



World Holstein Friesian Federation

History of Type Harmonisation or Linear Conformation Scoring

1. At the conference of the European Confederation of Black and White Breed Societies in 1986 in Bremen, harmonisation of Type Classification was one of the main topics. As a consequence it was decided to establish a Working Group to work out recommendations to the next conference in Brugge in 1987.
2. The first WG composed by David Hewitt (UK), Hubertus Diers (Germany), Frank de Graaf (NL), Arie Hamoen (NL), presented a first report in 1987, as expected.
3. Since this report induced a great step forward in type scoring it was decided to involve the global Holstein population in the project.
4. In 1988 WHFF took over the program from the European Confederation and a new working group was formed. The first Head Classifiers workshop being organised in Cremona (Italy) in September 1990.
5. The WHFF working group was now composed by David Hewitt(UK)Chairman, Dan Clossen(US), Dalton Hodgins(Canada), Hubertus Diers(Germany),en Frank de Graaf(NL)
6. The first European Report of 1987 had established 12 linear standard traits to be mentioned in each report and to be scored according to standard definitions, namely:
 - Stature
 - Body depth
 - Rump angle
 - Rump width
 - Rear legs set (side view)
 - Feet
 - Fore udder
 - Rear udder height
 - Udder support
 - Udder depth
 - Teat placement (fore teats)



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- Teat length
7. Along with these traits the WG described 5 "secondary traits" as well.
 8. At the first Workshop in Cremona it was decided to introduce Rear legs rear view as a trait for investigation and to keep Angularity and Chest width as secondary traits.
 9. The second World Classifiers Workshop in Canada in November 1992, was dedicated to the harmonisation of definitions of traits for scoring.
 10. During the third WHFF classifiers Workshop in 1994 in Oldenburg (Germany) Eric Johanssen from Denmark took over from Hubertus Diers. The aim of the meeting was to prepare a paper for the 9th. World Holstein Friesian Conference to be held in Japan in 1996. The paper recommended to consider Angularity and Chest Width as standard traits along with the 12 other traits, while Rear legs rear view was accepted as a trait to be investigated.
 11. The agreement of WHFF at the conference in Japan, in 1996, brought the number of standard traits to 14. In the meantime ICAR as well took over the program as basis for Interbull. It was the start of tremendous progress and improvement of conformation conversions. WHFF gave a mandate to the Working Group to go further with the program and to report again at the World Holstein Friesian Conference in 2000 in Sydney(Australia). At that time the WG was reshaped as follows: Dan Clossen(US), David Hewitt(UK) Chairman, Arie Hamoen (NL), Bill Leggat(Australia), Tom Byers(Canada), Jorge Martinez(Colombia) and Reinhard Reents(Germany).
 12. The fourth Workshop took place in October 1997 in Madison(US). A lot of consideration was given to finalise trait definitions. For feet they chose score the Foot angle.
 13. The fifth WHFF workshop was held in 1999 in Toledo(Spain). 47 classifiers from 25 countries attended and proved the WHFF initiatives were interesting. Rear legs rear view was suggested as 15th. standaard trait, while Rear teat placement was considered a trait for investigation.
 14. 2000
At the General Assembly of the WHFF, held on May 03, 2000 in Sydney in Australia, the members have been informed on the activities of the Federation.
During session 9 of the 10th World Congress (Sydney-2000) the chairman of the Type Classification Working Group, David Hewitt, presented a paper on the 5th Workshop held in Toledo (Spain) in May '99.



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The WHFF Council and the General Assembly as well approved the report, the conclusions formulated by the WG could then be implemented by the WHFF members.

The recommendations were as follows:

- new standard trait Rear Legs Rear View
- new definition of Angularity
- research trait Rear Teat Position

David Hewitt resigned as WG-Chairman. The Council elected Dan Crossen as his successor...

15. 2001

The next workshop was originally scheduled for 2001 in Canada but with the outbreak of FMD in Europe and Latin America it was postponed indefinitely. On October 8 and 9 the members of the working group met in Hatley, Wisconsin and decided to postpone the World Classifier Workshop until April 2003 in Quebec, Canada.

The WG made recommendations to the WHFF Council at its October 2002 meeting.

16. 2002

The 11th WHFF Council meeting held in Madison, USA on 7 & 8 October. WHFF-council approved the report of the WG-meeting Madison 2001. The recommendations were as follows:

- Council confirmed that Body Depth be measured independently of the stature of a cow;
- that the new trait Rear Teats Rear View be added as the sixteenth (16th) standard trait to be collected by all countries supplying genetic information to Interbull;
- that on the linear scale of 1 – 9 a teat placed on the midpoint of the rear quarter be given the measurement of 4 (on 1 – 50 scale, 20 should be given). Crossed rear teats will be a 9 or 50, those touching at the base will be given an 8 or 40;
- After one year of data collection(RTRV) by Interbull the definition should be reviewed.
- It was noted that a new standard trait must be approved by the General Assembly. The Council, however, recommended that the trait RTRV be used in the meantime.
- that a manual of pictorial examples showing the extremes and mean of standard linear traits, along with the official definition of each trait be put on the WHFF website by January 2003 after changes have been made.



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- that the linear traits and definitions be translated into Spanish, German and French.

17. Short Results 6th World Classifiers Workshop, April 2003 Quebec (Canada)
The Council was given the recommendations on the following topics:

- Only standard linear traits should be suitable for conversion.
- Locomotion: members should measure the trait and gather information to examine further harmonisation possibilities.
- Rear Udder Width: countries that already measure this trait should supply information for further harmonisation.
- General characteristics: all countries should use four basic general characteristics, namely:
 - Dairy character
 - Frame and Capacity
 - Feet and Legs
 - Udder

18. Next Head Classifiers Workshop will be in 2005 in The Netherlands.

The WHFF General Assembly, in Paris in 2004, agreed upon the following

1. The 2 new traits introduced in 2000 have been adopted, namely:
Rear Legs Rear View and Rear Teat Rear View.
2. Four recommendations have been adopted, namely: Members should use type definitions as published on the WHFF-website
 - WG to look after locomotion to include in harmonised classification
 - Members to use at least 4 General Characteristics:
 - Udder, Feet and Legs, Frame and Capacity, Dairy Character.
 - WG to look after Rear Udder Width for further harmonisation

Conclusions

- The first workshop was attended by participants from 14 countries. The 6th workshop in Quebec had classifiers from 27 countries. That is exactly how many members WHFF had in 2002!
- Correlations between countries have improved greatly.
Average genetic correlations between 8 main holstein countries (CAN, DEU, DNK, FRA, GBR, ITA, NLD, USA) was in February. 2003: 6 linear udder traits 0.92



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- 3 linear F&L traits 0.83
- 6 body traits 0.89
- all linear traits 0.90
- (milk 0.92, fat 0.91 and protein 0.91)