SEGES INNOVATION

STØTTET AF
Mælkeafgiftsfonden

Singlestep fertility test when including foreign information

Trine Andersen and Ulrik Sander Nielsen, July 2024

It was decided to include foreign information for HOL bulls and for RDC bulls not having daughters with data in the Nordic countries. The breeding values and reliability is from Interbull. The information is included as ERC's and DRP's.

The results for Legarra Reverter regression are shown below, both for the run with foreign information included and for the run without foreign information included. The results are based on breeding values for Nordic bulls born after 2015, with daughter in full run, but no daughters in reduced run. For HOL the r2 value is 0.77 for combined fertility trait (fert) compared to 0.73 when foreign information is not included. For RDC the r2 value is 0.53 for combined fertility trait (fert) compared to 0.52 when foreign information is not included. Thus, there is an effect of including foreign information in the fertility evaluation for HOL but not for RDC.

		HOL	with foreign		Without foreign		RDC	With foreign		Without foreign	
status	trait	N	b1	r2	b1	r2	N	b1	r2	b1	r2
1&2	cr0	853	1.03	0.57	1.03	0.57	265	1.06	0.40	1.06	0.40
1&2	cr1	602	1.02	0.66	1.02	0.66	204	0.99	0.48	0.98	0.48
1&2	cr2	377	0.99	0.65	0.99	0.65	154	1.01	0.54	1.01	0.55
1&2	cr3	152	1.02	0.64	1.02	0.64	81	0.91	0.46	0.92	0.47
1&2	cr	858	1.01	0.73	1.01	0.73	265	1.00	0.56	1.00	0.55
1&2	nrr0	898	0.98	0.52	0.96	0.51	278	0.87	0.34	0.88	0.33
1&2	nrr1	638	0.99	0.63	0.98	0.58	214	0.80	0.37	0.80	0.36
1&2	nrr2	433	0.98	0.61	0.97	0.58	167	0.94	0.49	0.94	0.49
1&2	nrr3	192	1.00	0.59	1.00	0.58	100	0.94	0.51	0.94	0.51
1&2	nrr	906	1.00	0.73	1.00	0.69	278	0.89	0.48	0.91	0.49
1&2	icf1	638	0.95	0.80	0.96	0.75	213	0.96	0.57	0.94	0.55
1&2	icf2	425	0.98	0.80	1.00	0.77	164	0.91	0.61	0.89	0.59
1&2	icf3	189	1.00	0.81	1.00	0.80	99	0.85	0.53	0.83	0.52
1&2	icf	639	0.98	0.84	0.99	0.81	213	0.93	0.62	0.93	0.61
1&2	ifl0	897	0.91	0.44	0.90	0.43	278	1.08	0.40	1.09	0.40
1&2	ifl1	639	0.99	0.75	0.98	0.69	214	0.94	0.51	0.95	0.50
1&2	ifl2	433	0.98	0.73	0.97	0.69	167	0.96	0.53	0.94	0.53
1&2	ifl3	192	0.97	0.72	0.98	0.70	100	0.92	0.50	0.92	0.49
1&2	ifl	906	0.99	0.82	0.99	0.79	278	0.96	0.56	0.96	0.55
1&2	ais0	898	0.95	0.49	0.95	0.50	278	0.98	0.43	0.98	0.43
1&2	ais1	632	1.02	0.66	1.02	0.66	213	0.95	0.49	0.96	0.49
1&2	ais2	421	0.98	0.64	0.98	0.64	164	0.93	0.49	0.94	0.49
1&2	ais3	182	0.98	0.65	0.98	0.66	98	0.88	0.48	0.89	0.48
1&2	ais	906	1.00	0.74	1.00	0.74	278	0.92	0.51	0.93	0.52
1&2	hst0	438	0.76	0.37	0.75	0.35	226	0.63	0.23	0.64	0.23
1&2	hst1	327	0.80	0.52	0.80	0.49	159	0.72	0.37	0.72	0.36
1&2	hst2	208	0.89	0.62	0.89	0.62	116	0.94	0.49	0.92	0.48
1&2	hst3	78	0.90	0.62	0.92	0.63	49	0.69	0.35	0.70	0.36
1&2	hst	446	0.90	0.69	0.91	0.68	228	0.84	0.51	0.83	0.50
1&2	fert	639	1.00	0.77	0.99	0.73	213	0.96	0.53	0.96	0.52
1&2	inte	639	0.98	0.83	0.99	0.79	213	0.94	0.58	0.93	0.56

For interbull bulls without daughters in the dataset, the breeding values are shown below.
Foreign= test SS may24 evaluation with foreign information included
Official = official SS may24 evaluation without foreign information included
Interbull= interbull breeding values

The results indicate that the mean of the breeding values is at similar level with and without foreign information expect for RDC IFL1. The standard deviation of the breeding value is higher when foreign information is included, which is expected since the breeding value without foreign information only is a pedigree based index. The standard deviation of the breeding values is nearly at similar level after 2009, which is due to genotype cut.
The correlation between breeding value with foreign information and without foreign information is high for HOL and medium for RDC for bulls born after 2009, thus for bulls having a genotype included in the singlestep setup. The correlation between breeding values with foreign information and the interbull breeding values is high for the BYR 2000-2008 while the singlestep affects the correlation after 2009.

Breeding values for interbull bulls without daughters in the dataset (SS with foreign “foreign”, SS without foreign “official”, interbull BV “interbull”)

HOL ICF1:

		Mean BV			Std BV			Correlation BV	
BYR	N bulls	foreign	official	interbull	foreign	official	interbull	foreign_official	foreign_interbull
2000	1383	86.2	86.7	84.5	8.6	6.8	10.4	0.77	0.98
2001	1453	85.5	86.0	83.8	7.9	6.0	9.7	0.68	0.98
2002	1492	85.5	86.3	84.1	8.4	6.1	10.3	0.68	0.98
2003	1935	85.8	86.7	84.3	8.0	6.4	9.8	0.74	0.97
2004	1844	86.1	87.1	85.0	7.9	6.3	9.6	0.74	0.97
2005	1906	86.9	88.1	85.7	8.1	6.1	9.9	0.72	0.97
2006	1855	88.9	89.5	88.0	7.9	6.1	9.7	0.73	0.98
2007	1895	88.6	89.6	87.5	8.4	6.6	10.2	0.76	0.98
2008	1742	88.2	89.2	86.9	8.3	6.5	10.2	0.77	0.98
2009	1175	89.8	89.6	89.1	9.5	8.8	9.9	0.94	0.91
2010	1415	93.3	92.9	93.4	9.5	8.5	9.9	0.93	0.91
2011	1346	93.3	93.1	92.9	8.8	7.9	9.2	0.93	0.91
2012	1330	94.5	94.4	94.3	9.0	8.3	9.0	0.93	0.91
2013	1011	93.7	93.7	93.4	8.9	8.2	8.9	0.92	0.90
2014	748	95.7	95.8	95.0	8.0	7.6	7.9	0.92	0.90
2015	646	95.2	95.2	94.7	8.1	7.4	8.2	0.91	0.89
2016	590	95.8	96.1	95.0	8.2	7.7	8.0	0.92	0.91
2017	513	97.3	97.2	97.3	7.8	7.5	7.3	0.93	0.90
2018	361	97.0	97.7	96.1	7.8	7.5	7.7	0.93	0.87
2019	264	98.2	98.3	97.3	7.1	7.0	6.9	0.96	0.81

HOL IFL1:

		Mean BV			Std BV			Correlation BV	
BYR	N bulls	foreign	official	interbull	foreign	official	interbull	foreign_official	foreign_interbull
2000	1383	78.0	77.7	76.2	8.0	6.7	10.1	0.80	0.96
2001	1453	79.6	79.4	79.1	7.0	5.3	9.4	0.67	0.96
2002	1492	79.8	79.6	79.3	7.3	5.5	9.8	0.69	0.96
2003	1935	80.5	80.3	80.0	6.9	5.5	9.4	0.73	0.96
2004	1844	79.4	79.3	78.7	7.6	6.2	10.0	0.76	0.96
2005	1906	80.6	80.7	80.2	7.2	5.5	9.5	0.74	0.96
2006	1855	81.6	81.1	81.6	7.3	5.5	9.8	0.71	0.96
2007	1895	80.7	80.5	80.4	6.8	5.2	9.3	0.70	0.96
2008	1742	81.6	81.2	81.6	7.4	5.9	9.7	0.76	0.96
2009	1175	82.9	81.3	84.7	9.8	9.1	10.2	0.94	0.86
2010	1415	85.6	83.7	87.8	9.5	8.7	10.1	0.93	0.87
2011	1346	86.4	85.3	87.9	9.8	8.9	10.1	0.93	0.88
2012	1330	88.6	87.5	90.2	10.1	9.5	10.5	0.93	0.88
2013	1011	89.0	88.6	90.2	9.9	9.0	10.4	0.92	0.87
2014	748	92.2	92.1	92.6	9.6	8.9	9.7	0.92	0.88
2015	646	92.9	93.1	93.6	9.1	8.5	9.2	0.93	0.87
2016	590	93.9	94.4	94.1	8.9	8.7	8.7	0.91	0.85
2017	513	97.1	97.6	97.7	8.8	8.5	8.5	0.93	0.87
2018	361	97.5	98.4	96.2	8.2	8.0	8.0	0.95	0.79
2019	264	103.5	104.5	97.5	8.2	7.8	7.1	0.97	0.83

RDC ICF1:

		Mean BV			Std BV			Correlation BV	
BYR	N bulls	foreign	official	interbull	foreign	official	interbull	foreign_official	foreign_interbull
2000	132	94.1	95.9	98.1	5.7	2.6	8.4	0.40	0.94
2001	117	93.1	95.4	96.6	7.5	4.4	9.8	0.69	0.94
2002	118	94.7	97.6	97.6	6.4	4.2	8.9	0.57	0.90
2003	106	95.0	97.3	98.6	5.3	3.0	7.9	0.33	0.94
2004	116	95.8	97.8	99.0	6.8	3.7	9.2	0.59	0.93
2005	102	97.0	97.2	100.5	6.7	4.2	9.0	0.55	0.94
2006	135	99.1	97.5	101.6	7.0	3.9	9.4	0.45	0.90
2007	121	96.6	96.8	100.1	6.7	3.7	9.5	0.63	0.95
2008	118	98.0	96.2	101.0	7.6	4.4	10.1	0.60	0.94
2009	133	99.1	98.2	102.0	6.3	5.8	8.4	0.73	0.85
2010	111	98.7	98.1	101.4	7.8	5.7	9.8	0.85	0.88
2011	124	100.8	99.4	104.1	8.0	5.4	9.8	0.84	0.91
2012	125	102.2	99.8	106.2	8.1	6.1	10.6	0.85	0.89
2013	90	103.4	100.8	107.4	10.1	7.1	11.4	0.89	0.92
2014	24	95.4	95.3	100.7	10.1	7.7	11.7	0.95	0.97
2015	19	99.4	99.1	101.0	12.6	9.5	16.9	0.94	0.99
2016	34	107.1	101.6	112.6	11.5	8.1	13.3	0.90	0.97
2017	15	103.1	98.8	111.6	12.6	9.0	12.1	0.97	0.96
2018	26	109.6	105.2	116.6	7.1	6.5	6.6	0.80	0.75

RDC IFL1:

		Mean BV			Std BV			Correlation BV	
BYR	N bulls	foreign	official	interbull	foreign	official	interbull	foreign_official	foreign_interbull
2000	132	94.6	93.7	101.8	7.9	3.3	10.7	0.19	0.97
2001	117	91.2	93.9	97.6	9.2	5.1	11.3	0.52	0.96
2002	118	93.1	95.5	100.0	8.3	4.8	9.7	0.65	0.94
2003	106	97.1	94.6	104.7	7.0	3.7	9.1	0.58	0.94
2004	116	96.0	94.6	104.8	8.8	4.9	10.2	0.69	0.95
2005	102	96.6	96.9	103.8	7.4	4.6	8.4	0.50	0.94
2006	135	97.7	96.5	105.0	7.9	4.8	9.6	0.52	0.94
2007	121	96.5	94.9	103.8	8.0	4.4	10.0	0.60	0.95
2008	118	98.7	96.8	106.5	8.5	4.4	9.7	0.70	0.95
2009	133	101.7	98.3	108.9	7.9	5.6	9.5	0.75	0.85
2010	111	98.8	96.6	106.6	10.7	7.9	11.9	0.88	0.90
2011	124	100.0	97.4	107.6	10.0	8.2	9.6	0.91	0.88
2012	125	101.0	98.4	108.6	8.1	6.1	9.5	0.78	0.84
2013	90	102.0	99.9	110.1	10.0	6.8	11.1	0.86	0.91
2014	24	94.8	92.8	109.1	13.3	8.5	19.5	0.94	0.98
2015	19	97.8	97.3	105.0	12.8	9.5	14.7	0.89	0.96
2016	34	106.3	101.9	112.2	11.6	7.4	14.1	0.80	0.95
2017	15	100.3	97.9	107.7	15.9	12.3	16.3	0.94	0.95
2018	26	106.5	103.2	113.1	8.7	6.6	11.0	0.74	0.86

We have also tested the effect of including foreign information in the evaluation on the Nordic animals, see below. The breeding values for Nordic animals (females and bulls) are very similar with (ss) and without (oss) foreign information. The distribution of differences is shown as d_fert (numbers) and p_fert (%).

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2010	cr0	193	930	2893	90.2	90.2	11.7	11.7	0.0	0.0	1.00
2	2011	cr0	155	565	1191	90.5	90.5	10.7	10.7	0.0	0.0	1.00
3	2012	cr0	171	816	1446	93.6	93.6	10.7	10.7	0.0	0.0	1.00
4	2013	cr0	151	839	1538	95.4	95.4	12.5	12.5	0.0	0.0	1.00
5	2014	cr0	114	1260	1534	96.8	96.8	12.7	12.7	0.0	0.0	1.00
6	2015	cr0	83	1883	2315	101.1	101.1	12.1	12.1	0.0	0.0	1.00
7	2016	cr0	66	1805	2289	100.6	100.6	12.2	12.2	0.0	0.0	1.00
8	2017	cr0	66	1946	2315	101.3	101.3	14.0	14.0	0.0	0.0	1.00
9	2018	cr0	78	1815	2612	104.5	104.5	13.2	13.2	0.0	0.0	1.00
10	2019	cr0	56	1446	2204	109.5	109.5	14.3	14.3	0.0	0.0	1.00
11	2020	cr0	24	286	372	106.3	106.3	9.7	9.7	0.0	0.0	1.00
12	2010	cr1	193	800	2470	90.7	90.7	10.2	10.2	0.0	0.0	1.00
13	2011	cr1	155	490	1017	91.8	91.8	8.8	8.8	0.0	0.0	1.00
14	2012	cr1	171	711	1250	94.9	94.9	9.5	9.5	0.0	0.0	1.00
15	2013	cr1	151	735	1338	97.1	97.1	10.1	10.1	0.0	0.0	1.00
16	2014	cr1	113	1105	1323	98.3	98.3	9.7	9.7	0.0	0.0	1.00
17	2015	cr1	83	1634	2007	104.3	104.3	9.1	9.1	0.0	0.0	1.00
18	2016	cr1	66	1556	1949	103.2	103.2	8.7	8.7	0.0	0.0	1.00
19	2017	cr1	66	1636	1928	104.4	104.4	11.4	11.4	0.0	0.0	1.00
20	2018	cr1	78	1106	1623	107.5	107.5	9.6	9.6	0.0	0.0	1.00
21	2019	cr1	24	407	641	109.7	109.7	10.0	10.0	0.0	0.0	1.00
22	2010	cr2	193	604	1882	90.5	90.5	9.9	9.9	0.0	0.0	1.00
23	2011	cr2	155	374	795	92.3	92.3	9.2	9.2	0.0	0.0	1.00
24	2012	cr2	171	551	972	95.1	95.1	10.1	10.1	0.0	0.0	1.00
25	2013	cr2	151	571	1047	96.6	96.6	10.5	10.5	0.0	0.0	1.00
26	2014	cr2	113	872	1049	98.8	98.8	9.8	9.8	0.0	0.0	1.00
27	2015	cr2	83	1301	1617	104.1	104.1	9.2	9.2	0.0	0.0	1.00
28	2016	cr2	66	1218	1531	103.3	103.3	9.4	9.4	0.0	0.0	1.00
29	2017	cr2	66	975	1158	105.0	105.0	11.0	11.0	0.0	0.0	1.00
30	2018	cr2	42	287	459	108.1	108.1	7.5	7.5	0.0	0.0	1.00
31	2010	cr3	193	391	1233	90.3	90.3	9.7	9.7	0.0	0.0	1.00
32	2011	cr3	154	247	532	92.5	92.5	9.1	9.1	0.0	0.0	1.00
33	2012	cr3	171	367	643	95.4	95.4	10.0	10.0	0.0	0.0	1.00
34	2013	cr3	151	376	652	96.5	96.5	10.6	10.6	0.0	0.0	1.00
35	2014	cr3	113	604	740	99.0	99.0	9.8	9.8	0.0	0.0	1.00
36	2015	cr3	82	904	1149	104.3	104.3	9.4	9.4	0.0	0.0	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2016	cr3	65	623	824	103.9	103.9	9.3	9.3	0.0	0.0	1.00
38	2017	cr3	39	144	180	102.7	102.7	11.9	11.9	0.0	0.0	1.00
39	2010	cr	193	997	3073	90.3	90.3	9.9	9.9	0.0	0.0	1.00
40	2011	cr	155	611	1268	92.1	92.1	9.0	9.0	0.0	0.0	1.00
41	2012	cr	171	883	1546	95.1	95.1	9.9	9.9	0.0	0.0	1.00
42	2013	cr	151	908	1638	96.6	96.6	10.4	10.4	0.0	0.0	1.00
43	2014	cr	114	1352	1629	98.8	98.8	9.7	9.7	0.0	0.0	1.00
44	2015	cr	83	2005	2443	104.4	104.4	9.2	9.2	0.0	0.0	1.00
45	2016	cr	66	1909	2398	103.5	103.5	9.1	9.1	0.0	0.0	1.00
46	2017	cr	66	2043	2405	104.8	104.8	11.0	11.0	0.0	0.0	1.00
47	2018	cr	78	1871	2669	107.7	107.7	9.0	9.0	0.0	0.0	1.00
48	2019	cr	56	1453	2215	109.7	109.7	9.6	9.6	0.0	0.0	1.00
49	2020	cr	24	286	372	111.1	111.1	7.3	7.3	0.0	0.0	1.00
50	2010	nrr0	193	892	2781	94.8	94.5	11.3	11.3	0.3	0.5	1.00
51	2011	nrr0	155	540	1143	94.4	94.3	11.2	11.2	0.1	0.4	1.00
52	2012	nrr0	171	782	1387	96.3	96.2	10.6	10.6	0.1	0.4	1.00
53	2013	nrr0	151	804	1475	97.4	97.3	12.4	12.4	0.1	0.5	1.00
54	2014	nrr0	114	1214	1480	96.2	96.2	12.3	12.3	0.0	0.4	1.00
55	2015	nrr0	83	1812	2234	99.5	99.5	11.9	11.8	0.0	0.3	1.00
56	2016	nrr0	66	1737	2208	97.9	98.0	12.2	12.3	-0.1	0.4	1.00
57	2017	nrr0	66	1877	2239	97.9	98.0	13.4	13.4	0.0	0.4	1.00
58	2018	nrr0	78	1769	2558	100.8	100.8	12.8	12.8	0.1	0.4	1.00
59	2019	nrr0	56	1632	2406	104.1	104.2	14.1	14.2	-0.1	0.4	1.00
60	2020	nrr0	37	483	773	100.6	100.6	10.9	11.0	-0.1	0.5	1.00
61	2010	nrr1	193	766	2371	95.0	94.3	9.8	9.8	0.7	0.8	1.00
62	2011	nrr1	155	470	976	95.3	94.9	9.0	9.1	0.4	0.7	1.00
63	2012	nrr1	171	684	1204	97.1	96.7	9.5	9.5	0.4	0.6	1.00
64	2013	nrr1	151	706	1288	99.0	98.7	9.7	9.7	0.3	0.7	1.00
65	2014	nrr1	113	1064	1276	98.2	98.1	9.0	9.1	0.1	0.6	1.00
66	2015	nrr1	83	1578	1941	103.2	103.2	9.5	9.5	0.0	0.6	1.00
67	2016	nrr1	66	1504	1886	101.7	101.8	8.8	8.9	-0.1	0.6	1.00
68	2017	nrr1	66	1593	1884	102.4	102.5	10.6	10.6	-0.1	0.5	1.00
69	2018	nrr1	78	1189	1706	104.1	104.2	9.6	9.6	-0.1	0.7	1.00
70	2019	nrr1	35	510	831	107.9	108.0	10.5	10.5	-0.1	0.6	1.00
71	2010	nrr2	193	580	1809	92.9	92.7	9.6	9.6	0.3	0.5	1.00
72	2011	nrr2	155	359	764	94.6	94.4	9.4	9.5	0.2	0.4	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2012	nrr2	171	530	936	95.5	95.4	10.2	10.1	0.1	0.4	1.00
74	2013	nrr2	151	549	1010	96.6	96.5	11.0	10.9	0.1	0.4	1.00
75	2014	nrr2	113	841	1015	97.6	97.7	9.2	9.1	0.0	0.3	1.00
76	2015	nrr2	83	1259	1569	102.0	102.0	9.7	9.7	-0.1	0.4	1.00
77	2016	nrr2	66	1189	1500	100.5	100.6	11.3	11.2	-0.1	0.3	1.00
78	2017	nrr2	66	1082	1268	102.3	102.3	11.3	11.4	0.0	0.4	1.00
79	2018	nrr2	56	402	637	105.4	105.4	8.9	9.0	-0.1	0.4	1.00
80	2010	nrr3	193	374	1179	93.3	93.2	9.8	9.8	0.1	0.4	1.00
81	2011	nrr3	154	236	509	95.1	95.0	9.9	9.9	0.1	0.4	1.00
82	2012	nrr3	171	352	620	96.5	96.5	10.9	10.9	0.0	0.4	1.00
83	2013	nrr3	151	363	643	96.7	96.7	11.6	11.6	0.0	0.4	1.00
84	2014	nrr3	113	581	712	98.2	98.3	10.1	10.1	0.0	0.4	1.00
85	2015	nrr3	82	887	1132	102.5	102.4	11.0	11.0	0.0	0.3	1.00
86	2016	nrr3	65	706	907	102.4	102.4	11.7	11.8	0.1	0.4	1.00
87	2017	nrr3	56	224	311	102.7	102.7	11.2	11.2	0.0	0.3	1.00
88	2010	nrr	193	984	3034	93.8	93.4	9.3	9.3	0.4	0.6	1.00
89	2011	nrr	155	602	1250	95.1	94.9	9.0	9.0	0.2	0.5	1.00
90	2012	nrr	171	871	1525	96.4	96.2	9.9	9.9	0.2	0.4	1.00
91	2013	nrr	151	896	1619	97.4	97.3	10.4	10.4	0.1	0.5	1.00
92	2014	nrr	114	1336	1612	98.2	98.2	9.0	9.0	0.0	0.3	1.00
93	2015	nrr	83	1983	2421	102.6	102.6	9.6	9.6	0.0	0.3	1.00
94	2016	nrr	66	1889	2375	101.7	101.8	10.2	10.3	-0.1	0.4	1.00
95	2017	nrr	66	2024	2385	102.3	102.3	10.7	10.7	-0.1	0.4	1.00
96	2018	nrr	78	1870	2676	104.5	104.6	9.2	9.3	-0.1	0.5	1.00
97	2019	nrr	56	1650	2436	106.3	106.3	9.5	9.6	-0.1	0.6	1.00
98	2020	nrr	37	483	773	105.2	105.3	8.2	8.2	-0.1	0.7	1.00
99	2010	icf1	193	776	2400	97.3	97.1	9.5	9.5	0.2	0.7	1.00
100	2011	icf1	155	475	986	98.7	98.4	8.9	8.9	0.3	0.7	1.00
101	2012	icf1	171	691	1215	98.8	98.6	9.8	9.8	0.2	0.7	1.00
102	2013	icf1	151	714	1302	100.2	100.1	9.7	9.7	0.1	0.7	1.00
103	2014	icf1	113	1075	1289	101.7	101.7	9.3	9.2	0.0	0.7	1.00
104	2015	icf1	83	1595	1962	103.1	103.2	8.3	8.2	-0.1	0.6	1.00
105	2016	icf1	66	1520	1906	103.3	103.2	8.9	8.9	0.1	0.6	1.00
106	2017	icf1	66	1611	1904	104.1	104.2	7.7	7.7	-0.1	0.5	1.00
107	2018	icf1	78	1197	1719	104.5	104.6	7.5	7.5	-0.1	0.5	1.00
108	2019	icf1	35	485	812	100.4	100.7	8.1	8.0	-0.3	0.8	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2010	icf2	193	588	1833	96.8	96.6	9.4	9.4	0.2	0.5	1.00
110	2011	icf2	155	363	774	97.8	97.7	8.9	8.9	0.2	0.4	1.00
111	2012	icf2	171	537	948	98.7	98.5	10.1	10.1	0.2	0.4	1.00
112	2013	icf2	151	556	1024	99.7	99.7	10.6	10.6	0.1	0.4	1.00
113	2014	icf2	113	851	1025	101.8	101.7	9.9	9.8	0.0	0.4	1.00
114	2015	icf2	83	1274	1585	103.2	103.2	9.6	9.6	0.0	0.4	1.00
115	2016	icf2	66	1203	1516	103.5	103.4	9.7	9.7	0.0	0.3	1.00
116	2017	icf2	66	1089	1274	104.5	104.5	9.0	9.0	0.0	0.3	1.00
117	2018	icf2	53	392	628	104.6	104.7	8.2	8.2	-0.1	0.4	1.00
118	2010	icf3	193	381	1202	96.6	96.4	9.6	9.5	0.1	0.4	1.00
119	2011	icf3	154	240	518	97.8	97.7	9.4	9.4	0.1	0.4	1.00
120	2012	icf3	171	358	632	98.9	98.8	10.5	10.4	0.1	0.4	1.00
121	2013	icf3	151	369	654	99.7	99.6	11.4	11.3	0.1	0.4	1.00
122	2014	icf3	113	590	723	102.0	102.0	10.7	10.7	0.0	0.3	1.00
123	2015	icf3	82	903	1150	103.3	103.3	10.1	10.1	0.0	0.2	1.00
124	2016	icf3	65	715	920	104.1	104.1	10.3	10.2	0.0	0.2	1.00
125	2017	icf3	54	213	299	104.8	104.9	9.6	9.7	0.0	0.3	1.00
126	2010	icf	193	807	2493	96.8	96.6	9.4	9.4	0.2	0.5	1.00
127	2011	icf	155	494	1025	98.0	97.9	9.0	9.0	0.1	0.5	1.00
128	2012	icf	171	718	1261	98.8	98.6	10.1	10.1	0.1	0.5	1.00
129	2013	icf	151	741	1348	99.8	99.8	10.6	10.6	0.1	0.5	1.00
130	2014	icf	113	1114	1336	102.0	101.9	9.9	9.9	0.1	0.5	1.00
131	2015	icf	83	1650	2025	103.3	103.3	9.3	9.4	0.0	0.4	1.00
132	2016	icf	66	1568	1965	103.7	103.7	9.6	9.7	0.0	0.3	1.00
133	2017	icf	66	1650	1948	104.7	104.7	8.6	8.6	0.0	0.4	1.00
134	2018	icf	78	1207	1736	104.8	104.9	7.9	7.9	0.0	0.5	1.00
135	2019	icf	35	485	812	100.6	100.9	8.4	8.3	-0.3	0.6	1.00
136	2010	ifl0	193	865	2703	94.6	94.4	11.2	11.1	0.2	0.4	1.00
137	2011	ifl0	155	523	1109	94.6	94.5	10.0	10.0	0.1	0.4	1.00
138	2012	ifl0	171	760	1348	96.6	96.5	10.5	10.5	0.1	0.4	1.00
139	2013	ifl0	151	780	1431	97.5	97.4	11.2	11.2	0.1	0.3	1.00
140	2014	ifl0	114	1182	1442	97.6	97.5	11.7	11.7	0.0	0.4	1.00
141	2015	ifl0	83	1762	2175	100.3	100.3	11.0	11.0	0.0	0.2	1.00
142	2016	ifl0	66	1695	2154	99.6	99.6	11.6	11.6	0.0	0.2	1.00
143	2017	ifl0	66	1834	2191	99.5	99.5	13.1	13.1	0.0	0.2	1.00
144	2018	ifl0	78	1732	2505	102.4	102.4	12.0	12.0	0.0	0.3	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2019	ifl0	56	1604	2364	104.8	104.9	13.5	13.5	0.0	0.4	1.00
146	2020	ifl0	37	479	767	102.0	102.0	10.0	10.0	-0.1	0.5	1.00
147	2010	ifl1	193	772	2387	93.0	92.0	10.7	10.8	1.0	0.9	1.00
148	2011	ifl1	155	472	980	94.0	93.3	8.8	8.9	0.7	0.8	1.00
149	2012	ifl1	171	687	1208	96.1	95.5	10.3	10.3	0.6	0.7	1.00
150	2013	ifl1	151	710	1296	98.8	98.3	10.1	10.1	0.5	0.8	1.00
151	2014	ifl1	113	1069	1282	99.4	99.2	9.9	10.0	0.2	0.7	1.00
152	2015	ifl1	83	1588	1955	104.5	104.4	9.8	9.8	0.0	0.7	1.00
153	2016	ifl1	66	1513	1897	103.8	103.9	8.4	8.4	-0.1	0.6	1.00
154	2017	ifl1	66	1603	1897	104.9	105.0	11.0	11.1	-0.1	0.7	1.00
155	2018	ifl1	78	1200	1721	107.3	107.5	8.7	8.8	-0.2	0.9	1.00
156	2019	ifl1	35	517	841	107.4	107.8	10.1	10.2	-0.4	0.9	1.00
157	2010	ifl2	193	585	1822	91.7	91.2	10.6	10.7	0.5	0.6	1.00
158	2011	ifl2	155	361	768	93.4	93.0	9.5	9.6	0.4	0.6	1.00
159	2012	ifl2	171	533	941	95.3	95.1	11.2	11.2	0.2	0.5	1.00
160	2013	ifl2	151	553	1019	97.6	97.4	11.3	11.2	0.2	0.5	1.00
161	2014	ifl2	113	847	1020	99.4	99.4	10.6	10.6	0.0	0.4	1.00
162	2015	ifl2	83	1267	1579	104.3	104.3	11.0	10.9	0.1	0.4	1.00
163	2016	ifl2	66	1198	1509	103.6	103.7	9.8	9.8	-0.1	0.4	1.00
164	2017	ifl2	66	1094	1282	105.6	105.6	11.8	11.8	0.0	0.5	1.00
165	2018	ifl2	56	409	647	108.6	108.7	8.2	8.3	-0.1	0.7	1.00
166	2010	ifl3	193	378	1194	90.8	90.5	10.7	10.7	0.4	0.5	1.00
167	2011	ifl3	154	239	514	93.0	92.7	9.7	9.8	0.3	0.5	1.00
168	2012	ifl3	171	356	628	95.5	95.3	11.5	11.5	0.2	0.4	1.00
169	2013	ifl3	151	368	653	97.1	96.9	11.8	11.7	0.2	0.4	1.00
170	2014	ifl3	113	587	719	99.9	99.9	11.0	11.0	0.0	0.4	1.00
171	2015	ifl3	82	898	1145	104.5	104.5	11.7	11.6	0.0	0.4	1.00
172	2016	ifl3	65	717	921	104.8	104.8	9.8	9.8	0.0	0.3	1.00
173	2017	ifl3	56	229	318	106.3	106.4	12.4	12.3	-0.1	0.4	1.00
174	2010	ifl	193	978	3016	91.8	91.2	10.5	10.5	0.6	0.6	1.00
175	2011	ifl	155	598	1243	93.4	93.0	9.1	9.1	0.5	0.6	1.00
176	2012	ifl	171	866	1517	95.7	95.4	10.8	10.8	0.3	0.5	1.00
177	2013	ifl	151	890	1609	97.7	97.5	10.8	10.8	0.2	0.5	1.00
178	2014	ifl	114	1329	1603	99.6	99.5	10.2	10.3	0.1	0.4	1.00
179	2015	ifl	83	1972	2408	104.3	104.4	10.6	10.6	0.0	0.5	1.00
180	2016	ifl	66	1878	2360	104.1	104.2	9.0	9.0	-0.1	0.5	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2017	ifl	66	2012	2371	105.5	105.5	11.3	11.2	0.0	0.5	1.00
182	2018	ifl	78	1850	2646	107.7	107.8	8.4	8.4	-0.1	0.7	1.00
183	2019	ifl	56	1625	2398	107.6	107.7	9.8	9.9	-0.1	0.9	1.00
184	2020	ifl	37	479	767	109.8	109.8	7.5	7.3	0.0	1.0	0.99
185	2010	ais0	193	872	2720	95.8	95.7	10.9	10.9	0.0	0.1	1.00
186	2011	ais0	155	527	1119	95.6	95.6	10.5	10.5	0.0	0.1	1.00
187	2012	ais0	171	765	1359	96.9	96.9	10.4	10.4	0.0	0.1	1.00
188	2013	ais0	151	787	1443	98.2	98.2	11.4	11.4	0.0	0.1	1.00
189	2014	ais0	114	1192	1453	97.5	97.5	11.5	11.5	0.0	0.0	1.00
190	2015	ais0	83	1777	2192	100.4	100.4	11.2	11.2	0.0	0.0	1.00
191	2016	ais0	66	1705	2169	98.9	98.9	11.2	11.2	0.0	0.0	1.00
192	2017	ais0	66	1845	2206	98.2	98.2	13.2	13.2	0.0	0.0	1.00
193	2018	ais0	78	1747	2529	101.1	101.1	12.0	12.0	0.0	0.1	1.00
194	2019	ais0	56	1626	2397	102.9	102.9	13.1	13.1	0.0	0.1	1.00
195	2020	ais0	37	483	774	100.6	100.6	10.1	10.1	0.0	0.2	1.00
196	2010	ais1	193	760	2352	94.8	94.8	10.6	10.6	0.0	0.2	1.00
197	2011	ais1	155	466	968	95.9	95.9	9.5	9.5	0.0	0.1	1.00
198	2012	ais1	171	678	1194	97.1	97.1	10.1	10.1	0.0	0.1	1.00
199	2013	ais1	151	701	1279	99.3	99.4	9.9	9.9	0.0	0.2	1.00
200	2014	ais1	113	1058	1270	99.1	99.1	10.1	10.1	0.0	0.1	1.00
201	2015	ais1	83	1569	1932	104.9	104.8	10.0	9.9	0.0	0.1	1.00
202	2016	ais1	66	1496	1876	102.8	102.7	8.8	8.8	0.0	0.2	1.00
203	2017	ais1	66	1586	1876	102.9	102.9	11.8	11.8	0.0	0.1	1.00
204	2018	ais1	78	1173	1686	105.3	105.3	10.0	10.0	0.0	0.2	1.00
205	2019	ais1	31	516	812	107.0	107.0	10.5	10.6	0.0	0.2	1.00
206	2010	ais2	193	576	1796	93.8	93.9	10.5	10.5	-0.1	0.3	1.00
207	2011	ais2	155	356	759	95.1	95.1	10.4	10.4	0.0	0.2	1.00
208	2012	ais2	171	526	930	96.2	96.2	10.9	10.9	0.0	0.2	1.00
209	2013	ais2	151	545	1005	98.1	98.1	11.7	11.7	0.0	0.1	1.00
210	2014	ais2	113	837	1008	99.0	99.0	10.8	10.8	0.0	0.2	1.00
211	2015	ais2	83	1253	1560	103.7	103.6	10.6	10.7	0.0	0.2	1.00
212	2016	ais2	66	1184	1494	102.1	102.2	10.8	10.8	0.0	0.2	1.00
213	2017	ais2	66	1064	1247	103.1	103.1	12.1	12.1	0.0	0.0	1.00
214	2018	ais2	53	373	603	105.7	105.7	8.7	8.7	0.0	0.2	1.00
215	2010	ais3	193	371	1172	93.8	93.9	10.5	10.5	0.0	0.3	1.00
216	2011	ais3	154	234	506	95.0	95.0	10.4	10.5	0.0	0.2	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2012	ais3	171	350	616	96.9	96.9	11.1	11.1	0.0	0.2	1.00
218	2013	ais3	151	360	637	97.9	97.9	12.0	11.9	0.0	0.3	1.00
219	2014	ais3	113	578	709	99.3	99.3	10.6	10.7	0.0	0.3	1.00
220	2015	ais3	82	883	1126	103.7	103.7	11.1	11.1	0.0	0.1	1.00
221	2016	ais3	65	693	894	103.0	103.0	11.1	11.2	0.0	0.2	1.00
222	2017	ais3	52	207	286	103.0	103.0	12.3	12.3	0.0	0.1	1.00
223	2010	ais	193	978	3017	94.2	94.2	10.2	10.2	0.0	0.2	1.00
224	2011	ais	155	598	1244	95.3	95.3	9.8	9.7	0.0	0.2	1.00
225	2012	ais	171	867	1518	96.8	96.8	10.4	10.4	0.0	0.2	1.00
226	2013	ais	151	891	1611	98.4	98.4	10.8	10.8	0.0	0.2	1.00
227	2014	ais	114	1331	1605	99.2	99.2	10.0	10.0	0.0	0.2	1.00
228	2015	ais	83	1975	2412	104.0	104.0	10.2	10.2	0.0	0.0	1.00
229	2016	ais	66	1881	2365	102.7	102.7	9.8	9.8	0.0	0.2	1.00
230	2017	ais	66	2015	2376	102.9	102.8	11.6	11.6	0.0	0.1	1.00
231	2018	ais	78	1861	2663	105.2	105.1	9.6	9.6	0.0	0.2	1.00
232	2019	ais	56	1645	2427	105.4	105.4	9.8	9.8	0.0	0.1	1.00
233	2020	ais	37	483	774	106.3	106.3	8.3	8.3	0.0	0.3	1.00
234	2010	hst0	59	430	755	97.4	97.0	11.8	11.8	0.3	0.5	1.00
235	2011	hst0	60	227	273	104.0	103.8	11.8	11.9	0.2	0.6	1.00
236	2012	hst0	69	288	346	100.1	99.9	11.8	11.7	0.1	0.5	1.00
237	2013	hst0	80	260	390	99.4	99.4	11.9	11.8	0.0	0.4	1.00
238	2014	hst0	72	237	259	102.9	102.9	12.0	12.0	0.0	0.5	1.00
239	2015	hst0	72	305	398	98.2	98.2	11.1	11.1	0.0	0.4	1.00
240	2016	hst0	60	288	432	102.5	102.5	10.1	10.1	0.0	0.5	1.00
241	2017	hst0	58	325	438	101.6	101.7	11.6	11.6	-0.1	0.4	1.00
242	2018	hst0	67	271	408	103.0	103.2	9.7	9.7	-0.2	0.5	1.00
243	2019	hst0	44	246	347	99.9	100.2	12.5	12.5	-0.3	0.6	1.00
244	2020	hst0	13	92	103	100.6	100.5	8.2	8.2	0.2	0.9	0.99
245	2010	hst1	60	394	695	97.0	96.8	8.6	8.6	0.3	0.5	1.00
246	2011	hst1	60	214	258	101.3	101.1	11.1	11.1	0.3	0.4	1.00
247	2012	hst1	71	270	328	98.9	98.8	10.8	10.8	0.1	0.5	1.00
248	2013	hst1	80	249	369	100.2	100.1	10.9	10.8	0.1	0.4	1.00
249	2014	hst1	71	230	243	102.1	102.0	10.5	10.4	0.0	0.5	1.00
250	2015	hst1	71	293	378	102.2	102.1	10.1	10.1	0.1	0.3	1.00
251	2016	hst1	61	266	396	103.3	103.3	8.8	8.7	0.0	0.4	1.00
252	2017	hst1	56	305	392	104.9	105.0	9.2	9.2	-0.1	0.4	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
253	2018	hst1	62	202	288	104.6	104.8	9.2	9.3	-0.2	0.5	1.00
254	2019	hst1	14	95	97	101.9	102.1	8.2	8.1	-0.3	0.5	1.00
255	2010	hst2	58	295	523	96.4	96.3	10.3	10.4	0.1	0.3	1.00
256	2011	hst2	60	157	192	100.6	100.6	10.8	10.8	0.0	0.3	1.00
257	2012	hst2	68	211	247	98.4	98.3	11.6	11.6	0.0	0.4	1.00
258	2013	hst2	79	190	281	100.9	100.8	11.8	11.9	0.1	0.4	1.00
259	2014	hst2	71	176	188	101.7	101.7	11.0	11.0	0.0	0.2	1.00
260	2015	hst2	67	236	297	102.1	102.1	10.5	10.5	0.0	0.3	1.00
261	2016	hst2	58	205	295	103.2	103.2	10.9	10.8	0.0	0.2	1.00
262	2017	hst2	52	177	206	105.2	105.2	9.8	9.7	0.0	0.2	1.00
263	2018	hst2	24	65	102	105.3	105.4	10.1	10.1	-0.1	0.3	1.00
264	2010	hst3	55	193	343	97.1	97.1	10.3	10.3	0.0	0.1	1.00
265	2011	hst3	52	110	126	102.5	102.6	11.8	11.8	0.0	0.2	1.00
266	2012	hst3	61	149	166	100.6	100.6	11.5	11.5	0.0	0.3	1.00
267	2013	hst3	74	127	167	102.5	102.5	11.0	11.0	0.0	0.3	1.00
268	2014	hst3	64	125	128	102.0	102.0	11.0	11.0	0.0	0.3	1.00
269	2015	hst3	60	166	203	101.6	101.7	11.3	11.3	0.0	0.2	1.00
270	2016	hst3	44	118	155	103.3	103.4	9.3	9.3	0.0	0.3	1.00
271	2017	hst3	14	48	38	104.6	104.7	7.2	7.3	-0.1	0.3	1.00
272	2010	hst	60	530	924	97.0	96.9	9.7	9.6	0.1	0.3	1.00
273	2011	hst	60	289	341	101.5	101.5	11.0	11.0	0.0	0.3	1.00
274	2012	hst	71	358	429	99.2	99.1	11.6	11.6	0.0	0.4	1.00
275	2013	hst	80	329	482	101.0	101.0	11.3	11.3	0.0	0.3	1.00
276	2014	hst	72	298	321	102.4	102.4	10.9	10.9	0.0	0.3	1.00
277	2015	hst	73	371	484	101.7	101.8	10.3	10.3	0.0	0.3	1.00
278	2016	hst	62	338	507	103.6	103.6	9.7	9.8	0.1	0.4	1.00
279	2017	hst	59	376	502	104.6	104.6	9.2	9.3	0.0	0.4	1.00
280	2018	hst	68	301	450	104.6	104.6	9.4	9.5	0.0	0.4	1.00
281	2019	hst	44	250	353	102.5	102.8	7.8	7.7	-0.3	0.6	1.00
282	2020	hst	13	92	103	105.3	105.1	8.8	9.0	0.2	0.6	1.00
283	2010	fert	193	807	2493	92.1	91.6	10.6	10.7	0.5	0.5	1.00
284	2011	fert	155	494	1025	93.6	93.3	9.2	9.3	0.3	0.5	1.00
285	2012	fert	171	718	1261	95.8	95.5	10.9	10.8	0.3	0.5	1.00
286	2013	fert	151	741	1348	97.8	97.6	11.0	10.9	0.2	0.5	1.00
287	2014	fert	113	1114	1336	99.5	99.5	10.3	10.3	0.0	0.3	1.00
288	2015	fert	83	1650	2025	104.2	104.3	10.5	10.5	0.0	0.4	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
289	2016	fert	66	1568	1965	103.8	103.8	9.1	9.0	-0.1	0.4	1.00
290	2017	fert	66	1650	1948	104.9	105.0	11.6	11.6	0.0	0.5	1.00
291	2018	fert	78	1207	1736	107.2	107.3	8.9	8.9	-0.1	0.5	1.00
292	2019	fert	35	485	812	107.0	107.3	10.2	10.1	-0.3	0.7	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-2	.	.	1	8	.	.	2
2	-1	.	88	81	100	16	46	67
3	0	1157	865	856	713	1131	565	785
4	1	.	215	172	333	23	51	255
5	2	.	2	1	16	.	.	2

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-2	.	.	0	1	.	.	0
2	-1	.	8	7	9	1	7	6
3	0	100	74	77	61	97	85	71
4	1	.	18	15	28	2	8	23
5	2	.	0	0	1	.	.	0

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	cr0	12	.	.	106.7	106.7	5.0	5.0	0.0	0.0	1.00
2	2020	cr0	34	.	.	105.7	105.7	10.4	10.4	0.0	0.0	1.00
3	2021	cr0	58	.	.	106.3	106.3	9.7	9.7	0.0	0.0	1.00
4	2022	cr0	62	.	.	109.5	109.5	9.3	9.3	0.0	0.0	1.00
5	2023	cr0	35	.	.	109.9	109.9	8.5	8.5	0.0	0.0	1.00
6	2019	cr1	30	.	.	109.3	109.3	9.1	9.1	0.0	0.0	1.00
7	2020	cr1	72	.	.	109.1	109.1	7.2	7.2	0.0	0.0	1.00
8	2021	cr1	58	.	.	108.8	108.8	7.9	7.9	0.0	0.0	1.00
9	2022	cr1	62	.	.	112.1	112.1	7.7	7.7	0.0	0.0	1.00
10	2023	cr1	35	.	.	111.9	111.9	8.1	8.1	0.0	0.0	1.00
11	2019	cr2	66	.	.	109.5	109.5	8.7	8.7	0.0	0.0	1.00
12	2020	cr2	72	.	.	109.1	109.1	6.9	6.9	0.0	0.0	1.00
13	2021	cr2	58	.	.	109.1	109.1	7.6	7.6	0.0	0.0	1.00
14	2022	cr2	62	.	.	111.8	111.8	7.8	7.8	0.0	0.0	1.00
15	2023	cr2	35	.	.	111.8	111.8	8.3	8.3	0.0	0.0	1.00
16	2019	cr3	69	.	.	109.3	109.3	8.9	8.9	0.0	0.0	1.00
17	2020	cr3	72	.	.	109.0	109.0	6.8	6.8	0.0	0.0	1.00
18	2021	cr3	58	.	.	109.1	109.1	7.5	7.5	0.0	0.0	1.00
19	2022	cr3	62	.	.	112.0	112.0	7.8	7.8	0.0	0.0	1.00
20	2023	cr3	35	.	.	111.8	111.8	8.4	8.4	0.0	0.0	1.00
21	2019	cr	12	.	.	109.5	109.5	7.3	7.3	0.0	0.0	1.00
22	2020	cr	34	.	.	108.1	108.1	6.6	6.6	0.0	0.0	1.00
23	2021	cr	58	.	.	109.1	109.1	7.7	7.7	0.0	0.0	1.00
24	2022	cr	62	.	.	112.2	112.2	7.9	7.9	0.0	0.0	1.00
25	2023	cr	35	.	.	112.0	112.0	8.3	8.3	0.0	0.0	1.00
26	2019	nrr0	12	.	.	101.6	101.5	4.4	4.5	0.1	0.3	1.00
27	2020	nrr0	20	.	.	100.5	100.5	11.2	11.5	0.1	0.7	1.00
28	2021	nrr0	55	.	.	99.8	99.8	9.6	9.6	0.0	0.6	1.00
29	2022	nrr0	62	.	.	102.6	102.6	8.8	8.8	0.0	0.7	1.00
30	2023	nrr0	35	.	.	103.1	102.9	7.3	7.4	0.2	0.8	0.99
31	2019	nrr1	19	.	.	106.8	106.9	8.1	8.0	-0.1	0.8	1.00
32	2020	nrr1	71	.	.	105.3	105.3	7.5	7.6	-0.1	1.1	0.99
33	2021	nrr1	58	.	.	105.6	105.7	8.0	7.8	-0.1	0.9	0.99
34	2022	nrr1	62	.	.	108.1	108.2	7.8	7.8	-0.1	1.2	0.99
35	2023	nrr1	35	.	.	107.3	107.1	7.4	7.6	0.1	1.5	0.98
36	2019	nrr2	61	.	.	106.5	106.5	8.4	8.5	0.0	0.6	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2020	nrr2	72	.	.	104.1	104.2	7.9	7.9	0.0	0.7	1.00
38	2021	nrr2	58	.	.	105.7	105.7	7.4	7.4	0.0	0.7	1.00
39	2022	nrr2	62	.	.	108.1	108.2	8.5	8.4	-0.1	0.7	1.00
40	2023	nrr2	35	.	.	107.5	107.3	7.6	7.6	0.1	1.0	0.99
41	2019	nrr3	69	.	.	106.0	106.1	9.4	9.4	0.0	0.6	1.00
42	2020	nrr3	72	.	.	104.2	104.2	8.3	8.3	0.0	0.5	1.00
43	2021	nrr3	58	.	.	106.4	106.5	7.1	7.0	0.0	0.6	1.00
44	2022	nrr3	62	.	.	108.5	108.4	9.0	8.9	0.1	0.6	1.00
45	2023	nrr3	35	.	.	107.3	107.2	9.0	8.9	0.1	0.8	1.00
46	2019	nrr	12	.	.	106.0	105.8	6.6	6.6	0.3	0.5	1.00
47	2020	nrr	20	.	.	103.6	103.6	6.5	6.7	0.0	0.7	0.99
48	2021	nrr	55	.	.	106.4	106.3	7.2	7.1	0.1	0.7	0.99
49	2022	nrr	62	.	.	108.2	108.3	8.3	8.2	-0.1	0.8	0.99
50	2023	nrr	35	.	.	107.3	107.3	7.9	7.9	0.0	1.0	0.99
51	2019	icf1	22	.	.	103.4	103.7	7.9	7.5	-0.3	1.1	0.99
52	2020	icf1	72	.	.	105.5	105.6	7.3	7.3	-0.2	1.1	0.99
53	2021	icf1	58	.	.	103.4	103.5	7.0	6.6	-0.1	1.4	0.98
54	2022	icf1	62	.	.	103.9	104.2	7.1	6.8	-0.3	1.3	0.98
55	2023	icf1	35	.	.	104.9	105.0	6.4	6.2	-0.1	1.3	0.98
56	2019	icf2	63	.	.	103.4	103.4	9.3	9.3	-0.1	0.7	1.00
57	2020	icf2	72	.	.	106.6	106.9	7.5	7.5	-0.2	0.8	0.99
58	2021	icf2	58	.	.	104.0	104.2	7.1	6.9	-0.2	1.0	0.99
59	2022	icf2	62	.	.	105.2	105.4	6.9	6.8	-0.2	0.9	0.99
60	2023	icf2	35	.	.	105.9	106.0	6.6	6.5	-0.1	0.9	0.99
61	2019	icf3	69	.	.	103.3	103.4	9.3	9.3	-0.1	0.7	1.00
62	2020	icf3	72	.	.	106.7	106.8	7.5	7.5	-0.2	0.8	0.99
63	2021	icf3	58	.	.	104.2	104.3	7.5	7.2	-0.1	0.9	0.99
64	2022	icf3	62	.	.	105.3	105.6	7.1	7.0	-0.3	0.9	0.99
65	2023	icf3	35	.	.	106.3	106.3	7.0	6.8	0.0	1.0	0.99
66	2019	icf	22	.	.	104.3	104.5	8.3	8.1	-0.2	1.0	0.99
67	2020	icf	72	.	.	106.4	106.6	7.3	7.3	-0.2	0.9	0.99
68	2021	icf	58	.	.	104.0	104.1	7.2	6.9	-0.1	1.0	0.99
69	2022	icf	62	.	.	104.9	105.1	6.9	6.8	-0.2	1.1	0.99
70	2023	icf	35	.	.	105.9	105.8	6.6	6.5	0.1	1.0	0.99
71	2019	ifl0	12	.	.	102.3	102.3	5.1	5.3	0.0	0.4	1.00
72	2020	ifl0	20	.	.	102.7	102.7	10.7	11.0	-0.1	0.5	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2021	ifl0	55	.	.	101.6	101.7	10.0	9.9	-0.1	0.6	1.00
74	2022	ifl0	62	.	.	103.7	103.7	8.5	8.4	0.0	0.6	1.00
75	2023	ifl0	35	.	.	104.6	104.5	7.5	7.5	0.0	0.7	1.00
76	2019	ifl1	19	.	.	109.1	109.3	7.6	7.7	-0.3	1.0	0.99
77	2020	ifl1	71	.	.	109.1	109.4	7.2	7.2	-0.3	1.4	0.98
78	2021	ifl1	58	.	.	107.6	107.9	8.6	8.3	-0.3	1.4	0.99
79	2022	ifl1	62	.	.	110.7	111.2	7.0	6.9	-0.5	1.3	0.98
80	2023	ifl1	35	.	.	110.8	110.8	7.6	7.7	0.1	1.7	0.98
81	2019	ifl2	61	.	.	108.8	108.8	9.8	9.9	-0.1	0.8	1.00
82	2020	ifl2	72	.	.	109.4	109.5	7.2	7.1	-0.1	0.9	0.99
83	2021	ifl2	58	.	.	108.7	108.7	8.7	8.5	0.0	0.9	0.99
84	2022	ifl2	62	.	.	111.4	111.6	7.7	7.6	-0.2	1.0	0.99
85	2023	ifl2	35	.	.	111.7	111.6	8.1	8.1	0.1	1.2	0.99
86	2019	ifl3	69	.	.	108.2	108.3	9.9	10.0	-0.1	0.8	1.00
87	2020	ifl3	72	.	.	109.7	109.8	7.3	7.2	-0.2	0.8	0.99
88	2021	ifl3	58	.	.	109.5	109.6	8.2	8.0	-0.1	0.8	1.00
89	2022	ifl3	62	.	.	112.1	112.3	7.5	7.5	-0.2	0.8	0.99
90	2023	ifl3	35	.	.	112.6	112.5	8.9	8.8	0.1	1.0	0.99
91	2019	ifl	12	.	.	110.6	110.7	8.6	8.7	-0.1	0.8	1.00
92	2020	ifl	20	.	.	108.8	109.1	6.9	7.0	-0.3	1.0	0.99
93	2021	ifl	55	.	.	108.7	108.8	8.4	8.3	-0.1	1.0	0.99
94	2022	ifl	62	.	.	111.4	111.8	7.2	7.1	-0.3	1.0	0.99
95	2023	ifl	35	.	.	111.7	111.6	8.2	8.1	0.1	1.3	0.99
96	2019	ais0	12	.	.	103.0	103.0	5.3	5.3	0.0	0.0	1.00
97	2020	ais0	20	.	.	99.3	99.3	11.1	11.1	0.0	0.3	1.00
98	2021	ais0	55	.	.	98.9	99.0	10.0	10.0	-0.1	0.2	1.00
99	2022	ais0	62	.	.	101.3	101.3	8.6	8.6	0.0	0.2	1.00
100	2023	ais0	35	.	.	101.9	101.9	8.2	8.2	0.0	0.2	1.00
101	2019	ais1	22	.	.	105.8	106.0	9.6	9.7	-0.1	0.4	1.00
102	2020	ais1	72	.	.	106.2	106.2	7.4	7.4	-0.1	0.2	1.00
103	2021	ais1	58	.	.	104.5	104.5	8.5	8.5	0.0	0.3	1.00
104	2022	ais1	62	.	.	107.9	107.9	7.7	7.7	0.0	0.3	1.00
105	2023	ais1	35	.	.	106.9	106.8	8.1	8.1	0.1	0.3	1.00
106	2019	ais2	63	.	.	106.2	106.3	9.6	9.6	0.0	0.3	1.00
107	2020	ais2	72	.	.	105.8	105.8	8.0	8.0	0.0	0.0	1.00
108	2021	ais2	58	.	.	104.9	104.9	8.5	8.5	-0.1	0.3	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2022	ais2	62	.	.	107.8	107.8	8.8	8.8	0.0	0.2	1.00
110	2023	ais2	35	.	.	107.5	107.4	8.8	8.7	0.1	0.4	1.00
111	2019	ais3	69	.	.	105.6	105.6	9.5	9.4	0.0	0.3	1.00
112	2020	ais3	72	.	.	104.7	104.7	7.9	7.9	0.0	0.2	1.00
113	2021	ais3	58	.	.	104.6	104.6	8.0	8.0	0.0	0.1	1.00
114	2022	ais3	62	.	.	107.3	107.4	9.2	9.1	0.0	0.3	1.00
115	2023	ais3	35	.	.	106.8	106.8	9.6	9.6	0.1	0.2	1.00
116	2019	ais	12	.	.	107.5	107.5	7.4	7.4	0.0	0.0	1.00
117	2020	ais	20	.	.	104.7	104.7	6.4	6.4	0.0	0.0	1.00
118	2021	ais	55	.	.	104.9	104.9	8.2	8.2	0.0	0.3	1.00
119	2022	ais	62	.	.	107.5	107.6	8.4	8.4	0.0	0.3	1.00
120	2023	ais	35	.	.	106.9	106.9	8.7	8.7	0.0	0.0	1.00
121	2019	hst0	15	.	.	98.1	98.1	7.9	8.3	0.0	1.0	0.99
122	2020	hst0	33	.	.	102.4	102.8	8.7	8.8	-0.4	1.0	0.99
123	2021	hst0	57	.	.	99.2	99.3	9.8	9.5	-0.1	1.2	0.99
124	2022	hst0	62	.	.	100.2	100.6	8.9	8.9	-0.3	1.2	0.99
125	2023	hst0	35	.	.	99.9	100.0	7.7	7.8	-0.1	1.0	0.99
126	2019	hst1	35	.	.	101.8	101.9	8.7	8.8	-0.1	0.9	1.00
127	2020	hst1	72	.	.	104.0	104.3	7.9	8.0	-0.3	0.9	0.99
128	2021	hst1	58	.	.	102.0	102.1	7.3	7.1	-0.1	1.1	0.99
129	2022	hst1	62	.	.	104.1	104.5	7.7	7.5	-0.4	1.2	0.99
130	2023	hst1	35	.	.	104.5	104.5	7.1	7.1	0.0	1.1	0.99
131	2019	hst2	67	.	.	102.7	102.8	9.9	9.9	-0.1	0.6	1.00
132	2020	hst2	72	.	.	104.9	104.9	8.1	8.0	0.0	0.6	1.00
133	2021	hst2	58	.	.	103.1	103.2	8.6	8.5	-0.1	0.7	1.00
134	2022	hst2	62	.	.	104.5	104.8	7.2	7.3	-0.2	0.7	1.00
135	2023	hst2	35	.	.	105.3	105.3	7.9	7.9	0.0	0.7	1.00
136	2019	hst3	69	.	.	102.6	102.6	8.5	8.5	0.0	0.4	1.00
137	2020	hst3	72	.	.	104.9	105.0	7.6	7.6	-0.1	0.5	1.00
138	2021	hst3	58	.	.	103.0	103.1	8.0	7.9	0.0	0.5	1.00
139	2022	hst3	62	.	.	104.9	104.9	7.2	7.2	-0.1	0.6	1.00
140	2023	hst3	35	.	.	104.5	104.4	6.9	6.9	0.1	0.5	1.00
141	2019	hst	15	.	.	101.6	101.3	10.8	11.2	0.3	0.7	1.00
142	2020	hst	33	.	.	104.5	104.5	7.4	7.5	-0.1	0.6	1.00
143	2021	hst	57	.	.	102.8	102.9	8.0	7.8	-0.1	0.7	1.00
144	2022	hst	62	.	.	104.8	104.9	7.2	7.3	-0.2	0.8	0.99

HOL breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2023	hst	35	.	.	105.0	105.0	7.1	7.1	0.0	0.9	0.99
146	2019	fert	22	.	.	107.3	107.5	9.1	9.2	-0.1	0.8	1.00
147	2020	fert	72	.	.	108.6	108.8	7.0	7.0	-0.2	0.9	0.99
148	2021	fert	58	.	.	107.6	107.7	8.4	8.3	-0.1	0.9	0.99
149	2022	fert	62	.	.	110.4	110.7	7.4	7.3	-0.2	0.9	0.99
150	2023	fert	35	.	.	110.8	110.6	8.2	8.3	0.2	1.1	0.99

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-3	.	1	2	4	.	.	1
2	-2	.	6	17	13	.	3	15
3	-1	.	35	70	51	6	55	70
4	0	202	93	95	63	176	97	95
5	1	.	47	55	50	3	48	66
6	2	.	3	11	4	.	.	3

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-3	.	1	1	2	.	.	0
2	-2	.	3	7	7	.	1	6
3	-1	.	19	28	28	3	27	28
4	0	100	50	38	34	95	48	38
5	1	.	25	22	27	2	24	26
6	2	.	2	4	2	.	.	1

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	cr0	9278	99.5	99.5	10.7	10.7	0.0	0.0	1.00
2	2020	cr0	11358	101.8	101.8	9.9	9.9	0.0	0.0	1.00
3	2021	cr0	6995	105.9	105.9	10.0	10.0	0.0	0.0	1.00
4	2022	cr0	39040	107.4	107.4	9.9	9.9	0.0	0.0	1.00
5	2023	cr0	72068	107.2	107.2	9.0	9.0	0.0	0.0	1.00
6	2024	cr0	14776	107.3	107.3	8.6	8.6	0.0	0.0	1.00
7	2019	cr1	14879	100.6	100.6	9.0	9.0	0.0	0.0	1.00
8	2020	cr1	18948	103.8	103.8	8.9	8.9	0.0	0.0	1.00
9	2021	cr1	42007	106.3	106.3	8.4	8.4	0.0	0.0	1.00
10	2022	cr1	70794	108.0	108.0	8.3	8.3	0.0	0.0	1.00
11	2023	cr1	72069	107.9	107.9	7.9	7.9	0.0	0.0	1.00
12	2024	cr1	14776	108.1	108.1	7.8	7.8	0.0	0.0	1.00
13	2019	cr2	20719	100.7	100.7	9.0	9.0	0.0	0.0	1.00
14	2020	cr2	43942	104.4	104.4	8.8	8.8	0.0	0.0	1.00
15	2021	cr2	62918	105.9	105.9	8.2	8.2	0.0	0.0	1.00
16	2022	cr2	70795	107.6	107.6	8.2	8.2	0.0	0.0	1.00
17	2023	cr2	72069	107.5	107.5	7.9	7.9	0.0	0.0	1.00
18	2024	cr2	14776	107.8	107.8	7.8	7.8	0.0	0.0	1.00
19	2019	cr3	40782	100.9	100.9	8.9	8.9	0.0	0.0	1.00
20	2020	cr3	58993	104.6	104.6	8.7	8.7	0.0	0.0	1.00
21	2021	cr3	62924	105.9	105.9	8.1	8.1	0.0	0.0	1.00
22	2022	cr3	70795	107.6	107.6	8.1	8.1	0.0	0.0	1.00
23	2023	cr3	72069	107.5	107.5	7.9	7.9	0.0	0.0	1.00
24	2024	cr3	14776	107.8	107.8	7.8	7.8	0.0	0.0	1.00
25	2019	cr	7928	100.6	100.6	9.0	9.0	0.0	0.0	1.00
26	2020	cr	10112	103.6	103.6	8.9	8.9	0.0	0.0	1.00
27	2021	cr	6490	105.5	105.5	8.3	8.3	0.0	0.0	1.00
28	2022	cr	39039	107.9	107.9	8.3	8.3	0.0	0.0	1.00
29	2023	cr	72068	107.7	107.7	7.9	7.9	0.0	0.0	1.00
30	2024	cr	14776	108.0	108.0	7.9	7.9	0.0	0.0	1.00
31	2019	nrr0	10595	99.1	99.1	10.2	10.2	-0.1	0.6	1.00
32	2020	nrr0	12816	100.7	100.8	9.6	9.6	-0.1	0.6	1.00
33	2021	nrr0	8555	103.9	103.9	9.7	9.7	-0.1	0.6	1.00
34	2022	nrr0	24236	103.7	103.7	9.7	9.8	0.0	0.6	1.00
35	2023	nrr0	71979	103.5	103.5	8.9	9.0	0.0	0.7	1.00
36	2024	nrr0	14776	103.4	103.4	8.5	8.6	0.0	0.7	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	nrr1	16058	100.3	100.4	8.6	8.6	-0.1	1.1	0.99
38	2020	nrr1	20128	102.3	102.4	8.5	8.6	-0.1	1.1	0.99
39	2021	nrr1	33139	104.1	104.2	8.2	8.2	-0.1	1.1	0.99
40	2022	nrr1	70655	105.2	105.3	8.2	8.2	-0.1	1.1	0.99
41	2023	nrr1	72069	105.0	105.1	7.8	7.8	-0.1	1.2	0.99
42	2024	nrr1	14776	105.3	105.4	7.7	7.7	-0.1	1.2	0.99
43	2019	nrr2	21374	100.0	100.1	8.9	8.9	0.0	0.7	1.00
44	2020	nrr2	37164	102.6	102.7	8.7	8.7	-0.1	0.7	1.00
45	2021	nrr2	62677	103.6	103.6	8.0	7.9	-0.1	0.7	1.00
46	2022	nrr2	70795	104.8	104.9	8.0	8.0	0.0	0.8	1.00
47	2023	nrr2	72069	104.7	104.7	7.8	7.7	0.0	0.8	0.99
48	2024	nrr2	14776	105.2	105.2	7.8	7.8	0.0	0.8	0.99
49	2019	nrr3	36494	100.2	100.2	9.4	9.4	0.0	0.6	1.00
50	2020	nrr3	58771	102.6	102.6	9.0	9.0	-0.1	0.6	1.00
51	2021	nrr3	62924	103.6	103.7	8.3	8.3	-0.1	0.6	1.00
52	2022	nrr3	70795	105.0	105.0	8.4	8.4	0.0	0.6	1.00
53	2023	nrr3	72069	104.4	104.4	8.1	8.1	0.0	0.7	1.00
54	2024	nrr3	14776	105.0	105.0	8.1	8.1	0.0	0.7	1.00
55	2019	nrr	8343	100.1	100.1	8.8	8.8	0.0	0.8	1.00
56	2020	nrr	10472	102.2	102.3	8.5	8.6	-0.1	0.8	1.00
57	2021	nrr	7074	103.5	103.6	7.9	7.9	-0.1	0.8	1.00
58	2022	nrr	24214	105.0	105.1	8.0	8.0	0.0	0.8	0.99
59	2023	nrr	71979	104.7	104.7	7.6	7.6	-0.1	0.8	0.99
60	2024	nrr	14776	105.2	105.2	7.6	7.6	0.0	0.8	0.99
61	2019	icf1	15717	100.7	100.7	8.1	8.0	0.0	1.1	0.99
62	2020	icf1	19734	102.1	102.1	7.9	7.8	0.0	1.2	0.99
63	2021	icf1	33697	102.1	102.2	7.4	7.3	-0.1	1.2	0.99
64	2022	icf1	70767	102.2	102.3	7.5	7.4	-0.1	1.2	0.99
65	2023	icf1	72069	102.5	102.6	7.3	7.3	-0.1	1.4	0.98
66	2024	icf1	14776	101.9	102.0	7.1	7.0	-0.1	1.4	0.98
67	2019	icf2	21036	100.7	100.7	8.6	8.6	0.0	0.8	1.00
68	2020	icf2	37631	102.4	102.4	8.3	8.2	-0.1	0.8	0.99
69	2021	icf2	62848	102.4	102.5	7.8	7.8	-0.1	0.8	0.99
70	2022	icf2	70795	102.5	102.6	7.8	7.7	-0.1	0.9	0.99
71	2023	icf2	72069	102.7	102.8	7.5	7.6	-0.1	1.0	0.99
72	2024	icf2	14776	102.2	102.3	7.4	7.3	-0.1	1.0	0.99

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	icf3	36639	100.8	100.8	8.9	8.9	0.0	0.8	1.00
74	2020	icf3	58908	102.7	102.7	8.5	8.4	-0.1	0.8	1.00
75	2021	icf3	62924	102.5	102.5	8.1	8.0	-0.1	0.8	1.00
76	2022	icf3	70795	102.3	102.4	7.9	7.9	-0.1	0.9	0.99
77	2023	icf3	72069	102.7	102.8	7.7	7.7	-0.1	0.9	0.99
78	2024	icf3	14776	102.3	102.3	7.5	7.5	-0.1	0.9	0.99
79	2019	icf	14404	100.9	100.9	8.5	8.5	0.0	0.9	0.99
80	2020	icf	18789	102.3	102.4	8.2	8.1	0.0	0.9	0.99
81	2021	icf	33684	102.2	102.3	7.8	7.7	-0.1	0.9	0.99
82	2022	icf	70767	102.4	102.4	7.7	7.7	-0.1	1.0	0.99
83	2023	icf	72069	102.7	102.8	7.5	7.5	-0.1	1.1	0.99
84	2024	icf	14776	102.2	102.3	7.3	7.3	-0.1	1.1	0.99
85	2019	ifl0	11378	99.4	99.5	9.7	9.7	0.0	0.6	1.00
86	2020	ifl0	13717	101.3	101.3	9.1	9.1	-0.1	0.6	1.00
87	2021	ifl0	9584	104.3	104.4	9.2	9.2	-0.1	0.6	1.00
88	2022	ifl0	24795	104.6	104.6	9.1	9.1	-0.1	0.6	1.00
89	2023	ifl0	71980	104.5	104.5	8.5	8.5	0.0	0.6	1.00
90	2024	ifl0	14776	104.4	104.5	8.2	8.2	0.0	0.6	1.00
91	2019	ifl1	15851	100.7	100.8	9.3	9.3	-0.1	1.3	0.99
92	2020	ifl1	19869	103.6	103.7	9.1	9.1	-0.2	1.3	0.99
93	2021	ifl1	32822	105.1	105.3	8.5	8.4	-0.2	1.4	0.99
94	2022	ifl1	70646	106.6	106.7	8.2	8.1	-0.1	1.4	0.98
95	2023	ifl1	72069	106.7	106.9	8.0	8.0	-0.2	1.5	0.98
96	2024	ifl1	14776	106.6	106.8	7.9	7.9	-0.2	1.5	0.98
97	2019	ifl2	21134	100.8	100.8	9.8	9.8	-0.1	0.9	1.00
98	2020	ifl2	36880	104.1	104.2	9.4	9.4	-0.1	0.9	1.00
99	2021	ifl2	62671	105.1	105.2	8.7	8.6	-0.1	1.0	0.99
100	2022	ifl2	70795	106.7	106.8	8.5	8.5	-0.1	1.0	0.99
101	2023	ifl2	72069	106.7	106.8	8.3	8.3	-0.1	1.1	0.99
102	2024	ifl2	14776	106.9	107.0	8.3	8.2	-0.1	1.1	0.99
103	2019	ifl3	36274	101.0	101.0	9.9	9.9	-0.1	0.8	1.00
104	2020	ifl3	58765	104.5	104.6	9.5	9.4	-0.1	0.8	1.00
105	2021	ifl3	62924	105.1	105.2	8.7	8.6	-0.1	0.8	1.00
106	2022	ifl3	70795	106.8	106.8	8.7	8.6	-0.1	0.9	0.99
107	2023	ifl3	72069	106.8	106.9	8.4	8.4	-0.1	1.0	0.99
108	2024	ifl3	14776	107.2	107.2	8.4	8.4	-0.1	1.0	0.99

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	ifl	8508	100.8	100.8	9.5	9.4	-0.1	1.0	0.99
110	2020	ifl	10659	103.5	103.7	9.2	9.2	-0.1	1.0	0.99
111	2021	ifl	7813	104.5	104.7	8.5	8.5	-0.2	1.0	0.99
112	2022	ifl	24772	106.7	106.8	8.3	8.3	-0.1	1.1	0.99
113	2023	ifl	71980	106.7	106.8	8.1	8.1	-0.1	1.2	0.99
114	2024	ifl	14776	106.9	107.0	8.0	8.0	-0.1	1.2	0.99
115	2019	ais0	11004	99.8	99.8	10.0	10.0	0.0	0.2	1.00
116	2020	ais0	13273	101.2	101.1	9.4	9.4	0.0	0.2	1.00
117	2021	ais0	8948	103.5	103.5	9.3	9.3	0.0	0.2	1.00
118	2022	ais0	24247	103.2	103.2	9.5	9.5	0.0	0.2	1.00
119	2023	ais0	71979	103.0	103.0	8.9	8.9	0.0	0.3	1.00
120	2024	ais0	14776	102.7	102.7	8.6	8.6	0.0	0.3	1.00
121	2019	ais1	16158	100.8	100.8	9.3	9.3	0.0	0.3	1.00
122	2020	ais1	20241	103.1	103.1	9.2	9.1	0.0	0.3	1.00
123	2021	ais1	34604	103.9	103.9	8.5	8.5	0.0	0.3	1.00
124	2022	ais1	70770	104.9	104.9	8.3	8.3	0.0	0.3	1.00
125	2023	ais1	72069	104.9	104.9	8.1	8.1	0.0	0.3	1.00
126	2024	ais1	14776	104.5	104.5	8.0	8.0	0.0	0.3	1.00
127	2019	ais2	21463	100.6	100.6	9.9	9.9	0.0	0.2	1.00
128	2020	ais2	38337	103.2	103.2	9.4	9.4	0.0	0.2	1.00
129	2021	ais2	62855	104.0	104.0	8.8	8.8	0.0	0.2	1.00
130	2022	ais2	70795	105.2	105.2	8.8	8.8	0.0	0.2	1.00
131	2023	ais2	72069	104.8	104.8	8.5	8.5	0.0	0.2	1.00
132	2024	ais2	14776	104.8	104.8	8.5	8.5	0.0	0.2	1.00
133	2019	ais3	37164	100.6	100.6	9.8	9.8	0.0	0.2	1.00
134	2020	ais3	58916	103.3	103.3	9.1	9.1	0.0	0.2	1.00
135	2021	ais3	62924	103.7	103.7	8.6	8.6	0.0	0.2	1.00
136	2022	ais3	70795	104.7	104.7	8.7	8.7	0.0	0.2	1.00
137	2023	ais3	72069	104.4	104.3	8.5	8.5	0.0	0.2	1.00
138	2024	ais3	14776	104.6	104.6	8.4	8.4	0.0	0.2	1.00
139	2019	ais	8425	100.6	100.6	9.4	9.4	0.0	0.2	1.00
140	2020	ais	10568	102.8	102.8	9.0	9.0	0.0	0.2	1.00
141	2021	ais	7338	103.6	103.6	8.4	8.4	0.0	0.2	1.00
142	2022	ais	24239	105.0	105.0	8.4	8.4	0.0	0.2	1.00
143	2023	ais	71979	104.6	104.6	8.1	8.1	0.0	0.2	1.00
144	2024	ais	14776	104.6	104.6	8.0	8.0	0.0	0.2	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2019	hst0	42670	101.2	101.2	9.2	9.2	0.0	1.0	0.99
146	2020	hst0	50379	100.9	100.9	9.0	9.0	0.0	1.0	0.99
147	2021	hst0	53216	100.8	100.9	8.9	8.9	-0.1	1.0	0.99
148	2022	hst0	63349	100.0	100.1	8.7	8.7	-0.1	1.0	0.99
149	2023	hst0	72068	100.1	100.2	8.7	8.8	-0.1	1.2	0.99
150	2024	hst0	14776	100.1	100.2	8.4	8.4	-0.1	1.2	0.99
151	2019	hst1	43449	101.0	101.0	8.5	8.5	0.0	0.9	0.99
152	2020	hst1	51550	102.2	102.3	8.6	8.6	0.0	0.9	0.99
153	2021	hst1	58065	101.8	101.9	8.2	8.1	-0.1	1.0	0.99
154	2022	hst1	70793	102.3	102.4	8.1	8.0	-0.1	1.0	0.99
155	2023	hst1	72069	102.0	102.1	8.0	8.0	-0.1	1.1	0.99
156	2024	hst1	14776	102.0	102.1	7.8	7.8	-0.1	1.1	0.99
157	2019	hst2	44636	100.6	100.6	9.4	9.3	0.0	0.6	1.00
158	2020	hst2	55612	102.6	102.6	9.1	9.1	0.0	0.6	1.00
159	2021	hst2	62919	101.7	101.8	8.5	8.5	0.0	0.6	1.00
160	2022	hst2	70795	102.3	102.4	8.4	8.4	0.0	0.7	1.00
161	2023	hst2	72069	102.2	102.3	8.2	8.3	0.0	0.7	1.00
162	2024	hst2	14776	102.2	102.3	8.1	8.1	0.0	0.7	1.00
163	2019	hst3	47588	100.8	100.8	8.5	8.5	0.0	0.5	1.00
164	2020	hst3	59006	102.3	102.3	8.3	8.3	0.0	0.5	1.00
165	2021	hst3	62924	101.8	101.9	7.9	7.9	0.0	0.5	1.00
166	2022	hst3	70795	102.3	102.3	7.7	7.7	0.0	0.5	1.00
167	2023	hst3	72069	102.1	102.1	7.7	7.7	0.0	0.6	1.00
168	2024	hst3	14776	102.2	102.2	7.5	7.4	0.0	0.5	1.00
169	2019	hst	41967	100.8	100.8	8.7	8.6	0.0	0.7	1.00
170	2020	hst	49710	102.5	102.5	8.5	8.4	0.0	0.7	1.00
171	2021	hst	52816	101.8	101.9	8.0	7.9	0.0	0.7	1.00
172	2022	hst	63347	102.4	102.4	7.9	7.8	0.0	0.7	1.00
173	2023	hst	72068	102.2	102.2	7.8	7.9	0.0	0.8	1.00
174	2024	hst	14776	102.3	102.3	7.6	7.6	0.0	0.8	0.99
175	2019	fert	14404	100.7	100.7	9.6	9.6	0.0	0.9	1.00
176	2020	fert	18789	103.7	103.8	9.3	9.2	-0.1	0.8	1.00
177	2021	fert	33684	105.0	105.1	8.5	8.5	-0.1	0.9	0.99
178	2022	fert	70767	106.4	106.5	8.4	8.3	-0.1	0.9	0.99
179	2023	fert	72069	106.4	106.5	8.1	8.2	-0.1	1.0	0.99
180	2024	fert	14776	106.4	106.5	8.1	8.1	-0.1	1.0	0.99

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-5	.	.	1	8	.	.	1
2	-4	.	3	57	165	.	.	29
3	-3	.	112	1362	2016	.	37	944
4	-2	.	4161	13798	11732	.	3307	11514
5	-1	1	33851	57684	35819	3865	64620	59568
6	0	150412	66645	90405	50052	129809	166602	97180
7	1	.	29131	49635	29428	3651	57022	47279
8	2	.	2889	10129	7962	.	3012	7397
9	3	.	66	1297	1208	.	84	558
10	4	.	.	118	111	.	.	19
11	5	.	.	3	7	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-5	.	.	0	0	.	.	0
2	-4	.	0	0	0	.	.	0
3	-3	.	0	1	1	.	0	0
4	-2	.	3	6	8	.	1	5
5	-1	0	25	26	26	3	22	27
6	0	100	49	40	36	95	57	43
7	1	.	21	22	21	3	19	21
8	2	.	2	5	6	.	1	3
9	3	.	0	1	1	.	0	0
10	4	.	.	0	0	.	.	0
11	5	.	.	0	0	.	.	.

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2015	cr0	11807	93.4	93.4	10.3	10.3	0.0	0.0	1.00
2	2016	cr0	17752	95.3	95.3	10.3	10.3	0.0	0.0	1.00
3	2017	cr0	25901	97.4	97.4	11.0	11.0	0.0	0.0	1.00
4	2018	cr0	36099	97.1	97.1	10.4	10.4	0.0	0.0	1.00
5	2019	cr0	39911	100.5	100.5	10.7	10.7	0.0	0.0	1.00
6	2020	cr0	47654	102.9	102.9	10.0	10.0	0.0	0.0	1.00
7	2021	cr0	55929	106.2	106.2	10.1	10.1	0.0	0.0	1.00
8	2022	cr0	31755	107.8	107.8	9.8	9.8	0.0	0.0	1.00
9	2023	cr0	1	.	.	.	.	.	.	.
10	2015	cr1	10093	93.8	93.8	9.2	9.2	0.0	0.0	1.00
11	2016	cr1	15320	95.9	95.9	9.1	9.1	0.0	0.0	1.00
12	2017	cr1	22412	98.2	98.2	9.3	9.3	0.0	0.0	1.00
13	2018	cr1	31155	99.6	99.6	8.8	8.8	0.0	0.0	1.00
14	2019	cr1	34310	101.7	101.7	9.0	9.0	0.0	0.0	1.00
15	2020	cr1	40064	104.8	104.8	8.8	8.8	0.0	0.0	1.00
16	2021	cr1	20917	106.4	106.4	8.4	8.4	0.0	0.0	1.00
17	2022	cr1	1	.	.	.	.	.	.	.
18	2015	cr2	8528	94.2	94.2	9.3	9.3	0.0	0.0	1.00
19	2016	cr2	13021	96.3	96.3	9.2	9.2	0.0	0.0	1.00
20	2017	cr2	18941	98.7	98.7	9.3	9.3	0.0	0.0	1.00
21	2018	cr2	26218	100.1	100.1	9.1	9.1	0.0	0.0	1.00
22	2019	cr2	28470	102.0	102.0	9.0	9.0	0.0	0.0	1.00
23	2020	cr2	15070	105.3	105.3	8.7	8.7	0.0	0.0	1.00
24	2021	cr2	6	.	.	.	.	.	.	1.00
25	2015	cr3	6208	95.0	95.0	9.2	9.2	0.0	0.0	1.00
26	2016	cr3	9574	97.0	97.0	9.1	9.1	0.0	0.0	1.00
27	2017	cr3	13907	99.4	99.4	9.1	9.1	0.0	0.0	1.00
28	2018	cr3	18866	100.8	100.8	9.0	9.0	0.0	0.0	1.00
29	2019	cr3	8407	103.4	103.4	8.7	8.7	0.0	0.0	1.00
30	2020	cr3	19	.	.	.	.	.	.	1.00
31	2015	cr	12280	93.5	93.5	9.3	9.3	0.0	0.0	1.00
32	2016	cr	18447	95.6	95.6	9.3	9.3	0.0	0.0	1.00
33	2017	cr	26785	98.1	98.1	9.3	9.3	0.0	0.0	1.00
34	2018	cr	37250	99.6	99.6	9.0	9.0	0.0	0.0	1.00
35	2019	cr	41261	101.6	101.6	9.0	9.0	0.0	0.0	1.00
36	2020	cr	48900	104.8	104.8	8.8	8.8	0.0	0.0	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2021	cr	56434	106.1	106.1	8.2	8.2	0.0	0.0	1.00
38	2022	cr	31756	107.8	107.8	8.1	8.1	0.0	0.0	1.00
39	2023	cr	1	.	.	.	.	.	.	.
40	2015	nrr0	11466	96.9	96.9	10.1	10.1	0.1	0.6	1.00
41	2016	nrr0	17129	97.8	97.7	9.8	9.9	0.0	0.6	1.00
42	2017	nrr0	24980	99.1	99.1	10.5	10.5	0.0	0.6	1.00
43	2018	nrr0	34958	97.6	97.6	10.1	10.1	0.0	0.6	1.00
44	2019	nrr0	38594	99.9	99.9	10.1	10.1	0.0	0.6	1.00
45	2020	nrr0	46196	101.5	101.5	9.7	9.7	-0.1	0.6	1.00
46	2021	nrr0	54369	103.9	104.0	9.8	9.8	0.0	0.6	1.00
47	2022	nrr0	46559	103.8	103.9	9.8	9.8	0.0	0.6	1.00
48	2023	nrr0	90	103.4	103.4	9.6	9.6	0.0	0.6	1.00
49	2015	nrr1	9750	96.3	96.1	9.0	9.0	0.2	1.1	0.99
50	2016	nrr1	14831	97.6	97.5	8.6	8.6	0.2	1.1	0.99
51	2017	nrr1	21661	99.2	99.1	8.7	8.7	0.1	1.1	0.99
52	2018	nrr1	30118	99.2	99.2	8.3	8.3	0.0	1.1	0.99
53	2019	nrr1	33131	101.0	101.1	8.5	8.5	-0.1	1.1	0.99
54	2020	nrr1	38884	102.9	103.0	8.5	8.5	-0.1	1.0	0.99
55	2021	nrr1	29785	104.0	104.1	8.2	8.2	-0.1	1.1	0.99
56	2022	nrr1	140	105.4	105.6	8.0	8.0	-0.2	1.1	0.99
57	2015	nrr2	8210	95.2	95.2	9.4	9.4	0.1	0.7	1.00
58	2016	nrr2	12600	96.7	96.7	9.0	9.0	0.0	0.7	1.00
59	2017	nrr2	18294	98.9	98.8	8.9	8.9	0.0	0.7	1.00
60	2018	nrr2	25364	98.8	98.8	9.0	9.0	0.0	0.7	1.00
61	2019	nrr2	27815	100.8	100.9	9.0	9.0	0.0	0.7	1.00
62	2020	nrr2	21848	103.3	103.3	8.8	8.8	-0.1	0.7	1.00
63	2021	nrr2	247	104.7	104.8	7.7	7.7	-0.1	0.6	1.00
64	2015	nrr3	5974	95.8	95.8	9.9	9.9	0.0	0.6	1.00
65	2016	nrr3	9199	97.6	97.6	9.7	9.7	0.0	0.6	1.00
66	2017	nrr3	13403	99.0	99.1	9.4	9.4	0.0	0.6	1.00
67	2018	nrr3	18618	99.1	99.1	9.7	9.7	0.0	0.6	1.00
68	2019	nrr3	12695	101.5	101.6	9.6	9.5	0.0	0.6	1.00
69	2020	nrr3	241	105.0	105.0	8.5	8.6	0.0	0.6	1.00
70	2015	nrr	12155	95.3	95.2	9.1	9.1	0.1	0.8	1.00
71	2016	nrr	18232	96.9	96.9	8.9	8.9	0.1	0.7	1.00
72	2017	nrr	26489	98.6	98.6	8.7	8.7	0.0	0.7	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2018	nrr	36921	98.7	98.7	8.7	8.7	0.0	0.7	1.00
74	2019	nrr	40846	100.7	100.7	8.7	8.7	-0.1	0.7	1.00
75	2020	nrr	48540	102.8	102.9	8.5	8.5	-0.1	0.7	1.00
76	2021	nrr	55850	103.8	103.8	7.8	7.8	-0.1	0.8	1.00
77	2022	nrr	46581	105.0	105.0	7.9	7.9	0.0	0.8	0.99
78	2023	nrr	90	106.0	105.9	8.9	8.8	0.1	0.9	1.00
79	2015	icf1	9842	98.2	98.1	8.3	8.2	0.1	1.2	0.99
80	2016	icf1	14952	99.0	98.9	8.2	8.1	0.1	1.1	0.99
81	2017	icf1	21846	99.8	99.7	8.1	8.0	0.1	1.1	0.99
82	2018	icf1	30413	102.1	102.1	8.2	8.1	0.1	1.1	0.99
83	2019	icf1	33472	101.0	101.0	8.0	7.9	0.0	1.1	0.99
84	2020	icf1	39278	102.4	102.5	7.9	7.8	-0.1	1.1	0.99
85	2021	icf1	29227	102.6	102.7	7.4	7.3	-0.1	1.1	0.99
86	2022	icf1	28	104.7	104.6	6.0	5.9	0.0	1.4	0.97
87	2015	icf2	8302	97.9	97.8	8.7	8.6	0.1	0.8	1.00
88	2016	icf2	12733	99.0	98.9	8.7	8.7	0.1	0.8	1.00
89	2017	icf2	18489	99.7	99.6	8.6	8.6	0.0	0.8	1.00
90	2018	icf2	25627	102.1	102.1	8.6	8.5	0.0	0.8	1.00
91	2019	icf2	28153	101.4	101.4	8.5	8.5	0.0	0.8	1.00
92	2020	icf2	21381	103.2	103.2	8.2	8.1	-0.1	0.8	1.00
93	2021	icf2	76	106.2	106.1	7.3	7.3	0.1	0.8	0.99
94	2015	icf3	6056	98.4	98.3	8.9	8.9	0.1	0.8	1.00
95	2016	icf3	9336	99.6	99.5	9.0	8.9	0.1	0.8	1.00
96	2017	icf3	13610	100.4	100.3	8.9	8.9	0.0	0.8	1.00
97	2018	icf3	18931	102.8	102.7	8.9	8.8	0.0	0.8	1.00
98	2019	icf3	12550	102.5	102.5	8.5	8.4	0.0	0.8	1.00
99	2020	icf3	104	106.0	106.1	8.1	8.0	-0.1	0.7	1.00
100	2015	icf	10388	97.8	97.7	8.7	8.6	0.1	0.9	0.99
101	2016	icf	15592	98.8	98.7	8.7	8.6	0.1	0.9	0.99
102	2017	icf	22745	99.7	99.6	8.6	8.6	0.1	0.9	0.99
103	2018	icf	31668	102.1	102.0	8.6	8.6	0.0	0.9	0.99
104	2019	icf	34785	101.2	101.2	8.5	8.4	0.0	0.9	0.99
105	2020	icf	40223	102.7	102.8	8.2	8.1	-0.1	0.9	0.99
106	2021	icf	29240	102.7	102.8	7.7	7.7	-0.1	0.9	0.99
107	2022	icf	28	104.2	104.3	6.2	6.0	-0.1	1.1	0.98
108	2015	ifl0	11146	96.9	96.8	9.4	9.4	0.1	0.6	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2016	ifl0	16649	97.8	97.7	9.4	9.4	0.0	0.6	1.00
110	2017	ifl0	24386	99.2	99.2	10.2	10.2	0.0	0.6	1.00
111	2018	ifl0	34110	98.6	98.6	9.8	9.8	0.0	0.6	1.00
112	2019	ifl0	37811	100.5	100.6	9.8	9.8	0.0	0.6	1.00
113	2020	ifl0	45295	102.2	102.3	9.2	9.2	-0.1	0.5	1.00
114	2021	ifl0	53340	104.7	104.7	9.3	9.3	-0.1	0.6	1.00
115	2022	ifl0	46000	104.9	105.0	9.2	9.2	0.0	0.6	1.00
116	2023	ifl0	89	104.1	104.2	9.2	9.2	-0.1	0.5	1.00
117	2015	ifl1	9808	95.0	94.6	9.2	9.1	0.4	1.4	0.99
118	2016	ifl1	14902	96.9	96.6	9.2	9.2	0.3	1.3	0.99
119	2017	ifl1	21770	98.8	98.7	9.6	9.6	0.2	1.3	0.99
120	2018	ifl1	30319	100.9	100.8	9.2	9.1	0.1	1.3	0.99
121	2019	ifl1	33338	101.9	102.0	9.3	9.3	-0.1	1.3	0.99
122	2020	ifl1	39143	104.6	104.8	9.1	9.0	-0.2	1.3	0.99
123	2021	ifl1	30102	105.7	105.9	8.4	8.4	-0.2	1.3	0.99
124	2022	ifl1	149	108.4	108.6	8.2	8.0	-0.2	1.4	0.99
125	2015	ifl2	8271	94.5	94.3	9.7	9.6	0.1	0.9	1.00
126	2016	ifl2	12683	96.7	96.6	9.8	9.8	0.1	0.9	1.00
127	2017	ifl2	18410	98.9	98.8	10.2	10.2	0.0	0.9	1.00
128	2018	ifl2	25507	101.0	101.0	9.8	9.8	0.0	0.9	1.00
129	2019	ifl2	28055	102.2	102.2	9.8	9.8	-0.1	0.9	1.00
130	2020	ifl2	22132	105.5	105.7	9.3	9.3	-0.1	0.9	1.00
131	2021	ifl2	253	108.3	108.4	8.3	8.3	-0.1	0.9	0.99
132	2015	ifl3	6018	95.0	94.9	9.8	9.8	0.1	0.8	1.00
133	2016	ifl3	9296	97.2	97.1	9.9	9.9	0.1	0.8	1.00
134	2017	ifl3	13553	99.5	99.4	10.3	10.3	0.0	0.8	1.00
135	2018	ifl3	18848	101.6	101.6	10.0	10.0	0.0	0.8	1.00
136	2019	ifl3	12915	103.7	103.7	9.6	9.5	0.0	0.8	1.00
137	2020	ifl3	247	109.0	109.1	8.8	8.8	-0.2	0.7	1.00
138	2015	ifl	12109	94.0	93.8	9.5	9.4	0.2	1.0	0.99
139	2016	ifl	18143	96.1	96.0	9.6	9.6	0.2	1.0	0.99
140	2017	ifl	26395	98.4	98.3	9.9	9.9	0.1	1.0	1.00
141	2018	ifl	36730	100.5	100.5	9.6	9.5	0.0	1.0	0.99
142	2019	ifl	40681	101.8	101.8	9.5	9.5	-0.1	1.0	0.99
143	2020	ifl	48353	104.6	104.8	9.1	9.0	-0.1	1.0	0.99
144	2021	ifl	55111	105.3	105.4	8.4	8.3	-0.2	1.0	0.99

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2022	ifl	46023	106.6	106.7	8.3	8.2	-0.1	1.1	0.99
146	2023	ifl	89	107.5	107.6	8.6	8.5	-0.1	1.1	0.99
147	2015	ais0	11327	97.8	97.8	9.8	9.8	0.0	0.2	1.00
148	2016	ais0	16922	98.7	98.6	9.8	9.8	0.0	0.2	1.00
149	2017	ais0	24665	99.7	99.7	10.3	10.3	0.0	0.2	1.00
150	2018	ais0	34577	98.7	98.7	9.9	9.9	0.0	0.2	1.00
151	2019	ais0	38185	100.6	100.6	9.9	9.9	0.0	0.2	1.00
152	2020	ais0	45739	101.7	101.7	9.5	9.5	0.0	0.2	1.00
153	2021	ais0	53976	103.5	103.5	9.5	9.5	0.0	0.2	1.00
154	2022	ais0	46548	103.3	103.3	9.5	9.5	0.0	0.2	1.00
155	2023	ais0	90	102.9	102.9	9.5	9.5	0.0	0.2	1.00
156	2015	ais1	9707	96.5	96.5	9.2	9.2	0.0	0.3	1.00
157	2016	ais1	14779	98.0	98.0	9.2	9.2	0.0	0.3	1.00
158	2017	ais1	21589	99.8	99.8	9.4	9.4	0.0	0.3	1.00
159	2018	ais1	30004	100.8	100.7	9.0	9.0	0.0	0.3	1.00
160	2019	ais1	33031	101.6	101.6	9.2	9.2	0.0	0.3	1.00
161	2020	ais1	38771	103.7	103.7	9.1	9.1	0.0	0.3	1.00
162	2021	ais1	28320	104.2	104.2	8.5	8.5	0.0	0.3	1.00
163	2022	ais1	25	106.0	106.1	8.5	8.4	-0.1	0.3	1.00
164	2015	ais2	8172	96.0	96.0	10.0	10.0	0.0	0.2	1.00
165	2016	ais2	12553	97.9	97.9	10.0	10.0	0.0	0.2	1.00
166	2017	ais2	18229	99.8	99.8	10.0	10.0	0.0	0.2	1.00
167	2018	ais2	25274	100.4	100.4	9.9	9.9	0.0	0.2	1.00
168	2019	ais2	27726	101.6	101.6	9.9	9.9	0.0	0.2	1.00
169	2020	ais2	20675	104.2	104.2	9.4	9.4	0.0	0.2	1.00
170	2021	ais2	69	106.8	106.7	6.9	6.9	0.1	0.3	1.00
171	2015	ais3	5928	96.8	96.8	10.0	10.0	0.0	0.2	1.00
172	2016	ais3	9164	98.6	98.6	9.9	9.9	0.0	0.2	1.00
173	2017	ais3	13349	100.3	100.3	9.9	9.9	0.0	0.2	1.00
174	2018	ais3	18550	100.7	100.7	10.0	10.0	0.0	0.2	1.00
175	2019	ais3	12025	102.6	102.6	9.8	9.8	0.0	0.2	1.00
176	2020	ais3	96	105.4	105.4	8.2	8.3	0.0	0.2	1.00
177	2015	ais	12127	95.9	95.9	9.4	9.4	0.0	0.2	1.00
178	2016	ais	18194	97.7	97.7	9.5	9.5	0.0	0.2	1.00
179	2017	ais	26449	99.6	99.6	9.5	9.5	0.0	0.2	1.00
180	2018	ais	36846	100.2	100.2	9.3	9.3	0.0	0.2	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2019	ais	40764	101.3	101.3	9.4	9.4	0.0	0.2	1.00
182	2020	ais	48444	103.6	103.6	8.9	8.9	0.0	0.2	1.00
183	2021	ais	55586	103.9	103.9	8.3	8.3	0.0	0.2	1.00
184	2022	ais	46556	104.8	104.8	8.3	8.3	0.0	0.2	1.00
185	2023	ais	90	105.9	105.9	9.0	8.9	0.0	0.2	1.00
186	2015	hst0	2263	100.6	100.4	9.7	9.7	0.2	1.0	0.99
187	2016	hst0	3501	100.7	100.6	9.7	9.7	0.1	1.0	1.00
188	2017	hst0	3998	101.4	101.3	9.4	9.3	0.1	0.9	1.00
189	2018	hst0	5561	101.2	101.1	9.6	9.5	0.1	0.9	1.00
190	2019	hst0	6519	101.9	101.9	9.7	9.6	0.0	0.9	1.00
191	2020	hst0	8633	101.4	101.4	9.1	9.1	0.0	0.9	0.99
192	2021	hst0	9708	101.1	101.1	9.3	9.2	-0.1	1.0	0.99
193	2022	hst0	7446	100.8	100.8	9.1	9.0	-0.1	1.0	0.99
194	2023	hst0	1	.	.	.	.	.	.	.
195	2015	hst1	1967	98.8	98.5	9.3	9.3	0.2	0.9	0.99
196	2016	hst1	3131	99.8	99.6	9.0	9.0	0.1	0.9	0.99
197	2017	hst1	3544	100.3	100.1	8.8	8.8	0.1	0.9	0.99
198	2018	hst1	4855	101.9	101.8	8.9	8.9	0.1	0.9	0.99
199	2019	hst1	5740	102.0	101.9	8.7	8.7	0.0	0.9	0.99
200	2020	hst1	7462	102.5	102.6	8.6	8.5	0.0	0.9	0.99
201	2021	hst1	4859	102.0	102.1	8.5	8.5	-0.1	0.9	0.99
202	2022	hst1	2	.	.	.	.	.	.	1.00
203	2015	hst2	1536	97.7	97.6	10.2	10.1	0.1	0.6	1.00
204	2016	hst2	2466	99.6	99.5	9.7	9.7	0.0	0.6	1.00
205	2017	hst2	2769	99.9	99.9	9.3	9.3	0.0	0.6	1.00
206	2018	hst2	3909	101.7	101.7	9.3	9.3	0.0	0.6	1.00
207	2019	hst2	4553	102.3	102.2	9.1	9.1	0.0	0.6	1.00
208	2020	hst2	3400	103.8	103.8	8.9	8.9	0.0	0.6	1.00
209	2021	hst2	5	.	.	.	.	.	.	1.00
210	2015	hst3	1029	99.3	99.3	9.7	9.7	0.0	0.5	1.00
211	2016	hst3	1654	100.3	100.3	9.2	9.2	0.0	0.5	1.00
212	2017	hst3	1875	100.6	100.6	8.7	8.7	0.0	0.5	1.00
213	2018	hst3	2663	102.1	102.1	9.0	9.0	0.0	0.5	1.00
214	2019	hst3	1601	103.0	103.0	8.4	8.4	0.0	0.5	1.00
215	2020	hst3	6	.	.	.	.	.	.	1.00
216	2015	hst	2455	98.2	98.2	9.5	9.5	0.1	0.7	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2016	hst	3860	99.2	99.2	9.2	9.2	0.0	0.7	1.00
218	2017	hst	4457	99.9	99.9	8.9	8.9	0.0	0.6	1.00
219	2018	hst	6156	101.4	101.4	8.9	8.9	0.0	0.6	1.00
220	2019	hst	7222	101.8	101.8	8.6	8.6	0.0	0.6	1.00
221	2020	hst	9302	102.8	102.9	8.3	8.3	0.0	0.7	1.00
222	2021	hst	10108	102.3	102.3	8.2	8.1	0.0	0.7	1.00
223	2022	hst	7448	102.5	102.6	8.1	8.0	-0.1	0.7	1.00
224	2023	hst	1	.	.	.	.	.	.	.
225	2015	fert	10388	94.6	94.5	9.5	9.5	0.2	0.9	1.00
226	2016	fert	15592	96.7	96.5	9.6	9.6	0.1	0.8	1.00
227	2017	fert	22745	98.8	98.8	10.0	10.0	0.1	0.8	1.00
228	2018	fert	31668	100.7	100.6	9.6	9.6	0.0	0.8	1.00
229	2019	fert	34785	101.8	101.9	9.6	9.6	-0.1	0.8	1.00
230	2020	fert	40223	104.6	104.7	9.1	9.1	-0.1	0.8	1.00
231	2021	fert	29240	105.4	105.5	8.5	8.5	-0.1	0.8	1.00
232	2022	fert	28	108.3	108.4	9.2	9.1	-0.1	0.9	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-6	.	.	.	1	.	.	.
2	-5	.	.	3	5	.	.	1
3	-4	.	2	12	120	.	.	10
4	-3	.	101	364	1671	.	2	199
5	-2	.	5105	6540	16539	.	307	5498
6	-1	1	66338	44018	71303	7282	10117	44191
7	0	273112	150746	83513	113786	271416	30507	88247
8	1	1	59416	43475	65483	6358	9802	41726
9	2	.	3944	6454	13574	.	273	4645
10	3	.	52	284	1106	.	1	150
11	4	.	.	6	43	.	.	2
12	5	.	.	.	3	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-6	.	.	.	0	.	.	.
2	-5	.	.	0	0	.	.	0
3	-4	.	0	0	0	.	.	0
4	-3	.	0	0	1	.	0	0
5	-2	.	2	4	6	.	1	3

HOL breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
6	-1	0	23	24	25	3	20	24
7	0	100	53	45	40	95	60	48
8	1	0	21	24	23	2	19	23
9	2	.	1	3	5	.	1	3
10	3	.	0	0	0	.	0	0
11	4	.	.	0	0	.	.	0
12	5	.	.	.	0	.	.	.

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2015	cr0	198614	92.2	92.2	7.3	7.3	0.0	0.0	1.00
2	2016	cr0	192213	94.2	94.2	8.0	8.0	0.0	0.0	1.00
3	2017	cr0	171167	96.1	96.1	8.1	8.1	0.0	0.0	1.00
4	2018	cr0	164615	95.8	95.8	7.6	7.6	0.0	0.0	1.00
5	2019	cr0	158321	98.2	98.2	8.0	8.0	0.0	0.0	1.00
6	2020	cr0	161606	100.1	100.1	7.3	7.3	0.0	0.0	1.00
7	2021	cr0	176714	102.7	102.7	7.7	7.7	0.0	0.0	1.00
8	2022	cr0	86315	104.0	104.0	7.4	7.4	0.0	0.0	1.00
9	2015	cr1	176326	92.1	92.1	6.5	6.5	0.0	0.0	1.00
10	2016	cr1	170444	94.1	94.1	6.9	6.9	0.0	0.0	1.00
11	2017	cr1	154330	95.9	95.9	7.0	7.0	0.0	0.0	1.00
12	2018	cr1	148149	96.8	96.8	6.7	6.7	0.0	0.0	1.00
13	2019	cr1	140972	97.9	97.9	6.8	6.8	0.0	0.0	1.00
14	2020	cr1	140103	100.2	100.2	6.8	6.8	0.0	0.0	1.00
15	2021	cr1	64538	101.5	101.5	6.7	6.7	0.0	0.0	1.00
16	2022	cr1	9	.	.	.	.	.	.	1.00
17	2015	cr2	134969	92.7	92.7	6.7	6.7	0.0	0.0	1.00
18	2016	cr2	132430	94.5	94.5	7.2	7.2	0.0	0.0	1.00
19	2017	cr2	121426	96.4	96.4	7.2	7.2	0.0	0.0	1.00
20	2018	cr2	116323	97.3	97.3	7.1	7.1	0.0	0.0	1.00
21	2019	cr2	108070	98.3	98.3	7.0	7.0	0.0	0.0	1.00
22	2020	cr2	46989	100.6	100.6	7.1	7.1	0.0	0.0	1.00
23	2021	cr2	39	102.0	102.0	5.9	5.9	0.0	0.0	1.00
24	2015	cr3	88916	93.5	93.5	6.7	6.7	0.0	0.0	1.00
25	2016	cr3	88952	95.2	95.2	7.0	7.0	0.0	0.0	1.00
26	2017	cr3	82117	97.1	97.1	7.1	7.1	0.0	0.0	1.00
27	2018	cr3	76363	98.2	98.2	7.0	7.0	0.0	0.0	1.00
28	2019	cr3	29296	99.7	99.7	6.8	6.8	0.0	0.0	1.00
29	2020	cr3	43	101.4	101.4	6.7	6.7	0.0	0.0	1.00
30	2015	cr	219244	92.1	92.1	6.5	6.5	0.0	0.0	1.00
31	2016	cr	211691	93.9	93.9	7.0	7.0	0.0	0.0	1.00
32	2017	cr	189466	95.9	95.9	7.0	7.0	0.0	0.0	1.00
33	2018	cr	181049	96.9	96.9	6.9	6.9	0.0	0.0	1.00
34	2019	cr	172527	97.8	97.8	6.9	6.9	0.0	0.0	1.00
35	2020	cr	174537	100.1	100.1	6.9	6.9	0.0	0.0	1.00
36	2021	cr	181941	101.5	101.5	6.3	6.3	0.0	0.0	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2022	cr	86321	102.9	102.9	6.4	6.4	0.0	0.0	1.00
38	2015	nrr0	189280	96.6	96.5	7.2	7.2	0.1	0.4	1.00
39	2016	nrr0	183824	97.4	97.4	7.6	7.6	0.1	0.3	1.00
40	2017	nrr0	163237	98.6	98.5	7.7	7.7	0.0	0.3	1.00
41	2018	nrr0	156968	97.2	97.2	7.5	7.5	0.0	0.3	1.00
42	2019	nrr0	151197	98.9	98.9	7.5	7.5	0.0	0.3	1.00
43	2020	nrr0	153993	100.0	100.0	7.0	7.0	0.0	0.3	1.00
44	2021	nrr0	170310	101.6	101.6	7.2	7.2	0.0	0.3	1.00
45	2022	nrr0	123943	101.7	101.7	7.2	7.2	0.0	0.3	1.00
46	2023	nrr0	233	101.5	101.5	7.5	7.4	0.0	0.4	1.00
47	2015	nrr1	169311	95.6	95.3	6.5	6.5	0.3	0.6	1.00
48	2016	nrr1	163447	96.7	96.5	6.5	6.5	0.2	0.5	1.00
49	2017	nrr1	148146	97.9	97.7	6.3	6.3	0.1	0.5	1.00
50	2018	nrr1	142424	97.8	97.7	6.1	6.1	0.1	0.5	1.00
51	2019	nrr1	135593	98.7	98.7	6.3	6.4	0.0	0.5	1.00
52	2020	nrr1	136155	100.1	100.1	6.4	6.4	0.0	0.5	1.00
53	2021	nrr1	90675	100.9	100.9	6.1	6.1	0.0	0.5	1.00
54	2022	nrr1	500	101.8	101.9	6.4	6.4	-0.1	0.5	1.00
55	2015	nrr2	129398	94.8	94.8	6.8	6.8	0.1	0.4	1.00
56	2016	nrr2	127099	95.9	95.9	6.9	6.9	0.1	0.3	1.00
57	2017	nrr2	116755	97.7	97.7	6.6	6.5	0.0	0.3	1.00
58	2018	nrr2	111991	97.5	97.5	6.6	6.6	0.0	0.3	1.00
59	2019	nrr2	106132	98.7	98.7	6.8	6.8	0.0	0.3	1.00
60	2020	nrr2	68038	100.5	100.5	6.8	6.8	0.0	0.3	1.00
61	2021	nrr2	786	101.8	101.8	6.0	6.0	0.0	0.3	1.00
62	2015	nrr3	84939	95.5	95.5	7.2	7.2	0.0	0.3	1.00
63	2016	nrr3	85165	96.7	96.7	7.5	7.5	0.0	0.3	1.00
64	2017	nrr3	78800	98.1	98.1	7.0	7.0	0.0	0.3	1.00
65	2018	nrr3	75578	98.1	98.1	7.3	7.3	0.0	0.3	1.00
66	2019	nrr3	43238	99.5	99.5	7.3	7.3	0.0	0.3	1.00
67	2020	nrr3	762	100.8	100.8	7.3	7.4	0.0	0.3	1.00
68	2015	nrr	215879	95.0	94.9	6.4	6.5	0.1	0.4	1.00
69	2016	nrr	208750	96.1	96.0	6.7	6.7	0.1	0.4	1.00
70	2017	nrr	186773	97.6	97.6	6.3	6.2	0.1	0.4	1.00
71	2018	nrr	178658	97.5	97.5	6.3	6.3	0.0	0.4	1.00
72	2019	nrr	170245	98.6	98.6	6.5	6.5	0.0	0.3	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2020	nrr	172594	100.2	100.2	6.3	6.3	0.0	0.3	1.00
74	2021	nrr	180765	100.9	100.9	5.6	5.6	0.0	0.4	1.00
75	2022	nrr	124042	102.1	102.1	5.7	5.7	0.0	0.5	1.00
76	2023	nrr	233	101.3	101.3	5.6	5.6	0.0	0.5	1.00
77	2015	icf1	171071	97.2	97.0	6.3	6.3	0.2	0.5	1.00
78	2016	icf1	165154	98.0	97.9	6.3	6.4	0.1	0.5	1.00
79	2017	icf1	149657	98.3	98.2	6.2	6.2	0.1	0.5	1.00
80	2018	icf1	143913	100.1	100.0	6.6	6.6	0.1	0.5	1.00
81	2019	icf1	137055	99.1	99.1	6.1	6.1	0.0	0.5	1.00
82	2020	icf1	137694	99.9	99.9	6.2	6.1	0.0	0.5	1.00
83	2021	icf1	89626	100.1	100.1	5.7	5.7	0.0	0.5	1.00
84	2022	icf1	131	100.2	100.3	4.8	4.8	-0.1	0.6	0.99
85	2015	icf2	131167	96.8	96.7	6.6	6.6	0.1	0.4	1.00
86	2016	icf2	128756	97.7	97.6	6.9	6.9	0.1	0.4	1.00
87	2017	icf2	118221	98.0	97.9	6.8	6.8	0.1	0.4	1.00
88	2018	icf2	113479	99.9	99.9	7.1	7.1	0.0	0.4	1.00
89	2019	icf2	107594	99.2	99.1	6.7	6.7	0.0	0.3	1.00
90	2020	icf2	66666	100.4	100.4	6.6	6.6	0.0	0.3	1.00
91	2021	icf2	281	101.1	101.1	6.5	6.5	-0.1	0.4	1.00
92	2015	icf3	86515	97.3	97.2	6.9	6.9	0.1	0.4	1.00
93	2016	icf3	86763	98.2	98.1	7.3	7.3	0.1	0.4	1.00
94	2017	icf3	80277	98.6	98.6	7.1	7.1	0.1	0.4	1.00
95	2018	icf3	77078	100.5	100.5	7.5	7.5	0.0	0.3	1.00
96	2019	icf3	42802	100.1	100.1	6.8	6.8	0.0	0.3	1.00
97	2020	icf3	363	101.9	101.9	6.2	6.2	0.0	0.3	1.00
98	2015	icf	178446	96.7	96.6	6.6	6.6	0.1	0.4	1.00
99	2016	icf	172289	97.6	97.5	6.8	6.8	0.1	0.4	1.00
100	2017	icf	155772	97.9	97.8	6.7	6.7	0.1	0.4	1.00
101	2018	icf	149505	99.8	99.7	7.1	7.1	0.1	0.4	1.00
102	2019	icf	141681	99.0	98.9	6.6	6.6	0.0	0.4	1.00
103	2020	icf	140206	99.8	99.8	6.6	6.6	0.0	0.4	1.00
104	2021	icf	89669	99.9	100.0	6.1	6.1	0.0	0.4	1.00
105	2022	icf	131	99.6	99.8	5.2	5.2	-0.2	0.5	1.00
106	2015	ifl0	183679	96.0	95.9	6.5	6.5	0.1	0.3	1.00
107	2016	ifl0	178487	97.0	97.0	7.2	7.2	0.1	0.3	1.00
108	2017	ifl0	158533	98.1	98.1	7.4	7.4	0.0	0.3	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2018	ifl0	152599	97.5	97.4	7.1	7.1	0.0	0.3	1.00
110	2019	ifl0	147343	98.9	98.9	7.3	7.3	0.0	0.3	1.00
111	2020	ifl0	150361	99.9	100.0	6.6	6.6	0.0	0.3	1.00
112	2021	ifl0	166234	101.6	101.6	6.8	6.8	0.0	0.3	1.00
113	2022	ifl0	122053	101.9	101.9	6.7	6.7	0.0	0.3	1.00
114	2023	ifl0	234	101.7	101.8	6.4	6.4	-0.1	0.4	1.00
115	2015	ifl1	169966	93.4	92.9	6.6	6.6	0.5	0.6	1.00
116	2016	ifl1	164123	95.1	94.7	7.1	7.2	0.4	0.7	1.00
117	2017	ifl1	148752	96.4	96.2	7.3	7.3	0.2	0.6	1.00
118	2018	ifl1	143103	97.8	97.7	7.2	7.2	0.2	0.6	1.00
119	2019	ifl1	136273	98.2	98.2	7.2	7.2	0.0	0.6	1.00
120	2020	ifl1	136957	100.0	100.1	7.2	7.2	0.0	0.6	1.00
121	2021	ifl1	91748	101.0	101.0	6.8	6.8	0.0	0.6	1.00
122	2022	ifl1	524	101.6	101.8	6.6	6.5	-0.2	0.7	0.99
123	2015	ifl2	130220	92.9	92.7	7.1	7.1	0.2	0.5	1.00
124	2016	ifl2	127950	94.8	94.7	7.8	7.8	0.1	0.5	1.00
125	2017	ifl2	117499	96.4	96.3	8.0	8.0	0.1	0.4	1.00
126	2018	ifl2	112776	97.9	97.8	8.0	8.0	0.1	0.4	1.00
127	2019	ifl2	107015	98.3	98.3	7.7	7.7	0.0	0.4	1.00
128	2020	ifl2	69013	100.8	100.8	7.7	7.7	0.0	0.4	1.00
129	2021	ifl2	815	102.8	102.8	7.1	7.1	0.0	0.4	1.00
130	2015	ifl3	85982	93.3	93.1	7.3	7.3	0.2	0.4	1.00
131	2016	ifl3	86209	95.1	95.0	7.8	7.8	0.1	0.4	1.00
132	2017	ifl3	79767	96.9	96.9	8.2	8.2	0.1	0.4	1.00
133	2018	ifl3	76682	98.5	98.5	8.2	8.2	0.0	0.4	1.00
134	2019	ifl3	44146	99.7	99.7	7.6	7.6	0.0	0.4	1.00
135	2020	ifl3	795	102.3	102.3	7.8	7.8	0.0	0.4	1.00
136	2015	ifl	214578	92.6	92.3	6.8	6.8	0.3	0.5	1.00
137	2016	ifl	207461	94.4	94.2	7.4	7.4	0.2	0.5	1.00
138	2017	ifl	185749	96.0	95.8	7.7	7.7	0.1	0.5	1.00
139	2018	ifl	177597	97.5	97.4	7.7	7.7	0.1	0.5	1.00
140	2019	ifl	169260	98.0	98.0	7.4	7.4	0.0	0.4	1.00
141	2020	ifl	171640	100.0	100.0	7.4	7.4	0.0	0.4	1.00
142	2021	ifl	177644	100.7	100.8	6.6	6.6	0.0	0.5	1.00
143	2022	ifl	122155	102.0	102.1	6.6	6.6	0.0	0.6	1.00
144	2023	ifl	234	100.9	101.0	6.6	6.6	-0.1	0.6	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2015	ais0	184076	97.3	97.3	6.8	6.8	0.0	0.1	1.00
146	2016	ais0	179080	98.3	98.3	7.4	7.4	0.0	0.1	1.00
147	2017	ais0	158875	99.0	99.0	7.4	7.4	0.0	0.1	1.00
148	2018	ais0	152626	98.0	97.9	7.1	7.1	0.0	0.1	1.00
149	2019	ais0	147184	99.2	99.2	7.2	7.2	0.0	0.1	1.00
150	2020	ais0	150164	100.0	100.0	6.7	6.7	0.0	0.1	1.00
151	2021	ais0	167401	101.2	101.2	6.7	6.7	0.0	0.1	1.00
152	2022	ais0	123893	101.1	101.1	6.7	6.7	0.0	0.1	1.00
153	2023	ais0	233	101.1	101.1	7.1	7.1	0.0	0.1	1.00
154	2015	ais1	167555	95.5	95.5	6.5	6.5	0.0	0.1	1.00
155	2016	ais1	161863	96.8	96.7	7.0	7.0	0.0	0.1	1.00
156	2017	ais1	146816	98.0	98.0	7.0	7.0	0.0	0.1	1.00
157	2018	ais1	141215	98.5	98.5	6.8	6.8	0.0	0.1	1.00
158	2019	ais1	134588	98.7	98.7	7.0	7.0	0.0	0.1	1.00
159	2020	ais1	135424	100.1	100.1	6.9	6.9	0.0	0.1	1.00
160	2021	ais1	86330	100.5	100.5	6.5	6.5	0.0	0.1	1.00
161	2022	ais1	101	101.0	100.9	6.9	6.9	0.0	0.2	1.00
162	2015	ais2	128203	95.4	95.4	7.2	7.2	0.0	0.1	1.00
163	2016	ais2	126067	96.8	96.8	7.7	7.7	0.0	0.1	1.00
164	2017	ais2	115838	98.1	98.1	7.6	7.6	0.0	0.1	1.00
165	2018	ais2	111226	98.4	98.4	7.5	7.5	0.0	0.1	1.00
166	2019	ais2	105599	98.7	98.7	7.5	7.5	0.0	0.1	1.00
167	2020	ais2	64230	100.6	100.6	7.3	7.3	0.0	0.1	1.00
168	2021	ais2	259	102.1	102.1	6.6	6.6	0.0	0.1	1.00
169	2015	ais3	84288	96.1	96.1	7.2	7.2	0.0	0.2	1.00
170	2016	ais3	84620	97.4	97.4	7.6	7.6	0.0	0.1	1.00
171	2017	ais3	78300	98.7	98.7	7.6	7.6	0.0	0.1	1.00
172	2018	ais3	75200	98.9	98.9	7.6	7.6	0.0	0.1	1.00
173	2019	ais3	40798	99.8	99.8	7.5	7.5	0.0	0.1	1.00
174	2020	ais3	323	101.7	101.7	6.7	6.7	0.0	0.2	1.00
175	2015	ais	214289	95.3	95.3	6.6	6.6	0.0	0.1	1.00
176	2016	ais	207366	96.6	96.6	7.1	7.1	0.0	0.1	1.00
177	2017	ais	185673	97.9	97.9	7.1	7.1	0.0	0.1	1.00
178	2018	ais	177502	98.2	98.2	6.9	6.9	0.0	0.1	1.00
179	2019	ais	169205	98.6	98.6	7.0	7.0	0.0	0.1	1.00
180	2020	ais	171578	100.1	100.1	6.7	6.7	0.0	0.1	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2021	ais	178780	100.5	100.5	6.1	6.1	0.0	0.1	1.00
182	2022	ais	123935	101.3	101.3	6.1	6.1	0.0	0.2	1.00
183	2023	ais	233	100.4	100.4	6.1	6.1	0.0	0.1	1.00
184	2015	hst0	34740	99.8	99.6	7.1	7.1	0.2	0.5	1.00
185	2016	hst0	33941	99.5	99.4	7.1	7.1	0.1	0.4	1.00
186	2017	hst0	32054	99.5	99.4	7.4	7.4	0.1	0.4	1.00
187	2018	hst0	32277	99.5	99.4	7.1	7.1	0.1	0.4	1.00
188	2019	hst0	31492	99.7	99.7	7.2	7.2	0.0	0.4	1.00
189	2020	hst0	32611	99.0	99.0	6.6	6.6	0.0	0.4	1.00
190	2021	hst0	31612	99.0	99.0	6.5	6.5	-0.1	0.4	1.00
191	2022	hst0	19737	98.5	98.7	6.2	6.2	-0.1	0.5	1.00
192	2023	hst0	2	.	.	.	.	.	.	1.00
193	2015	hst1	33675	97.3	97.1	6.8	6.8	0.2	0.5	1.00
194	2016	hst1	32617	97.7	97.5	6.8	6.8	0.1	0.4	1.00
195	2017	hst1	31356	97.8	97.7	6.8	6.8	0.1	0.4	1.00
196	2018	hst1	31507	98.6	98.5	6.9	6.9	0.1	0.4	1.00
197	2019	hst1	30259	98.5	98.4	6.7	6.7	0.1	0.4	1.00
198	2020	hst1	31583	98.3	98.3	6.5	6.5	0.0	0.4	1.00
199	2021	hst1	15948	98.5	98.6	6.1	6.1	-0.1	0.4	1.00
200	2022	hst1	11	.	.	.	.	.	.	0.99
201	2015	hst2	24709	96.6	96.6	7.4	7.4	0.1	0.3	1.00
202	2016	hst2	24479	97.4	97.3	7.4	7.4	0.0	0.3	1.00
203	2017	hst2	23802	97.6	97.5	7.4	7.4	0.0	0.3	1.00
204	2018	hst2	23822	98.5	98.5	7.3	7.3	0.0	0.3	1.00
205	2019	hst2	22256	98.6	98.6	7.0	7.0	0.0	0.3	1.00
206	2020	hst2	11612	99.1	99.1	7.0	7.0	0.0	0.3	1.00
207	2021	hst2	29	101.2	101.3	5.7	5.7	-0.1	0.4	1.00
208	2015	hst3	15543	97.4	97.4	7.4	7.4	0.0	0.2	1.00
209	2016	hst3	15569	97.7	97.7	7.3	7.3	0.0	0.2	1.00
210	2017	hst3	15047	97.8	97.8	7.2	7.2	0.0	0.2	1.00
211	2018	hst3	14428	98.8	98.8	7.4	7.4	0.0	0.3	1.00
212	2019	hst3	6472	99.1	99.1	7.0	7.0	0.0	0.3	1.00
213	2020	hst3	39	98.3	98.3	6.9	6.9	0.0	0.2	1.00
214	2015	hst	44629	96.6	96.5	6.9	6.9	0.1	0.3	1.00
215	2016	hst	43311	97.1	97.0	6.9	6.9	0.1	0.3	1.00
216	2017	hst	41219	97.2	97.2	6.8	6.8	0.0	0.3	1.00

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2018	hst	40737	98.2	98.1	7.0	7.0	0.0	0.3	1.00
218	2019	hst	38756	98.2	98.2	6.6	6.6	0.0	0.3	1.00
219	2020	hst	39874	98.3	98.3	6.4	6.4	0.0	0.3	1.00
220	2021	hst	34725	98.4	98.4	6.0	5.9	0.0	0.3	1.00
221	2022	hst	19743	98.5	98.6	5.7	5.7	-0.1	0.4	1.00
222	2023	hst	2	.	.	.	.	.	.	1.00
223	2015	fert	178446	93.2	92.9	6.8	6.8	0.2	0.5	1.00
224	2016	fert	172289	94.9	94.7	7.4	7.4	0.2	0.5	1.00
225	2017	fert	155772	96.4	96.3	7.7	7.7	0.1	0.4	1.00
226	2018	fert	149505	97.7	97.6	7.5	7.5	0.1	0.4	1.00
227	2019	fert	141681	98.1	98.1	7.4	7.4	0.0	0.4	1.00
228	2020	fert	140206	100.1	100.1	7.3	7.3	0.0	0.4	1.00
229	2021	fert	89669	100.7	100.8	6.8	6.8	0.0	0.4	1.00
230	2022	fert	131	100.8	100.8	7.1	7.1	-0.1	0.5	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-5	.	.	.	3	.	.	1
2	-4	.	.	5	8	.	.	5
3	-3	.	5	59	124	.	1	22
4	-2	.	554	1040	2907	.	18	537
5	-1	2	73812	52788	101439	13605	10978	51607
6	0	1416767	1227087	859358	1079000	1404959	273632	829372
7	1	7	135865	113580	238894	9997	18365	145202
8	2	.	591	838	3826	.	2	931
9	3	.	25	28	95	.	.	12
10	4	.	.	3	14	.	.	10
11	5	.	.	.	8	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-5	.	.	.	0	.	.	0
2	-4	.	.	0	0	.	.	0
3	-3	.	0	0	0	.	0	0
4	-2	.	0	0	0	.	0	0
5	-1	0	5	5	7	1	4	5
6	0	100	85	84	76	98	90	81
7	1	0	9	11	17	1	6	14
8	2	.	0	0	0	.	0	0

HOL breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
9	3	.	0	0	0	.	.	0
10	4	.	.	0	0	.	.	0
11	5	.	.	.	0	.	.	.

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2010	cr0	165	261	620	92.9	93.0	9.2	9.2	-0.1	0.3	1
2	2011	cr0	168	323	692	94.2	94.3	9.0	9.0	-0.1	0.2	1
3	2012	cr0	169	309	560	98.7	98.8	8.4	8.4	-0.1	0.3	1
4	2013	cr0	122	436	725	97.5	97.5	9.4	9.4	0.0	0.2	1
5	2014	cr0	85	665	955	98.0	98.1	11.6	11.7	-0.1	0.3	1
6	2015	cr0	71	735	898	101.7	101.7	10.4	10.4	0.0	0.2	1
7	2016	cr0	70	710	1010	100.0	100.1	9.4	9.3	-0.1	0.3	1
8	2017	cr0	66	797	1103	103.8	103.9	11.2	11.2	-0.1	0.3	1
9	2018	cr0	52	863	1218	101.8	101.9	10.0	10.0	-0.1	0.2	1
10	2019	cr0	49	555	620	103.8	103.8	11.2	11.2	0.0	0.2	1
11	2020	cr0	23	100	121	103.1	103.3	7.6	7.8	-0.2	0.4	1
12	2010	cr1	165	216	513	88.0	88.3	8.5	8.6	-0.3	0.5	1
13	2011	cr1	168	262	564	92.0	92.3	9.3	9.3	-0.2	0.4	1
14	2012	cr1	169	252	459	94.9	95.1	9.1	9.1	-0.3	0.4	1
15	2013	cr1	122	358	597	95.3	95.5	8.9	8.9	-0.3	0.4	1
16	2014	cr1	85	545	789	96.8	97.2	9.7	9.8	-0.4	0.5	1
17	2015	cr1	71	595	734	100.4	100.7	9.5	9.5	-0.3	0.5	1
18	2016	cr1	70	575	825	99.0	99.3	10.4	10.4	-0.3	0.4	1
19	2017	cr1	66	632	874	101.8	102.2	11.2	11.2	-0.3	0.5	1
20	2018	cr1	51	453	669	102.7	102.9	11.0	11.0	-0.2	0.4	1
21	2019	cr1	15	107	101	100.0	100.5	9.9	9.7	-0.5	0.5	1
22	2010	cr2	165	154	378	88.7	88.9	8.1	8.2	-0.2	0.4	1
23	2011	cr2	168	188	408	92.4	92.7	9.3	9.4	-0.2	0.4	1
24	2012	cr2	169	186	342	94.7	94.9	9.2	9.2	-0.3	0.4	1
25	2013	cr2	122	265	446	95.3	95.5	8.6	8.7	-0.2	0.4	1
26	2014	cr2	84	410	590	97.0	97.3	9.8	9.9	-0.3	0.4	1
27	2015	cr2	71	447	571	99.8	100.1	9.1	9.1	-0.3	0.5	1
28	2016	cr2	70	411	595	99.1	99.3	10.1	10.2	-0.2	0.4	1
29	2017	cr2	64	323	441	101.2	101.4	10.8	10.8	-0.3	0.5	1
30	2018	cr2	19	70	73	103.7	104.1	12.2	12.4	-0.4	0.5	1
31	2010	cr3	159	101	258	89.1	89.2	8.3	8.5	-0.1	0.4	1
32	2011	cr3	162	122	260	93.0	93.1	9.6	9.7	-0.1	0.4	1
33	2012	cr3	165	122	220	94.6	94.8	9.2	9.3	-0.2	0.4	1
34	2013	cr3	116	181	296	95.8	95.9	8.3	8.4	-0.2	0.4	1
35	2014	cr3	84	258	366	97.2	97.5	9.8	10.0	-0.3	0.5	1
36	2015	cr3	71	278	360	99.8	100.0	8.9	9.0	-0.2	0.4	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2016	cr3	61	200	296	99.9	100.3	9.4	9.7	-0.3	0.5	1
38	2017	cr3	19	60	61	99.6	99.9	12.1	12.2	-0.3	0.5	1
39	2010	cr	165	279	658	88.3	88.5	8.4	8.5	-0.2	0.4	1
40	2011	cr	168	347	739	92.2	92.4	9.5	9.6	-0.2	0.4	1
41	2012	cr	169	332	598	94.6	94.8	9.3	9.4	-0.2	0.4	1
42	2013	cr	122	467	768	95.1	95.3	8.7	8.9	-0.2	0.4	1
43	2014	cr	85	711	1016	97.0	97.2	10.0	10.1	-0.3	0.4	1
44	2015	cr	71	785	952	99.9	100.2	9.3	9.3	-0.3	0.4	1
45	2016	cr	70	754	1067	99.1	99.4	10.3	10.4	-0.3	0.4	1
46	2017	cr	66	843	1160	101.4	101.6	10.8	10.8	-0.3	0.4	1
47	2018	cr	52	886	1248	101.9	102.3	10.7	10.6	-0.5	0.5	1
48	2019	cr	49	556	622	104.9	105.1	8.4	8.4	-0.2	0.4	1
49	2020	cr	23	100	121	105.4	105.7	8.8	8.9	-0.3	0.5	1
50	2010	nrr0	165	247	588	96.8	96.7	8.3	8.2	0.1	0.4	1
51	2011	nrr0	168	303	649	97.7	97.7	9.2	9.1	0.0	0.4	1
52	2012	nrr0	169	293	530	100.9	100.8	8.9	8.8	0.1	0.4	1
53	2013	nrr0	122	412	683	99.6	99.6	9.3	9.2	0.1	0.3	1
54	2014	nrr0	85	628	906	99.7	99.6	12.2	12.1	0.1	0.4	1
55	2015	nrr0	71	698	858	102.1	102.0	10.8	10.6	0.1	0.5	1
56	2016	nrr0	70	674	963	100.3	100.3	9.3	9.2	0.1	0.2	1
57	2017	nrr0	66	758	1055	102.4	102.3	10.9	10.8	0.0	0.4	1
58	2018	nrr0	52	840	1192	99.1	99.1	9.7	9.6	0.0	0.5	1
59	2019	nrr0	50	637	692	100.2	100.1	11.4	11.3	0.1	0.5	1
60	2020	nrr0	35	191	259	100.6	100.5	8.2	7.9	0.1	0.6	1
61	2010	nrr1	165	208	496	91.9	91.8	8.8	8.9	0.0	0.6	1
62	2011	nrr1	168	252	544	94.8	94.8	10.2	10.3	0.0	0.6	1
63	2012	nrr1	169	243	443	97.1	97.1	9.3	9.5	0.0	0.5	1
64	2013	nrr1	122	346	576	97.4	97.4	8.1	8.2	-0.1	0.4	1
65	2014	nrr1	85	528	765	98.8	98.9	10.3	10.3	-0.1	0.5	1
66	2015	nrr1	71	578	711	100.9	101.0	9.1	9.2	-0.1	0.4	1
67	2016	nrr1	70	558	799	99.4	99.7	10.8	11.0	-0.3	0.5	1
68	2017	nrr1	66	624	867	100.5	100.8	10.6	10.7	-0.2	0.5	1
69	2018	nrr1	52	517	752	100.9	101.1	9.9	10.1	-0.2	0.5	1
70	2019	nrr1	22	178	184	100.5	100.5	8.0	8.2	0.0	0.6	1
71	2010	nrr2	165	149	366	91.6	91.8	8.8	8.8	-0.1	0.4	1
72	2011	nrr2	168	182	395	94.0	94.1	10.8	10.7	-0.1	0.4	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2012	nrr2	169	180	331	96.3	96.5	9.4	9.3	-0.2	0.4	1
74	2013	nrr2	122	257	433	95.6	95.8	8.8	8.7	-0.2	0.4	1
75	2014	nrr2	84	397	571	98.6	98.8	11.7	11.6	-0.2	0.4	1
76	2015	nrr2	71	432	554	99.4	99.5	9.6	9.5	-0.1	0.4	1
77	2016	nrr2	70	406	584	99.2	99.4	12.1	12.0	-0.2	0.4	1
78	2017	nrr2	65	372	513	99.4	99.5	10.8	10.6	-0.2	0.5	1
79	2018	nrr2	31	119	155	99.0	99.2	12.9	12.7	-0.1	0.4	1
80	2010	nrr3	158	98	250	91.0	91.4	10.1	9.8	-0.5	0.6	1
81	2011	nrr3	160	120	254	94.2	94.5	12.1	11.6	-0.3	0.6	1
82	2012	nrr3	165	118	214	96.4	96.7	10.2	9.8	-0.3	0.6	1
83	2013	nrr3	114	177	287	96.4	96.6	9.0	8.6	-0.3	0.5	1
84	2014	nrr3	84	250	354	98.8	99.0	12.4	11.9	-0.2	0.6	1
85	2015	nrr3	71	275	358	100.2	100.4	10.2	9.9	-0.2	0.5	1
86	2016	nrr3	67	211	316	98.8	99.0	12.1	11.7	-0.2	0.6	1
87	2017	nrr3	32	91	106	98.8	98.9	12.7	12.2	-0.2	0.6	1
88	2010	nrr	165	275	647	91.3	91.5	9.0	8.9	-0.2	0.5	1
89	2011	nrr	168	341	724	94.2	94.3	10.8	10.7	-0.2	0.5	1
90	2012	nrr	169	326	588	96.7	96.7	9.5	9.4	0.0	0.4	1
91	2013	nrr	122	459	756	96.2	96.3	8.4	8.3	-0.1	0.4	1
92	2014	nrr	85	698	1001	98.7	98.9	11.3	11.2	-0.2	0.4	1
93	2015	nrr	71	774	941	100.3	100.4	9.5	9.3	-0.1	0.4	1
94	2016	nrr	70	742	1053	99.2	99.4	11.5	11.3	-0.2	0.4	1
95	2017	nrr	66	833	1153	100.0	100.2	10.5	10.4	-0.2	0.5	1
96	2018	nrr	52	890	1258	100.2	100.2	10.6	10.6	-0.1	0.4	1
97	2019	nrr	50	643	700	102.8	102.9	7.5	7.5	-0.1	0.5	1
98	2020	nrr	35	191	259	102.2	102.3	7.2	7.2	-0.1	0.5	1
99	2010	icf1	165	210	500	96.4	96.8	8.9	8.9	-0.4	0.5	1
100	2011	icf1	168	254	548	96.9	97.4	9.8	9.8	-0.5	0.5	1
101	2012	icf1	169	245	447	96.9	97.3	9.1	8.9	-0.4	0.5	1
102	2013	icf1	122	349	582	99.5	99.9	8.9	8.9	-0.4	0.5	1
103	2014	icf1	85	532	772	97.4	97.7	8.5	8.5	-0.4	0.5	1
104	2015	icf1	71	583	718	99.2	99.5	10.5	10.6	-0.3	0.5	1
105	2016	icf1	70	563	806	98.1	98.4	8.0	8.0	-0.3	0.5	1
106	2017	icf1	66	630	875	99.3	99.5	9.6	9.6	-0.2	0.4	1
107	2018	icf1	52	519	754	101.3	101.5	9.5	9.5	-0.2	0.5	1
108	2019	icf1	22	166	178	99.7	99.9	6.5	6.6	-0.2	0.5	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2010	icf2	165	150	370	97.5	98.0	10.3	10.1	-0.5	0.5	1
110	2011	icf2	168	184	399	98.0	98.4	11.3	11.0	-0.5	0.5	1
111	2012	icf2	169	182	335	97.4	97.8	10.7	10.4	-0.4	0.5	1
112	2013	icf2	122	260	438	100.7	101.0	10.2	10.0	-0.3	0.5	1
113	2014	icf2	84	401	577	97.5	97.9	11.1	10.9	-0.4	0.5	1
114	2015	icf2	71	437	560	99.9	100.2	12.0	11.8	-0.3	0.5	1
115	2016	icf2	70	410	591	98.1	98.4	9.4	9.2	-0.3	0.4	1
116	2017	icf2	65	373	513	100.1	100.3	10.6	10.4	-0.2	0.5	1
117	2018	icf2	28	118	146	103.8	103.9	8.9	8.7	-0.1	0.5	1
118	2010	icf3	159	99	252	97.7	98.1	11.0	10.6	-0.4	0.6	1
119	2011	icf3	160	121	257	97.9	98.4	11.7	11.3	-0.4	0.6	1
120	2012	icf3	165	119	217	96.8	97.2	10.8	10.4	-0.4	0.6	1
121	2013	icf3	115	178	291	100.8	101.1	11.1	10.7	-0.3	0.6	1
122	2014	icf3	84	254	359	98.0	98.4	11.5	11.1	-0.4	0.6	1
123	2015	icf3	71	279	363	99.2	99.5	12.6	12.1	-0.3	0.6	1
124	2016	icf3	67	214	320	98.7	99.0	9.8	9.5	-0.3	0.6	1
125	2017	icf3	31	84	99	99.7	99.9	10.0	9.7	-0.2	0.5	1
126	2010	icf	165	218	519	97.1	97.5	10.1	9.8	-0.4	0.6	1
127	2011	icf	168	265	571	97.4	97.9	10.9	10.6	-0.5	0.5	1
128	2012	icf	169	256	465	97.0	97.5	9.9	9.7	-0.5	0.5	1
129	2013	icf	122	364	605	100.4	100.7	9.9	9.7	-0.4	0.5	1
130	2014	icf	85	553	800	97.6	98.0	10.2	10.0	-0.3	0.5	1
131	2015	icf	71	606	747	99.4	99.6	11.5	11.3	-0.3	0.5	1
132	2016	icf	70	584	835	98.3	98.6	8.9	8.6	-0.2	0.5	1
133	2017	icf	66	647	899	99.7	100.0	10.2	10.0	-0.3	0.4	1
134	2018	icf	52	522	759	101.1	101.3	9.4	9.2	-0.2	0.4	1
135	2019	icf	22	166	178	100.3	100.4	7.8	7.6	-0.1	0.5	1
136	2010	ifl0	165	237	565	95.9	96.0	10.3	10.2	-0.1	0.4	1
137	2011	ifl0	168	291	624	97.0	97.1	9.2	9.0	-0.1	0.4	1
138	2012	ifl0	169	282	512	100.7	100.8	8.6	8.6	-0.1	0.4	1
139	2013	ifl0	122	397	660	98.6	98.7	9.6	9.4	-0.1	0.4	1
140	2014	ifl0	85	603	869	99.1	99.1	12.2	12.1	0.0	0.3	1
141	2015	ifl0	71	674	827	101.9	101.9	11.5	11.3	-0.1	0.4	1
142	2016	ifl0	70	648	926	100.3	100.2	10.6	10.5	0.0	0.3	1
143	2017	ifl0	66	733	1021	102.6	102.6	10.9	10.8	0.0	0.3	1
144	2018	ifl0	52	814	1158	100.6	100.6	10.9	10.8	-0.1	0.3	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2019	ifl0	50	621	673	101.6	101.7	11.8	11.7	-0.1	0.3	1
146	2020	ifl0	35	189	255	101.6	101.6	7.9	7.8	0.0	0.5	1
147	2010	ifl1	165	209	498	91.1	91.4	9.2	9.3	-0.3	0.5	1
148	2011	ifl1	168	253	545	94.5	94.7	9.5	9.6	-0.2	0.5	1
149	2012	ifl1	169	244	444	96.2	96.5	9.6	9.6	-0.3	0.6	1
150	2013	ifl1	122	348	580	97.2	97.4	9.2	9.2	-0.2	0.5	1
151	2014	ifl1	85	530	768	97.1	97.4	9.1	9.2	-0.3	0.5	1
152	2015	ifl1	71	581	715	100.5	100.8	10.3	10.5	-0.3	0.5	1
153	2016	ifl1	70	559	801	97.9	98.3	10.5	10.6	-0.3	0.5	1
154	2017	ifl1	66	628	873	100.5	100.8	11.1	11.2	-0.3	0.5	1
155	2018	ifl1	52	521	759	100.9	101.2	10.5	10.6	-0.3	0.6	1
156	2019	ifl1	22	181	186	100.7	100.8	8.4	8.6	-0.1	0.7	1
157	2010	ifl2	165	150	368	92.5	92.9	8.9	8.9	-0.4	0.5	1
158	2011	ifl2	168	183	397	95.1	95.4	9.7	9.6	-0.3	0.5	1
159	2012	ifl2	169	181	333	96.5	96.8	9.8	9.7	-0.4	0.5	1
160	2013	ifl2	122	259	436	97.3	97.6	9.2	9.2	-0.3	0.5	1
161	2014	ifl2	84	399	574	97.5	97.8	9.5	9.4	-0.2	0.4	1
162	2015	ifl2	71	435	557	99.9	100.2	9.5	9.4	-0.3	0.5	1
163	2016	ifl2	70	409	588	98.5	98.6	10.2	10.1	-0.2	0.4	1
164	2017	ifl2	65	375	518	100.1	100.3	10.5	10.4	-0.2	0.5	1
165	2018	ifl2	31	120	156	100.8	101.0	10.5	10.3	-0.2	0.5	1
166	2010	ifl3	159	98	251	92.8	93.2	9.6	9.5	-0.4	0.5	1
167	2011	ifl3	160	121	256	95.4	95.7	10.0	9.9	-0.3	0.5	1
168	2012	ifl3	165	119	216	96.5	96.8	10.0	9.9	-0.3	0.5	1
169	2013	ifl3	115	178	289	97.8	98.2	9.2	9.1	-0.4	0.5	1
170	2014	ifl3	84	253	358	97.9	98.1	9.8	9.5	-0.3	0.4	1
171	2015	ifl3	71	278	362	100.1	100.4	9.6	9.5	-0.2	0.4	1
172	2016	ifl3	67	215	321	98.4	98.8	10.4	10.2	-0.4	0.5	1
173	2017	ifl3	32	93	108	99.3	99.7	11.9	11.7	-0.3	0.5	1
174	2010	ifl	165	272	641	92.0	92.3	9.4	9.3	-0.3	0.5	1
175	2011	ifl	168	337	719	94.7	95.0	10.0	9.9	-0.3	0.5	1
176	2012	ifl	169	323	584	96.3	96.7	9.9	9.9	-0.3	0.5	1
177	2013	ifl	122	455	749	97.3	97.5	9.3	9.3	-0.3	0.5	1
178	2014	ifl	85	692	992	97.5	97.8	9.6	9.5	-0.3	0.4	1
179	2015	ifl	71	766	932	100.3	100.5	9.9	9.9	-0.2	0.4	1
180	2016	ifl	70	735	1042	98.2	98.6	10.4	10.3	-0.3	0.5	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2017	ifl	66	826	1143	100.3	100.7	10.5	10.4	-0.3	0.6	1
182	2018	ifl	52	875	1238	100.7	100.9	10.2	10.0	-0.3	0.6	1
183	2019	ifl	50	628	681	104.3	104.5	7.6	7.5	-0.2	0.6	1
184	2020	ifl	35	189	255	104.2	104.6	7.0	6.9	-0.4	0.5	1
185	2010	ais0	165	243	578	96.7	96.7	9.1	9.1	0.0	0.2	1
186	2011	ais0	168	297	636	97.9	97.9	9.2	9.2	0.0	0.2	1
187	2012	ais0	169	287	520	100.9	100.9	8.6	8.6	0.0	0.2	1
188	2013	ais0	122	404	671	99.7	99.6	9.0	8.9	0.1	0.3	1
189	2014	ais0	85	617	890	99.1	99.1	12.1	12.1	0.0	0.2	1
190	2015	ais0	71	688	843	101.8	101.8	10.9	10.9	0.1	0.3	1
191	2016	ais0	70	662	946	99.1	99.1	9.1	9.1	0.0	0.2	1
192	2017	ais0	66	747	1038	101.6	101.6	11.3	11.3	0.0	0.2	1
193	2018	ais0	52	830	1177	99.4	99.4	9.8	9.7	0.0	0.2	1
194	2019	ais0	50	638	692	99.6	99.5	10.8	10.8	0.1	0.2	1
195	2020	ais0	35	191	259	99.3	99.2	7.9	7.9	0.1	0.3	1
196	2010	ais1	165	206	491	91.8	91.9	9.1	9.3	-0.1	0.4	1
197	2011	ais1	168	249	539	95.3	95.3	9.4	9.5	-0.1	0.3	1
198	2012	ais1	169	241	440	96.9	97.1	9.3	9.4	-0.1	0.4	1
199	2013	ais1	122	343	571	97.4	97.5	9.0	9.2	-0.1	0.4	1
200	2014	ais1	85	524	759	97.8	97.9	10.6	10.6	-0.1	0.3	1
201	2015	ais1	71	573	706	100.8	101.0	9.6	9.7	-0.2	0.4	1
202	2016	ais1	70	553	792	97.5	97.6	10.9	11.0	-0.1	0.3	1
203	2017	ais1	66	620	861	100.0	100.0	11.9	12.0	0.0	0.3	1
204	2018	ais1	52	508	742	100.2	100.4	11.1	11.3	-0.2	0.4	1
205	2019	ais1	22	157	173	100.5	100.6	8.4	8.5	-0.2	0.4	1
206	2010	ais2	165	147	363	93.5	93.6	8.8	8.8	-0.1	0.3	1
207	2011	ais2	167	182	393	96.2	96.3	9.8	9.8	-0.1	0.3	1
208	2012	ais2	169	178	329	97.4	97.4	9.4	9.4	-0.1	0.2	1
209	2013	ais2	121	257	431	97.3	97.4	9.0	9.0	-0.1	0.3	1
210	2014	ais2	84	394	566	98.5	98.6	10.6	10.6	-0.1	0.3	1
211	2015	ais2	71	429	550	99.7	99.8	9.3	9.3	-0.1	0.2	1
212	2016	ais2	70	403	580	98.3	98.4	10.4	10.3	-0.2	0.4	1
213	2017	ais2	65	365	504	99.1	99.1	10.5	10.5	-0.1	0.3	1
214	2018	ais2	28	113	140	98.2	98.4	11.8	11.7	-0.2	0.4	1
215	2010	ais3	158	97	248	93.4	93.5	9.7	9.6	-0.1	0.3	1
216	2011	ais3	160	119	251	95.9	96.0	10.8	10.6	-0.1	0.4	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2012	ais3	164	117	213	97.2	97.2	9.7	9.6	-0.1	0.3	1
218	2013	ais3	114	176	285	98.0	98.0	8.9	8.8	-0.1	0.3	1
219	2014	ais3	84	248	352	98.8	98.8	11.2	11.2	0.0	0.2	1
220	2015	ais3	71	273	356	100.3	100.4	9.4	9.4	-0.1	0.2	1
221	2016	ais3	67	208	312	98.4	98.6	10.5	10.4	-0.1	0.4	1
222	2017	ais3	30	83	95	98.6	98.7	11.8	11.6	-0.1	0.3	1
223	2010	ais	165	273	645	92.9	92.8	9.0	9.0	0.0	0.2	1
224	2011	ais	168	339	721	95.7	95.7	10.0	10.0	0.1	0.3	1
225	2012	ais	169	325	586	97.3	97.2	9.4	9.4	0.1	0.2	1
226	2013	ais	122	457	752	97.4	97.4	8.9	9.0	0.1	0.2	1
227	2014	ais	85	695	997	98.5	98.4	10.8	10.8	0.1	0.3	1
228	2015	ais	71	771	937	100.5	100.5	9.3	9.3	0.0	0.1	1
229	2016	ais	70	740	1048	98.2	98.2	10.4	10.5	0.0	0.2	1
230	2017	ais	66	830	1147	99.5	99.4	10.5	10.6	0.2	0.4	1
231	2018	ais	52	886	1250	99.4	99.3	10.0	10.1	0.1	0.3	1
232	2019	ais	50	644	699	102.5	102.5	6.9	6.9	0.1	0.3	1
233	2020	ais	35	191	259	101.2	101.2	7.8	7.8	0.1	0.2	1
234	2010	hst0	75	167	261	100.6	100.9	9.2	9.1	-0.3	0.5	1
235	2011	hst0	103	200	363	96.8	97.0	9.5	9.4	-0.2	0.4	1
236	2012	hst0	85	192	258	100.4	100.6	11.4	11.3	-0.2	0.4	1
237	2013	hst0	71	259	382	100.4	100.7	9.9	9.9	-0.3	0.5	1
238	2014	hst0	64	302	379	98.5	98.7	9.8	9.7	-0.2	0.4	1
239	2015	hst0	55	293	348	99.5	99.5	10.1	10.1	-0.1	0.4	1
240	2016	hst0	60	290	386	103.3	103.5	8.3	8.2	-0.2	0.4	1
241	2017	hst0	56	326	397	101.5	101.6	8.4	8.4	0.0	0.3	1
242	2018	hst0	45	373	521	103.6	103.7	10.2	10.2	-0.1	0.3	1
243	2019	hst0	41	247	289	104.2	104.4	9.2	9.1	-0.1	0.5	1
244	2020	hst0	22	85	89	102.8	102.8	8.9	9.0	0.0	0.5	1
245	2010	hst1	74	148	226	100.4	100.7	8.6	8.7	-0.3	0.5	1
246	2011	hst1	101	176	316	96.6	96.9	9.3	9.4	-0.3	0.4	1
247	2012	hst1	84	170	226	98.0	98.3	10.1	10.1	-0.3	0.4	1
248	2013	hst1	71	228	334	100.2	100.5	10.3	10.4	-0.4	0.5	1
249	2014	hst1	64	271	336	97.4	97.7	8.4	8.5	-0.3	0.5	1
250	2015	hst1	54	264	309	99.4	99.6	9.5	9.5	-0.2	0.4	1
251	2016	hst1	60	250	329	101.9	102.3	8.3	8.3	-0.4	0.5	1
252	2017	hst1	52	296	343	101.3	101.4	8.6	8.6	-0.1	0.3	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
253	2018	hst1	35	277	330	102.9	103.2	10.0	10.3	-0.3	0.5	1
254	2019	hst1	11	75	71	105.2	105.5	8.8	8.7	-0.3	0.5	1
255	2010	hst2	71	102	160	103.3	103.5	8.4	8.4	-0.2	0.4	1
256	2011	hst2	89	136	230	98.8	99.0	11.6	11.6	-0.2	0.4	1
257	2012	hst2	83	122	164	97.8	98.0	12.1	12.1	-0.1	0.3	1
258	2013	hst2	68	171	249	102.5	102.7	10.1	10.1	-0.1	0.3	1
259	2014	hst2	62	201	241	99.2	99.3	11.5	11.5	-0.1	0.3	1
260	2015	hst2	52	200	239	99.3	99.4	9.5	9.6	-0.2	0.4	1
261	2016	hst2	53	193	233	101.0	101.0	11.1	11.1	0.0	0.0	1
262	2017	hst2	47	158	173	102.2	102.3	10.5	10.5	-0.1	0.3	1
263	2018	hst2	15	53	49	102.6	102.7	9.2	9.1	-0.1	0.4	1
264	2010	hst3	61	69	104	104.8	105.0	9.1	9.0	-0.1	0.3	1
265	2011	hst3	80	91	145	99.1	99.3	13.2	13.1	-0.2	0.4	1
266	2012	hst3	80	76	97	98.8	98.9	12.7	12.6	-0.1	0.3	1
267	2013	hst3	66	110	156	102.5	102.5	11.1	11.0	0.0	0.3	1
268	2014	hst3	62	119	138	100.0	100.0	11.4	11.3	0.0	0.3	1
269	2015	hst3	44	135	149	99.1	99.2	8.3	8.3	0.0	0.2	1
270	2016	hst3	37	109	114	102.7	102.8	10.8	10.8	-0.1	0.2	1
271	2017	hst3	10	54	29	106.3	106.3	7.0	7.0	0.0	0.0	1
272	2010	hst	75	202	308	102.5	102.8	7.9	7.9	-0.2	0.4	1
273	2011	hst	104	241	434	98.2	98.5	10.5	10.4	-0.3	0.4	1
274	2012	hst	85	233	310	98.2	98.4	11.2	11.2	-0.2	0.4	1
275	2013	hst	71	314	454	101.7	101.9	10.2	10.1	-0.2	0.4	1
276	2014	hst	65	363	451	98.9	99.0	9.9	9.9	-0.1	0.3	1
277	2015	hst	55	353	411	99.6	99.7	8.5	8.5	-0.2	0.4	1
278	2016	hst	62	331	447	101.5	101.6	9.2	9.2	-0.1	0.3	1
279	2017	hst	56	377	458	101.2	101.3	8.9	8.8	-0.1	0.3	1
280	2018	hst	45	407	563	101.3	101.5	8.9	8.9	-0.2	0.4	1
281	2019	hst	41	250	293	103.9	104.1	6.7	6.6	-0.2	0.4	1
282	2020	hst	22	85	89	102.7	102.8	9.9	9.9	-0.1	0.5	1
283	2010	fert	165	218	519	92.1	92.4	9.4	9.4	-0.3	0.5	1
284	2011	fert	168	265	571	94.8	95.1	9.8	9.8	-0.3	0.5	1
285	2012	fert	169	256	465	96.7	97.0	9.9	9.8	-0.3	0.5	1
286	2013	fert	122	364	605	97.4	97.6	9.2	9.1	-0.2	0.4	1
287	2014	fert	85	553	800	97.5	97.8	9.7	9.7	-0.3	0.5	1
288	2015	fert	71	606	747	100.5	100.6	10.2	10.1	-0.2	0.4	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with minimum 15 offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
289	2016	fert	70	584	835	98.2	98.5	10.4	10.3	-0.2	0.5	1
290	2017	fert	66	647	899	100.4	100.7	11.0	10.9	-0.3	0.5	1
291	2018	fert	52	522	759	100.5	100.7	10.4	10.3	-0.2	0.4	1
292	2019	fert	22	166	178	101.5	101.7	8.9	8.9	-0.2	0.4	1

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-2	.	.	2	.	.	.	.
2	-1	258	185	376	332	.	127	268
3	0	782	826	601	702	989	552	711
4	1	.	42	11	19	64	2	11

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-2	.	.	0	.	.	.	.
2	-1	25	18	38	32	.	19	27
3	0	75	78	61	67	94	81	72
4	1	.	4	1	2	6	0	1

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	cr0	25	.	.	101.8	101.9	9.6	9.6	-0.1	0.3	1.00
2	2020	cr0	33	.	.	104.0	104.1	7.4	7.4	-0.1	0.3	1.00
3	2021	cr0	72	.	.	103.9	104.0	7.7	7.8	-0.1	0.3	1.00
4	2022	cr0	73	.	.	103.4	103.4	7.5	7.5	-0.1	0.2	1.00
5	2023	cr0	51	.	.	104.1	104.2	5.4	5.5	-0.1	0.3	1.00
6	2019	cr1	47	.	.	104.1	104.5	8.5	8.5	-0.3	0.5	1.00
7	2020	cr1	74	.	.	105.6	105.9	7.5	7.5	-0.3	0.5	1.00
8	2021	cr1	72	.	.	107.3	107.5	7.8	7.7	-0.2	0.4	1.00
9	2022	cr1	73	.	.	106.3	106.6	7.9	7.8	-0.3	0.5	1.00
10	2023	cr1	51	.	.	108.0	108.3	6.4	6.4	-0.3	0.4	1.00
11	2019	cr2	77	.	.	103.3	103.6	8.4	8.4	-0.3	0.4	1.00
12	2020	cr2	74	.	.	105.1	105.4	7.5	7.6	-0.3	0.5	1.00
13	2021	cr2	72	.	.	107.4	107.7	7.2	7.3	-0.3	0.5	1.00
14	2022	cr2	73	.	.	105.9	106.3	7.6	7.6	-0.4	0.5	1.00
15	2023	cr2	51	.	.	107.8	108.2	6.4	6.4	-0.4	0.5	1.00
16	2019	cr3	77	.	.	103.3	103.5	8.0	8.0	-0.2	0.4	1.00
17	2020	cr3	74	.	.	104.8	105.0	7.3	7.4	-0.3	0.4	1.00
18	2021	cr3	72	.	.	107.3	107.8	7.0	7.1	-0.5	0.5	1.00
19	2022	cr3	73	.	.	105.6	106.0	7.2	7.2	-0.4	0.5	1.00
20	2023	cr3	51	.	.	107.7	108.0	6.5	6.6	-0.3	0.5	1.00
21	2019	cr	25	.	.	100.9	101.4	8.8	8.7	-0.4	0.5	1.00
22	2020	cr	33	.	.	105.7	106.0	6.9	6.9	-0.3	0.5	1.00
23	2021	cr	72	.	.	107.6	107.9	7.4	7.5	-0.3	0.5	1.00
24	2022	cr	73	.	.	106.1	106.4	7.6	7.7	-0.3	0.5	1.00
25	2023	cr	51	.	.	108.0	108.4	6.6	6.6	-0.4	0.5	1.00
26	2019	nrr0	25	.	.	101.2	101.0	10.5	10.5	0.2	0.4	1.00
27	2020	nrr0	26	.	.	100.9	100.9	7.9	7.9	0.0	0.5	1.00
28	2021	nrr0	71	.	.	100.8	100.8	8.7	8.6	0.0	0.5	1.00
29	2022	nrr0	73	.	.	99.4	99.3	7.2	7.1	0.0	0.5	1.00
30	2023	nrr0	51	.	.	100.0	100.0	6.8	6.7	0.0	0.4	1.00
31	2019	nrr1	34	.	.	100.0	100.0	8.1	8.2	0.1	0.6	1.00
32	2020	nrr1	72	.	.	102.9	103.2	6.3	6.4	-0.3	0.6	1.00
33	2021	nrr1	72	.	.	104.6	105.0	7.8	7.8	-0.3	0.6	1.00
34	2022	nrr1	73	.	.	102.5	102.7	6.8	6.8	-0.2	0.7	0.99
35	2023	nrr1	51	.	.	104.4	104.7	6.8	7.0	-0.3	0.5	1.00
36	2019	nrr2	77	.	.	101.3	101.3	8.3	8.2	0.0	0.5	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2020	nrr2	74	.	.	102.4	102.5	7.5	7.3	-0.1	0.5	1.00
38	2021	nrr2	72	.	.	105.3	105.4	7.3	7.2	-0.1	0.5	1.00
39	2022	nrr2	73	.	.	103.2	103.4	7.5	7.3	-0.2	0.6	1.00
40	2023	nrr2	51	.	.	104.8	104.9	7.5	7.3	-0.1	0.5	1.00
41	2019	nrr3	77	.	.	102.0	102.0	8.2	7.9	-0.1	0.6	1.00
42	2020	nrr3	74	.	.	102.2	102.3	7.1	6.8	-0.1	0.6	1.00
43	2021	nrr3	72	.	.	105.7	105.7	7.3	7.0	0.0	0.5	1.00
44	2022	nrr3	73	.	.	102.9	103.0	7.0	6.8	-0.2	0.5	1.00
45	2023	nrr3	51	.	.	104.9	104.9	7.3	6.9	-0.1	0.6	1.00
46	2019	nrr	25	.	.	99.3	99.5	8.7	8.5	-0.2	0.6	1.00
47	2020	nrr	26	.	.	103.0	103.0	5.6	5.7	0.0	0.6	0.99
48	2021	nrr	71	.	.	105.4	105.5	7.3	7.2	-0.2	0.6	1.00
49	2022	nrr	73	.	.	102.9	103.1	7.0	6.9	-0.2	0.5	1.00
50	2023	nrr	51	.	.	104.8	104.9	7.1	6.9	-0.1	0.6	1.00
51	2019	icf1	37	.	.	101.9	102.2	8.5	8.6	-0.2	0.6	1.00
52	2020	icf1	74	.	.	104.1	104.3	7.7	7.6	-0.2	0.5	1.00
53	2021	icf1	72	.	.	103.5	103.8	5.9	5.9	-0.3	0.6	1.00
54	2022	icf1	73	.	.	104.8	105.1	7.4	7.4	-0.3	0.6	1.00
55	2023	icf1	51	.	.	103.6	103.9	6.7	6.8	-0.3	0.5	1.00
56	2019	icf2	77	.	.	101.8	102.0	8.2	8.0	-0.2	0.5	1.00
57	2020	icf2	74	.	.	103.5	103.7	9.0	8.8	-0.2	0.6	1.00
58	2021	icf2	72	.	.	103.3	103.4	6.6	6.6	-0.2	0.5	1.00
59	2022	icf2	73	.	.	104.7	104.9	7.9	7.8	-0.2	0.5	1.00
60	2023	icf2	51	.	.	102.6	102.9	7.4	7.3	-0.3	0.5	1.00
61	2019	icf3	77	.	.	101.4	101.6	8.5	8.1	-0.1	0.7	1.00
62	2020	icf3	74	.	.	103.9	104.0	9.1	8.9	-0.1	0.6	1.00
63	2021	icf3	72	.	.	103.7	103.7	6.6	6.5	0.0	0.6	1.00
64	2022	icf3	73	.	.	104.7	104.7	8.3	8.1	-0.1	0.6	1.00
65	2023	icf3	51	.	.	103.7	103.7	7.2	6.9	0.0	0.5	1.00
66	2019	icf	37	.	.	101.7	101.9	9.0	8.7	-0.2	0.6	1.00
67	2020	icf	74	.	.	103.9	104.0	8.5	8.3	-0.1	0.5	1.00
68	2021	icf	72	.	.	103.5	103.6	6.2	6.2	-0.1	0.5	1.00
69	2022	icf	73	.	.	104.7	104.9	7.8	7.7	-0.2	0.5	1.00
70	2023	icf	51	.	.	103.4	103.6	7.0	6.9	-0.3	0.6	1.00
71	2019	ifl0	25	.	.	102.6	102.5	10.1	9.9	0.0	0.5	1.00
72	2020	ifl0	26	.	.	102.8	102.8	7.9	7.9	0.0	0.3	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2021	ifl0	71	.	.	101.6	101.7	8.7	8.7	-0.1	0.3	1.00
74	2022	ifl0	73	.	.	101.2	101.2	7.6	7.5	0.0	0.4	1.00
75	2023	ifl0	51	.	.	101.5	101.6	6.4	6.3	-0.1	0.3	1.00
76	2019	ifl1	34	.	.	102.1	102.3	8.5	8.5	-0.2	0.6	1.00
77	2020	ifl1	72	.	.	104.5	105.0	6.8	7.0	-0.4	0.7	1.00
78	2021	ifl1	72	.	.	105.8	106.2	7.3	7.5	-0.3	0.7	1.00
79	2022	ifl1	73	.	.	105.4	105.8	7.4	7.5	-0.4	0.7	1.00
80	2023	ifl1	51	.	.	105.3	105.9	6.1	6.3	-0.6	0.6	0.99
81	2019	ifl2	77	.	.	103.1	103.3	7.8	7.7	-0.1	0.5	1.00
82	2020	ifl2	74	.	.	103.7	104.0	7.1	7.1	-0.3	0.6	1.00
83	2021	ifl2	72	.	.	106.1	106.4	6.7	6.8	-0.3	0.6	1.00
84	2022	ifl2	73	.	.	105.0	105.3	6.9	6.9	-0.3	0.6	1.00
85	2023	ifl2	51	.	.	105.4	105.7	6.3	6.3	-0.3	0.6	1.00
86	2019	ifl3	77	.	.	103.2	103.4	7.6	7.5	-0.1	0.4	1.00
87	2020	ifl3	74	.	.	103.4	103.6	7.0	7.1	-0.3	0.5	1.00
88	2021	ifl3	72	.	.	105.9	106.0	6.9	6.8	-0.1	0.5	1.00
89	2022	ifl3	73	.	.	104.7	104.9	6.9	6.9	-0.1	0.6	1.00
90	2023	ifl3	51	.	.	105.5	105.6	6.5	6.4	-0.2	0.5	1.00
91	2019	ifl	25	.	.	101.0	101.0	8.1	8.0	0.0	0.4	1.00
92	2020	ifl	26	.	.	104.3	104.5	7.4	7.3	-0.2	0.7	1.00
93	2021	ifl	71	.	.	106.4	106.6	7.0	7.0	-0.2	0.6	1.00
94	2022	ifl	73	.	.	105.1	105.5	7.2	7.1	-0.3	0.6	1.00
95	2023	ifl	51	.	.	105.6	105.8	6.4	6.4	-0.3	0.5	1.00
96	2019	ais0	25	.	.	100.6	100.4	9.4	9.4	0.1	0.3	1.00
97	2020	ais0	26	.	.	101.4	101.3	7.8	7.8	0.0	0.2	1.00
98	2021	ais0	71	.	.	100.9	100.8	8.6	8.6	0.1	0.2	1.00
99	2022	ais0	73	.	.	98.7	98.7	8.0	8.0	0.0	0.2	1.00
100	2023	ais0	51	.	.	100.1	100.0	7.0	7.0	0.1	0.3	1.00
101	2019	ais1	37	.	.	100.6	100.9	8.0	8.1	-0.3	0.5	1.00
102	2020	ais1	74	.	.	102.8	103.0	7.5	7.6	-0.2	0.4	1.00
103	2021	ais1	72	.	.	105.1	105.4	8.1	8.2	-0.3	0.4	1.00
104	2022	ais1	73	.	.	102.5	102.7	8.1	8.1	-0.2	0.4	1.00
105	2023	ais1	51	.	.	104.0	104.2	7.0	7.1	-0.2	0.4	1.00
106	2019	ais2	77	.	.	101.5	101.6	7.5	7.4	-0.1	0.2	1.00
107	2020	ais2	74	.	.	101.4	101.4	7.4	7.4	0.0	0.2	1.00
108	2021	ais2	72	.	.	105.2	105.2	7.0	7.0	0.0	0.1	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2022	ais2	73	.	.	101.6	101.8	7.6	7.5	-0.1	0.3	1.00
110	2023	ais2	51	.	.	103.3	103.3	6.5	6.5	-0.1	0.2	1.00
111	2019	ais3	77	.	.	101.3	101.4	7.0	7.0	-0.1	0.3	1.00
112	2020	ais3	74	.	.	100.6	100.7	7.3	7.2	0.0	0.3	1.00
113	2021	ais3	72	.	.	104.5	104.5	7.1	7.1	0.0	0.2	1.00
114	2022	ais3	73	.	.	100.2	100.3	7.4	7.4	-0.1	0.3	1.00
115	2023	ais3	51	.	.	102.5	102.6	6.9	6.8	-0.1	0.2	1.00
116	2019	ais	25	.	.	100.0	99.9	8.2	8.3	0.1	0.3	1.00
117	2020	ais	26	.	.	102.5	102.5	7.0	7.0	0.0	0.0	1.00
118	2021	ais	71	.	.	105.2	105.1	7.4	7.4	0.0	0.2	1.00
119	2022	ais	73	.	.	101.5	101.4	7.7	7.7	0.1	0.3	1.00
120	2023	ais	51	.	.	103.4	103.3	6.8	6.8	0.0	0.2	1.00
121	2019	hst0	28	.	.	102.3	102.3	8.2	8.1	0.0	0.5	1.00
122	2020	hst0	28	.	.	105.7	105.7	7.7	7.5	0.0	0.3	1.00
123	2021	hst0	71	.	.	104.8	104.8	6.4	6.3	0.0	0.5	1.00
124	2022	hst0	73	.	.	103.2	103.3	7.9	7.8	-0.1	0.5	1.00
125	2023	hst0	51	.	.	104.3	104.4	7.5	7.4	-0.1	0.5	1.00
126	2019	hst1	48	.	.	101.9	102.0	7.7	7.8	-0.2	0.4	1.00
127	2020	hst1	74	.	.	104.1	104.5	7.5	7.5	-0.3	0.5	1.00
128	2021	hst1	72	.	.	105.7	105.9	6.0	6.2	-0.2	0.5	1.00
129	2022	hst1	73	.	.	103.0	103.2	7.2	7.3	-0.3	0.6	1.00
130	2023	hst1	51	.	.	104.0	104.3	7.2	7.3	-0.3	0.5	1.00
131	2019	hst2	77	.	.	102.6	102.8	8.4	8.5	-0.2	0.5	1.00
132	2020	hst2	74	.	.	101.6	101.7	9.2	9.2	-0.1	0.4	1.00
133	2021	hst2	72	.	.	104.0	104.0	6.9	6.8	0.0	0.4	1.00
134	2022	hst2	73	.	.	101.8	101.9	7.5	7.5	-0.1	0.4	1.00
135	2023	hst2	51	.	.	102.2	102.4	7.4	7.5	-0.2	0.5	1.00
136	2019	hst3	77	.	.	102.5	102.5	7.9	7.9	-0.1	0.4	1.00
137	2020	hst3	74	.	.	102.4	102.5	9.6	9.5	-0.1	0.4	1.00
138	2021	hst3	72	.	.	104.0	104.1	7.0	6.9	0.0	0.2	1.00
139	2022	hst3	73	.	.	102.5	102.5	7.9	8.0	-0.1	0.4	1.00
140	2023	hst3	51	.	.	102.9	102.9	7.7	7.6	-0.1	0.4	1.00
141	2019	hst	28	.	.	100.9	101.1	8.8	8.9	-0.2	0.4	1.00
142	2020	hst	28	.	.	103.0	103.2	7.8	7.8	-0.1	0.4	1.00
143	2021	hst	71	.	.	104.7	104.9	6.4	6.4	-0.1	0.4	1.00
144	2022	hst	73	.	.	102.5	102.7	7.3	7.2	-0.2	0.5	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2023	hst	51	.	.	103.3	103.4	7.2	7.1	-0.1	0.4	1.00
146	2019	fert	37	.	.	102.1	102.2	8.1	8.0	-0.1	0.5	1.00
147	2020	fert	74	.	.	103.7	103.9	7.2	7.1	-0.2	0.5	1.00
148	2021	fert	72	.	.	105.8	106.1	7.2	7.2	-0.2	0.6	1.00
149	2022	fert	73	.	.	104.4	104.7	7.5	7.5	-0.3	0.5	1.00
150	2023	fert	51	.	.	105.0	105.3	6.3	6.3	-0.3	0.6	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-2	.	.	1	1	.	.	3
2	-1	82	60	73	72	1	42	77
3	0	175	163	211	158	235	205	217
4	1	.	26	25	18	13	7	13

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-2	.	.	0	0	.	.	1
2	-1	32	24	24	29	0	17	25
3	0	68	65	68	63	94	81	70
4	1	.	10	8	7	5	3	4

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	cr0	4168	100.1	100.1	9.2	9.2	-0.1	0.3	1.00
2	2020	cr0	3894	101.9	102.0	9.2	9.3	-0.1	0.3	1.00
3	2021	cr0	3799	100.7	100.8	8.3	8.3	-0.1	0.3	1.00
4	2022	cr0	15353	103.1	103.1	7.7	7.7	-0.1	0.3	1.00
5	2023	cr0	22233	103.6	103.6	6.7	6.7	-0.1	0.3	1.00
6	2024	cr0	4979	104.0	104.1	6.5	6.5	-0.1	0.3	1.00
7	2026	cr0	2	.	.	.	.	.	.	.
8	2019	cr1	6928	98.6	98.9	8.9	9.0	-0.3	0.5	1.00
9	2020	cr1	7437	102.8	103.1	9.3	9.3	-0.3	0.5	1.00
10	2021	cr1	17043	102.0	102.4	8.2	8.2	-0.3	0.5	1.00
11	2022	cr1	24829	104.5	104.8	7.8	7.9	-0.3	0.5	1.00
12	2023	cr1	22233	105.6	106.0	7.1	7.2	-0.3	0.5	1.00
13	2024	cr1	4979	106.1	106.5	6.8	6.8	-0.3	0.5	1.00
14	2026	cr1	2	.	.	.	.	.	.	1.00
15	2019	cr2	10332	98.4	98.6	8.6	8.6	-0.3	0.4	1.00
16	2020	cr2	18345	103.1	103.4	8.8	8.8	-0.3	0.5	1.00
17	2021	cr2	24016	102.3	102.6	7.8	7.8	-0.3	0.5	1.00
18	2022	cr2	24830	104.2	104.6	7.5	7.5	-0.3	0.5	1.00
19	2023	cr2	22233	105.4	105.7	6.9	7.0	-0.3	0.5	1.00
20	2024	cr2	4979	106.0	106.3	6.6	6.6	-0.3	0.5	1.00
21	2026	cr2	2	.	.	.	.	.	.	1.00
22	2019	cr3	18681	99.1	99.4	8.4	8.5	-0.2	0.4	1.00
23	2020	cr3	23737	103.0	103.3	8.3	8.4	-0.3	0.5	1.00
24	2021	cr3	24017	102.2	102.5	7.5	7.6	-0.3	0.5	1.00
25	2022	cr3	24830	104.0	104.3	7.2	7.3	-0.3	0.5	1.00
26	2023	cr3	22233	105.0	105.4	6.7	6.8	-0.3	0.5	1.00
27	2024	cr3	4979	105.8	106.1	6.4	6.5	-0.3	0.5	1.00
28	2026	cr3	2	.	.	.	.	.	.	1.00
29	2019	cr	3293	98.9	99.1	8.7	8.7	-0.2	0.4	1.00
30	2020	cr	3227	102.2	102.4	9.0	9.0	-0.3	0.5	1.00
31	2021	cr	3557	101.7	102.0	8.0	8.1	-0.3	0.5	1.00
32	2022	cr	15352	104.4	104.7	7.5	7.6	-0.3	0.5	1.00
33	2023	cr	22233	105.5	105.8	7.0	7.1	-0.3	0.5	1.00
34	2024	cr	4979	106.1	106.5	6.7	6.7	-0.3	0.5	1.00
35	2026	cr	2	.	.	.	.	.	.	1.00
36	2019	nrr0	4790	100.4	100.4	9.1	9.0	0.1	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2020	nrr0	4609	101.4	101.3	9.1	9.0	0.1	0.4	1.00
38	2021	nrr0	4500	99.8	99.8	8.3	8.2	0.0	0.4	1.00
39	2022	nrr0	10188	100.4	100.4	7.9	7.8	0.0	0.4	1.00
40	2023	nrr0	22228	101.2	101.2	7.2	7.1	0.0	0.5	1.00
41	2024	nrr0	4979	101.4	101.3	7.1	7.0	0.0	0.5	1.00
42	2026	nrr0	2	.	.	.	.	.	.	1.00
43	2019	nrr1	7367	99.4	99.6	8.7	8.8	-0.2	0.6	1.00
44	2020	nrr1	7845	102.2	102.3	8.6	8.7	-0.2	0.6	1.00
45	2021	nrr1	13764	101.2	101.3	8.0	8.1	-0.1	0.6	1.00
46	2022	nrr1	24800	102.4	102.6	7.2	7.3	-0.2	0.6	1.00
47	2023	nrr1	22233	103.4	103.6	6.9	6.9	-0.2	0.6	1.00
48	2024	nrr1	4979	103.6	103.8	6.6	6.7	-0.3	0.6	1.00
49	2026	nrr1	2	.	.	.	.	.	.	.
50	2019	nrr2	10509	99.1	99.2	9.4	9.3	-0.2	0.5	1.00
51	2020	nrr2	15611	102.0	102.1	9.3	9.2	-0.1	0.5	1.00
52	2021	nrr2	23979	101.3	101.4	8.3	8.2	-0.1	0.5	1.00
53	2022	nrr2	24830	102.8	103.0	7.7	7.6	-0.1	0.5	1.00
54	2023	nrr2	22233	103.9	104.0	7.3	7.2	-0.1	0.5	1.00
55	2024	nrr2	4979	104.1	104.2	7.0	7.0	-0.2	0.5	1.00
56	2026	nrr2	2	.	.	.	.	.	.	1.00
57	2019	nrr3	17130	99.4	99.6	9.3	9.0	-0.2	0.6	1.00
58	2020	nrr3	23672	101.9	102.0	8.7	8.4	-0.1	0.6	1.00
59	2021	nrr3	24017	101.3	101.4	8.2	8.0	-0.1	0.6	1.00
60	2022	nrr3	24830	102.5	102.6	7.7	7.5	-0.1	0.6	1.00
61	2023	nrr3	22233	103.5	103.5	7.3	7.1	-0.1	0.6	1.00
62	2024	nrr3	4979	104.2	104.2	7.0	6.8	0.0	0.6	1.00
63	2026	nrr3	2	.	.	.	.	.	.	1.00
64	2019	nrr	3512	99.5	99.7	9.0	8.9	-0.2	0.5	1.00
65	2020	nrr	3424	101.5	101.7	8.6	8.5	-0.1	0.5	1.00
66	2021	nrr	3809	100.9	101.0	8.1	8.0	-0.1	0.5	1.00
67	2022	nrr	10178	102.5	102.6	7.2	7.2	-0.1	0.5	1.00
68	2023	nrr	22228	103.6	103.7	7.0	6.9	-0.1	0.6	1.00
69	2024	nrr	4979	104.0	104.2	6.8	6.7	-0.2	0.6	1.00
70	2026	nrr	2	.	.	.	.	.	.	1.00
71	2019	icf1	7235	98.7	99.0	7.5	7.5	-0.3	0.6	1.00
72	2020	icf1	7684	101.1	101.3	7.2	7.1	-0.3	0.6	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2021	icf1	14013	100.9	101.2	7.0	7.0	-0.3	0.6	1.00
74	2022	icf1	24820	101.9	102.2	6.9	6.9	-0.3	0.6	1.00
75	2023	icf1	22233	102.5	102.8	7.0	6.9	-0.3	0.6	1.00
76	2024	icf1	4979	102.7	102.9	6.7	6.7	-0.3	0.6	1.00
77	2026	icf1	2	.	.	.	.	.	.	1.00
78	2019	icf2	10381	98.5	98.8	9.0	8.7	-0.3	0.6	1.00
79	2020	icf2	15894	100.8	101.0	8.0	7.8	-0.2	0.6	1.00
80	2021	icf2	24001	100.9	101.1	7.9	7.7	-0.2	0.6	1.00
81	2022	icf2	24830	101.8	102.0	7.8	7.6	-0.2	0.6	1.00
82	2023	icf2	22233	101.9	102.2	7.8	7.6	-0.3	0.6	1.00
83	2024	icf2	4979	102.2	102.4	7.5	7.3	-0.2	0.6	1.00
84	2026	icf2	2	.	.	.	.	.	.	1.00
85	2019	icf3	17244	98.9	99.2	8.9	8.6	-0.2	0.6	1.00
86	2020	icf3	23711	101.0	101.2	8.2	7.9	-0.2	0.6	1.00
87	2021	icf3	24017	101.3	101.5	8.1	7.8	-0.2	0.6	1.00
88	2022	icf3	24830	101.8	102.0	8.1	7.8	-0.2	0.6	1.00
89	2023	icf3	22233	102.5	102.7	8.0	7.7	-0.2	0.6	1.00
90	2024	icf3	4979	102.5	102.7	7.6	7.3	-0.1	0.6	1.00
91	2026	icf3	2	.	.	.	.	.	.	1.00
92	2019	icf	6612	98.6	98.9	8.4	8.2	-0.3	0.6	1.00
93	2020	icf	7283	100.8	101.0	7.7	7.5	-0.2	0.6	1.00
94	2021	icf	14010	100.9	101.2	7.6	7.4	-0.2	0.6	1.00
95	2022	icf	24820	101.9	102.1	7.5	7.3	-0.2	0.6	1.00
96	2023	icf	22233	102.3	102.6	7.5	7.3	-0.2	0.6	1.00
97	2024	icf	4979	102.5	102.7	7.2	7.0	-0.2	0.6	1.00
98	2026	icf	2	.	.	.	.	.	.	1.00
99	2019	ifl0	5279	100.2	100.3	9.2	9.1	0.0	0.4	1.00
100	2020	ifl0	5142	101.4	101.5	9.0	8.9	0.0	0.4	1.00
101	2021	ifl0	5010	100.3	100.3	8.6	8.5	0.0	0.4	1.00
102	2022	ifl0	10416	101.0	101.1	8.0	7.9	0.0	0.4	1.00
103	2023	ifl0	22228	101.7	101.8	7.0	6.9	0.0	0.4	1.00
104	2024	ifl0	4979	102.6	102.6	7.1	7.0	0.0	0.4	1.00
105	2026	ifl0	2	.	.	.	.	.	.	.
106	2019	ifl1	7301	98.5	98.9	8.7	8.8	-0.3	0.6	1.00
107	2020	ifl1	7742	102.4	102.7	8.8	8.8	-0.3	0.6	1.00
108	2021	ifl1	13649	101.4	101.7	8.1	8.1	-0.3	0.7	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2022	ifl1	24799	103.4	103.7	7.5	7.6	-0.4	0.7	1.00
110	2023	ifl1	22233	104.1	104.5	7.1	7.1	-0.4	0.7	1.00
111	2024	ifl1	4979	104.7	105.1	7.0	7.1	-0.4	0.7	0.99
112	2026	ifl1	2	.	.	.	.	.	.	1.00
113	2019	ifl2	10420	98.5	98.8	8.6	8.5	-0.3	0.6	1.00
114	2020	ifl2	15539	101.9	102.1	8.3	8.2	-0.2	0.6	1.00
115	2021	ifl2	23977	101.6	101.8	7.7	7.7	-0.2	0.6	1.00
116	2022	ifl2	24830	103.3	103.5	7.3	7.3	-0.2	0.6	1.00
117	2023	ifl2	22233	103.9	104.2	6.8	6.8	-0.3	0.6	1.00
118	2024	ifl2	4979	104.7	105.0	6.8	6.7	-0.3	0.6	1.00
119	2026	ifl2	2	.	.	.	.	.	.	1.00
120	2019	ifl3	17043	99.0	99.3	8.6	8.4	-0.3	0.5	1.00
121	2020	ifl3	23670	102.0	102.2	8.0	7.9	-0.2	0.5	1.00
122	2021	ifl3	24017	101.6	101.8	7.6	7.5	-0.2	0.5	1.00
123	2022	ifl3	24830	103.1	103.3	7.3	7.2	-0.2	0.6	1.00
124	2023	ifl3	22233	103.6	103.9	6.8	6.7	-0.2	0.6	1.00
125	2024	ifl3	4979	104.7	104.9	6.8	6.7	-0.2	0.6	1.00
126	2026	ifl3	2	.	.	.	.	.	.	1.00
127	2019	ifl	3626	98.8	99.1	8.6	8.6	-0.3	0.6	1.00
128	2020	ifl	3537	101.5	101.8	8.6	8.5	-0.3	0.6	1.00
129	2021	ifl	4168	101.2	101.4	8.0	7.9	-0.2	0.6	1.00
130	2022	ifl	10406	103.2	103.5	7.3	7.3	-0.3	0.6	1.00
131	2023	ifl	22228	104.0	104.3	7.0	6.9	-0.3	0.6	1.00
132	2024	ifl	4979	104.8	105.1	7.0	6.9	-0.3	0.6	1.00
133	2026	ifl	2	.	.	.	.	.	.	1.00
134	2019	ais0	5045	100.5	100.4	9.2	9.1	0.1	0.2	1.00
135	2020	ais0	4842	101.4	101.3	9.1	9.1	0.1	0.2	1.00
136	2021	ais0	4682	100.0	99.9	8.3	8.3	0.1	0.2	1.00
137	2022	ais0	10196	100.0	99.9	7.9	7.9	0.1	0.2	1.00
138	2023	ais0	22228	101.2	101.2	7.3	7.3	0.1	0.2	1.00
139	2024	ais0	4979	101.5	101.5	7.2	7.2	0.1	0.2	1.00
140	2026	ais0	2	.	.	.	.	.	.	1.00
141	2019	ais1	7436	98.7	98.8	9.0	9.2	-0.1	0.4	1.00
142	2020	ais1	7901	102.3	102.5	9.5	9.6	-0.2	0.4	1.00
143	2021	ais1	14288	101.0	101.1	8.2	8.4	-0.2	0.4	1.00
144	2022	ais1	24820	102.4	102.5	7.7	7.9	-0.2	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2023	ais1	22233	103.4	103.6	7.3	7.4	-0.2	0.4	1.00
146	2024	ais1	4979	103.8	104.1	7.0	7.1	-0.2	0.4	1.00
147	2026	ais1	2	.	.	.	.	.	.	1.00
148	2019	ais2	10548	98.9	98.9	8.6	8.6	-0.1	0.3	1.00
149	2020	ais2	16067	101.5	101.6	8.6	8.6	-0.1	0.3	1.00
150	2021	ais2	24004	101.0	101.1	7.5	7.5	-0.1	0.3	1.00
151	2022	ais2	24830	101.9	102.0	7.3	7.3	-0.1	0.3	1.00
152	2023	ais2	22233	102.9	103.0	6.9	6.9	-0.1	0.3	1.00
153	2024	ais2	4979	103.6	103.7	6.6	6.6	-0.1	0.3	1.00
154	2026	ais2	2	.	.	.	.	.	.	1.00
155	2019	ais3	17399	99.4	99.5	8.7	8.6	-0.1	0.3	1.00
156	2020	ais3	23714	101.4	101.4	8.1	8.0	0.0	0.3	1.00
157	2021	ais3	24017	100.9	100.9	7.3	7.2	-0.1	0.3	1.00
158	2022	ais3	24830	101.3	101.4	7.2	7.1	-0.1	0.3	1.00
159	2023	ais3	22233	102.3	102.4	6.8	6.8	0.0	0.2	1.00
160	2024	ais3	4979	103.2	103.3	6.6	6.5	0.0	0.2	1.00
161	2026	ais3	2	.	.	.	.	.	.	1.00
162	2019	ais	3568	99.5	99.4	8.7	8.7	0.1	0.3	1.00
163	2020	ais	3498	101.6	101.5	8.6	8.7	0.1	0.2	1.00
164	2021	ais	3933	100.8	100.8	7.7	7.7	0.1	0.3	1.00
165	2022	ais	10188	101.8	101.8	7.3	7.3	0.1	0.2	1.00
166	2023	ais	22228	103.0	103.0	6.9	7.0	0.1	0.2	1.00
167	2024	ais	4979	103.8	103.7	6.7	6.7	0.1	0.2	1.00
168	2026	ais	2	.	.	.	.	.	.	1.00
169	2019	hst0	16070	101.0	101.1	7.7	7.6	-0.1	0.5	1.00
170	2020	hst0	17233	100.9	101.0	7.8	7.8	-0.1	0.5	1.00
171	2021	hst0	17420	102.0	102.1	7.8	7.7	-0.1	0.5	1.00
172	2022	hst0	20194	102.2	102.3	8.3	8.2	-0.1	0.5	1.00
173	2023	hst0	22233	102.4	102.5	7.3	7.2	-0.1	0.5	1.00
174	2024	hst0	4979	103.2	103.3	7.3	7.3	-0.1	0.5	1.00
175	2026	hst0	2	.	.	.	.	.	.	1.00
176	2019	hst1	16907	99.8	100.0	7.6	7.6	-0.2	0.5	1.00
177	2020	hst1	18407	100.8	101.0	7.9	7.9	-0.2	0.5	1.00
178	2021	hst1	21015	101.9	102.1	7.5	7.5	-0.2	0.5	1.00
179	2022	hst1	24825	102.1	102.3	7.4	7.4	-0.2	0.5	1.00
180	2023	hst1	22233	102.4	102.7	7.0	7.0	-0.3	0.5	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2024	hst1	4979	103.6	103.8	7.1	7.1	-0.2	0.5	1.00
182	2026	hst1	2	.	.	.	.	.	.	1.00
183	2019	hst2	18158	99.6	99.7	8.6	8.6	-0.1	0.4	1.00
184	2020	hst2	21654	99.8	99.9	8.5	8.5	-0.1	0.4	1.00
185	2021	hst2	24017	101.2	101.3	7.9	7.9	-0.1	0.4	1.00
186	2022	hst2	24830	100.8	100.9	7.9	7.9	-0.1	0.5	1.00
187	2023	hst2	22233	101.0	101.1	7.7	7.7	-0.1	0.5	1.00
188	2024	hst2	4979	102.1	102.2	7.4	7.4	-0.1	0.5	1.00
189	2026	hst2	2	.	.	.	.	.	.	1.00
190	2019	hst3	20368	100.2	100.2	8.7	8.7	-0.1	0.4	1.00
191	2020	hst3	23736	99.4	99.4	8.5	8.5	-0.1	0.4	1.00
192	2021	hst3	24017	101.4	101.4	8.1	8.0	-0.1	0.4	1.00
193	2022	hst3	24830	100.9	100.9	8.0	7.9	-0.1	0.4	1.00
194	2023	hst3	22233	101.9	101.9	7.9	7.8	-0.1	0.4	1.00
195	2024	hst3	4979	102.8	102.9	7.6	7.5	0.0	0.4	1.00
196	2026	hst3	2	.	.	.	.	.	.	1.00
197	2019	hst	15547	99.7	99.9	7.9	7.8	-0.1	0.4	1.00
198	2020	hst	16697	99.8	99.9	7.9	7.9	-0.1	0.4	1.00
199	2021	hst	17122	101.4	101.5	7.5	7.5	-0.1	0.5	1.00
200	2022	hst	20189	101.1	101.2	7.5	7.5	-0.1	0.5	1.00
201	2023	hst	22233	101.9	102.0	7.3	7.2	-0.2	0.5	1.00
202	2024	hst	4979	103.0	103.1	7.1	7.1	-0.1	0.5	1.00
203	2026	hst	2	.	.	.	.	.	.	1.00
204	2019	fert	6612	98.6	98.9	9.0	8.9	-0.3	0.5	1.00
205	2020	fert	7283	101.8	102.0	8.8	8.8	-0.2	0.5	1.00
206	2021	fert	14010	101.4	101.6	7.9	7.9	-0.2	0.5	1.00
207	2022	fert	24820	103.0	103.2	7.6	7.5	-0.2	0.5	1.00
208	2023	fert	22233	103.8	104.1	7.0	7.0	-0.3	0.5	1.00
209	2024	fert	4979	104.7	104.9	7.0	7.0	-0.3	0.6	1.00
210	2026	fert	2	.	.	.	.	.	.	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-4	.	.	.	.	.	.	1
2	-3	.	.	2	3	.	.	1
3	-2	.	68	566	515	.	5	178
4	-1	16286	11178	23673	16462	62	18245	22917
5	0	36357	32681	48949	28707	45480	74256	52650

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females without phenotype, by birth year

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
6	1	.	4188	6639	3229	2854	4207	4155
7	2	.	17	83	28	.	54	36
8	3	.	.	24	2	.	2	1
9	4	.	.	3	.	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-4	.	.	.	.	.	.	0
2	-3	.	.	0	0	.	.	0
3	-2	.	0	1	1	.	0	0
4	-1	31	23	30	34	0	19	29
5	0	69	68	61	59	94	77	66
6	1	.	9	8	7	6	4	5
7	2	.	0	0	0	.	0	0
8	3	.	.	0	0	.	0	0
9	4	.	.	0	.	.	.	.

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2015	cr0	9426	97.1	97.2	7.9	7.9	-0.1	0.3	1.00
2	2016	cr0	13119	97.2	97.3	8.2	8.2	-0.1	0.3	1.00
3	2017	cr0	15292	98.6	98.7	8.1	8.1	-0.1	0.3	1.00
4	2018	cr0	17028	99.2	99.3	7.5	7.5	-0.1	0.3	1.00
5	2019	cr0	17216	100.0	100.1	9.0	9.0	-0.1	0.3	1.00
6	2020	cr0	19849	102.9	103.0	9.1	9.1	-0.1	0.3	1.00
7	2021	cr0	20218	101.3	101.4	8.2	8.2	-0.1	0.3	1.00
8	2022	cr0	9477	103.1	103.2	8.6	8.6	-0.1	0.3	1.00
9	2015	cr1	7877	95.1	95.4	7.9	7.9	-0.3	0.5	1.00
10	2016	cr1	10896	95.5	95.8	8.2	8.2	-0.3	0.5	1.00
11	2017	cr1	12603	96.3	96.6	8.2	8.2	-0.3	0.5	1.00
12	2018	cr1	14278	98.7	99.0	8.1	8.1	-0.3	0.5	1.00
13	2019	cr1	14456	99.6	99.9	8.9	8.9	-0.3	0.5	1.00
14	2020	cr1	16306	104.1	104.4	9.2	9.2	-0.3	0.5	1.00
15	2021	cr1	6974	103.5	103.8	8.3	8.3	-0.3	0.5	1.00
16	2022	cr1	1	.	.	.	.	.	.	.
17	2015	cr2	6201	95.6	95.9	7.7	7.7	-0.3	0.4	1.00
18	2016	cr2	8661	95.9	96.2	8.0	8.0	-0.3	0.4	1.00
19	2017	cr2	9986	96.5	96.7	8.0	8.1	-0.3	0.4	1.00
20	2018	cr2	11307	98.7	99.0	7.8	7.9	-0.3	0.5	1.00
21	2019	cr2	11052	99.9	100.2	8.6	8.6	-0.3	0.5	1.00
22	2020	cr2	5398	104.1	104.4	8.9	8.9	-0.3	0.5	1.00
23	2021	cr2	1	.	.	.	.	.	.	.
24	2015	cr3	4222	96.3	96.6	7.7	7.8	-0.2	0.4	1.00
25	2016	cr3	5830	96.7	96.9	7.8	7.9	-0.2	0.4	1.00
26	2017	cr3	6697	97.1	97.4	7.9	8.0	-0.2	0.4	1.00
27	2018	cr3	7382	99.2	99.5	7.6	7.7	-0.3	0.4	1.00
28	2019	cr3	2703	100.5	100.7	8.0	8.1	-0.3	0.4	1.00
29	2020	cr3	6	.	.	.	.	.	.	1.00
30	2015	cr	9788	95.0	95.3	8.0	8.0	-0.2	0.4	1.00
31	2016	cr	13628	95.5	95.7	8.2	8.2	-0.2	0.4	1.00
32	2017	cr	15927	96.0	96.3	8.2	8.3	-0.2	0.4	1.00
33	2018	cr	17802	98.3	98.6	8.1	8.1	-0.3	0.4	1.00
34	2019	cr	18091	99.3	99.6	8.8	8.8	-0.3	0.4	1.00
35	2020	cr	20516	103.6	103.9	8.9	9.0	-0.3	0.5	1.00
36	2021	cr	20460	102.5	102.8	7.9	8.0	-0.3	0.5	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2022	cr	9478	104.2	104.6	7.8	7.8	-0.3	0.5	1.00
38	2015	nrr0	9105	99.7	99.6	8.1	8.0	0.1	0.4	1.00
39	2016	nrr0	12631	99.4	99.4	8.3	8.2	0.0	0.4	1.00
40	2017	nrr0	14654	100.8	100.8	8.5	8.5	0.1	0.4	1.00
41	2018	nrr0	16398	100.5	100.4	7.9	7.8	0.1	0.4	1.00
42	2019	nrr0	16594	100.3	100.3	8.9	8.8	0.0	0.4	1.00
43	2020	nrr0	19134	102.0	101.9	9.1	9.0	0.1	0.4	1.00
44	2021	nrr0	19517	100.3	100.2	8.4	8.3	0.1	0.4	1.00
45	2022	nrr0	14642	100.7	100.6	8.3	8.2	0.0	0.4	1.00
46	2023	nrr0	5	.	.	.	.	.	.	1.00
47	2015	nrr1	7623	98.1	98.2	7.8	7.9	-0.1	0.6	1.00
48	2016	nrr1	10527	97.9	98.0	8.4	8.5	-0.1	0.6	1.00
49	2017	nrr1	12211	98.7	98.9	8.2	8.3	-0.1	0.6	1.00
50	2018	nrr1	13801	99.9	100.1	7.9	8.0	-0.1	0.6	1.00
51	2019	nrr1	14017	99.9	100.1	8.6	8.7	-0.2	0.6	1.00
52	2020	nrr1	15898	102.8	103.0	8.6	8.7	-0.2	0.6	1.00
53	2021	nrr1	10253	101.5	101.7	8.3	8.4	-0.2	0.6	1.00
54	2022	nrr1	30	103.2	103.3	5.7	5.7	-0.1	0.6	0.99
55	2015	nrr2	6021	97.6	97.8	8.0	8.0	-0.1	0.5	1.00
56	2016	nrr2	8385	97.6	97.8	9.0	8.9	-0.1	0.5	1.00
57	2017	nrr2	9667	98.1	98.2	8.7	8.6	-0.1	0.5	1.00
58	2018	nrr2	10924	99.1	99.2	8.7	8.6	-0.2	0.5	1.00
59	2019	nrr2	10875	100.1	100.2	9.4	9.3	-0.2	0.5	1.00
60	2020	nrr2	8132	103.1	103.2	9.2	9.1	-0.1	0.5	1.00
61	2021	nrr2	38	103.3	103.3	9.2	9.2	0.0	0.5	1.00
62	2015	nrr3	4075	98.6	98.8	8.4	8.1	-0.2	0.6	1.00
63	2016	nrr3	5611	98.2	98.4	9.0	8.7	-0.2	0.6	1.00
64	2017	nrr3	6476	98.7	98.9	9.1	8.8	-0.2	0.6	1.00
65	2018	nrr3	7285	99.1	99.3	9.1	8.8	-0.2	0.6	1.00
66	2019	nrr3	4254	100.7	100.8	9.2	8.9	-0.1	0.6	1.00
67	2020	nrr3	71	104.5	104.5	6.8	6.6	0.1	0.5	1.00
68	2015	nrr	9661	97.8	97.9	8.0	7.9	-0.2	0.5	1.00
69	2016	nrr	13428	97.7	97.8	8.7	8.6	-0.2	0.5	1.00
70	2017	nrr	15694	98.2	98.3	8.6	8.5	-0.2	0.5	1.00
71	2018	nrr	17568	99.1	99.2	8.5	8.4	-0.2	0.5	1.00
72	2019	nrr	17872	99.7	99.9	9.0	8.9	-0.2	0.5	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2020	nrr	20319	102.4	102.6	8.7	8.6	-0.1	0.5	1.00
74	2021	nrr	20208	101.4	101.5	8.1	8.0	-0.1	0.5	1.00
75	2022	nrr	14652	102.7	102.8	7.5	7.4	-0.1	0.5	1.00
76	2023	nrr	5	.	.	.	.	.	.	1.00
77	2015	icf1	7692	97.1	97.5	8.0	8.0	-0.4	0.6	1.00
78	2016	icf1	10626	98.1	98.4	7.8	7.8	-0.4	0.6	1.00
79	2017	icf1	12329	97.0	97.3	7.7	7.7	-0.3	0.6	1.00
80	2018	icf1	13957	99.5	99.8	7.8	7.8	-0.3	0.6	1.00
81	2019	icf1	14149	99.3	99.6	7.4	7.4	-0.3	0.6	1.00
82	2020	icf1	16059	101.6	101.9	7.1	7.1	-0.3	0.6	1.00
83	2021	icf1	10004	101.5	101.7	7.0	6.9	-0.3	0.6	1.00
84	2022	icf1	10	.	.	.	.	.	.	0.99
85	2015	icf2	6086	97.9	98.3	9.7	9.5	-0.4	0.6	1.00
86	2016	icf2	8479	98.4	98.8	9.2	9.0	-0.4	0.6	1.00
87	2017	icf2	9778	97.1	97.5	9.3	9.1	-0.4	0.6	1.00
88	2018	icf2	11071	99.8	100.1	8.9	8.7	-0.3	0.6	1.00
89	2019	icf2	11003	99.4	99.6	8.7	8.5	-0.3	0.6	1.00
90	2020	icf2	7849	101.7	101.9	7.8	7.6	-0.2	0.6	1.00
91	2021	icf2	16	.	.	.	.	.	.	1.00
92	2015	icf3	4134	97.7	98.1	10.1	9.7	-0.4	0.7	1.00
93	2016	icf3	5695	98.8	99.1	9.4	9.1	-0.3	0.6	1.00
94	2017	icf3	6583	97.2	97.5	9.5	9.1	-0.4	0.6	1.00
95	2018	icf3	7414	100.4	100.6	9.0	8.7	-0.2	0.6	1.00
96	2019	icf3	4140	100.0	100.2	8.6	8.3	-0.2	0.6	1.00
97	2020	icf3	32	102.8	102.9	10.0	9.5	-0.1	0.7	1.00
98	2015	icf	8061	97.2	97.6	9.2	9.0	-0.4	0.6	1.00
99	2016	icf	11089	98.1	98.4	8.8	8.6	-0.4	0.6	1.00
100	2017	icf	12902	96.7	97.1	8.8	8.6	-0.4	0.6	1.00
101	2018	icf	14561	99.5	99.8	8.5	8.3	-0.3	0.6	1.00
102	2019	icf	14772	99.3	99.5	8.2	8.0	-0.3	0.6	1.00
103	2020	icf	16460	101.4	101.6	7.6	7.4	-0.2	0.6	1.00
104	2021	icf	10007	101.4	101.6	7.4	7.3	-0.2	0.6	1.00
105	2022	icf	10	.	.	.	.	.	.	0.99
106	2015	ifl0	8812	98.9	98.9	8.1	8.0	-0.1	0.4	1.00
107	2016	ifl0	12252	99.0	99.1	8.4	8.3	-0.1	0.4	1.00
108	2017	ifl0	14182	100.2	100.3	8.5	8.4	-0.1	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2018	ifl0	15880	100.1	100.2	7.9	7.9	-0.1	0.4	1.00
110	2019	ifl0	16105	100.4	100.5	9.1	9.0	0.0	0.4	1.00
111	2020	ifl0	18601	102.2	102.2	8.9	8.8	0.0	0.4	1.00
112	2021	ifl0	19007	100.8	100.9	8.6	8.6	0.0	0.4	1.00
113	2022	ifl0	14414	101.4	101.4	8.5	8.5	0.0	0.4	1.00
114	2023	ifl0	5	.	.	.	.	.	.	1.00
115	2015	ifl1	7665	96.6	96.9	8.3	8.4	-0.3	0.7	1.00
116	2016	ifl1	10586	96.9	97.2	8.2	8.3	-0.3	0.7	1.00
117	2017	ifl1	12287	97.0	97.4	8.5	8.6	-0.3	0.6	1.00
118	2018	ifl1	13889	99.6	99.9	8.2	8.3	-0.3	0.6	1.00
119	2019	ifl1	14083	99.5	99.8	8.7	8.8	-0.3	0.6	1.00
120	2020	ifl1	16001	103.3	103.7	8.5	8.6	-0.4	0.6	1.00
121	2021	ifl1	10368	102.1	102.4	8.2	8.2	-0.3	0.7	1.00
122	2022	ifl1	31	103.4	103.3	6.2	6.4	0.1	0.9	0.99
123	2015	ifl2	6077	97.4	97.7	8.4	8.3	-0.3	0.6	1.00
124	2016	ifl2	8451	97.4	97.7	8.3	8.3	-0.3	0.6	1.00
125	2017	ifl2	9746	97.2	97.6	8.4	8.3	-0.3	0.6	1.00
126	2018	ifl2	11034	99.3	99.6	8.1	8.0	-0.3	0.6	1.00
127	2019	ifl2	10964	99.9	100.2	8.5	8.4	-0.3	0.6	1.00
128	2020	ifl2	8204	103.3	103.6	8.2	8.1	-0.3	0.5	1.00
129	2021	ifl2	40	104.1	104.4	7.3	7.4	-0.3	0.6	1.00
130	2015	ifl3	4113	97.9	98.2	8.4	8.3	-0.3	0.5	1.00
131	2016	ifl3	5676	98.0	98.3	8.3	8.1	-0.3	0.5	1.00
132	2017	ifl3	6550	97.9	98.1	8.2	8.1	-0.3	0.5	1.00
133	2018	ifl3	7388	99.6	99.9	7.9	7.8	-0.3	0.5	1.00
134	2019	ifl3	4341	100.7	101.0	8.1	8.0	-0.2	0.5	1.00
135	2020	ifl3	73	105.9	106.0	6.7	6.6	-0.1	0.5	1.00
136	2015	ifl	9602	96.7	97.0	8.5	8.5	-0.3	0.6	1.00
137	2016	ifl	13355	96.9	97.2	8.5	8.4	-0.3	0.6	1.00
138	2017	ifl	15558	96.8	97.1	8.6	8.5	-0.3	0.6	1.00
139	2018	ifl	17451	99.0	99.3	8.3	8.2	-0.3	0.6	1.00
140	2019	ifl	17758	99.3	99.6	8.8	8.7	-0.3	0.6	1.00
141	2020	ifl	20206	102.6	102.9	8.3	8.3	-0.3	0.6	1.00
142	2021	ifl	19849	101.8	102.0	7.9	7.8	-0.2	0.6	1.00
143	2022	ifl	14424	103.4	103.6	7.6	7.5	-0.3	0.6	1.00
144	2023	ifl	5	.	.	.	.	.	.	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2015	ais0	9036	99.8	99.7	8.1	8.1	0.1	0.2	1.00
146	2016	ais0	12480	99.5	99.5	8.3	8.2	0.1	0.2	1.00
147	2017	ais0	14495	100.6	100.5	8.4	8.3	0.1	0.2	1.00
148	2018	ais0	16205	100.3	100.2	7.7	7.7	0.1	0.2	1.00
149	2019	ais0	16339	100.3	100.3	9.1	9.0	0.1	0.2	1.00
150	2020	ais0	18901	102.0	102.0	9.0	9.0	0.1	0.3	1.00
151	2021	ais0	19335	100.4	100.3	8.3	8.3	0.1	0.2	1.00
152	2022	ais0	14634	100.2	100.2	8.3	8.3	0.1	0.2	1.00
153	2023	ais0	5	.	.	.	.	.	.	1.00
154	2015	ais1	7587	97.8	97.9	8.1	8.2	-0.1	0.4	1.00
155	2016	ais1	10493	97.6	97.7	8.6	8.7	-0.1	0.4	1.00
156	2017	ais1	12146	98.1	98.3	8.4	8.6	-0.1	0.4	1.00
157	2018	ais1	13753	99.6	99.7	8.4	8.5	-0.2	0.4	1.00
158	2019	ais1	13948	99.3	99.4	9.0	9.1	-0.2	0.4	1.00
159	2020	ais1	15842	103.1	103.3	9.3	9.4	-0.2	0.4	1.00
160	2021	ais1	9729	101.5	101.7	8.5	8.6	-0.2	0.4	1.00
161	2022	ais1	10	.	.	.	.	.	.	1.00
162	2015	ais2	6002	98.5	98.6	8.0	8.0	-0.1	0.3	1.00
163	2016	ais2	8357	98.4	98.5	8.5	8.5	-0.1	0.3	1.00
164	2017	ais2	9617	98.4	98.5	8.2	8.2	-0.1	0.3	1.00
165	2018	ais2	10862	99.2	99.3	8.3	8.2	-0.1	0.3	1.00
166	2019	ais2	10836	99.8	99.9	8.6	8.6	-0.1	0.3	1.00
167	2020	ais2	7676	102.8	102.9	8.6	8.6	-0.1	0.3	1.00
168	2021	ais2	13	.	.	.	.	.	.	1.00
169	2015	ais3	4055	99.2	99.2	8.1	8.1	-0.1	0.3	1.00
170	2016	ais3	5580	99.1	99.2	8.5	8.5	-0.1	0.3	1.00
171	2017	ais3	6446	99.0	99.1	8.3	8.3	-0.1	0.3	1.00
172	2018	ais3	7254	99.0	99.1	8.5	8.4	-0.1	0.3	1.00
173	2019	ais3	3985	100.7	100.7	8.5	8.5	-0.1	0.3	1.00
174	2020	ais3	29	103.8	103.9	8.0	7.9	-0.1	0.3	1.00
175	2015	ais	9643	98.3	98.3	8.0	8.0	0.1	0.2	1.00
176	2016	ais	13395	98.3	98.2	8.6	8.6	0.1	0.2	1.00
177	2017	ais	15653	98.4	98.3	8.3	8.3	0.1	0.2	1.00
178	2018	ais	17515	99.1	99.1	8.4	8.4	0.1	0.2	1.00
179	2019	ais	17816	99.6	99.5	8.7	8.8	0.1	0.2	1.00
180	2020	ais	20245	102.3	102.2	8.6	8.6	0.1	0.2	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2021	ais	20084	101.3	101.2	7.6	7.6	0.1	0.2	1.00
182	2022	ais	14642	102.1	102.1	7.4	7.4	0.1	0.2	1.00
183	2023	ais	5	.	.	.	.	.	.	1.00
184	2015	hst0	3249	98.8	99.1	8.6	8.6	-0.2	0.5	1.00
185	2016	hst0	4329	99.1	99.3	8.9	8.8	-0.2	0.5	1.00
186	2017	hst0	4281	99.1	99.3	7.9	7.9	-0.2	0.5	1.00
187	2018	hst0	5074	100.0	100.1	8.1	8.0	-0.2	0.5	1.00
188	2019	hst0	5314	101.2	101.3	7.8	7.7	-0.1	0.5	1.00
189	2020	hst0	6510	101.0	101.1	7.9	7.8	-0.1	0.5	1.00
190	2021	hst0	6597	102.4	102.5	7.7	7.7	-0.1	0.5	1.00
191	2022	hst0	4636	102.7	102.8	8.2	8.2	-0.1	0.5	1.00
192	2015	hst1	2651	98.7	99.0	8.2	8.2	-0.3	0.5	1.00
193	2016	hst1	3576	99.4	99.7	8.9	8.9	-0.3	0.5	1.00
194	2017	hst1	3580	98.4	98.7	8.2	8.2	-0.3	0.5	1.00
195	2018	hst1	4188	100.6	100.9	8.0	8.0	-0.3	0.5	1.00
196	2019	hst1	4477	100.8	101.0	7.6	7.6	-0.2	0.5	1.00
197	2020	hst1	5336	101.3	101.5	8.0	8.1	-0.2	0.5	1.00
198	2021	hst1	3002	102.2	102.4	7.4	7.4	-0.2	0.5	1.00
199	2022	hst1	5	.	.	.	.	.	.	1.00
200	2015	hst2	1971	99.7	99.9	9.5	9.5	-0.2	0.4	1.00
201	2016	hst2	2667	100.5	100.7	9.9	9.9	-0.2	0.4	1.00
202	2017	hst2	2633	99.0	99.2	9.4	9.4	-0.1	0.4	1.00
203	2018	hst2	3107	100.8	101.0	8.8	8.9	-0.1	0.4	1.00
204	2019	hst2	3226	101.2	101.3	8.8	8.8	-0.1	0.4	1.00
205	2020	hst2	2089	101.1	101.2	8.6	8.6	-0.1	0.4	1.00
206	2015	hst3	1254	100.0	100.1	10.1	10.0	-0.1	0.4	1.00
207	2016	hst3	1680	102.2	102.2	10.4	10.3	-0.1	0.4	1.00
208	2017	hst3	1607	99.5	99.6	9.4	9.3	-0.1	0.4	1.00
209	2018	hst3	1907	101.7	101.8	9.1	9.0	-0.1	0.4	1.00
210	2019	hst3	1016	102.7	102.7	9.0	8.9	0.0	0.4	1.00
211	2020	hst3	7	.	.	.	.	.	.	1.00
212	2015	hst	3486	99.0	99.2	8.9	8.8	-0.2	0.5	1.00
213	2016	hst	4733	100.4	100.5	9.4	9.4	-0.2	0.5	1.00
214	2017	hst	4762	98.7	98.9	8.6	8.6	-0.2	0.5	1.00
215	2018	hst	5545	100.7	100.8	8.4	8.3	-0.2	0.5	1.00
216	2019	hst	5837	101.0	101.1	8.1	8.0	-0.1	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for genotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2020	hst	7046	100.7	100.8	8.1	8.1	-0.1	0.4	1.00
218	2021	hst	6895	101.9	102.1	7.5	7.4	-0.1	0.4	1.00
219	2022	hst	4641	102.1	102.2	7.6	7.6	-0.1	0.5	1.00
220	2015	fert	8061	97.1	97.4	8.5	8.5	-0.3	0.5	1.00
221	2016	fert	11089	97.3	97.6	8.5	8.4	-0.3	0.5	1.00
222	2017	fert	12902	97.2	97.5	8.5	8.5	-0.3	0.5	1.00
223	2018	fert	14561	99.2	99.4	8.3	8.2	-0.2	0.5	1.00
224	2019	fert	14772	99.6	99.9	8.9	8.9	-0.3	0.5	1.00
225	2020	fert	16460	102.9	103.1	8.5	8.5	-0.2	0.5	1.00
226	2021	fert	10007	101.8	102.1	7.9	7.8	-0.2	0.5	1.00
227	2022	fert	10	.	.	.	.	.	.	1.00

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-5	.	.	.	3	.	.	.
2	-4	.	2	2	.	.	.	2
3	-3	.	6	.	1	.	.	.
4	-2	.	136	687	872	.	.	101
5	-1	34240	28957	28895	42203	89	8192	25224
6	0	91449	90442	53295	77926	121114	33153	59202
7	1	1	9854	4918	7144	7795	1599	3316
8	2	.	9	48	53	.	1	15
9	3	.	1	16	6	.	.	2
10	5	.	.	1	.	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-5	.	.	.	0	.	.	.
2	-4	.	0	0	.	.	.	0
3	-3	.	0	.	0	.	.	.
4	-2	.	0	1	1	.	.	0
5	-1	27	22	33	33	0	19	29
6	0	73	70	61	61	94	77	67
7	1	0	8	6	6	6	4	4
8	2	.	0	0	0	.	0	0
9	3	.	0	0	0	.	.	0
10	5	.	.	0	.	.	.	.

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2015	cr0	64051	95.3	95.4	7.1	7.1	-0.1	0.3	1.00
2	2016	cr0	54914	96.2	96.2	7.3	7.3	-0.1	0.3	1.00
3	2017	cr0	47379	96.9	97.0	7.2	7.2	-0.1	0.3	1.00
4	2018	cr0	41421	97.5	97.6	6.7	6.7	-0.1	0.3	1.00
5	2019	cr0	36076	97.9	97.9	8.2	8.2	-0.1	0.3	1.00
6	2020	cr0	33880	100.3	100.4	8.6	8.6	-0.1	0.3	1.00
7	2021	cr0	30252	99.2	99.3	7.3	7.3	-0.1	0.3	1.00
8	2022	cr0	10695	100.3	100.4	8.1	8.2	-0.1	0.3	1.00
9	2015	cr1	53019	93.2	93.5	6.4	6.4	-0.3	0.5	1.00
10	2016	cr1	45812	94.5	94.8	6.6	6.7	-0.3	0.5	1.00
11	2017	cr1	39594	94.6	94.9	6.6	6.7	-0.3	0.5	1.00
12	2018	cr1	34684	96.4	96.7	6.9	6.9	-0.3	0.5	1.00
13	2019	cr1	29831	96.6	96.9	7.7	7.7	-0.3	0.5	1.00
14	2020	cr1	27680	100.4	100.7	8.3	8.4	-0.3	0.5	1.00
15	2021	cr1	9033	100.5	100.8	7.3	7.3	-0.3	0.5	1.00
16	2022	cr1	2	.	.	.	.	.	.	1.00
17	2015	cr2	38648	94.0	94.3	6.2	6.2	-0.3	0.4	1.00
18	2016	cr2	34032	95.3	95.5	6.3	6.3	-0.3	0.4	1.00
19	2017	cr2	29128	95.1	95.4	6.5	6.5	-0.3	0.4	1.00
20	2018	cr2	25374	96.9	97.2	6.4	6.5	-0.3	0.4	1.00
21	2019	cr2	20713	97.3	97.6	7.1	7.2	-0.3	0.4	1.00
22	2020	cr2	7121	100.8	101.1	7.5	7.6	-0.3	0.5	1.00
23	2021	cr2	2	.	.	.	.	.	.	1.00
24	2015	cr3	24974	95.0	95.2	6.2	6.3	-0.2	0.4	1.00
25	2016	cr3	21982	96.1	96.3	6.3	6.4	-0.2	0.4	1.00
26	2017	cr3	18315	96.0	96.2	6.4	6.5	-0.2	0.4	1.00
27	2018	cr3	14662	97.7	97.9	6.2	6.3	-0.2	0.4	1.00
28	2019	cr3	3958	98.3	98.5	6.4	6.5	-0.2	0.4	1.00
29	2020	cr3	7	.	.	.	.	.	.	1.00
30	2015	cr	70051	93.4	93.7	6.2	6.2	-0.2	0.4	1.00
31	2016	cr	60095	94.7	95.0	6.3	6.4	-0.2	0.4	1.00
32	2017	cr	51944	94.6	94.8	6.5	6.5	-0.2	0.4	1.00
33	2018	cr	45398	96.3	96.6	6.6	6.6	-0.2	0.4	1.00
34	2019	cr	39496	96.7	96.9	7.3	7.3	-0.2	0.4	1.00
35	2020	cr	36627	100.3	100.5	7.7	7.7	-0.3	0.4	1.00
36	2021	cr	31120	99.9	100.2	6.3	6.3	-0.3	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2022	cr	10697	101.3	101.6	6.3	6.4	-0.3	0.5	1.00
38	2015	nrr0	60258	98.4	98.3	6.8	6.7	0.0	0.3	1.00
39	2016	nrr0	51766	98.6	98.6	6.9	6.8	0.0	0.3	1.00
40	2017	nrr0	44309	99.4	99.3	7.3	7.2	0.1	0.3	1.00
41	2018	nrr0	38844	99.1	99.0	6.6	6.5	0.0	0.3	1.00
42	2019	nrr0	33810	98.9	98.9	7.7	7.6	0.0	0.3	1.00
43	2020	nrr0	31638	100.3	100.3	8.0	7.9	0.1	0.3	1.00
44	2021	nrr0	28803	98.8	98.7	6.9	6.8	0.0	0.3	1.00
45	2022	nrr0	17132	99.1	99.0	7.2	7.1	0.0	0.3	1.00
46	2023	nrr0	12	.	.	.	.	.	.	1.00
47	2015	nrr1	51187	96.7	96.8	6.3	6.4	0.0	0.4	1.00
48	2016	nrr1	44189	97.2	97.3	6.8	6.9	-0.1	0.4	1.00
49	2017	nrr1	38202	97.4	97.5	6.9	7.0	-0.1	0.4	1.00
50	2018	nrr1	33465	98.3	98.4	6.6	6.7	-0.1	0.4	1.00
51	2019	nrr1	28879	97.9	98.0	7.4	7.5	-0.1	0.4	1.00
52	2020	nrr1	27266	100.4	100.5	7.3	7.4	-0.1	0.4	1.00
53	2021	nrr1	13597	99.9	100.0	6.7	6.8	-0.1	0.4	1.00
54	2022	nrr1	36	99.5	99.5	5.6	5.7	0.0	0.4	1.00
55	2015	nrr2	37319	96.7	96.8	6.5	6.4	-0.1	0.4	1.00
56	2016	nrr2	32924	97.2	97.3	7.3	7.2	-0.1	0.4	1.00
57	2017	nrr2	28128	97.2	97.4	7.5	7.4	-0.1	0.4	1.00
58	2018	nrr2	24528	97.8	97.9	7.3	7.2	-0.1	0.4	1.00
59	2019	nrr2	20762	98.1	98.2	8.0	7.9	-0.1	0.4	1.00
60	2020	nrr2	11020	100.7	100.8	7.7	7.7	-0.1	0.4	1.00
61	2021	nrr2	55	103.5	103.5	6.5	6.5	0.0	0.4	1.00
62	2015	nrr3	24072	97.7	98.0	6.9	6.7	-0.2	0.5	1.00
63	2016	nrr3	21153	98.0	98.2	7.5	7.2	-0.2	0.5	1.00
64	2017	nrr3	17750	98.1	98.3	8.0	7.7	-0.2	0.5	1.00
65	2018	nrr3	14906	98.3	98.4	7.7	7.4	-0.2	0.5	1.00
66	2019	nrr3	6517	98.9	99.1	7.9	7.6	-0.2	0.5	1.00
67	2020	nrr3	65	101.7	101.9	7.4	7.1	-0.2	0.5	1.00
68	2015	nrr	68754	96.8	96.9	6.3	6.2	-0.1	0.4	1.00
69	2016	nrr	58983	97.2	97.4	6.9	6.9	-0.1	0.4	1.00
70	2017	nrr	50910	97.2	97.4	7.2	7.2	-0.2	0.4	1.00
71	2018	nrr	44576	97.7	97.9	6.9	6.8	-0.2	0.4	1.00
72	2019	nrr	38728	97.8	98.0	7.6	7.6	-0.2	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2020	nrr	36089	100.3	100.4	7.2	7.1	-0.1	0.4	1.00
74	2021	nrr	30730	99.8	100.0	6.2	6.2	-0.1	0.4	1.00
75	2022	nrr	17145	101.0	101.1	5.8	5.7	-0.1	0.4	1.00
76	2023	nrr	12	.	.	.	.	.	.	0.99
77	2015	icf1	51705	96.7	97.1	6.5	6.5	-0.4	0.5	1.00
78	2016	icf1	44652	98.0	98.3	6.2	6.2	-0.4	0.5	1.00
79	2017	icf1	38564	96.8	97.1	6.0	6.0	-0.3	0.5	1.00
80	2018	icf1	33791	98.7	99.0	6.2	6.2	-0.3	0.5	1.00
81	2019	icf1	29132	98.5	98.8	5.9	5.9	-0.3	0.5	1.00
82	2020	icf1	27546	100.1	100.4	5.7	5.7	-0.3	0.5	1.00
83	2021	icf1	13472	100.4	100.6	5.4	5.4	-0.2	0.5	1.00
84	2022	icf1	16	.	.	.	.	.	.	0.99
85	2015	icf2	37748	97.8	98.2	8.3	8.1	-0.4	0.5	1.00
86	2016	icf2	33250	98.7	99.1	7.4	7.3	-0.4	0.5	1.00
87	2017	icf2	28465	97.2	97.5	7.7	7.5	-0.4	0.5	1.00
88	2018	icf2	24822	99.4	99.7	7.1	6.9	-0.3	0.5	1.00
89	2019	icf2	21030	99.0	99.3	6.9	6.7	-0.3	0.5	1.00
90	2020	icf2	10830	100.8	101.0	6.0	5.8	-0.2	0.5	1.00
91	2021	icf2	21	.	.	.	.	.	.	1.00
92	2015	icf3	24424	97.6	98.0	8.7	8.4	-0.4	0.5	1.00
93	2016	icf3	21487	98.8	99.1	7.8	7.5	-0.3	0.5	1.00
94	2017	icf3	17998	97.4	97.8	7.9	7.6	-0.4	0.5	1.00
95	2018	icf3	15114	99.9	100.2	7.3	7.0	-0.3	0.5	1.00
96	2019	icf3	6344	100.0	100.2	6.8	6.6	-0.2	0.5	1.00
97	2020	icf3	29	103.0	103.2	5.7	5.6	-0.2	0.4	1.00
98	2015	icf	53985	97.0	97.4	7.7	7.5	-0.4	0.5	1.00
99	2016	icf	46606	98.2	98.6	7.0	6.9	-0.4	0.5	1.00
100	2017	icf	40096	96.8	97.1	7.0	6.9	-0.4	0.5	1.00
101	2018	icf	35125	98.9	99.2	6.8	6.6	-0.3	0.5	1.00
102	2019	icf	30109	98.7	99.0	6.4	6.3	-0.3	0.5	1.00
103	2020	icf	27968	100.2	100.4	5.9	5.8	-0.2	0.5	1.00
104	2021	icf	13481	100.5	100.7	5.6	5.5	-0.2	0.5	1.00
105	2022	icf	16	.	.	.	.	.	.	0.99
106	2015	ifl0	57954	97.3	97.4	7.1	7.0	-0.1	0.3	1.00
107	2016	ifl0	49763	98.1	98.2	7.3	7.2	-0.1	0.3	1.00
108	2017	ifl0	42586	98.6	98.7	7.4	7.3	-0.1	0.3	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2018	ifl0	37299	98.7	98.8	6.9	6.9	-0.1	0.3	1.00
110	2019	ifl0	32429	98.8	98.8	8.1	8.0	-0.1	0.3	1.00
111	2020	ifl0	30475	100.2	100.2	8.2	8.1	0.0	0.3	1.00
112	2021	ifl0	27754	99.0	99.1	7.5	7.4	0.0	0.3	1.00
113	2022	ifl0	16740	99.5	99.5	8.0	7.9	0.0	0.3	1.00
114	2023	ifl0	12	.	.	.	.	.	.	1.00
115	2015	ifl1	51404	95.4	95.7	6.6	6.6	-0.3	0.5	1.00
116	2016	ifl1	44423	96.5	96.8	6.5	6.5	-0.3	0.5	1.00
117	2017	ifl1	38329	95.9	96.1	6.6	6.6	-0.3	0.5	1.00
118	2018	ifl1	33569	97.8	98.1	6.8	6.9	-0.3	0.5	1.00
119	2019	ifl1	28976	97.3	97.6	7.2	7.3	-0.3	0.5	1.00
120	2020	ifl1	27429	100.5	100.8	7.4	7.5	-0.3	0.5	1.00
121	2021	ifl1	13776	100.0	100.2	6.6	6.7	-0.2	0.5	1.00
122	2022	ifl1	37	100.0	100.2	6.0	5.8	-0.2	0.5	1.00
123	2015	ifl2	37552	96.5	96.9	6.8	6.7	-0.3	0.5	1.00
124	2016	ifl2	33082	97.4	97.7	6.7	6.6	-0.3	0.5	1.00
125	2017	ifl2	28319	96.5	96.8	6.5	6.5	-0.3	0.5	1.00
126	2018	ifl2	24656	98.1	98.4	6.4	6.4	-0.3	0.5	1.00
127	2019	ifl2	20934	98.2	98.5	6.8	6.7	-0.3	0.5	1.00
128	2020	ifl2	11152	101.1	101.3	6.6	6.6	-0.2	0.5	1.00
129	2021	ifl2	57	102.6	102.7	6.2	6.1	-0.2	0.6	1.00
130	2015	ifl3	24317	97.2	97.5	7.0	6.9	-0.3	0.5	1.00
131	2016	ifl3	21379	98.1	98.4	6.7	6.6	-0.3	0.5	1.00
132	2017	ifl3	17911	97.3	97.6	6.6	6.5	-0.3	0.5	1.00
133	2018	ifl3	15074	98.8	99.0	6.4	6.3	-0.3	0.5	1.00
134	2019	ifl3	6622	99.3	99.5	6.4	6.3	-0.2	0.5	1.00
135	2020	ifl3	68	102.9	103.1	6.2	6.0	-0.2	0.5	1.00
136	2015	ifl	68168	95.8	96.1	6.7	6.7	-0.3	0.5	1.00
137	2016	ifl	58532	96.9	97.2	6.6	6.5	-0.3	0.5	1.00
138	2017	ifl	50440	95.9	96.2	6.5	6.5	-0.3	0.5	1.00
139	2018	ifl	44135	97.6	97.9	6.6	6.5	-0.3	0.5	1.00
140	2019	ifl	38297	97.5	97.8	7.0	7.0	-0.3	0.5	1.00
141	2020	ifl	35722	100.4	100.6	6.8	6.8	-0.2	0.5	1.00
142	2021	ifl	29937	100.0	100.2	5.8	5.8	-0.2	0.5	1.00
143	2022	ifl	16754	101.3	101.5	5.8	5.7	-0.2	0.5	1.00
144	2023	ifl	12	.	.	.	.	.	.	0.99

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2015	ais0	58934	98.6	98.6	6.8	6.8	0.0	0.2	1.00
146	2016	ais0	50696	98.9	98.9	6.8	6.8	0.1	0.2	1.00
147	2017	ais0	43401	99.3	99.3	7.1	7.0	0.1	0.2	1.00
148	2018	ais0	37998	99.0	99.0	6.4	6.3	0.1	0.2	1.00
149	2019	ais0	33108	98.8	98.8	7.8	7.8	0.1	0.2	1.00
150	2020	ais0	30949	100.3	100.2	7.9	7.9	0.1	0.2	1.00
151	2021	ais0	28455	98.9	98.9	6.8	6.8	0.1	0.2	1.00
152	2022	ais0	17263	98.7	98.6	7.2	7.2	0.1	0.2	1.00
153	2023	ais0	12	.	.	.	.	.	.	1.00
154	2015	ais1	50601	96.7	96.8	6.3	6.4	-0.1	0.4	1.00
155	2016	ais1	43770	97.2	97.3	6.8	6.9	-0.1	0.4	1.00
156	2017	ais1	37822	97.1	97.2	6.7	6.8	-0.1	0.3	1.00
157	2018	ais1	33105	98.0	98.1	6.8	6.9	-0.1	0.4	1.00
158	2019	ais1	28542	97.4	97.6	7.5	7.6	-0.1	0.4	1.00
159	2020	ais1	27065	100.7	100.9	8.0	8.1	-0.2	0.4	1.00
160	2021	ais1	13007	100.1	100.2	6.8	6.9	-0.2	0.4	1.00
161	2022	ais1	13	.	.	.	.	.	.	1.00
162	2015	ais2	36976	98.0	98.1	6.3	6.3	-0.1	0.3	1.00
163	2016	ais2	32643	98.5	98.5	6.8	6.8	-0.1	0.3	1.00
164	2017	ais2	27853	98.0	98.1	6.6	6.6	-0.1	0.3	1.00
165	2018	ais2	24311	98.3	98.4	6.6	6.6	-0.1	0.3	1.00
166	2019	ais2	20632	98.4	98.5	7.0	7.0	-0.1	0.3	1.00
167	2020	ais2	10478	101.0	101.1	6.9	6.9	-0.1	0.3	1.00
168	2021	ais2	20	.	.	.	.	.	.	1.00
169	2015	ais3	23843	98.7	98.8	6.6	6.5	-0.1	0.3	1.00
170	2016	ais3	20966	99.3	99.3	7.0	7.0	-0.1	0.3	1.00
171	2017	ais3	17601	98.9	98.9	6.9	6.8	-0.1	0.3	1.00
172	2018	ais3	14802	98.6	98.7	6.9	6.9	-0.1	0.3	1.00
173	2019	ais3	6112	99.4	99.4	7.1	7.1	-0.1	0.3	1.00
174	2020	ais3	27	103.7	103.8	6.5	6.5	0.0	0.2	1.00
175	2015	ais	68378	97.7	97.6	6.2	6.2	0.1	0.2	1.00
176	2016	ais	58710	98.3	98.2	6.7	6.7	0.1	0.2	1.00
177	2017	ais	50690	97.8	97.7	6.5	6.5	0.1	0.2	1.00
178	2018	ais	44381	98.1	98.0	6.6	6.6	0.1	0.2	1.00
179	2019	ais	38526	98.0	98.0	7.2	7.2	0.1	0.2	1.00
180	2020	ais	35848	100.6	100.5	6.9	6.9	0.1	0.2	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2021	ais	30493	100.0	100.0	5.6	5.6	0.1	0.2	1.00
182	2022	ais	17273	100.7	100.7	5.4	5.5	0.1	0.2	1.00
183	2023	ais	12	.	.	.	.	.	.	1.00
184	2015	hst0	20385	97.9	98.1	6.9	6.9	-0.2	0.4	1.00
185	2016	hst0	17603	98.6	98.8	6.9	6.8	-0.2	0.4	1.00
186	2017	hst0	16083	98.2	98.4	6.3	6.3	-0.2	0.4	1.00
187	2018	hst0	14930	98.8	98.9	6.4	6.4	-0.2	0.4	1.00
188	2019	hst0	13577	100.0	100.2	6.2	6.2	-0.1	0.4	1.00
189	2020	hst0	12496	99.7	99.8	6.4	6.4	-0.1	0.4	1.00
190	2021	hst0	11094	100.7	100.8	6.2	6.2	-0.1	0.3	1.00
191	2022	hst0	5294	101.0	101.2	6.5	6.5	-0.1	0.3	1.00
192	2023	hst0	1	.	.	.	.	.	.	.
193	2015	hst1	18027	97.7	98.0	6.5	6.6	-0.3	0.5	1.00
194	2016	hst1	15940	98.9	99.3	7.1	7.1	-0.3	0.5	1.00
195	2017	hst1	14848	98.0	98.3	6.5	6.5	-0.3	0.5	1.00
196	2018	hst1	13757	99.5	99.7	6.5	6.5	-0.3	0.5	1.00
197	2019	hst1	12093	99.5	99.8	5.9	5.9	-0.3	0.4	1.00
198	2020	hst1	11259	100.1	100.3	6.3	6.4	-0.3	0.4	1.00
199	2021	hst1	4556	100.9	101.2	5.8	5.8	-0.2	0.4	1.00
200	2022	hst1	6	.	.	.	.	.	.	1.00
201	2015	hst2	12606	99.4	99.5	7.5	7.5	-0.2	0.4	1.00
202	2016	hst2	11617	100.6	100.7	8.0	8.0	-0.2	0.4	1.00
203	2017	hst2	10779	99.1	99.2	7.8	7.8	-0.1	0.4	1.00
204	2018	hst2	9781	100.2	100.3	6.8	6.8	-0.1	0.4	1.00
205	2019	hst2	8205	100.6	100.8	6.7	6.7	-0.1	0.3	1.00
206	2020	hst2	3340	101.0	101.1	6.8	6.8	-0.1	0.3	1.00
207	2021	hst2	6	.	.	.	.	.	.	1.00
208	2015	hst3	7750	99.6	99.7	8.6	8.5	-0.1	0.3	1.00
209	2016	hst3	7201	101.9	102.0	8.8	8.7	-0.1	0.3	1.00
210	2017	hst3	6291	100.1	100.2	8.3	8.2	-0.1	0.3	1.00
211	2018	hst3	5512	101.2	101.3	7.4	7.4	-0.1	0.3	1.00
212	2019	hst3	1913	102.3	102.3	7.1	7.0	-0.1	0.3	1.00
213	2020	hst3	7	.	.	.	.	.	.	1.00
214	2015	hst	25239	98.5	98.7	7.0	7.0	-0.2	0.4	1.00
215	2016	hst	21940	100.2	100.4	7.6	7.5	-0.2	0.4	1.00
216	2017	hst	20194	98.7	98.9	7.0	7.0	-0.2	0.4	1.00

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
217	2018	hst	18591	99.9	100.1	6.4	6.4	-0.2	0.4	1.00
218	2019	hst	16487	100.4	100.5	6.0	5.9	-0.2	0.4	1.00
219	2020	hst	15109	100.3	100.5	6.0	6.0	-0.2	0.4	1.00
220	2021	hst	11991	101.4	101.5	5.2	5.2	-0.1	0.4	1.00
221	2022	hst	5299	101.6	101.7	5.1	5.1	-0.1	0.4	1.00
222	2023	hst	1	.	.	.	.	.	.	.
223	2015	fert	53985	96.1	96.4	6.8	6.7	-0.3	0.5	1.00
224	2016	fert	46606	97.1	97.4	6.6	6.6	-0.3	0.5	1.00
225	2017	fert	40096	96.3	96.6	6.6	6.5	-0.3	0.5	1.00
226	2018	fert	35125	97.8	98.0	6.6	6.6	-0.3	0.5	1.00
227	2019	fert	30109	97.7	98.0	7.3	7.2	-0.2	0.5	1.00
228	2020	fert	27968	100.5	100.7	7.1	7.1	-0.2	0.4	1.00
229	2021	fert	13481	100.2	100.4	6.1	6.1	-0.2	0.5	1.00
230	2022	fert	16	.	.	.	.	.	.	0.99

Obs	diff	d_cr	d_nrr	d_icf	d_ifl	d_ais	d_hst	d_fert
1	-5	.	.	.	6	.	.	1
2	-4	.	.	2	.	.	.	1
3	-3	.	21	.	.	.	.	.
4	-2	.	63	139	53	.	.	2
5	-1	84779	53055	84682	100955	10	25102	65384
6	0	260649	288791	160507	238227	323391	109493	180568
7	1	.	3902	1865	2292	20910	251	1257
8	2	.	93	157	427	.	5	167
9	3	.	2	34	34	.	.	6
10	4	.	.	.	3	.	.	.

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
1	-5	.	.	.	0	.	.	0
2	-4	.	.	0	.	.	.	0
3	-3	.	0	.	.	.	.	.
4	-2	.	0	0	0	.	.	0
5	-1	25	15	34	30	0	19	26
6	0	75	83	65	70	94	81	73
7	1	.	1	1	1	6	0	1
8	2	.	0	0	0	.	0	0

RDC breeding values with foreign (SS) and without foreign (oSS) for nongenotyped females with phenotype, by birth year

Obs	diff	p_cr	p_nrr	p_icf	p_ifl	p_ais	p_hst	p_fert
9	3	.	0	0	0	.	.	0
10	4	.	.	.	0	.	.	.