MEMO

To:	Members WHFF
From:	Gerben de Jong, WHFF working group Harmonization Type Classification
Date:	May 1th 2024
Subject:	Minutes 15th WHFF World Classifiers Workshop 16th-18th April 2024. Cremona, Italy
Attachments:	Appendix A and appendix I and II

Working Group Recommendations to WHFF Council

1. In case of a trait definition change, like with Rib Structure, the scores based on former definition should be discarded in the genetic evaluation to improve the correlations in the Interbull evaluations. WHFF board is requested to stimulate the national breed associations to pay attention to this topic.
2. Extend the current official linear conformation trait list with front feet orientation and udder balance.
3. Share trait definitions and pictures of four extra traits with WHFF members by making the information available on the WHFF site
4. Share the document of conformation defects with the WHFF members by making the information available on the WHFF site.
5. Share phenotypic correlation among, body traits, feet and legs traits and udder traits. Based on the last 12 months of data.
6. Focus traits during the workshop Chest Width, Rib Structure, Rear Legs rear View, Foot Angle, Locomotion, Udder Support and the new traits Udder Balance and Front Feet Orientation.
7. Body depth should be scored independent from stature. Countries should be made aware they should score linear traits as one dimension trait. Make no combinations with other

traits. It is the only way to increase correlations in Interbull evaluations.

8. Continue the program of Head Classifiers Workshop.

Explanation on Recommendations

Ad1) The majority of the members have introduced the new definition of Rib Structure. Germany and the Netherlands have removed all scores based on previous definition from their national evaluation and provide these new breeding values to the Interbull MACE evaluations. The result is that the correlations with other countries dropped dramatically as other countries still provide breeding values based on the old definitions, even when they started to score according to the new definition. The correlations between countries only will increase if all countries will remove scores based on previous definition.
The WHFF council is requested to stimulate the national breed associations to remove trait score based on former definitions.

Ad2) Based on a survey carried out in 2022 among the WHFF members an inventory was made which traits are scored beside the 18 official WHFF linear traits. Based on aspects as described in appendix II the working group proposed to add front feet orientation and udder balance to the official list of WHFF linear conformation traits. The proposal was supported by the participants of the workshop.
The WHFF council is requested to add front feet orientation and udder balance to the official list of WHFF linear conformation traits.

Ad3) Based on a survey carried out in 2022 among the WHFF members an inventory was made which traits are scored beside the 18 official WHFF linear traits. Four traits are scored commonly by the members. To improve harmonisation for these four traits the working group recommends to share the trait definition and pictures on the WHFF site (see also appendix II).
The WHFF council is requested to share trait definitions and pictures of four extra non official traits with WHFF members by making the information available on the WHFF site.

Ad4) The working group has carried out a survey on conformation defects scored by members of WHFF (see appendix III). Based on the survey a list of 20 defects are described to stimulate the understanding of what is scored and to harmonize. Members are not expected to score these traits, but in case they score is, the definition of WHFF could be followed.

The WHFF council is requested to approve the list of conformation defects and share it with the members on the WHFF site.

Ad5) For more understanding how the traits are scored by different countries, we request that countries send in the phenotypic correlations based on scores of 2025, before 1st of February 2026, to: raffaellafinocchiaro@anafi.it and gerben.de.jong@crv4all.com.

Ad6) Interbull correlations below 0.80 for the current official WHFF linear traits

Ad7) Based the on the phenotypic correlation analysis, it appeared that some countries still score body depth relative to stature. It should be scored independent from stature as it is a linear trait.

Ad8) The location of the next workshop will be Hungary.

Summary of the 15th WHFF World Classifiers Workshop, Cremona 16th-18th April 2024

1. In total 53 participants from 28 countries attended the workshop. List of participants, see appendix I.
Martin Cassandro, ANAFIBJ general manager gave an introduction to the Italian diary industry.

2. Working Group meeting April 16th, present: Tony O'Connor (NZL), Corrado Zilocchi (ITA), Stefan Rensing (DEU), Tomas Ender (CHE), Thierry Menard (FRA), Pedro Guimaraes (BRA, first time), Tamas Sebok (HUN), Dorothee Warder (DEU), Rafaella Finocchiaro (ITA) and Gerben de Jong (NLD) as chairman. Cy Letter (USA, on line) and Bruno Jubinville (CAN) were absent due to health issues.
Also present as guest were John Steinhoff (USA) and Carolin Turner (CAN) .
For Stefan Rensing it was his last meeting as he will retire. At the end of the workshop he received a plaque as token of appreciation of more than 20 years contribution to the working group.

3. In December 2022, 24 countries or country groups participated in the Interbull genetic evaluation for conformation traits. Six linear traits already have a correlation of least 0.90 but 7 are also lower than 0.80. In some cases the low average correlation is due to the fact that a number of countries do not score the actual trait definition. Some countries has stopped for example to score locomotion (DFS

and USA) due to the fact that is costs too much time.

On average the correlation among countries stayed at the same level (0.82), but with some decrease (0.01) for rib structure, rump angle, rump width and foot angle. Further rear leg set rear view and central ligament show continuous decrease over time. Among eight large population countries, being part for all traits in the evaluation since the beginning, the correlation stayed on the same level compared to four years ago. These countries showed an average increase since 2001 of 0.01 (average correlation 0.87 to 0.88).
For rib structure some countries still use openess of ribs or use their own definition to make up the score: USA, CAN and EST. Germany and the Netherlands use in their genetic evaluation for rib structure only scores based on the WHFF definition and have seen a large drop in correlation with other countries as these other countries still use data based not based on the WHFF definition.

4. Then analysis of phenotypic correlations was carried out by Stefan Rensing. He showed that these phenotypic correlations based on scores of 12 months period are a good help to analyse how certain traits are scores. 23 countries provided the phenotypic correlations. Rib structure, chest width and body depth seem to have most variability. The correlations show that not all countries follow the WHFF definition. Most countries say they made the change to the new definition of rib structure.
For body depth it is clear that some countries like CAN and CHE score body depth in relation with stature, resulting in a low correlation between stature and body depth scores.
The expected phenotypic correlation between rib structure and BCS is around -0.15.
Udder depth and central ligament: FRA and BEL should check the scale (seems scale was times -1)
The differences in phenotypic correlations can give hints where countries probably apply in practice different trait definition. Countries finding very different correlations for specific combinations compared to other countries should try to find out what of the involved two traits is the reason and probably change the definition as applied.

5. Tamas Sebok gave a presentation on the relationship between linear conformation traits and functional traits like lifetime production, longevity, calving ease, claw disorders and somatic cell count. The presentation was based on analysis carried out by the ICAR Conformation working group, which have made graphs available based on a study of four

populations, showing the value of conformation traits. It shows the phenotypic relationship between the scores and the functional traits.
See also: www.icar.org/Guidelines/05-Conformation-recording-Appendix-5.pdf

6. A session was organized on 'The role of classification in the future' with perspective from four parts of the world with presentations by David Tesson, Tony O'Connor, John Steinhoff and Pedro Guimaraes Ribas Neto, followed by an half hour discussion.
At The end of the workshop all countries were asked to share what was new in their country since 2022. All countries made use of this opportunity.

   Exchange this kind of information was an important part of the meeting and stimulated the discussion among participants.

   All presentations has been shared with the participants.

7. On farm workshop. Both practical workshops on Cristella Farm in San Daniele Po and Sabbiona Farm in Brembio were very well prepare with loose cows and enough space around so groups could score and discuss animals easily.

   On the first day at the beginning of the session all traits were demonstrated to the group by scoring one cow. After that the group was divided in 5 groups, and scored all traits on 4 cows. All cows were first calf heifers and were discussed with the group leaders. In total 20 cows were analysed by the participants.

   On the second day, the discussions were centred on low correlation traits (chest width, rib structure, locomotion, rear legs rear view and udder support) and the new traits front feet orientation and udder balance.

8. All participants agree on the very positive discussions and on the clear definitions of all traits, including the new traits front feet orientation and udder balance. Everybody had the opinion that there was good unity in scoring of the traits, even the attention and new traits. It shows the value of this kind of workshops!
Topic of next workshop:
explain the value of discarding scores of previous trait definition in genetic evaluation to increase correlation in Interbull MACE evaluation.