0	25824.0	1508.0	27039.0	
DEU	1963.0	25668.0	1465.0	26161.0	27542.0