

# **Standardized Labelling for Genetic Trait Coding**

*World Holstein Friesian Federation Registration Working Group*

## **Abstract**

The World Holstein Friesian Federation registration working group reviews the recording of Genetic Traits prevalent in the Holstein breed with emphasis on harmonization and exchange of data. The term ‘Genetic Trait’ is used to describe a monogenetic inherited trait, i.e., one that is simply inherited. Official Genetic traits are listed on the WHFF website for easy reference for all international Holstein Associations and their respective Herdbooks. When newly observed or previously unknown Genetic Traits are discovered, they are reported to WHFF for the classification.

The full disclosure of named Genetic Traits in the Holstein population is very useful information when making breeding decisions on the farm. It allows farmers to minimize the impact of any associated problem by breeding around, through careful mating decisions, to eliminate the harmful expression of the genetic trait.

It is recommended that Genetic Traits be reported on breed Herdbook official documents and made available for data exchange. Harmonization of codes and nomenclature is imperative for overall accuracy and international data exchange.

For the most part, genetic traits do not become ‘Herdbook official’ until the results of a direct genetic test for the causal variant are available. Today, we are also able to acquire genetic trait information from identified regions in the genome associated with a genetic trait, by indirect testing (e.g. via haplotypes). Labelling of these test types (direct and indirect) provides breeders with the information and opportunity to calculate the risk with mating decisions.

WHFF Registration Working Group proposes the following standardized labelling for genetic trait coding to indicate gene name and expression code.

*Keywords: WHFF, World Holstein Friesian Federation, Genetic Traits, Recessives*