

May 5, 2020

Registration, herdbook and breeding values for foreign AI bull, imported cattle and embryos in the Danish Cattle database

Herdbook

1. The legal entity, which orders registration of a bull, pays for the A.I.-code in the Danish Herd Book. The legal entity pays for its own bulls and for the bulls, they import semen after.
Price according to SEGES pricelist is 481 DKr pr. Bull.

The legal entity, which orders registration of imported cattle, pays for registration in the Danish Herd book. Price according to SEGES pricelist is 481 DKr pr. animal.

The legal entity, which orders registration of foreign embryos, pays for registration in the Danish Herd book. Price according to SEGES pricelist is 600 DKr pr. Donor cow (import of embryos)

For registration in the Danish Herdbook we need:

- Zootechnical certificate (Official pedigree)
- DNA – SNP/microsatellites (Parentage verification for bulls)
(is not included in the price for registration)
- Certificate of Embryo Recovery (only for registration of embryos)

SNP's and parenthood

2. Parental SNP verification is in Denmark based on ICAR SNP panel including additional SNP's in total 554. SEGES verifies parenthood based on the 196 SNP from the ICAR on animals, embryos etc. that are registered in Denmark after the 1st May 2020. There are several ways of getting SNP's into the parenthood database which are listed below:

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| ○ SNP-file from GenoEx | 227 Dkr |
| ○ SNP-file in GenoEx format: | 227 Dkr |
| ○ Genomic test of semen straw (excl. price of semen and administration) | 160 Dkr |
| ○ Foreign SNP-file not in GenoEx format*: | 2000 Dkr |
| ▪ Emergency case:
Additional fee for converting SNP-file outside of the normal quarterly routine: | 3000 Dkr |

*SEGES can't be held liable for missing parenthood verification, if there are too few SNP's in foreign SNP-files.

Breeding Value Estimation

3. Nordic Cattle Genetic Evaluation (NAV) calculates official breeding values for all Dairy sires and cows, on the basis of phenotypic registrations in the Nordic countries. The breeding value estimation includes production traits (yield and meat production), functional traits (female fertility, calving traits, health traits, longevity, young stock survival, feed efficiency) and conformation traits (body, feet and legs, udder), workability traits (milkability and temperament).
4. NAV, Nordic Cattle Genetic Evaluation invoices all genomic Holstein bulls according to the specifications in the document: <https://www.nordicebv.info/ntm-and-breeding-values/genomic-evaluation/nav-genomic-evaluation-service-for-international-holstein-ai-bulls/>. Further information on NAV services are here: <https://www.nordicebv.info/ntm-and-breeding-values/genomic-evaluation/>
5. SEGES, Cattle invoice for the genetic evaluation of females. The invoice goes to the breeding organization/importer, that orders registration of the bull in Denmark or the dairy farmer that have offspring after these bulls. The invoicing is made based on the number of inseminations of the bull or the number of live born female offspring. At the moment the fee is 2,60 DKr. Pr. Insemination or 9,90 DKr. pr. born heifer calf.
6. NAV conducts a genetic evaluation of Nordic AI beef bulls based on beef × dairy crossbred offspring for calving- and carcass traits. In addition, SEGES publish breeding values for survival traits for bulls having offspring in Denmark. To get published EBVs the reliability should meet the criteria for publication and a one-time fee of currently 9700 Dkr per bull should be paid

When publication criteria are met NAV will ask owners/importer if the bull's EBVs should be published. To avoid delay in publication bull owners/importer can inform NAV by sending an email to Gert Pedersen Aamand (gap@seges.dk) that EBV from their bulls should always be published.

Classification

7. SEGES, Cattle conduct classification of the daughters of bulls after principles settled by SEGES, Cattle in order to calculate breeding values for conformation traits.

Foreign young bulls with no proof in Denmark needs to be signed up for classification of their daughters by the importer or breeding company. Classification is paid by the legal entity that herd books the bull. Foreign young bulls are bulls, that on the time of daughter classification don't have official NAV breeding values or official Interbull breeding values and hence that no proof in another country. The price according to SEGES, Cattle is 175 DKr pr. classified daughter.