

Economic and healthy cows will be the outcome of the new NTM – Nordic Total Merit

NTM – Nordic Total Merit is the name for the new common Total Merit Index in Denmark, Sweden and Finland. This means that the same bull has the same NTM in all countries and that cows can be compared across borders. Even though the common index is new, the direction of the breeding work towards functional and productive cows is the same as today. So - the top sires and cows today are still high index sires and cows after 15th of October where the index is published for the first time.

The NTM has an average of zero, as is the case in Finland and Sweden today. In Denmark the average today is 100.

In October 2008 a new joint NTM for Holstein, the red breeds and Jerseys in Finland, Sweden and Denmark will be published for the first time. The development of a common total merit index for the dairy breeds was made possible by the development of common Nordic sub indices and was also driven by the formation of Viking Genetics across Denmark and Sweden at the beginning of this year.

Introduction of the NTM means that bulls and cows in Finland, Sweden and Denmark will have the same total merit index in all three countries. In that way, it will be possible to compare all bulls and cows from these countries in relation to genetic superiority for economic performance.

Only small adjustments compared to previous Total Merit Index

The overall aim for all breeds in Finland, Sweden and Denmark is still cows with improved genetic level for yield and functional traits resulting in improved economic profit for the dairy farmer. The NTM is not a revolution compared to the present national, but it is an update, based on the expectation for the future and solid theoretical calculations.

Studies showed that the genetic progress obtained with the present total merit indexes in the Nordic countries is more or less similar. There will therefore only be moderate changes going from national to a common NTM – Nordic Total Merit.

Different average, but same way of use

In the future the average NTM Index in the genetic base will be 0. This is the normal practice in Finland and Sweden, whereas the average has previously been 100 in Denmark. Of course this change does not affect ranking of bulls and cows, and total merit indices can be used as usually.

Solid basis for the NTM – Nordic Total Merit

The index weights given to the sub indices in the NTM are primarily based on the economic value of each single trait. The economic value is the marginal value of genetic improvement of that trait – keeping the remaining traits constant. As an example the weight factor for protein yield is calculated as the economic profit of improving yield with one kg of milk protein from the present level. The most important factors determining this profit is of course feed prices, price of milk and

marginal feed utilization. The same calculation was done for all other important traits, e.g. udder health, fertility, conformation, meat production, other health traits and longevity.

Production circumstances are quite different in the countries where the new NTM is to be used – e.g. from North Finland to the German border. It is therefore important to determine if the economic values were different in different parts. Four different production environments were defined in economic studies. The economic values across production environments were quite equal, except Northern Finland.

Discussions of proposed weight factors were done in early 2008 by breed associations in Sweden, Finland and Denmark. Many views on future production circumstances, animal welfare, ethical views and environmental considerations have been considered. However countries agreed on a common Nordic Total Merit called NTM in June 2008.