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:


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


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
-------------------------------
<table>
<thead>
<tr>
<th>Country</th>
<th>mce</th>
<th>dsb</th>
<th>msb</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN</td>
<td>22211.0</td>
<td>25344.0</td>
<td>20583.0</td>
</tr>
<tr>
<td>DFS</td>
<td>1662.0</td>
<td>1681.0</td>
<td>1654.0</td>
</tr>
<tr>
<td>ITA</td>
<td>19010.0</td>
<td>21710.0</td>
<td>17457.0</td>
</tr>
<tr>
<td>NLD</td>
<td>1937.0</td>
<td>1982.0</td>
<td>1913.0</td>
</tr>
<tr>
<td>GBR</td>
<td>19870.0</td>
<td>24870.0</td>
<td>25408.0</td>
</tr>
<tr>
<td>DEU</td>
<td>1855.0</td>
<td>1900.0</td>
<td>1843.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count 1</th>
<th>Count 2</th>
<th>Count 3</th>
<th>Count 4</th>
<th>Count 5</th>
<th>Count 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN</td>
<td>25970.0</td>
<td>25304.0</td>
<td>25841.0</td>
<td>25408.0</td>
<td>25451.0</td>
</tr>
<tr>
<td>DFS</td>
<td>1095.0</td>
<td>1102.0</td>
<td>1090.0</td>
<td>1289.0</td>
<td>1243.0</td>
</tr>
<tr>
<td>ITA</td>
<td>19193.0</td>
<td>1327.0</td>
<td>17636.0</td>
<td>1289.0</td>
<td>1243.0</td>
</tr>
<tr>
<td>NLD</td>
<td>26774.0</td>
<td>26051.0</td>
<td>26555.0</td>
<td>26555.0</td>
<td>25874.0</td>
</tr>
<tr>
<td>GBR</td>
<td>20089.0</td>
<td>26010.0</td>
<td>27264.0</td>
<td>27264.0</td>
<td></td>
</tr>
</tbody>
</table>