

## Youngstock survival included in Nordic BeefxDairy Index

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The Nordic BeefxDairy Index (NBDI) was launched in 2019. Since its inception, the NBDI has included the two subindices Birth and Growth. The length and intensity of the rearing period affects the economic values of the growth traits and thereby NBDI. Each bull gets breeding values for the sub-index Growth and NBDI for both short rearing period (<550 d) and long rearing period (>550d). In general, short rearing period is applied in Denmark and long rearing period in Finland and Sweden.

Youngstock survival describes survival of calves from day one after birth until 200 days of age. The index Youngstock survival is composed of the two breeding values for early period and late period. Breeding value for early period is based on the survival rate in the period from day 1 to day 30 and the late period is based on the survival rate in the period from day 31 to day 200. The combined youngstock survival index is based on a weight on 0.36 for early period and 0.83 for late period. Youngstock survival is a low heritable trait (0.01 and 0.015 for period 1 and 2 respectively) but results have shown enough genetic variation between sires to improve survival of crossbred calves through animal breeding. The industry considers youngstock survival a very important trait and it influences both the economy, animal welfare and the image of the cattle sector.

In the November 2024 BeefxDairy evaluation, youngstock survival was included in NBDI. At the same time, the economical weights used in NBDI were updated. Economical weight factors for Birth and Growth short and long are lower in the new NBDI compared to old NBDI. These changes have a substantial effect on the correlation between the old and new NBDI. The correlation between the old and new NBDI for short rearing is 0.76 and for long rearing it is 0.83. This indicates significant reranking between the bulls and NBDI values can change several index points.

The inclusion of youngstock survival to NBDI, provides the farmers a great tool selecting beef bulls that produce crossbred calves which are born easily, grow well, exhibit good carcass quality and have high survival rates during the rearing period.