Genomic breeding values for crossbred dairy cows provide new opportunities

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NAV starts to calculate genomic breeding values for crossbred dairy cows from Denmark, Finland, and Sweden in December 2021. For a start it is only genotyped two- and three-way crosses between RDC, Jersey and Holstein that get genomic breeding values. However, crosses involving Montbeliarde will also get genomic breeding values in 2022. The genomic breeding values have been developed in the GUDP project DairyCross, based on work done by Aarhus University, VikingGenetics and VikingDanmark.

Nearly same traits as pure breeds

Genotyped crossbred cows get genomic breeding values for almost the same traits as purebred cows, including all sub-indices of yield, body, feet&legs and udder indices. The only difference is that genomic breeding values for crossbred animals are not calculated for young stock survival. All the indices are weighed into NTM, as is the case for the purebred animals. The genomic breeding values are based on pure genomic information, which means that the recordings of the animal's own performance are not included. The reliabilities on the genomic breeding value for dairy crosses are generally lower than for purebred genotyped cows.

Targeted use of sexed semen and beef semen

Genomic breeding values give you an efficient tool for targeting the use of sexed semen and beef semen and thereby achieving a higher genetic level in the herd. This is because it is possible to identify the genetically best females and inseminate them with sexed semen from dairy bulls and also to identify the worst females and inseminate them with beef semen. It is important to emphasize that massive use of sexed semen and beef semen is a prerequisite for achieving an economic profit by using genomic test.
Genomic breeding values can also be used to find the best bull for the individual cow. By knowing the weaknesses of the cow, it is possible to choose the optimal bull that is strong for the same traits.