Overview: Nordic beef cattle in figures and the importance of registrations

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NAV official purebred beef cattle evaluation

Phase 1

Calving and carcass traits

- Aberdeen Angus (AAN)
- Beef Simmental (BSM/SIM)
- Charolais (CHA)
- Hereford (HER)
- Limousine (LIM)

Phase 2

Fertility

- All other breeds from the Nordic countries

Phase 3

Young Stock Survival

Type traits

Input for genetic evaluations

Input for NAV genetic evaluations

Traits

Calving traits (3)

- **SB:** Stillbirth
- **CAE:** Calving ease
- **BW:** Birth weight
- 2 groups
  - First calving
  - Later calving

Growth and carcass traits (6)

- **BW:** Birth weight (maternal and direct)
- **WWG:** Weaning weight gain (maternal and direct)
- **PWG:** Post-weaning weight gain (SWE, FIN)
- **YW:** Yearling weight (DNK)
- **SDG:** Slaughter daily gain
- **CCO:** EUROP conformation class
- **CFA:** EUROP fat class

Number of records included in the NAV PbB by breed and country

Table 1. Number of animals with at least one observation in the NAV carcass evaluation*

	Denmark	Finland	Sweden
AAN	528	309	117
BSM	703	168	318
CHA	534	331	882
HER	112	488	441
LIM	147	307	169

*in thousands

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Data available (1/2)

- **Start of phenotype recording varies among countries and traits**
  - ~1980 for DNK and SWE and ~1990 FIN
- **Proportion of records for a trait within a breed varies across countries**
  - Farm practice (in SWE BW is required)
  - Slaughter data i.e. in SWE not all are delivered and not all are used (req. of BW)

Data available (2/2)

- Stillbirth available on all calves
- The proportion of calving data available is similar across breeds within country.
- But, the proportion of data available is different across countries

% of calving and birth weight records over stillbirth registrations

	% calving ease	% birth weight
DNK	69	40
FIN	35	21
SWE	94	92

Overlapping birth weight observations with weight traits – Simmental (same pattern applies to the other breeds)

Percentage of animals over the total number of birth weight observations that have registrations on all weight and growth traits: birth weight, weaning weight gain, yearling weight (DNK) or post-weaning weight gain (FIN and SWE).

	DNK	FIN	SWE
Birth weight + weaning weight gain + yearling weight or post weaning weight gain	9%	45%	50%

Data completeness – Simmental (same pattern applies to the other breeds)

Percentage of animals that having slaughter records have missing birth weight records

	DNK	FIN	SWE
Slaughter daily gain + **Missing** Birth weight	72%	67%	3%

72% of slaughtered animals in DNK are eligible to have a birth weight observation they are at present not recorded for birth weight

Reflections

DNK:

- Large amount of slaughter data but limited on growth traits i.e. weaning weight and yearling weight
- Significant number of sires in the pedigree are missing for animals with observations

SWE:

- Improve access to slaughter data (not all abattoirs provide data access)

FIN:

- Improve recording of live born animals

Conclusion

- More records from all 3 countries – better quality of EBVs
- It is important to continue the good data recording but also address the weaknesses:
  - Record early in life (birth weight, etc.) before making selection decisions
  - Improve pedigree recording
- Important to be active in incorporating new traits, i.e meat/eating quality