

INTRODUCTION

The latest genomic test international evaluation for workability traits took place as scheduled at the Interbull Centre. Data from 15 countries were included in this evaluation.

International genetic evaluations for workability traits of bulls were computed from: AUS CAN CHE DEU DFS FRA GBR NLD SVN NZL ITA JPN ESP CZE POL
Holstein data were included in this evaluation.

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

msp: CAN, DEU, FRA, DFS, GBR, NLD, ITA, ESP, POL
tem: , DEU, , DFS, GBR, NLD

CHANGES IN NATIONAL PROCEDURES

Changes in the national genetic evaluation of workability traits are as follows:

CAN (HOL) Base change
FRA (HOL) Base change
NLD (HOL) Base change, heritability changed from .23 to .51, in line with MACE
DEU (HOL) Base change

INTERBULL CHANGES COMPARED TO THE DECEMBER ROUTINE RUN

No changes in Interbull procedures

DATA AND METHOD OF ANALYSIS

Thirteen 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 thirteen 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. 2016. Defining a Parameter Space for GMACE. Interbull Bulletin 50, p 85-93.

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

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 test 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 2023

Country	Date
CAN	20230401
DEU	20230404
DFS	20230307
FRA	20230405
NLD	20230401
GBR	20230309
ITA	20221111
ESP	20230314
POL	20230310

Table 2.

Number of bulls in reference population for		msp	
CAN	24239.0		
DEU	6901.0	38069.0	
DFS	4462.0	33998.0	34832.0
FRA	3649.0	30902.0	30441.0 32456.0
NLD	3596.0	32309.0	31803.0 30451.0 33576.0
GBR	20447.0	7500.0	5013.0 3749.0 3953.0 22426.0
ITA	21239.0	6445.0	3945.0 3000.0 3042.0 20335.0 22313.0
ESP	5696.0	35447.0	34328.0 30986.0 32341.0 6331.0 5155.0 36397.0
POL	4324.0	29467.0	29224.0 26535.0 27697.0 4835.0 3826.0 29789.0 30794.0

Number of bulls in reference population for		tem	
DEU	35359.0		
DFS	31409.0	32100.0	
NLD	30002.0	29435.0	31148.0
GBR	6849.0	4453.0	3580.0 21432.0