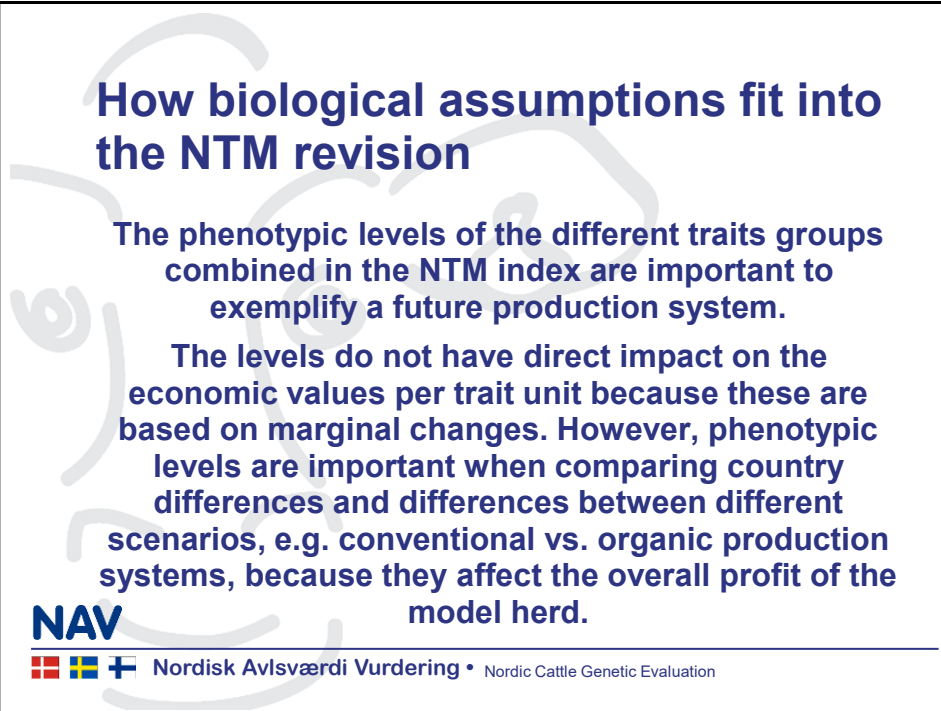


Biological assumptions current status

Kevin Byskov

NAV
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How biological assumptions fit into the NTM revision

The phenotypic levels of the different traits groups combined in the NTM index are important to exemplify a future production system.

The levels do not have direct impact on the economic values per trait unit because these are based on marginal changes. However, phenotypic levels are important when comparing country differences and differences between different scenarios, e.g. conventional vs. organic production systems, because they affect the overall profit of the model herd.

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Some initial comments:

- Currently available figures.
 - Not yet all traits.
- Some figures are based on NAV data and some on national inputs.
- Not necessarily defined exactly alike across countries.
 - In some cases, also differences in timespan figures are available for.

NAV Focus on strategic/structural figures.

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Herd type and size - 2025

	DNK	FIN	SWE
Avg. herd size	279	66	108
% of cows in AMS	29	62	54
% organic cows	11	3.4	15

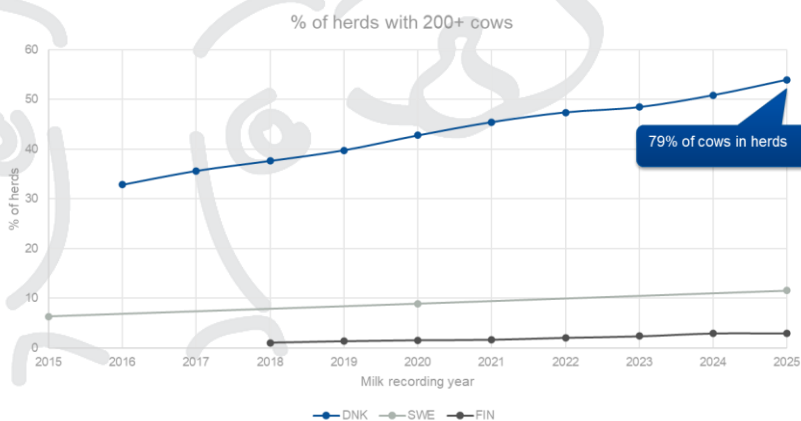
- Increase in herd size over years.
- Increase in AMS over years especially in FIN and SWE.

NAV No clear trend in proportion of organic cows.

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Illustrated in another way...



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Semen usage – Beef semen % of used doses

Female breed	DNK	FIN	SWE
RDC	38	32	21
HOL	35		14
JER	39		15

- Level is generally increasing over years.
- Generally lower usage on heifers.
 - E.g. in DNK 2-6% depending on breed vs. 48-52% on cows.
 - Less difference in SWE.
 - Finnish data not yet available.

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Semen usage - Sexed semen % of sold doses 2025

Bull breed	DNK ¹	FIN	SWE
RDC	50	14	36
HOL	48	18	40
JER	95	55	75

1: percent of used doses on RDC, HOL or JER females.

- Level is still increasing.
 - Except for DNK JER
- Highest level of female sexed semen is in heifers

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Survival rate and mortality Cows with first calving in 2021

	Survival rate			Mortality rate ¹	
	1 st lactation	2 nd lactation	3 rd lactation	1 st lactation	2+ lactation
DNK - RDC	75.7	66.2	59.7	1.8	3.2
FIN - RDC	78.0	72.3	65.3	3.0	4.7
SWE - RDC	75.5	69.5	63.6	2.5	4.2
DNK - HOL	79.7	73.4	66.8	3.0	4.7
FIN - HOL	82.7	77.1	71.1	4.0	6.3
SWE - HOL	80.0	74.0	65.6	4.3	7.2
DNK - JER	79.7	74.1	68.4	2.9	5.4

1: SWE mortality from national data, DNK and FIN from NAV data

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Yield assumptions

305d yield (kg)									
	Milk			Protein			Fat		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
RDC									
DNK	8,345	10,072	10,428	322	383	392	387	454	464
SWE	8,311	10,074	10,619	315	378	393	385	457	472
FIN	8,141	9,771	10,318	307	367	382	386	454	472
HOL									
DNK	9,973	12,118	12,753	362	436	452	419	502	524
SWE	9,889	12,054	12,610	352	426	442	414	499	519
FIN	9,590	11,639	12,198	344	416	433	417	498	520
JER									
DNK	6,720	7,990	8,444	293	353	370	404	479	504

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9

Work is ongoing

- Beef production
- Dry period/DIM at culling
- Health traits (udder, claw, and other)
- Calving traits
- Fertility traits
- Conformation and workability
- ...

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10