INTRODUCTION
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The international genetic evaluation for beef, Limousin (LIM), adjusted
weaning weight
trait took place on October 2021 at Interbull Centre.

Data from 12 countries were included in the evaluation:
CZE, DFS*, GBR, IRL, FRA, DEU, CHE, AUS, SVN, LVA, EST and ITA
      *) DFS =>  Populations code for Denmark, Finland and Sweden

INTERBULL CHANGES COMPARED TO THE PREVIOUS ROUTINE RUN
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    * New countries: EST, ITA;
    * New model and parameters: DFS;
    * New variance components parameters estimated by ICBF;
    * Implementation of the new evaluation workflow.


DATA AND METHOD OF ANALYSIS
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    Pedigree data
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    * Pedigree data were updated by the national evaluation centers on the IDEA
    interbull database.

    Phenotypic data
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    * DEU data from the last routine run (2101r)
    * Other countries:
        Phenotypic data were uploaded by the national evaluation centers on
        the IDEA interbull database.

    Variance components
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    * New parameters estimated by ICBF.

    Publication file
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    * No updates

    Software
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    * Prediction of genetic merits were performed using Mix99.
    * Prediction of reliabilities were performed using MTEDC5.


PUBLICATION OF INTERBEEF ROUTINE RUN
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DIRECT PUBLICATION RULES
    1- The proof from any animal with a national official status in a country
    was considered
       as official in that respective country.
    2- Any animal with >=25 recorded progeny and reliability >=0.5 in at least
    one scale
       and with an official status in a country was considered as
       internationally official
       in all the countries participating in the analysis.
    3- Any animal with >=25 recorded progeny and reliability >=0.5 in at least
    one scale

and with recorded progeny in more than one country was considered as
internationally official
in all the countries participating in the analysis.

MATERNAL PUBBLICATION RULES
   1-Maternal EBV publishable if direct EBV publishable
     a) and reliability >=0.3.
     b) and number or daughters with performance >= 15.
     c) and number of progeny with performance >= 25.
   2-If an animal is publishable /national publication rules in country A,
   this animal is
     publishable in country A.
   3-If an animal fulfilles Interbeef publication rules, this animals is
   publishable in all
     scales.

Variances component

Direct additive variances:
CZE_aww 693        (0.37)
DFS_aww 187        (0.17)
ESP_aww 138        (0.26)
GBR_aww 278        (0.34)
IRL_aww 455        (0.35)
FRA_aww 246        (0.35)
DEU_aww 391        (0.25)
CHE_aww 382        (0.27)
AUS_aww 125        (0.15)
SVN_aww 923        (0.36)
LVA_aww 195        (0.14)
EST_aww 322        (0.51)
ITA_aww 171        (0.24)

Maternal genetic variances:
CZE_aww 209        (0.11)
DFS_aww 140        (0.13)
ESP_aww 69.9       (0.13)
GBR_aww 60         (0.07)
IRL_aww 199        (0.15)
FRA_aww 70.2       (0.1)
DEU_aww 334        (0.21)
CHE_aww 97.7       (0.07)
AUS_aww 70.6       (0.09)
SVN_aww 508        (0.2)
LVA_aww 39         (0.03)

MPE variances
CZE aww 208        (0.11)
DFS_aww 105        (0.1)
ESP_aww 43         (0.08)
GBR_aww 63         (0.08)
IRL_aww 45         (0.03)
FRA_aww 63         (0.09)
CHE_aww 76         (0.05)
AUS_aww 81         (0.1)

Random comtemporary group variances:
CHE_aww 294        (0.21)
CZE_aww 477        (0.26)
DEU_aww 203        (0.13)
LVA_aww 599        (0.43)
SVN_aww 775        (0.3)

Residual variances:
CZE_aww 377      (0.2)
DFS_aww 662      (0.62)
ESP_aww 294      (0.56)
GBR_aww 421      (0.52)
IRL_aww 647      (0.5)
FRA_aww 354      (0.5)
DEU_aww 719      (0.46)
CHE_aww 587      (0.42)
AUS_aww 546      (0.67)
SVN_aww 626      (0.24)
LVA_aww 590      (0.42)
EST_aww 309      (0.49)
ITA_aww 547      (0.76)

Direct & Maternal genetic correlations:

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                CZE aww DFS aww ESP aww GBR aww IRL aww FRA aww DEU aww
                CHE_aww AUS_aww SVN_aww LVA_aww EST_aww ITA_aww CZE_aww
                DFS_aww ESP_aww GBR_aww IRL_aww FRA_aww DEU_aww CHE_aww
                AUS_aww SVN_aww LVA_aww
CZE_aww 1
DFS_aww 0.82    1
ESP_aww 0.78    0.8     1
GBR_aww 0.77    0.8     0.87    1
IRL_aww 0.8     0.79    0.84    0.86    1
FRA_aww 0.77    0.84    0.79    0.82    0.78    1
DEU_aww 0.75    0.82    0.75    0.77    0.75    0.79    1
CHE_aww 0.82    0.81    0.77    0.76    0.77    0.76    0.75    1
AUS_aww 0.76    0.78    0.77    0.77    0.76    0.77    0.75    0.76    1
SVN_aww 0.69    0.68    0.69    0.76    0.69    0.72    0.69    0.69    0.69
1
LVA_aww 0.74    0.73    0.74    0.74    0.74    0.74    0.73    0.74    0.74
0.69    1
EST_aww 0.7     0.68    0.7     0.69    0.7     0.7     0.74    0.7     0.7
0.7     0.7     1
ITA_aww 0.77    0.69    0.7     0.69    0.7     0.7     0.7     0.7     0.7
0.69    0.7     0.7     1
CZE_aww -0.25   0       0       0       0       0       0       0       0
0       0       0       0       1
DFS_aww 0       -0.11   0       0       0       0       0       0       0
0       0       0       0.66    1
ESP_aww 0       0       -0.21   0       0       0       0       0       0
0       0       0       0.66    0.73    1
GBR_aww 0       0       0       -0.09   0       0       0       0       0
0       0       0       0.65    0.72    0.66    1
IRL_aww 0       0       0       0       -0.17   0       0       0       0
0       0       0       0.66    0.75    0.72    0.66    1
FRA_aww 0       0       0       0       0       -0.21   0       0       0
0       0       0       0.61    0.65    0.65    0.63    0.68    1
DEU_aww 0       0       0       0       0       0       -0.25   0       0
0       0       0       0.64    0.67    0.68    0.66    0.72    0.63
1
CHE_aww 0       0       0       0       0       0       0       -0.22   0
0       0       0       0.63    0.71    0.7     0.71    0.71    0.66
0.67    1
AUS_aww 0       0       0       0       0       0       0       0       -0.12
0       0       0       0.68    0.75    0.73    0.73    0.74    0.69
0.7     0.73    1
SVN_aww 0       0       0       0       0       0       0       0       0
-0.37   0       0       0.58    0.59    0.59    0.58    0.59    0.58
0.59    0.59    0.59    1
LVA_aww 0       0       0       0       0       0       0       0       0
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0        -0.22    0        0        0.59    0.59    0.59    0.58    0.59    0.58
0.59     0.59     0.59     0.59     1
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