

NTM is tailor-made for Nordic farmers

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Milk prices in the Nordic countries are at the same level or higher than other in countries. Further Milk production is characterized by high costs, public demand for high quality of the product and of animal welfare. Further, cows have to produce under temperate or cold Nordic climate. This gives very specific price relations that are unique for our countries. These price relations are taken into account in the economic Nordic total merit index - NTM. NTM is therefore tailor-made for Nordic farmers.

Most genetic progress for the economically important traits

NTM is based on considering the economic effect of improving each included trait. For instance one extra index unit for protein yield results in 1.2 kg additional protein produced per lactation. Dairies pay for the extra milk protein but at the same time production of the extra milk protein is associated with an extra cost. The difference between price and cost is the economic benefit. The same calculations are done for fertility, udder health and all the other traits included in NTM. It is important to realize that reducing costs, such as reduced veterinary assistance because of healthier cows, is equally important in improving income as increasing milk yield is. They both have an effect on the profit of the dairy farmer!

The economic benefits of all traits are transformed into weight factors, explaining the economic importance of each trait, and NTM can be calculated. Making NTM in this way maximises economic value of one index unit of NTM. Said in another way, the use of sires selected based on NTM gives most progress for the traits that have the biggest economical importance. But all traits are considered.

If price of protein was not as it is today, but was doubled, and costs for producing protein were the same, the economic benefit from producing more protein would be higher and protein would have a higher weight factor in NTM compared to the other traits. Using sires with high NTM would then give a higher progress in protein yield.

Foreign total merit indices do not necessarily give best economic result

The strength of NTM is that it is based on the actual price relations in the Nordic countries. In some other countries, for instance in New Zealand or the US, the price relation is different, which is reflected in their total merit index. This can be due to veterinary costs being much lower and because better milk quality is not paid for by the dairies in these countries. Further hormone treatments could be widely used and feed cost could be lower because of lower price of land. Using sires in the Nordic countries that rank high in New Zealand total merit index or the US total merit index will still give genetic progress for important traits, such as yield, health and conformation. However the obtained progress for different traits will be different from NTM and this will not be optimal from an economic point of view. Also compared to total merit indices from other European countries, with production circumstances more comparable to the Nordic countries, NTM is preferable. Partly also because we have unique recordings of health and AI. Nordic farmers should always ask for NTM when buying semen.

NTM is easy to get for all sires – regardless of origin

NTM is of course available for Nordic sires, but it is also available for foreign sires on the basis of the international comparison of dairy bulls from Interbull.

NTM gives progress for all traits

Results show that selecting for high NTM gives progress in all traits included in NTM. Figure 1 shows average increase in selected traits when increasing NTM with one unit. For instance for Holstein yield and longevity is increased with around 0.6 index units when NTM is increased with one unit.

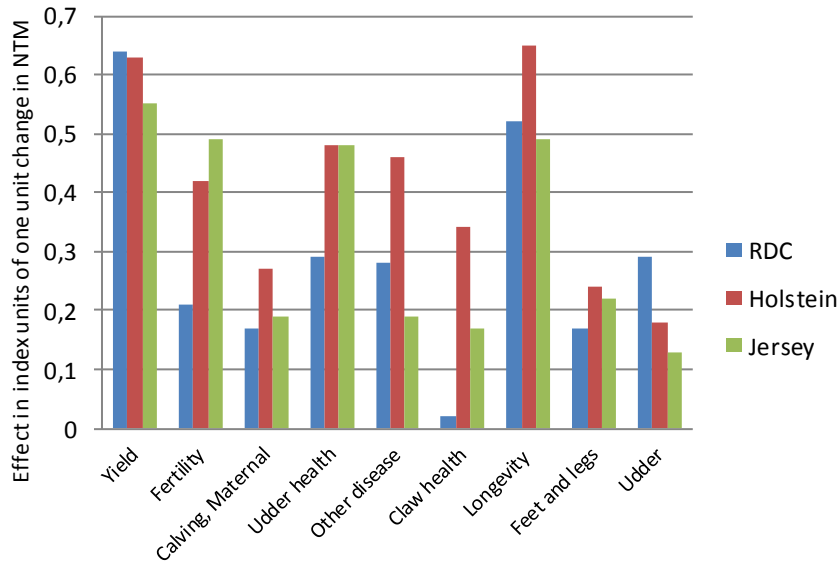


Figure 1 Effect of increasing NTM with one unit on genetic progress in index units for traits going into NTM