

INTERBULL breeding values calculated December 2025

This newsletter is primarily written for VikingGenetics staff and breeding advisors in Denmark, Sweden, and Finland, but can also be of interest for dairy farmers.

Table of content

International breeding values for the traits and breeds shown in table 1 have been published 2th December 2025

Current evaluation	
Daughter proven bulls:	Young genomic tested bulls - HOL:
Yield	Yield
Conformation	Conformation
Somatic cell count and udder health	Somatic cell count and udder health
Longevity	Longevity
Calving – maternal and direct	Calving – maternal and direct
Female fertility	Female fertility
Milking speed and temperament	Milking speed and temperament
NTM for Nordic and foreign bulls	

Table 1. Traits and breeds for which international breeding values are published.

Trait:	International breeding values for the breeds:
Yield	Red breeds, Holstein and Jersey
Conformation	Red breeds, Holstein and Jersey
Udder health	Red breeds, Holstein and Jersey
Longevity	Red breeds, Holstein and Jersey
Calving – maternal and direct	Red breeds and Holstein
Female fertility	Red breeds, Holstein and Jersey
Milking speed	Red breeds, Holstein and Jersey
Temperament	Red breeds and Holstein

You can find Interbull breeding values for all bulls with international breeding values on [NAV Interbull search](#)

On the page you can search within breed or country of birth. You can also search with the herdbook number or the name of the bull. Click on the herdbook number of the bull and view a graphical representation of the bulls' breeding values.

You can sort the bulls by different breeding values by clicking on the top line of the table.

Bulls born in Denmark, Finland and Sweden are in the following grouped under DNK/FIN/SWE

Daughter proven bulls

In the tables below, only sires that have breeding values based on daughter information is shown. Country refer to birth country of the bulls.

Yield

In tables 2-4 is a comparison of the genetic level of yield for bulls from different countries. The analysis includes bulls born in 2018 or later, that have more than 60 daughters in the genetic evaluation.

Table 2. Genetic level for yield traits, Red breeds. Bulls born in 2018 or later.

Country	No. of bulls	Milkindex	Fatindex	Proteinindex	Y-index	Y-index STD
Australia	6	89,2	87,7	80,3	82,2	23,7
Canada	18	94,6	88,8	87,2	86,3	12,1
Germany	11	103,5	95,5	102,4	98,4	7,7
DNK/FIN/SWE	151	99,5	104,4	103,3	104,9	8,4
UK	6	79,0	71,5	66,7	66,3	6,3
Norway	124	98,8	92,5	94,4	92,3	9,8
New Zealand	16	89,9	81,7	80,6	78,9	11,4
USA	6	77,8	57,7	58,5	53,3	21,2

Table 3. Genetic level for yield traits, Holstein. Bulls born in 2018 or later.

Country	No. of bulls	Milkindex	Fatindex	Proteinindex	Y-index	Y-index STD
Australia	54	97,6	100,2	98,5	99,7	8,2
Austria	5	116,8	96,8	107,4	99,0	15,4
Belgium	13	103,6	105,0	104,9	105,5	5,2
Canada	338	108,2	110,9	107,5	109,2	12,7
Switzerland	79	96,4	95,9	94,4	94,8	10,5
Czech Republic	55	112,7	109,2	109,7	108,7	7,7
Germany	720	113,2	106,4	110,8	107,8	9,7
DNK/FIN/SWE	217	98,8	103,6	103,1	104,5	9,1
Spain	73	113,5	99,9	105,7	100,6	7,7
France	303	106,9	101,2	105,3	102,7	8,4
UK	50	99,0	110,7	102,4	107,8	10,4
Hungary	8	111,5	112,9	111,1	112,1	7,9
Ireland	19	69,9	85,2	76,9	83,3	5,6
Israel	115	99,8	96,6	96,7	95,9	7,6
Italy	137	107,9	104,0	107,5	105,5	7,9
Japan	24	108,3	110,3	105,4	107,4	9,2
Netherlands	450	104,6	105,7	106,0	106,2	9,3
New Zealand	718	71,2	89,9	80,5	88,0	7,5
Poland	81	106,8	101,6	104,8	102,4	7,2
Slovenia	28	98,8	86,4	90,0	85,8	7,0
USA	2181	109,5	115,2	109,2	112,4	10,3

Table 4. Genetic level for yield traits, Jersey. Bulls born in 2018 or later.

Country	No. of bulls	Milkindex	Fatindex	Proteinindex	Y-index	Y-index STD
Australia	24	106,5	89,5	96,5	88,9	7,0
Canada	23	104,3	93,2	96,8	92,1	14,1
DNK/FIN/SWE	71	102,2	105,0	105,5	106,2	8,3
New Zealand	416	95,4	91,5	94,7	92,5	8,5
USA	373	116,9	105,3	111,8	106,0	10,8

Conformation

The international genetic evaluation is done for 16 linear traits for Holstein, Red breeds and Jersey. In addition, frame, body condition score and locomotion are included in this trait group.

Breeding values for frame

EBV for frame is calculated from the 6 linear traits that are part of the international genetic evaluation. The composite NAV breeding value for frame also includes topline. There is no international genetic evaluation of topline.

We calculate international breeding value for frame based on a regression of NAV breeding values for the 6 linear international traits on NAV EBV for frame for Danish, Swedish and Finnish bulls born in 2015-2018. The estimated regression coefficients are used to calculate international breeding value for frame for foreign bulls. This method is used to ensure the same relative weight between traits in NAV and international composite traits.

Breeding values for feet and legs

EBV for feet and legs is calculated from the 3 linear traits that are part of the international genetic evaluation. The composite NAV breeding values for feet and legs also include hock quality and bone quality. There is no international genetic evaluation for these two traits.

We calculate international breeding value for feet and legs based on a regression of NAV breeding values for the 3 linear international traits on NAV EBV for feet and legs for Danish, Swedish and Finnish bulls born in 2015-2018. The estimated regression coefficients are used to calculate international breeding value for feet and legs for foreign bulls.

Breeding values for udder

The international genetic evaluation for udder includes 7 traits. The Nordic genetic evaluation for udder also includes teat thickness and udder balance. There is no international evaluation for these two traits.

We calculate international breeding value for udder based on a regression of NAV breeding values for the 7 linear international traits on NAV EBV for udder for Danish, Swedish and Finnish bulls born in 2015-2018. For Holstein the non Interbull traits Rear udder Width, Udder balance and Teat thickness are estimated from the 7 seven linear Interbull udder traits. For RDC and Jersey the estimated regression coefficients are used to calculate international breeding value for udder for foreign bulls.

Genetic level of composite conformation traits

In tables 5-7 is a comparison of genetic level of composite conformation traits for bulls from different countries. The calculation includes bulls that have at least 25 daughters in genetic evaluation.

Table 5. Genetic level for conformation traits, Red breeds. Bulls born in 2018 or later.

Country	No. of bulls	Frame		Feet&legs		Udder	
		Average	STD	Average	STD	Average	STD
Canada	25	102,3	4,8	104,9	5,4	101,7	8,1
Germany	16	108,3	5,3	104,4	3,9	103,6	7,8
DNK/FIN/SWE	145	97,0	8,7	102,9	5,7	102,1	6,9
UK	6	99,3	4,1			106,2	7,1
Norway	104	97,5	8,5	100,6	6,0	88,4	9,1
New Zealand	10	96,2	12,6			94,2	8,1
USA	6	108,7	5,8	106,3	3,7	112,2	6,3

Table 6. Genetic level of conformation traits, Holstein. Bulls born in 2018 or later.

Country	No	Frame		Feet&legs		Udder	
		Average	STD	Average	STD	Average	STD
Australia	22	114,1	13,4	99,7	5,0	101,5	12,1
Belgium	11	108,9	13,8	105,0	4,9	101,7	7,2
Canada	304	112,5	10,9	97,5	6,1	106,3	9,3
Switzerland	94	108,7	9,0	98,8	5,6	109,8	9,3
Czech Republic	50	107,8	8,9	100,2	4,7	97,5	9,2
Germany	716	105,5	8,9	101,2	5,2	104,3	8,4
DNK/FIN/SWE	202	98,1	10,0	101,3	5,8	102,8	8,4
Spain	91	110,0	8,7	100,6	6,2	105,5	10,0
France	274	115,7	9,6	103,0	5,4	110,3	9,0
UK	33	101,9	12,6	98,5	5,7	102,8	7,0
Hungary	8	110,5	9,6	98,0	5,0	101,4	6,0
Ireland	11	92,1	8,6	97,0	3,3	71,4	9,8
Italy	135	110,9	9,7	98,8	5,0	102,3	8,5
Japan	302	109,7	9,0	97,8	5,0	98,8	8,8
Netherlands	364	106,8	10,0	106,4	7,3	100,1	10,4
New Zealand	693	84,7	9,4			88,9	7,6
Poland	73	111,5	12,5	103,5	5,5	101,1	9,3
Slovenia	26	106,3	7,7	98,0	5,5	90,0	8,7
USA	1296	105,3	10,6	98,2	5,5	100,8	8,9

Table 7. Genetic level of conformation traits, Jersey. Bulls born in 2018 or later.

Country	No	Frame		Feet&legs		Udder	
		Average	STD	Average	STD	Average	STD
Australia	12	108,8	8,1	103,9	4,1	94,5	7,5
Canada	30	101,9	10,2	105,6	6,6	101,0	9,3
DNK/FIN/SWE	67	97,2	7,8	97,4	7,5	99,5	9,9
USA	248	102,5	8,1	100,5	6,3	100,7	8,6

Somatic cell count and udder health

Interbull does two international genetic evaluations – one for somatic cell count and one for udder health. In the first one only somatic cell count is included for all countries. NAV sends breeding values for somatic cell count to Interbull, so Nordic bulls get official breeding values for somatic cell count in countries where this trait is official. In the second evaluation breeding values based on mastitis diagnoses are included. NAV's official breeding value for udder health is used. For countries that do not record mastitis diagnoses, somatic cell count is included in this evaluation.

Index for udder health is published in the Nordic countries when reliability is 40% or higher. In tables 8-10 is a comparison of genetic level of udder health for bulls from different countries.

Table 8. Genetic level for udder health, Red breeds. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	20	95,6	5,3
Canada	18	93,4	10,7
DNK/FIN/SWE	242	101,0	8,9
UK	10	100,5	6,3
Norway	173	100,1	8,9
New Zealand	40	90,8	7,9
USA	11	97,3	7,0

Table 9. Genetic level for udder health, Holstein. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	80	97,3	6,0
Austria	6	95,0	3,7
Belgium	17	99,5	6,2
Canada	329	98,7	9,2
Switzerland	40	99,2	8,7
Czech Republic	71	97,1	8,9
Germany	733	100,2	8,0
DNK/FIN/SWE	289	102,4	7,0
Spain	115	102,0	8,0
Estonia	11	96,6	9,4
France	380	102,0	7,2
UK	50	98,8	6,7
Hungary	8	99,6	10,9
Ireland	20	91,9	9,1
Israel	162	98,8	8,9
Italy	174	100,0	8,1
Japan	304	94,0	7,4
Korea	27	93,6	6,2
Luxembourg	8	99,7	6,0
Netherlands	414	99,9	7,7
New Zealand	951	92,6	7,1
Poland	133	99,4	9,3
Slovenia	46	92,8	9,6
USA	1814	99,0	8,3

Table 10. Genetic level for udder health, Jersey. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	36	87,9	5,0
Canada	17	85,6	8,6
DNK/FIN/SWE	101	101,6	7,9
New Zealand	499	91,8	6,9
USA	258	83,1	8,7

Longevity

In tables 11-13 is a comparison of genetic level of longevity for bulls from different countries. Bulls are included if they have at least 40 daughters in the genetic evaluation.

Table 11. Genetic level for longevity, Red breeds. Bulls born in 2017 or later.

Country	No. of bulls	Average	STD
Australia	15	85,9	12,6
Canada	31	83,3	11,9
Germany	15	98,6	7,4
DNK/FIN/SWE	157	101,3	10,0
UK	13	83,5	5,6
Norge	150	91,5	6,9
USA	9	77,9	10,3

Table 12. Genetic level for longevity, Holstein. Bulls born in 2017 or later.

Country	No. of bulls	Average	STD
Australia	79	95,4	8,4
Austria	9	100,5	7,4
Belgium	21	100,5	8,6
Canada	456	100,5	9,2
Switzerland	117	97,0	7,9
Czech Republic	70	105,5	6,6
Germany	946	105,1	8,8
DNK/FIN/SWE	252	102,8	7,2
Spain	48	97,4	7,2
France	357	98,5	7,8
UK	49	98,4	13,1
Ireland	24	89,1	4,4
Israel	157	94,3	5,6
Italy	175	100,4	8,0
Luxembourg	14	98,6	11,6
Netherlands	627	102,8	8,6
New Zealand	729	84,6	6,1
Poland	99	95,7	9,5
Slovenia	46	91,9	6,7
USA	2559	103,5	8,7

Table 13. Genetic level for longevity, Jersey. Bulls born in 2017 or later.

Country	No. of bulls	Average	STD
Australia	25	95,1	6,2
Canada	27	94,1	6,5
DNK/FIN/SWE	86	99,9	7,5
Netherlands	5	94,5	5,1
New Zealand	202	91,8	6,1
USA	432	100,6	7,2

Calving – maternal and direct

For Red breeds Canada, Denmark, Finland, Norway, Sweden and The United States send data to this evaluation. It has not been possible to obtain enough high correlations between countries for still birth, so the international evaluation only includes calving ease (maternal and direct) for Red breeds.

In the Holstein group there are international breeding values for both still birth (maternal and direct) and calving ease (maternal and direct), but only for first lactation. In the Nordic countries also, information from later lactations and from birth weight is included in calving, maternal and calving, direct.

We have calculated international indices for calving, maternal and calving, direct by performing a regression between NAV breeding values for still birth and calving ease and NAV breeding value for calving for Nordic bulls born in 2008-2012. The calculated regression coefficients are used to calculate a calving index for foreign bulls - same method is used for calving, maternal and calving, direct.

In Tables 14 and 15 the average genetic level for Red breed and Holstein bulls is shown for different countries. Only bulls born in 2018 or later are included. Bulls need to have breeding values for yield to be included.

Table 14. Genetic level for calving, maternal and calving, direct, Red breeds. Bulls born in 2018 or later.

Country	Calving, direct			Calving, maternal		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Canada	24	95,0	5,4	9	98,9	8,7
DNK/FIN/SWE	152	101,0	6,8	138	99,8	5,7
Norway	122	99,2	8,4	121	91,4	6,7

Table 15. Genetic level for calving, maternal and calving, direct, Holstein. Bulls born in 2018 or later.

Country	Calving, direct			Calving, maternal		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Australia	62	97,2	4,3	3	98,7	4,0
Austria	6	94,5	6,3	5	100,6	9,9
Belgium	14	100,6	5,2	12	100,8	4,6
Canada	357	98,4	5,8	271	101,4	5,1
Switzerland	103	97,6	4,8	81	101,7	7,4
Germany	779	99,4	5,8	702	100,9	6,0
DNK/FIN/SWE	224	100,6	5,2	215	101,9	5,0
Spain	38	98,4	5,1	10	101,8	3,4
France	355	96,7	6,1	316	105,6	7,1
UK	41	100,4	3,7	25	101,4	3,4
Israel	70	96,6	4,6	124	92,8	5,9
Italy	141	97,6	4,8	108	101,4	4,4
Netherlands	452	99,2	5,7	401	98,6	7,3
New Zealand	5	103,4	3,8	0		
Poland	104	96,8	4,3	93	98,7	5,7
USA	2274	100,4	4,9	1574	103,3	4,6

Female fertility

NAV calculates breeding values for female fertility based on linear regression between NAV breeding values for female fertility and NAV breeding values for the sub-indices in female fertility. Basis for the regressions are Nordic bulls born in 2003-2007 – see more information below. The estimated

regression coefficients are used to calculate international breeding value for female fertility for foreign bulls.

In practice 3 regressions are calculated with different explaining variables (Jersey only 2 and 3):

- 1: Female fertility = Ability to conceive (R^2 , HOL = 0,05) (R^2 , Red breeds = 0,35)
- 2: Female fertility = Days open (R^2 , HOL = 0,87) (R^2 , Red breeds = 0,85) (R^2 , Jer = 0,87)
- 3: Female fertility = Ability to return to recycle after calving + ability to conceive + Days open (R^2 , HOL = 0,96) (R^2 , Red breeds = 0,94), (R^2 , Jer = 0,94).

R^2 (degree of explanation) indicates the proportion of the variance of the index for female fertility, that the traits in the regression can explain. Since the regression is used on foreign bulls, and the genetic correlations between international and NAV traits are not 1, the observed degree of explanation will be lower.

For each foreign bull we use the regression with the greatest explanatory power given the international sub-indices that are available. The degree of explanation therefore depends largely of the traits being available from the different countries.

Table 16. Genetic level for female fertility, Red breeds. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	5	96,8	4,8
Canada	15	95,5	11,5
Germany	11	97,6	10,6
DNK/FIN/SWE	144	101,0	10,0
UK	6	92,8	7,8
Norway	111	111,6	6,9
New Zealand	13	97,9	5,0
USA	6	89,0	4,6

Table 17. Genetic level for female fertility, Holstein. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	46	98,0	7,4
Belgium	13	95,3	7,4
Canada	311	94,4	9,1
Switzerland	74	95,9	4,9
Czech Republic	48	95,5	4,2
Germany	641	97,7	10,0
DNK/FIN/SWE	220	104,7	10,0
Spain	40	93,2	7,4
France	263	96,8	8,2
UK	40	100,3	7,5
Ireland	19	101,3	5,5
Israel	111	96,1	2,7
Italy	128	96,8	9,4
Japan	24	89,5	6,3
Netherlands	427	94,0	9,6
New Zealand	537	99,3	5,4
Poland	44	89,5	8,7
USA	2051	95,2	7,4

Table 18. Genetic level for female fertility, Jersey. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	17	89,2	5,6
Canada	22	86,4	9,4
DNK/FIN/SWE	78	101,9	13,7
New Zealand	316	96,1	6,8
USA	344	87,2	8,3

Milking speed and temperament

In Tables 19-21, the genetic level for bulls from different countries, born in 2018 or later are shown for Holstein, Red breeds and Jersey.

Table 19. Genetic level for milking speed and temperament, Red breeds. Bulls born in 2018 or later.

Country	Milking speed			Temperament		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Canada	22	89,3	16,4	21	93,0	13,6
Germany	11	101,7	6,0	14	103,2	6,4
DNK/FIN/SWE	170	99,4	7,4	135	101,2	11,2
Norway	111	94,1	4,1	105	98,7	5,7

Table 20. Genetic level for milking speed and temperament, Holstein. Bulls born in 2018 or later.

Country	Milking speed			Temperament		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Australia	26	102,4	7,0	26	105,0	7,0
Austria	6	88,3	6,5			
Belgium	10	88,1	6,9	9	103,3	9,9
Canada	232	98,2	11,9	227	104,0	13,2
Switzerland	98	97,1	10,6	96	104,3	11,0
Germany	533	94,9	9,1	418	101,7	16,6
DNK/FIN/SWE	146	100,1	7,9	155	100,6	15,5
France	273	92,6	9,9	271	104,2	10,6
UK	35	97,9	14,7	35	104,6	12,5
Italy	119	92,5	4,1	117	102,3	10,9
Netherlands	380	91,9	8,4	303	102,6	12,3
New Zealand	695	101,2	3,5	695	97,9	2,6
Slovenia	35	96,3	7,5			
USA	564	99,0	12,9	535	103,8	14,5

Table 21. Genetic level for milking speed, Jersey. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australien	15	104,5	8,9
Canada	23	96,1	8,5
DNK/FIN/SWE	68	99,8	9,2
New Zealand	380	99,9	6,6
USA	14	100,4	7,9

NTM for Nordic and foreign bulls

NTM index is calculated for all bulls (Nordic and others) that have official breeding values (NAV breeding values or international EBVs) for yield, udder health and conformation.

Interbull NTM is calculated by weighing the Interbull / NAV breeding values for yield, female fertility, calving (maternal and direct), udder health, longevity, feet&legs, udder, milking speed and temperament. The same economic weight factors are used as for NAV breeding values.

Rules for calculation of NTM based partly or entirely on international breeding values are stated below in order of priority.

1. Bull has NAV breeding value for a trait

If the bull has NAV breeding value for a specific trait, this is used in the calculation of NTM - no matter if the bull also has international breeding value for that trait.

2. Bull has no NAV breeding value, but has an international breeding value for a trait

If the bull does not have NAV breeding value for the trait, the international breeding value is used, provided that Interbull calculates international breeding values for that trait and the bull comes from a country which provides data for that trait.

3. Bull has no NAV or no international breeding value for a trait

For traits where no Interbull EBV is available or the bull has no Interbull EBV, and at the same time it is not tested in the Nordic countries, a pedigree index is used. Pedigree index is calculated as $\frac{1}{2} (EBV_{\text{sire}} - 100) + \frac{1}{4} (EBV_{\text{maternal grand sire}} - 100) + 100$. The contributions from the sire and maternal grand sire can be based on either NAV breeding values or international breeding values. If EBV_{sire} or $EBV_{\text{maternal grand sire}}$ are unofficial the pedigree index is set to 100.

Publication rules for NTM

All foreign and Nordic bulls that have Interbull breeding values for yield, udder health and udder get a public Interbull NTM. This NTM is calculated with a lower reliability than an NTM for Nordic proven bulls, where information for all traits is always available.

Genetic level for Interbull NTM

In tables 22-24 genetic level for Interbull NTM for Jersey, Red breeds and Holstein are shown. Bulls included are born in 2018 or later.

Table 22. Genetic level for NTM, Red breeds. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Canada	14	-20,5	14,2
Germany	7	0,9	4,9
DNK/FIN/SWE	150	10,2	9,2
UK	5	-35,4	7,8
Norway	106	-8,7	9,6
New Zealand	9	-27,8	11,2

Table 23. Genetic level for NTM, Holstein. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	19	-0,1	10,2
Belgium	11	3,3	5,8
Canada	235	5,5	15
Switzerland	55	-5,6	12,3
Czech Republic	50	5,3	7,0
Germany	542	8,5	9,1
DNK/FIN/SWE	210	10,7	9,6
Spain	73	0,5	7,7
France	258	3,1	8,3
UK	33	10,6	9,0
Hungary	8	12,0	9,2
Ireland	7	-22,6	4,0
Italy	112	5,1	7,3
Japan	24	-0,9	8,1
Netherlands	338	4,7	10,4
Poland	77	-1,4	8,2
Slovenia	27	-20,9	9,5
USA	1051	10,7	9,9

Table 24. Genetic level for NTM, Jersey. Bulls born in 2018 or later.

Country	No. of bulls	Average	STD
Australia	11	-17,9	6,3
Canada	17	-11,9	11,0
DNK/FIN/SWE	69	10,0	8,6
USA	167	-7,5	8,6

Changes since last run

In the evaluation in December 2025 the following changes are done compared to August 2025 evaluation:

Yield:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Fertility:

- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.

- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Germany (HOL) has drops in information due to data edit.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Calving:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Canada (HOL, JER) has reduction in information due to pedigree verification on young animals.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Conformation:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system last year and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (HOL) has drops in information due to data edits.
- USA (JER, RDC) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Udder health:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Longevity:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.

- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Milking speed and temperament:

- Denmark, Finland and Sweden (ALL) has drop in information due to pedigree verification and corrections in national database.
- France (ALL) has changes in bulls publication status due new publication system and pedigree verification.
- New Zealand (ALL) has drops in information due to continuous DNA parentage testing and updated herd records.
- USA (ALL) has drops in daughters/herds due to pedigree corrections and herd-year-minimum edits.
- Italy (JER, HOL) has for JER missing bulls due to pedigree verification causing reduction in information and for HOL decreases in number of daughters, herds and EDC due to the four-monthly shift and cutoff date.

Genomic tested young Holstein bulls

In the tables below, only Holstein sires that have breeding values based on genomic information and no daughters is shown.

Averages are only shown for countries with more than 20 bulls.

Yield

In tables 25 is a comparison of the genetic level of yield for bulls from different countries.

Table 25. Genetic level for yield traits, Holstein. Bulls born in 2022 or later.

Country	No. of bulls	Milkindex	Fatindex	Proteinindex	Y-index	Y-index STD
Australia	76	98,4	103,2	98,8	101,3	8,9
Austria	6	119,5	117,7	112,8	114,0	7,0
Belgium	24	113,9	119,1	117,5	119,2	8,2
Canada	750	110,8	118,2	111,0	115,0	11,6
Switzerland	25	107,9	108,6	105,7	106,8	7,3
Czech Republic	57	114,4	114,6	113,5	113,9	4,8
Germany	839	117,1	114,8	117,0	115,8	7,4
DNK/FIN/SWE	197	103,3	118,7	115,5	120,3	8,3
Spain	122	113,7	108,3	109,6	107,9	11,4
France	641	111,4	108,2	111,6	109,8	7,6
UK	73	109,4	123,8	114,5	120,9	13,6
Hungary	43	110,4	104,4	105,3	103,6	8,0
Ireland	5	65,8	88,4	76,4	85,6	6,8
Italy	118	114,5	113,1	115,8	114,7	9,2
Netherlands	755	109,9	111,8	112,4	112,8	8,3
New Zealand	14	64,6	84,8	72,9	81,4	6,3
Poland	136	115,1	112,7	115,8	114,3	7,5
USA	3034	112,4	124,5	116	121,6	8,1

Conformation

The international genetic evaluation is done for 16 linear traits for Holstein. In addition, frame condition score and locomotion are included in this trait group.

Calculation of frame, feet&legs and udder follows same principles as for daughter proven bulls.

In tables 26 is a comparison of genetic level of composite conformation traits for bulls from different countries.

Table 26. Genetic level of conformation traits, Holstein. Bulls born in 2022 or later.

Country	No	Frame		Feet&legs		Udder	
		Average	STD	Average	STD	Average	STD
Australia	9	109,6	14,7	99,6	5,7	107,2	7,3
Belgium	14	110,6	6,8	107,2	6,2	103,8	5,6
Canada	513	115,6	11,2	101,3	4,6	106,0	8,5
Switzerland	19	116,1	7,6	102,5	4,5	116,2	7,2
Czech Republic	26	109,7	6,9	101,1	4,7	104,1	9,6
Germany	535	106,8	8,1	103,9	4,6	108,1	8,0
DNK/FIN/SWE	124	99,5	8,8	101,2	4,1	106,0	7,1
Spain	72	115,4	13,8	103,2	4,0	109,7	10,6
France	432	115,6	8,6	105,5	4,6	114,6	8,4
UK	55	103,4	7,4	98,1	3,5	97,6	8,9
Hungary	26	109,9	9,8	100,9	3,3	101,9	7,6
Italy	76	113,3	9,4	100,4	4,1	107,3	8,8
Netherlands	337	107,4	8,9	107,8	6,7	104,3	8,1
Poland	88	110,5	9,3	102,6	4,6	107,3	8,9
USA	1935	105,6	10,0	97,9	4,4	97,5	8,3

Somatic cell count and udder health

In tables 27 is a comparison of genetic level of udder health for bulls from different countries.

Table 27. Genetic level for udder health, Holstein. Bulls born in 2022 or later.

Country	No. of bulls	Average	STD
Australia	8	97,8	4,1
Belgium	15	102,1	5,0
Canada	513	98,1	5,4
Switzerland	19	103,1	4,2
Czech Republic	22	100,0	5,2
Germany	535	103,7	6,1
DNK/FIN/SWE	122	105,1	5,2
Spain	71	102,6	8,5
France	426	106,5	6,1
UK	55	99,1	5,1
Hungary	26	96,7	8,5
Italy	76	101,9	5,9
Netherlands	336	102,7	5,9
Poland	88	104,3	6,9
USA	1934	99,3	4,9

Longevity

In tables 28 is a comparison of genetic level of longevity for bulls from different countries.

Table 28. Genetic level for longevity, Holstein. Bulls born in 2022 or later.

Country	No. of bulls	Average	STD
Australia	9	100,9	6,1
Belgium	14	109,4	5,3
Canada	513	104,8	6,2
Switzerland	19	108,2	5,2
Czech Republic	22	106,6	5,4
Germany	535	114,5	5,8
DNK/FIN/SWE	123	110,3	5,3
Spain	72	107,4	9,2
France	427	110,0	6,4
UK	55	104,2	5,7
Hungary	26	98,0	6,4
Italy	76	106,3	6,4
Netherlands	337	111,1	6,9
Poland	88	108,4	5,3
USA	1937	106,2	5,1

Calving – maternal and direct

In Tables 29 the average genetic level for bulls is shown for different countries.

Table 29. Genetic level for calving, maternal and calving, direct, HOL. Bulls born in 2022 or later.

Country	Calving, direct			Calving, maternal		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Australia	7	99,0	2,8	8	105,5	4,4
Belgium	14	100,0	2,9	14	103,4	5,0
Canada	489	98,0	3,7	513	100,7	5,2
Switzerland	16	98,5	3,5	19	103,4	3,8
Czech Republic	21	98,5	3,4	21	103,7	3,7
Germany	488	100,3	3,4	535	102,7	4,7
DNK/FIN/SWE	112	100,1	3,5	122	102,4	4,9
Spain	72	98,5	4,8	72	101,6	4,6
France	423	97,7	3,8	423	102,1	5,0
UK	55	99,3	3,9	55	102,2	3,4
Hungary	26	97,3	3,3	26	100,4	2,3
Italy	75	99,6	3,4	76	102,5	4,2
Netherlands	314	100,3	3,4	337	101,2	4,6
Poland	86	98,6	3,6	88	101,7	5,3
USA	1767	100,3	3,5	1935	103,2	3,9

Female fertility

In Tables 30 the average genetic level for bulls is shown for different countries.

Table 30. Genetic level for female fertility, Holstein. Bulls born in 2022 or later.

Country	No. of bulls	Average	STD
Australia	6	100,7	7,8
Belgium	14	100,7	7,3
Canada	469	95,5	7,2
Switzerland	18	100,4	5,9
Czech Republic	21	96,5	5,3
Germany	534	104	7,7
DNK/FIN/SWE	124	108,5	7,9
Spain	67	99,1	8,8
France	423	104,1	7,8
UK	46	99,4	5,8
Italy	72	100,1	7,6
Netherlands	334	101,0	8,3
Poland	88	101,1	7,3
USA	1755	99,4	5,9

Milking speed and temperament

In Tables 31, the genetic level for bulls from different countries.

Table 31. Genetic level for milking speed and temperament, Holstein. Bulls born in 2022 or later.

Country	Milking speed			Temperament		
	No. of bulls	Average	STD	No. of bulls	Average	STD
Australia	9	102,5	11,3	9	101,5	3,5
Belgium	14	98,7	4,3	11	107,4	5,0
Canada	508	98,7	5,2	438	106,1	10,3
Switzerland	19	96,3	2,3			
Czech Republic	22	101,6	3,8			
Germany	527	96,7	2,9	527	104,5	5,0
DNK/FIN/SWE	115	101,4	18,7	123	104,4	4,2
Spain	71	96,8	2,7	68	105,6	8,5
France	432	94,1	3,6	425	107,7	5,6
UK	47	101,6	4,1	45	102,3	1,7
Italy	76	92,9	5,0	75	106,6	12,8
Netherlands	337	94,9	4,5	334	103,6	10,6
Poland	88	93,4	11,4	88	105,1	13,3
USA	1854	102,0	3,9	1835	104,9	9,5

Changes since last run

In the evaluation in December 2025 the following changes are done compared to August 2025 evaluation:

Yield:

- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Fertility:

- Denmark, Finland and Sweden has decrease in reliability for some young bulls, due to the approximated reliability calculation based on other young bulls, having only genomic information.
- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Calving:

- Denmark, Finland and Sweden has used MACE data for "dce".
- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Conformation:

- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Udder health:

- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Longevity:

- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Milking speed and temperament:

- France has some bulls that have been set to unofficial due to changes in the publication system from the data providers.
- Italy has some bulls with unexpected change of status due to four-monthly shift and cut-off date.
- Netherland has change in type of proof for some bulls, due to accumulation of data.

Dates of publication of Interbull breeding values in 2025 and 2026:

Month	Date
December	2
April	7
August	11
December	1

The indices can be found at the national databases in Denmark, Sweden, and Finland 2-3 days after they have been published by Interbull.

Regards

Kevin Byskov, Jakob Lykke Voergaard, Ida Hansson, Terhi Vahlsten and Martha Bo Almskou