INTRODUCTION

The latest genomic routine international evaluation for longevity trait took place as scheduled at the Interbull Centre. Data from 21 populations were included in this evaluation.

International genetic evaluations for direct longevity trait of bulls from Australia, Belgium, Canada, Switzerland, Germany, Denmark-Finland-Sweden Spain, France, The United Kingdom, Ireland, Israel, Italy, New Zealand, The Netherlands, The United States of America Hungary, Norway, Slovenia and Czech Republic were computed. Holstein breed data were included in this evaluation.

CAN, DEU, ESP, FRA, DFS, GBR, ITA, NLD submitted GEBVs.

dlo: CAN, DEU, ESP, FRA, DFS, GBR, ITA, NLD

CHANGES IN NATIONAL PROCEDURES

Changes in the national genetic evaluation of longevity 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

ESP HOL Longevity gEBVs are now based on new calculations based on the new traditional model (see MACE documents)

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. 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
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Dates for next routine run can be found on http://www.interbull.org/ib/servicecalendar

NEXT TEST INTERNATIONAL EVALUATION
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Dates for next routine run can be found on http://www.interbull.org/ib/servicecalendar

PUBLICATION OF INTERBULL ROUTINE RUN
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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 August 2017
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Country  Date
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BEL      20170801
CAN      20170801
DEU      20170808
DFS      20170306
ESP      20170710
FRA      20170809
GBR      20170605
ITA      20170712
NLD      20170801

Table 2.
Number of bulls in reference population for dlo
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BEL  2621.0
CAN  1310.0 30816.0
DEU  973.0 2635.0 34690.0
DFS  856.0 2191.0 32290.0 33026.0
ESP  933.0 2290.0 32765.0 32432.0 33493.0
FRA  1009.0 2597.0 31150.0 30653.0 31256.0 33016.0
GBR  873.0 27559.0 2418.0 2019.0 2100.0 2358.0 27949.0
ITA  1141.0 27496.0 1914.0 1516.0 1582.0 1834.0 26255.0 27914.0
NLD  981.0  2568.0 32883.0 32312.0 32887.0 32887.0 31240.0 2347.0 1821.0 34601.0