

World Holstein Friesian Federation

Process for evaluating New Genetic Traits

1. Individuals or organizations who believe they have identified a potential new monogenetic trait should complete the form on the WHFF web site ("Request for Investigation of Newly Observed and Previously Unknown Genetic Trait"), which will be sent by the Secretary General to the Monogenetic Traits Working Group Chair, who will organize a WG meeting.
2. The WG will meet to review the information provided. If a satisfactory level of detail is provided, the WG will set a time frame for a public comment period (ex: 90 days). At this time, information will also be shared with the appropriate ICAR groups (such as the ICAR DNA Working Group).
3. If there is a direct gene test already available at the time of initial review, the Working Group will propose labelling recommendations that will be reviewed quickly by the WHFF Council.
4. WHFF will publicize information regarding the newly identified Genetic Condition Under Investigation and notify member herdbooks of the public comment period.
5. At the close of the comment period, the WG will meet again to review comments received and other available documentation and propose recommended action to the WHFF Council regarding the Genetic Condition Under Investigation.

Criteria to be used in determining if a new genetic trait should be added to the WHFF Master List.

1. Frequency of defective variant to be greater than 5% in 2 or more countries.
2. Description and location of the variant must be provided.
3. Diagnostic SNP(s) should be included on one or more of the commercially available SNP Chips.
4. Explains 5% or more of the genetic variation for a polygenic trait such as health or production.
5. Acts independent of environmental conditions.
6. It is a monogenetic trait; free of epistasis, i.e., acts independent of other genes.
7. High penetrance, a "high-penetrance" variant is defined as a variant that segregates in a Mendelian pattern and in which 50% or more of the carrier individuals develop features of the condition.
8. There must be publicly available documentation published in a peer-reviewed scientific journal that is available on the trait.
9. If these criteria are not met then the Traits will be considered to be under investigation.

Process for evaluating Genetic Traits currently on the WHFF Master List

1. The Genetic Traits on the WHFF Master List should be periodically evaluated by the Working Group.

2. Any Genetic traits where there isn't any recent testing or the frequency is very low, will be considered possible candidates for archiving. The Working Group will set a time frame for a public comment period (ex: 90 days). At this time, information will also be shared with the appropriate ICAR groups (such as the ICAR DNA Working Group).
3. At the close of the comment period, the Working Group will meet again to review comments received and other available documentation and propose recommended action to the WHFF Council regarding the Genetic Trait.