News NAV routine evaluation
3 January 2017

The latest NAV routine genomic prediction took place as scheduled. NAV carried out genomic prediction for Holstein, RDC and Jersey:

Data used in genomic prediction
Genotypes were extracted from the joint Nordic SNP data base 14th December 2016. INTERBULL information from December 2016 and national information from 1 November 2016 run were included in the genomic prediction.

Publication of GEBVs
GEBVs for bulls and females are published monthly. Nordic phenotypic information is updated 4 times a year (February, May, August and November), meaning that Nordic information used in the reference population for genomic prediction is updated 4 times a year. The GEBVs are expressed on the same cow base as in the November evaluation; it means cows born from 01.11.2011 to 01.11.2013.

Official GEBVs for bulls used for AI in Denmark, Finland or Sweden are published at the NAV Bull Search.

Official NAV GEBVs for foreign AI bulls not used for AI in Denmark, Finland and Sweden are published at NAV homepage. The excel sheet also include GEBVs for bulls used for AI in Denmark, Finland and Sweden. The excel sheet include AI bulls 10 month to 5 years old at the date of publication, and is mainly useful for foreign AI-companies.

Interbull EBVs/GEBVs are published at the NAV Interbull Search. NTM is not calculated based on GMACE GEBVs, since Interbull regulations do not require member countries calculate total Merit Index based on Interbull GEBVs, and it internationally is not a common practice.

EBV for udder depth for cows having AMS information
NAV has found an error in the genetic evaluation for udder depth for RDC and Holstein based on udder coordinates data from AMS (AMS data) introduced November 1st 2016. The AMS input data for udder depth has got too much weight in the estimation of breeding values (EBVs) in the November 2016 evaluation due to an error in standardization of input data. The error has an effect on EBVs for udder depth and EBV for overall udder conformation (udder depth is the most important trait in overall udder conformation). The error has a very limited effect on bull EBVs, but significant effect on single cows having AMS data (only Danish cows have AMS data). EBVs for udder depth and udder conformation will be updated for all cows having AMS data include. In total about 53.000 Holstein cows and 3.400 RDC cows have AMS data Table 1 shows the differences in EBV between the correct EBV and the November EBVs including the errors.

Table 1. Number of cows with a given change in Udder depth and Overall udder conformation between the corrected January 2017 evaluation and the November 2016 evaluation with the error. Danish Holstein and RDC cows with AMS data

	RDC		Holstein	
Change in Index (January 2017 minus November 2016)	Udder depth	Overall Udder	Udder depth	Overall Udder
<-12	2		444	26
-12	1		246	28
-11	2		368	56
-10	4		527	114
-9	13		736	199
-8	14		1019	412
-7	30	1	1396	704
-6	60	1	1832	1169
-5	83	5	2266	1822
-4	150	26	2824	2749
-3	232	92	3446	3826
-2	338	302	4003	5070
-1	473	717	4458	6293
0	580	1074	4684	6867
1	501	729	4390	6321
2	364	293	4003	5114
3	210	89	3520	3793
4	151	35	2800	2727
5	72	12	2273	1840
6	69	4	1823	1197
7	21		1377	828
8	16		1060	496
9	12		801	286
10	12		587	226
11	3		435	125
12	5		320	68
>12	1		816	111

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