

## 'HOL summary statistics for SS and prev SS breeding value 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	Dermatitis1	22551	102.2	103.0	11.5	11.3	-0.8	1.5	0.99
2	2020	Dermatitis1	39850	103.0	103.7	11.1	10.6	-0.6	2.2	0.98
3	2021	Dermatitis1	58370	104.5	104.9	10.1	9.9	-0.4	2.1	0.98
4	2022	Dermatitis1	15085	105.1	105.5	10.0	9.7	-0.4	1.8	0.98
5	2019	Heel_horn_eros	36232	102.1	103.7	8.7	8.8	-1.6	1.6	0.98
6	2020	Heel_horn_eros	49902	102.2	104.1	8.7	8.7	-1.9	2.0	0.97
7	2021	Heel_horn_eros	58392	104.1	105.7	8.5	8.5	-1.6	1.9	0.98
8	2022	Heel_horn_eros	15085	104.4	106.0	8.4	8.3	-1.6	1.8	0.98
9	2019	Sole_heamorrhha	27856	103.0	104.4	8.8	9.1	-1.3	1.9	0.98
10	2020	Sole_heamorrhha	43853	102.3	103.5	8.5	8.6	-1.2	2.6	0.95
11	2021	Sole_heamorrhha	58389	102.9	104.1	8.7	8.7	-1.2	2.1	0.97
12	2022	Sole_heamorrhha	15085	102.7	103.7	8.6	8.7	-1.0	1.9	0.98
13	2019	Sole_ulcer1	24127	102.4	103.2	7.7	7.5	-0.8	1.7	0.98
14	2020	Sole_ulcer1	41321	103.0	103.8	7.5	7.1	-0.8	2.6	0.94
15	2021	Sole_ulcer1	58384	102.9	103.8	7.7	7.4	-0.9	2.0	0.97
16	2022	Sole_ulcer1	15085	103.3	104.0	7.6	7.3	-0.7	1.8	0.97
17	2019	Cork_screw_cla	25686	101.1	102.1	10.4	10.2	-1.0	1.9	0.98
18	2020	Cork_screw_cla	42398	101.7	102.5	9.2	9.1	-0.9	2.5	0.96
19	2021	Cork_screw_cla	58389	102.6	103.5	9.0	8.9	-1.0	2.1	0.97
20	2022	Cork_screw_cla	15085	102.4	103.2	9.0	8.9	-0.8	1.9	0.98
21	2019	Skin_proferati	25000	102.4	103.2	8.8	8.6	-0.8	1.6	0.98
22	2020	Skin_proferati	41826	102.9	103.4	8.7	8.6	-0.5	2.4	0.96
23	2021	Skin_proferati	58381	104.1	104.6	8.3	8.3	-0.5	1.9	0.97
24	2022	Skin_proferati	15085	104.3	104.8	8.1	8.0	-0.5	1.7	0.98
25	2019	White_line_dou	23985	102.1	103.9	10.6	10.6	-1.8	2.2	0.98
26	2020	White_line_dou	41071	103.5	104.5	9.8	9.5	-1.0	3.2	0.94
27	2021	White_line_dou	58384	103.7	105.2	9.5	9.3	-1.4	2.5	0.96
28	2022	White_line_dou	15085	104.3	105.3	9.3	9.0	-0.9	2.2	0.97
29	2019	Dermatitis2	36472	101.8	101.9	11.5	11.2	-0.2	1.8	0.99
30	2020	Dermatitis2	58329	102.8	102.8	11.1	10.5	0.0	2.3	0.98
31	2021	Dermatitis2	58420	104.1	103.9	10.0	9.7	0.2	2.1	0.98
32	2022	Dermatitis2	15085	104.8	104.6	9.9	9.5	0.2	1.9	0.98
33	2019	Heel_horn_eros	43599	102.1	103.7	8.5	8.7	-1.6	1.7	0.98
34	2020	Heel_horn_eros	58397	102.0	103.8	8.5	8.5	-1.8	1.9	0.97
35	2021	Heel_horn_eros	58420	103.8	105.4	8.3	8.4	-1.6	1.8	0.98
36	2022	Heel_horn_eros	15085	104.1	105.6	8.3	8.3	-1.5	1.7	0.98

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Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	Sole_heamorrha	38551	103.0	104.3	8.8	9.0	-1.3	1.9	0.98
38	2020	Sole_heamorrha	58353	103.0	104.0	8.5	8.5	-0.9	2.6	0.95
39	2021	Sole_heamorrha	58420	103.3	104.4	8.7	8.7	-1.1	2.1	0.97
40	2022	Sole_heamorrha	15085	103.3	104.1	8.6	8.6	-0.8	1.8	0.98
41	2019	Sole_ulcer2	37268	102.5	103.3	7.6	7.5	-0.9	1.9	0.97
42	2020	Sole_ulcer2	58346	103.0	103.8	7.4	7.1	-0.8	2.5	0.94
43	2021	Sole_ulcer2	58420	103.1	104.0	7.6	7.4	-0.9	2.0	0.97
44	2022	Sole_ulcer2	15085	103.3	104.0	7.5	7.2	-0.7	1.7	0.97
45	2019	Cork_screw_cla	38276	100.9	102.5	10.4	10.3	-1.6	2.0	0.98
46	2020	Cork_screw_cla	58351	101.2	102.5	9.3	9.3	-1.3	2.5	0.97
47	2021	Cork_screw_cla	58420	101.9	103.3	9.0	9.0	-1.4	2.1	0.97
48	2022	Cork_screw_cla	15085	101.8	103.0	9.0	9.0	-1.2	1.9	0.98
49	2019	Skin_proferati	37877	102.6	103.5	8.7	8.6	-0.8	1.7	0.98
50	2020	Skin_proferati	58343	102.9	103.5	8.7	8.6	-0.6	2.2	0.97
51	2021	Skin_proferati	58420	104.1	104.7	8.3	8.2	-0.6	1.8	0.98
52	2022	Skin_proferati	15085	104.2	104.8	8.0	7.9	-0.6	1.7	0.98
53	2019	White_line_dou	37387	102.5	104.3	10.0	9.8	-1.8	2.2	0.98
54	2020	White_line_dou	58347	103.3	104.6	9.3	9.1	-1.3	2.9	0.95
55	2021	White_line_dou	58420	103.7	105.3	9.1	8.9	-1.5	2.3	0.97
56	2022	White_line_dou	15085	104.1	105.3	8.9	8.6	-1.2	2.0	0.97
57	2019	Dermatitis3	48849	101.6	101.7	11.3	10.9	-0.1	1.8	0.99
58	2020	Dermatitis3	58425	102.3	102.4	10.8	10.2	-0.1	2.4	0.98
59	2021	Dermatitis3	58420	103.7	103.6	9.8	9.4	0.1	2.1	0.98
60	2022	Dermatitis3	15085	104.3	104.1	9.7	9.3	0.2	1.9	0.98
61	2019	Heel_horn_eros	48905	101.7	103.2	8.4	8.5	-1.5	1.7	0.98
62	2020	Heel_horn_eros	58425	101.0	103.1	8.4	8.3	-2.1	2.0	0.97
63	2021	Heel_horn_eros	58420	103.0	104.6	8.4	8.3	-1.6	1.9	0.97
64	2022	Heel_horn_eros	15085	103.1	104.9	8.1	8.0	-1.8	1.8	0.98
65	2019	Sole_heamorrha	48863	102.9	104.3	8.9	9.1	-1.4	2.0	0.98
66	2020	Sole_heamorrha	58425	103.0	103.9	8.5	8.5	-0.9	2.6	0.95
67	2021	Sole_heamorrha	58420	103.2	104.4	8.7	8.8	-1.1	2.1	0.97
68	2022	Sole_heamorrha	15085	103.2	104.1	8.6	8.7	-0.9	1.9	0.98
69	2019	Sole_ulcer3	48855	102.2	102.9	7.5	7.3	-0.8	1.9	0.97
70	2020	Sole_ulcer3	58425	102.4	103.2	7.4	6.9	-0.8	2.4	0.94
71	2021	Sole_ulcer3	58420	102.0	102.8	7.5	7.2	-0.8	1.9	0.97
72	2022	Sole_ulcer3	15085	102.0	102.8	7.3	7.0	-0.8	1.8	0.97

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Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	Cork_screw_cla	48873	100.8	101.6	10.3	10.2	-0.9	2.1	0.98
74	2020	Cork_screw_cla	58425	100.6	101.5	9.3	9.3	-0.9	2.6	0.96
75	2021	Cork_screw_cla	58420	101.5	102.3	8.9	8.9	-0.9	2.3	0.97
76	2022	Cork_screw_cla	15085	101.0	101.7	8.9	8.9	-0.7	2.0	0.98
77	2019	Skin_proferati	48857	102.4	103.2	8.8	8.7	-0.8	1.7	0.98
78	2020	Skin_proferati	58425	102.9	103.4	8.7	8.5	-0.6	2.2	0.97
79	2021	Skin_proferati	58420	103.9	104.5	8.2	8.1	-0.6	1.9	0.97
80	2022	Skin_proferati	15085	104.2	104.7	8.0	7.9	-0.5	1.7	0.98
81	2019	White_line_dou	48857	102.6	104.2	9.8	9.7	-1.6	2.2	0.97
82	2020	White_line_dou	58425	103.6	104.7	9.2	9.0	-1.1	2.9	0.95
83	2021	White_line_dou	58420	103.8	105.2	9.1	8.9	-1.4	2.3	0.97
84	2022	White_line_dou	15085	104.1	105.1	8.8	8.6	-1.0	2.0	0.97
85	2019	Dermatitis	22551	101.8	102.1	11.3	11.0	-0.3	1.7	0.99
86	2020	Dermatitis	39850	102.7	102.9	10.8	10.2	-0.2	2.3	0.98
87	2021	Dermatitis	58370	104.0	104.0	9.9	9.5	0.0	2.1	0.98
88	2022	Dermatitis	15085	104.7	104.7	9.7	9.4	0.0	1.8	0.98
89	2019	Heel_horn_eros	36232	102.0	103.5	8.4	8.4	-1.5	1.6	0.98
90	2020	Heel_horn_eros	49902	101.6	103.6	8.4	8.3	-2.0	1.9	0.97
91	2021	Heel_horn_eros	58392	103.5	105.1	8.3	8.2	-1.6	1.8	0.98
92	2022	Heel_horn_eros	15085	103.8	105.4	8.1	8.0	-1.7	1.7	0.98
93	2019	Sole_heamorrha	27856	102.9	104.3	8.7	8.9	-1.4	1.9	0.98
94	2020	Sole_heamorrha	43853	102.7	103.7	8.4	8.4	-1.0	2.5	0.95
95	2021	Sole_heamorrha	58389	103.2	104.3	8.6	8.6	-1.1	2.0	0.97
96	2022	Sole_heamorrha	15085	103.1	104.0	8.5	8.5	-0.9	1.8	0.98
97	2019	Sole_ulcer	24127	102.3	103.1	7.4	7.2	-0.8	1.7	0.97
98	2020	Sole_ulcer	41321	102.7	103.4	7.2	6.9	-0.8	2.4	0.94
99	2021	Sole_ulcer	58384	102.6	103.4	7.4	7.2	-0.8	1.9	0.97
100	2022	Sole_ulcer	15085	102.7	103.4	7.3	7.0	-0.7	1.7	0.97
101	2019	Cork_screw_cla	25686	100.9	102.0	10.2	10.1	-1.1	1.9	0.98
102	2020	Cork_screw_cla	42398	101.0	102.0	9.0	9.0	-1.0	2.4	0.96
103	2021	Cork_screw_cla	58389	101.9	102.9	8.8	8.8	-1.0	2.1	0.97
104	2022	Cork_screw_cla	15085	101.7	102.5	8.8	8.7	-0.8	1.8	0.98
105	2019	Skin_proferati	25000	102.4	103.2	8.7	8.6	-0.8	1.6	0.98
106	2020	Skin_proferati	41826	102.9	103.4	8.6	8.5	-0.6	2.2	0.97
107	2021	Skin_proferati	58381	104.0	104.6	8.2	8.2	-0.6	1.8	0.97
108	2022	Skin_proferati	15085	104.2	104.8	8.0	7.9	-0.5	1.7	0.98

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by birth year**

Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	White_line_dou	23985	102.4	104.1	9.9	9.9	-1.7	2.1	0.98
110	2020	White_line_dou	41071	103.5	104.6	9.3	9.0	-1.1	2.9	0.95
111	2021	White_line_dou	58384	103.8	105.2	9.1	8.9	-1.4	2.3	0.97
112	2022	White_line_dou	15085	104.2	105.2	8.9	8.6	-1.1	2.0	0.97

## HOL summary statistics for SS and previous breeding value 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	Dermatitis1	7047	98.5	99.3	11.0	10.8	-0.8	1.3	0.99
2	2016	Dermatitis1	11295	100.6	101.5	11.4	11.3	-0.9	1.4	0.99
3	2017	Dermatitis1	16852	99.9	100.7	10.9	10.8	-0.8	1.5	0.99
4	2018	Dermatitis1	23854	101.4	102.2	11.3	11.1	-0.8	1.5	0.99
5	2019	Dermatitis1	24634	102.2	103.0	11.6	11.4	-0.8	1.7	0.99
6	2020	Dermatitis1	5806	103.0	103.7	11.6	11.1	-0.8	2.0	0.98
7	2015	Heel_horn_eros	4381	99.1	100.4	9.4	9.4	-1.3	1.3	0.99
8	2016	Heel_horn_eros	6735	100.2	101.5	9.5	9.5	-1.3	1.4	0.99
9	2017	Heel_horn_eros	8999	100.1	101.4	9.7	9.8	-1.3	1.5	0.99
10	2018	Heel_horn_eros	11854	101.2	102.6	9.4	9.5	-1.5	1.6	0.99
11	2019	Heel_horn_eros	11145	101.8	103.4	9.1	9.1	-1.6	1.7	0.98
12	2020	Heel_horn_eros	2550	101.9	103.8	9.3	9.2	-1.9	2.0	0.98
13	2015	Sole_heamorrha	6614	99.2	100.5	9.2	9.3	-1.4	1.3	0.99
14	2016	Sole_heamorrha	10182	99.9	101.3	8.9	9.1	-1.4	1.4	0.99
15	2017	Sole_heamorrha	14299	100.5	102.0	9.2	9.4	-1.5	1.5	0.99
16	2018	Sole_heamorrha	19593	101.6	102.9	8.8	8.9	-1.2	1.6	0.98
17	2019	Sole_heamorrha	19057	103.1	104.4	9.0	9.2	-1.3	2.0	0.98
18	2020	Sole_heamorrha	4343	103.5	104.8	8.5	8.7	-1.3	2.7	0.95
19	2015	Sole_ulcer1	7027	99.8	101.0	8.1	8.1	-1.2	1.3	0.99
20	2016	Sole_ulcer1	10863	100.5	101.7	7.8	7.8	-1.2	1.4	0.98
21	2017	Sole_ulcer1	15662	100.7	101.8	8.7	8.6	-1.1	1.5	0.99
22	2018	Sole_ulcer1	22344	101.8	102.7	8.1	8.0	-0.9	1.6	0.98
23	2019	Sole_ulcer1	21938	102.4	103.3	7.8	7.6	-0.9	1.8	0.97
24	2020	Sole_ulcer1	5082	103.8	104.5	7.4	7.0	-0.7	2.4	0.95
25	2015	Cork_screw_cla	5387	99.9	101.1	10.7	10.5	-1.2	1.4	0.99
26	2016	Cork_screw_cla	8718	98.8	100.0	10.5	10.4	-1.2	1.4	0.99
27	2017	Cork_screw_cla	13188	100.3	101.4	10.3	10.2	-1.1	1.6	0.99
28	2018	Cork_screw_cla	20647	101.5	102.5	10.1	9.9	-0.9	1.6	0.99
29	2019	Cork_screw_cla	19696	101.4	102.5	10.5	10.3	-1.0	1.9	0.98
30	2020	Cork_screw_cla	4219	102.4	103.5	9.3	9.2	-1.1	2.4	0.97
31	2015	Skin_proferati	6727	98.0	98.9	9.8	9.7	-0.9	1.3	0.99
32	2016	Skin_proferati	10452	99.7	100.6	9.6	9.5	-1.0	1.3	0.99
33	2017	Skin_proferati	15002	100.3	101.2	9.8	9.7	-0.9	1.4	0.99
34	2018	Skin_proferati	21752	101.9	102.7	9.2	9.2	-0.8	1.5	0.99
35	2019	Skin_proferati	20884	102.7	103.5	8.9	8.8	-0.8	1.6	0.98
36	2020	Skin_proferati	4828	103.1	103.6	9.2	8.9	-0.5	2.1	0.97

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Obs	BYR	name	no	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2015	White_line_dou	7106	98.2	100.3	9.6	9.7	-2.1	1.5	0.99
38	2016	White_line_dou	10998	99.2	101.4	9.7	9.7	-2.1	1.6	0.99
39	2017	White_line_dou	15834	100.7	102.7	10.4	10.5	-2.0	1.7	0.99
40	2018	White_line_dou	22434	101.7	103.4	10.8	10.8	-1.7	1.9	0.98
41	2019	White_line_dou	22124	102.0	103.8	10.8	10.8	-1.8	2.2	0.98
42	2020	White_line_dou	5137	104.2	105.3	9.9	9.8	-1.1	2.7	0.96
43	2015	Dermatitis2	6389	98.8	99.1	11.0	10.8	-0.3	1.4	0.99
44	2016	Dermatitis2	10137	100.5	100.9	11.3	11.1	-0.3	1.5	0.99
45	2017	Dermatitis2	14926	99.8	100.0	10.7	10.5	-0.3	1.6	0.99
46	2018	Dermatitis2	18658	101.2	101.5	11.3	11.0	-0.3	1.7	0.99
47	2019	Dermatitis2	3682	100.6	101.0	11.7	11.4	-0.4	1.8	0.99
48	2015	Heel_horn_eros	3652	99.2	100.3	9.4	9.5	-1.1	1.3	0.99
49	2016	Heel_horn_eros	5555	100.1	101.3	9.4	9.5	-1.1	1.3	0.99
50	2017	Heel_horn_eros	7205	100.2	101.4	9.5	9.6	-1.2	1.5	0.99
51	2018	Heel_horn_eros	8209	101.2	102.6	9.3	9.5	-1.4	1.7	0.98
52	2019	Heel_horn_eros	1422	101.9	103.3	9.1	9.2	-1.5	1.8	0.98
53	2015	Sole_heamorrha	6133	99.1	100.6	9.2	9.3	-1.5	1.3	0.99
54	2016	Sole_heamorrha	9554	100.0	101.6	9.0	9.1	-1.5	1.4	0.99
55	2017	Sole_heamorrha	13084	100.5	102.1	9.3	9.4	-1.6	1.5	0.99
56	2018	Sole_heamorrha	15431	101.8	103.1	9.0	9.1	-1.3	1.6	0.98
57	2019	Sole_heamorrha	2840	102.1	103.4	8.8	8.8	-1.2	1.6	0.98
58	2015	Sole_ulcer2	6314	99.7	100.9	8.1	8.1	-1.3	1.3	0.99
59	2016	Sole_ulcer2	9728	100.7	101.9	7.9	7.9	-1.2	1.3	0.99
60	2017	Sole_ulcer2	14229	101.0	102.1	8.3	8.3	-1.2	1.5	0.98
61	2018	Sole_ulcer2	17119	102.1	102.9	8.0	7.9	-0.8	1.7	0.98
62	2019	Sole_ulcer2	3240	101.5	102.3	7.6	7.3	-0.8	1.8	0.97
63	2015	Cork_screw_cla	4991	99.6	101.0	10.1	10.0	-1.4	1.4	0.99
64	2016	Cork_screw_cla	8057	98.6	100.0	10.5	10.4	-1.4	1.4	0.99
65	2017	Cork_screw_cla	13043	100.5	101.9	10.2	10.2	-1.5	1.5	0.99
66	2018	Cork_screw_cla	14907	101.3	102.7	10.2	10.1	-1.4	1.7	0.99
67	2019	Cork_screw_cla	2651	101.0	102.5	10.8	10.8	-1.5	1.9	0.98
68	2015	Skin_proferati	5917	98.0	98.9	9.7	9.6	-0.9	1.3	0.99
69	2016	Skin_proferati	9149	99.7	100.7	9.5	9.5	-0.9	1.3	0.99
70	2017	Skin_proferati	13463	100.3	101.2	9.7	9.6	-1.0	1.4	0.99
71	2018	Skin_proferati	16004	102.0	102.8	9.0	9.0	-0.8	1.5	0.99
72	2019	Skin_proferati	3020	102.5	103.3	8.9	8.9	-0.8	1.6	0.98

## HOL summary statistics for SS and previous breeding value 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	2015	White_line_dou	6272	98.4	100.6	9.4	9.5	-2.2	1.5	0.99
74	2016	White_line_dou	9647	99.6	101.8	9.6	9.7	-2.2	1.5	0.99
75	2017	White_line_dou	14057	101.0	103.1	10.0	10.1	-2.1	1.6	0.99
76	2018	White_line_dou	16892	102.1	103.7	10.4	10.3	-1.6	1.9	0.98
77	2019	White_line_dou	3196	101.0	102.6	11.1	10.8	-1.6	2.2	0.98
78	2015	Dermatitis3	4911	98.7	98.8	10.8	10.6	-0.1	1.4	0.99
79	2016	Dermatitis3	8020	100.4	100.6	11.1	10.9	-0.2	1.5	0.99
80	2017	Dermatitis3	9661	99.5	99.7	10.5	10.4	-0.2	1.7	0.99
81	2018	Dermatitis3	2318	101.0	101.4	11.2	10.9	-0.4	1.8	0.99
82	2015	Heel_horn_eros	2587	99.7	100.7	9.3	9.4	-1.0	1.3	0.99
83	2016	Heel_horn_eros	3876	100.2	101.2	9.5	9.5	-1.0	1.4	0.99
84	2017	Heel_horn_eros	4130	100.1	101.2	9.4	9.4	-1.1	1.6	0.99
85	2018	Heel_horn_eros	849	100.9	102.1	9.9	10.0	-1.3	1.7	0.98
86	2015	Sole_heamorrha	4440	99.2	100.8	9.0	9.1	-1.6	1.3	0.99
87	2016	Sole_heamorrha	6780	99.9	101.5	8.9	9.0	-1.6	1.4	0.99
88	2017	Sole_heamorrha	7176	101.2	102.8	9.2	9.4	-1.7	1.5	0.99
89	2018	Sole_heamorrha	1530	103.0	104.3	8.9	9.0	-1.4	1.6	0.98
90	2015	Sole_ulcer3	4742	100.4	101.6	8.3	8.2	-1.2	1.3	0.99
91	2016	Sole_ulcer3	7640	101.0	102.2	8.1	8.1	-1.2	1.4	0.99
92	2017	Sole_ulcer3	8911	101.4	102.4	8.3	8.2	-1.1	1.6	0.98
93	2018	Sole_ulcer3	2034	102.9	103.5	8.1	7.7	-0.6	1.9	0.97
94	2015	Cork_screw_cla	4020	100.1	101.0	10.4	10.3	-0.8	1.5	0.99
95	2016	Cork_screw_cla	7035	99.0	99.8	10.5	10.4	-0.8	1.5	0.99
96	2017	Cork_screw_cla	7668	100.7	101.6	9.9	9.9	-0.9	1.7	0.99
97	2018	Cork_screw_cla	1698	100.8	101.9	9.8	9.6	-1.1	1.7	0.98
98	2015	Skin_proferati	4463	98.3	99.1	9.7	9.6	-0.9	1.3	0.99
99	2016	Skin_proferati	7320	99.8	100.7	9.6	9.5	-0.9	1.3	0.99
100	2017	Skin_proferati	8143	100.1	101.0	9.8	9.7	-0.9	1.4	0.99
101	2018	Skin_proferati	1900	102.1	103.0	9.2	9.2	-0.9	1.5	0.99
102	2015	White_line_dou	4689	98.9	101.0	9.5	9.7	-2.2	1.5	0.99
103	2016	White_line_dou	7590	100.0	102.1	9.5	9.7	-2.1	1.6	0.99
104	2017	White_line_dou	8785	101.2	103.2	9.9	10.0	-2.0	1.7	0.99
105	2018	White_line_dou	2007	103.7	105.5	9.8	9.7	-1.7	1.8	0.98
106	2015	Dermatitis	7047	98.7	99.1	10.8	10.6	-0.4	1.4	0.99
107	2016	Dermatitis	11295	100.5	100.9	11.1	11.0	-0.4	1.4	0.99
108	2017	Dermatitis	16852	99.7	100.1	10.7	10.5	-0.4	1.5	0.99

## HOL summary statistics for SS and previous breeding value 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	Dermatitis	23854	101.1	101.6	11.1	10.8	-0.5	1.6	0.99
110	2019	Dermatitis	24634	101.8	102.1	11.4	11.1	-0.3	1.8	0.99
111	2020	Dermatitis	5806	102.5	102.8	11.3	10.7	-0.3	2.1	0.98
112	2015	Heel_horn_eros	4381	99.3	100.4	9.2	9.2	-1.1	1.3	0.99
113	2016	Heel_horn_eros	6735	100.2	101.3	9.3	9.3	-1.1	1.3	0.99
114	2017	Heel_horn_eros	8999	100.1	101.2	9.5	9.5	-1.2	1.5	0.99
115	2018	Heel_horn_eros	11854	101.0	102.3	9.1	9.1	-1.3	1.6	0.99
116	2019	Heel_horn_eros	11145	101.7	103.2	8.8	8.8	-1.5	1.7	0.98
117	2020	Heel_horn_eros	2550	101.3	103.3	8.9	8.8	-2.0	1.9	0.98
118	2015	Sole_heamorrha	6614	98.9	100.5	9.1	9.2	-1.5	1.3	0.99
119	2016	Sole_heamorrha	10182	99.8	101.3	8.8	8.9	-1.5	1.3	0.99
120	2017	Sole_heamorrha	14299	100.6	102.2	9.1	9.2	-1.6	1.5	0.99
121	2018	Sole_heamorrha	19593	101.7	103.0	8.8	8.9	-1.2	1.6	0.98
122	2019	Sole_heamorrha	19057	102.9	104.3	8.9	9.1	-1.4	1.9	0.98
123	2020	Sole_heamorrha	4343	103.8	105.0	8.3	8.5	-1.2	2.5	0.95
124	2015	Sole_ulcer	7027	99.9	101.1	8.2	8.1	-1.2	1.3	0.99
125	2016	Sole_ulcer	10863	100.6	101.8	7.9	7.8	-1.2	1.3	0.99
126	2017	Sole_ulcer	15662	100.8	101.9	8.4	8.3	-1.1	1.5	0.98
127	2018	Sole_ulcer	22344	101.8	102.5	7.9	7.7	-0.7	1.7	0.98
128	2019	Sole_ulcer	21938	102.3	103.1	7.5	7.3	-0.8	1.8	0.97
129	2020	Sole_ulcer	5082	103.4	104.2	7.1	6.8	-0.8	2.2	0.95
130	2015	Cork_screw_cla	5387	99.8	100.9	10.3	10.1	-1.1	1.4	0.99
131	2016	Cork_screw_cla	8718	98.7	99.8	10.3	10.2	-1.1	1.4	0.99
132	2017	Cork_screw_cla	13188	100.2	101.4	10.0	10.0	-1.1	1.5	0.99
133	2018	Cork_screw_cla	20647	101.1	102.1	9.8	9.7	-1.0	1.6	0.99
134	2019	Cork_screw_cla	19696	101.1	102.2	10.2	10.1	-1.1	1.9	0.98
135	2020	Cork_screw_cla	4219	101.9	103.0	9.1	9.1	-1.1	2.4	0.96
136	2015	Skin_proferati	6727	98.0	98.9	9.8	9.7	-0.9	1.3	0.99
137	2016	Skin_proferati	10452	99.6	100.6	9.6	9.5	-0.9	1.3	0.99
138	2017	Skin_proferati	15002	100.3	101.2	9.8	9.7	-0.9	1.4	0.99
139	2018	Skin_proferati	21752	101.9	102.7	9.1	9.1	-0.8	1.5	0.99
140	2019	Skin_proferati	20884	102.7	103.5	8.8	8.7	-0.8	1.6	0.98
141	2020	Skin_proferati	4828	103.0	103.6	9.1	8.8	-0.6	2.0	0.98
142	2015	White_line_dou	7106	98.4	100.5	9.5	9.6	-2.1	1.5	0.99
143	2016	White_line_dou	10998	99.4	101.6	9.5	9.6	-2.2	1.5	0.99
144	2017	White_line_dou	15834	100.7	102.8	10.0	10.1	-2.0	1.6	0.99



**HOL summary statistics for SS and previous breeding value 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	2018	White_line_dou	22434	101.9	103.5	10.3	10.2	-1.6	1.8	0.98
146	2019	White_line_dou	22124	102.3	104.0	10.2	10.1	-1.7	2.2	0.98
147	2020	White_line_dou	5137	104.2	105.5	9.4	9.2	-1.2	2.6	0.96

## HOL summery stastistics for SS and previous breeding value 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	Dermatitis1	113079	97.6	98.4	8.1	8.1	-0.8	0.7	1.00
2	2016	Dermatitis1	113001	99.2	100.0	8.8	8.8	-0.8	0.8	1.00
3	2017	Dermatitis1	106343	99.1	99.9	8.4	8.3	-0.8	1.0	0.99
4	2018	Dermatitis1	105499	100.4	101.2	8.7	8.6	-0.8	1.3	0.99
5	2019	Dermatitis1	91327	100.6	101.4	9.0	8.7	-0.8	1.9	0.98
6	2020	Dermatitis1	17558	101.2	102.0	8.7	8.1	-0.8	2.4	0.96
7	2015	Heel_horn_eros	70946	97.6	98.8	7.2	7.3	-1.2	0.8	0.99
8	2016	Heel_horn_eros	69071	98.6	99.8	7.7	7.8	-1.2	0.9	0.99
9	2017	Heel_horn_eros	59677	99.0	100.2	8.2	8.2	-1.2	1.1	0.99
10	2018	Heel_horn_eros	57901	99.7	101.1	7.7	7.8	-1.3	1.5	0.98
11	2019	Heel_horn_eros	47185	100.1	101.4	7.5	7.4	-1.4	2.0	0.97
12	2020	Heel_horn_eros	8285	100.0	101.6	7.3	7.1	-1.6	2.4	0.94
13	2015	Sole_heamorrha	105709	97.9	99.3	7.6	7.7	-1.3	0.8	1.00
14	2016	Sole_heamorrha	104984	98.6	99.9	7.4	7.5	-1.3	0.9	0.99
15	2017	Sole_heamorrha	96206	99.1	100.5	7.7	7.8	-1.4	1.1	0.99
16	2018	Sole_heamorrha	93128	99.8	101.0	7.5	7.5	-1.3	1.4	0.98
17	2019	Sole_heamorrha	76988	100.4	101.7	7.6	7.7	-1.3	1.9	0.97
18	2020	Sole_heamorrha	14203	100.8	102.2	7.4	7.3	-1.4	2.6	0.94
19	2015	Sole_ulcer1	110719	97.9	99.1	7.7	7.7	-1.2	0.8	0.99
20	2016	Sole_ulcer1	109758	98.8	100.0	7.5	7.5	-1.2	0.9	0.99
21	2017	Sole_ulcer1	102544	99.2	100.3	8.0	7.9	-1.1	1.2	0.99
22	2018	Sole_ulcer1	101696	99.9	100.8	7.7	7.5	-1.0	1.6	0.98
23	2019	Sole_ulcer1	84916	99.9	100.9	7.2	6.9	-1.0	2.0	0.96
24	2020	Sole_ulcer1	15926	100.8	101.7	6.9	6.2	-0.9	2.6	0.93
25	2015	Cork_screw_cla	94512	98.7	99.9	8.7	8.7	-1.2	0.8	1.00
26	2016	Cork_screw_cla	94885	98.2	99.4	8.4	8.4	-1.2	0.9	0.99
27	2017	Cork_screw_cla	91794	99.2	100.4	8.4	8.3	-1.2	1.1	0.99
28	2018	Cork_screw_cla	96968	99.8	100.8	8.5	8.3	-1.1	1.4	0.99
29	2019	Cork_screw_cla	79480	99.7	100.8	8.5	8.2	-1.1	1.8	0.98
30	2020	Cork_screw_cla	14122	100.3	101.4	7.2	7.0	-1.1	2.2	0.95
31	2015	Skin_proferati	108493	97.3	98.2	8.0	8.0	-0.9	0.7	1.00
32	2016	Skin_proferati	107215	98.7	99.6	7.9	7.9	-0.9	0.8	0.99
33	2017	Skin_proferati	100103	98.9	99.8	8.5	8.4	-0.9	1.1	0.99
34	2018	Skin_proferati	100022	100.4	101.3	7.9	7.8	-0.9	1.4	0.98
35	2019	Skin_proferati	83420	100.8	101.7	7.6	7.3	-0.8	1.9	0.97
36	2020	Skin_proferati	15647	100.9	101.7	7.3	6.8	-0.8	2.4	0.94

## HOL summery stastistics for SS and previous breeding value 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	2015	White_line_dou	111358	96.3	98.3	7.7	7.8	-2.0	0.9	0.99
38	2016	White_line_dou	110455	97.7	99.8	7.8	8.0	-2.0	1.0	0.99
39	2017	White_line_dou	103202	99.0	100.9	8.4	8.5	-2.0	1.2	0.99
40	2018	White_line_dou	102170	99.8	101.6	9.0	9.0	-1.8	1.7	0.98
41	2019	White_line_dou	85357	99.8	101.6	8.7	8.6	-1.8	2.1	0.97
42	2020	White_line_dou	15972	101.2	102.5	8.2	7.9	-1.4	2.6	0.95
43	2015	Dermatitis2	90658	98.2	98.6	8.3	8.2	-0.3	0.8	1.00
44	2016	Dermatitis2	92034	99.5	99.8	8.7	8.6	-0.3	0.9	0.99
45	2017	Dermatitis2	87358	99.3	99.6	8.3	8.2	-0.3	1.1	0.99
46	2018	Dermatitis2	73250	100.6	101.0	8.7	8.5	-0.3	1.5	0.98
47	2019	Dermatitis2	12856	99.8	100.2	9.4	9.1	-0.4	1.7	0.98
48	2015	Heel_horn_eros	54935	97.9	98.9	7.2	7.3	-1.0	0.8	0.99
49	2016	Heel_horn_eros	51137	98.8	99.8	7.8	7.9	-1.0	0.9	0.99
50	2017	Heel_horn_eros	46859	99.2	100.3	8.1	8.2	-1.1	1.2	0.99
51	2018	Heel_horn_eros	37076	99.7	101.0	7.8	7.9	-1.3	1.7	0.98
52	2019	Heel_horn_eros	6045	100.5	101.9	7.5	7.6	-1.3	1.8	0.97
53	2015	Sole_heamorrha	85704	97.6	99.1	7.9	8.1	-1.5	0.8	1.00
54	2016	Sole_heamorrha	85033	98.5	100.1	7.8	7.9	-1.5	0.9	0.99
55	2017	Sole_heamorrha	80294	99.0	100.6	8.0	8.1	-1.6	1.2	0.99
56	2018	Sole_heamorrha	64367	99.9	101.2	8.0	7.9	-1.3	1.5	0.98
57	2019	Sole_heamorrha	10605	100.2	101.4	7.6	7.6	-1.3	1.8	0.97
58	2015	Sole_ulcer2	88721	97.9	99.1	7.8	7.9	-1.3	0.8	0.99
59	2016	Sole_ulcer2	89255	98.9	100.2	7.7	7.7	-1.2	0.9	0.99
60	2017	Sole_ulcer2	84206	99.3	100.5	7.9	7.8	-1.2	1.3	0.99
61	2018	Sole_ulcer2	68463	100.1	101.1	7.8	7.5	-1.0	1.7	0.98
62	2019	Sole_ulcer2	11753	99.8	100.6	7.0	6.5	-0.8	2.1	0.95
63	2015	Cork_screw_cla	75081	98.5	99.9	8.2	8.1	-1.4	0.8	0.99
64	2016	Cork_screw_cla	78704	98.1	99.5	8.2	8.1	-1.4	0.9	0.99
65	2017	Cork_screw_cla	79151	99.5	101.0	8.3	8.2	-1.5	1.2	0.99
66	2018	Cork_screw_cla	62573	99.9	101.3	8.3	8.2	-1.4	1.4	0.99
67	2019	Cork_screw_cla	10391	100.1	101.5	8.7	8.6	-1.4	1.7	0.98
68	2015	Skin_proferati	85597	97.3	98.2	8.1	8.1	-0.9	0.8	1.00
69	2016	Skin_proferati	86141	98.6	99.5	8.0	8.0	-0.9	0.8	0.99
70	2017	Skin_proferati	82024	99.0	100.0	8.5	8.4	-0.9	1.1	0.99
71	2018	Skin_proferati	66206	100.5	101.4	7.9	7.8	-0.9	1.4	0.98
72	2019	Skin_proferati	11459	100.9	101.7	8.0	7.8	-0.8	1.6	0.98

## HOL summery stastistics for SS and previous breeding value 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	2015	White_line_dou	88354	96.4	98.5	8.1	8.2	-2.2	0.9	0.99
74	2016	White_line_dou	88691	97.9	100.0	8.1	8.3	-2.1	1.0	0.99
75	2017	White_line_dou	83942	99.1	101.2	8.6	8.6	-2.1	1.3	0.99
76	2018	White_line_dou	68223	100.1	101.9	9.1	8.9	-1.8	1.8	0.98
77	2019	White_line_dou	11684	99.5	101.2	9.0	8.7	-1.7	2.1	0.97
78	2015	Dermatitis3	64640	98.5	98.6	8.2	8.1	-0.1	0.9	0.99
79	2016	Dermatitis3	66321	99.7	99.8	8.6	8.5	-0.1	1.0	0.99
80	2017	Dermatitis3	50995	99.4	99.5	8.3	8.2	-0.1	1.3	0.99
81	2018	Dermatitis3	8539	100.9	101.2	8.6	8.4	-0.3	1.6	0.98
82	2015	Heel_horn_eros	35060	98.4	99.3	7.4	7.4	-0.9	0.8	0.99
83	2016	Heel_horn_eros	34808	99.1	100.0	7.8	7.8	-0.9	1.0	0.99
84	2017	Heel_horn_eros	24591	99.6	100.5	8.0	8.0	-1.0	1.3	0.99
85	2018	Heel_horn_eros	3897	100.1	101.2	8.0	8.1	-1.1	1.6	0.98
86	2015	Sole_heamorrha	56847	97.9	99.4	7.7	7.9	-1.6	0.8	0.99
87	2016	Sole_heamorrha	56265	98.6	100.1	7.6	7.7	-1.6	0.9	0.99
88	2017	Sole_heamorrha	41225	99.5	101.2	8.0	8.1	-1.7	1.2	0.99
89	2018	Sole_heamorrha	6630	101.2	102.6	8.0	8.0	-1.4	1.5	0.98
90	2015	Sole_ulcer3	62885	98.7	100.0	7.9	8.0	-1.3	0.9	0.99
91	2016	Sole_ulcer3	63724	99.5	100.7	7.7	7.7	-1.2	1.0	0.99
92	2017	Sole_ulcer3	47173	99.9	101.0	7.8	7.6	-1.2	1.4	0.98
93	2018	Sole_ulcer3	7735	101.3	102.1	7.9	7.3	-0.7	2.0	0.97
94	2015	Cork_screw_cla	55321	99.4	100.2	8.5	8.4	-0.8	0.9	0.99
95	2016	Cork_screw_cla	60012	98.7	99.6	8.3	8.2	-0.8	1.0	0.99
96	2017	Cork_screw_cla	42989	99.8	100.7	8.2	8.1	-0.9	1.2	0.99
97	2018	Cork_screw_cla	6664	100.2	101.2	8.0	7.8	-1.0	1.4	0.98
98	2015	Skin_proferati	60787	97.6	98.5	8.2	8.2	-0.9	0.8	1.00
99	2016	Skin_proferati	62201	98.8	99.7	8.1	8.0	-0.9	0.9	0.99
100	2017	Skin_proferati	45796	99.2	100.1	8.6	8.5	-0.9	1.1	0.99
101	2018	Skin_proferati	7561	101.0	101.8	8.1	8.0	-0.8	1.3	0.99
102	2015	White_line_dou	62627	96.9	99.0	8.3	8.4	-2.1	0.9	0.99
103	2016	White_line_dou	63479	98.3	100.4	8.1	8.3	-2.1	1.0	0.99
104	2017	White_line_dou	47006	99.3	101.3	8.5	8.5	-2.0	1.3	0.99
105	2018	White_line_dou	7714	101.7	103.5	9.0	8.8	-1.8	1.6	0.98
106	2015	Dermatitis	113079	98.1	98.5	8.0	7.9	-0.4	0.8	1.00
107	2016	Dermatitis	113001	99.4	99.8	8.5	8.4	-0.4	0.8	1.00
108	2017	Dermatitis	106343	99.2	99.6	8.1	8.0	-0.4	1.1	0.99

## HOL summery stastistics for SS and previous breeding value 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	Dermatitis	105499	100.5	100.9	8.4	8.2	-0.4	1.4	0.99
110	2019	Dermatitis	91327	100.6	101.0	8.7	8.4	-0.4	2.0	0.97
111	2020	Dermatitis	17558	101.2	101.6	8.2	7.6	-0.3	2.4	0.96
112	2015	Heel_horn_eros	70946	98.0	99.0	7.0	7.0	-1.0	0.7	0.99
113	2016	Heel_horn_eros	69071	98.8	99.8	7.6	7.6	-1.0	0.8	0.99
114	2017	Heel_horn_eros	59677	99.1	100.2	7.9	8.0	-1.0	1.1	0.99
115	2018	Heel_horn_eros	57901	99.7	100.9	7.4	7.5	-1.2	1.5	0.98
116	2019	Heel_horn_eros	47185	100.1	101.4	7.2	7.1	-1.3	1.9	0.96
117	2020	Heel_horn_eros	8285	99.9	101.4	6.9	6.7	-1.6	2.3	0.94
118	2015	Sole_heamorrha	105709	97.6	99.1	7.6	7.7	-1.5	0.8	1.00
119	2016	Sole_heamorrha	104984	98.4	99.9	7.4	7.6	-1.5	0.9	0.99
120	2017	Sole_heamorrha	96206	99.1	100.6	7.8	7.9	-1.6	1.1	0.99
121	2018	Sole_heamorrha	93128	99.7	101.1	7.7	7.7	-1.3	1.5	0.98
122	2019	Sole_heamorrha	76988	100.2	101.6	7.6	7.6	-1.4	1.9	0.97
123	2020	Sole_heamorrha	14203	100.9	102.2	7.3	7.1	-1.3	2.5	0.94
124	2015	Sole_ulcer	110719	98.0	99.2	7.7	7.8	-1.2	0.8	1.00
125	2016	Sole_ulcer	109758	98.9	100.1	7.6	7.6	-1.2	0.9	0.99
126	2017	Sole_ulcer	102544	99.2	100.4	7.8	7.7	-1.2	1.2	0.99
127	2018	Sole_ulcer	101696	99.8	100.6	7.6	7.3	-0.9	1.7	0.98
128	2019	Sole_ulcer	84916	99.8	100.7	7.0	6.7	-0.9	2.0	0.96
129	2020	Sole_ulcer	15926	100.5	101.5	6.7	6.1	-1.0	2.4	0.93
130	2015	Cork_screw_cla	94512	98.9	100.0	8.3	8.2	-1.1	0.8	1.00
131	2016	Cork_screw_cla	94885	98.3	99.4	8.1	8.1	-1.1	0.9	0.99
132	2017	Cork_screw_cla	91794	99.4	100.5	8.1	8.0	-1.1	1.1	0.99
133	2018	Cork_screw_cla	96968	99.7	100.8	8.0	7.9	-1.1	1.3	0.99
134	2019	Cork_screw_cla	79480	99.8	100.8	8.1	8.0	-1.0	1.8	0.98
135	2020	Cork_screw_cla	14122	100.3	101.4	6.9	6.8	-1.1	2.2	0.95
136	2015	Skin_proferati	108493	97.4	98.3	8.0	8.0	-0.9	0.7	1.00
137	2016	Skin_proferati	107215	98.6	99.5	7.9	7.9	-0.9	0.8	0.99
138	2017	Skin_proferati	100103	98.9	99.8	8.5	8.4	-0.9	1.1	0.99
139	2018	Skin_proferati	100022	100.4	101.3	7.8	7.7	-0.8	1.4	0.98
140	2019	Skin_proferati	83420	100.9	101.7	7.5	7.2	-0.8	1.9	0.97
141	2020	Skin_proferati	15647	100.9	101.7	7.3	6.8	-0.8	2.4	0.95
142	2015	White_line_dou	111358	96.3	98.4	7.9	8.1	-2.1	0.9	0.99
143	2016	White_line_dou	110455	97.8	99.8	8.0	8.1	-2.1	1.0	0.99
144	2017	White_line_dou	103202	98.9	100.9	8.4	8.5	-2.0	1.3	0.99

**HOL summery statistics for SS and previous breeding value 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	2018	White_line_dou	102170	99.8	101.5	8.9	8.8	-1.7	1.7	0.98
146	2019	White_line_dou	85357	99.8	101.5	8.4	8.2	-1.7	2.2	0.97
147	2020	White_line_dou	15972	101.0	102.5	8.0	7.6	-1.5	2.5	0.95

## HOL summery statistics for SS and previous breeding value 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	Dermatitis1	192	464	1478	97.6	98.5	11.1	11.1	-0.9	0.7	1.00
2	2011	Dermatitis1	155	292	614	99.6	100.5	13.3	13.2	-0.9	0.7	1.00
3	2012	Dermatitis1	170	433	783	99.9	100.8	11.7	11.6	-0.8	0.7	1.00
4	2013	Dermatitis1	151	463	860	100.4	101.3	11.7	11.7	-0.9	0.8	1.00
5	2014	Dermatitis1	113	712	856	100.3	101.3	14.0	13.9	-1.0	0.8	1.00
6	2015	Dermatitis1	82	1094	1341	104.7	105.5	12.6	12.5	-0.9	0.9	1.00
7	2016	Dermatitis1	66	1075	1361	103.4	104.3	12.9	12.7	-0.9	1.3	0.99
8	2017	Dermatitis1	65	950	1108	103.8	105.1	12.8	12.0	-1.3	2.4	0.98
9	2018	Dermatitis1	19	689	773	103.2	104.2	14.9	12.6	-1.0	4.4	0.96
10	2010	Heel_horn_eros	189	298	937	97.1	98.4	10.5	10.6	-1.3	0.9	1.00
11	2011	Heel_horn_eros	154	189	387	97.9	99.1	11.4	11.4	-1.3	0.9	1.00
12	2012	Heel_horn_eros	169	264	476	99.5	100.9	10.7	10.7	-1.4	0.8	1.00
13	2013	Heel_horn_eros	151	277	504	100.2	101.6	10.0	9.9	-1.5	1.0	1.00
14	2014	Heel_horn_eros	111	403	486	101.0	102.6	11.6	11.5	-1.5	1.0	1.00
15	2015	Heel_horn_eros	82	569	700	104.4	106.0	10.1	10.4	-1.6	1.5	0.99
16	2016	Heel_horn_eros	65	566	716	103.0	104.6	8.9	8.6	-1.6	1.6	0.98
17	2017	Heel_horn_eros	61	481	540	103.0	105.4	9.6	9.3	-2.3	2.6	0.96
18	2018	Heel_horn_eros	15	341	356	105.1	107.3	7.0	6.5	-2.1	3.3	0.88
19	2010	Sole_heamorrha	192	439	1398	96.6	98.0	10.4	10.6	-1.3	1.0	1.00
20	2011	Sole_heamorrha	155	276	567	98.3	99.8	10.1	10.4	-1.4	1.0	1.00
21	2012	Sole_heamorrha	169	404	726	99.9	101.3	10.3	10.4	-1.4	0.9	1.00
22	2013	Sole_heamorrha	151	433	795	101.4	102.8	10.2	10.4	-1.4	1.0	1.00
23	2014	Sole_heamorrha	113	644	777	101.8	103.5	10.4	10.4	-1.7	1.1	0.99
24	2015	Sole_heamorrha	82	958	1168	103.6	105.0	9.5	9.4	-1.4	1.3	0.99
25	2016	Sole_heamorrha	66	918	1155	104.5	105.4	10.4	10.7	-0.9	1.8	0.99
26	2017	Sole_heamorrha	64	804	916	105.8	107.9	10.2	10.4	-2.1	4.2	0.92
27	2018	Sole_heamorrha	19	546	618	103.2	103.7	9.4	8.2	-0.5	4.5	0.88
28	2010	Sole_ulcer1	193	450	1439	97.4	98.6	10.1	10.1	-1.2	0.8	1.00
29	2011	Sole_ulcer1	155	286	596	99.1	100.5	9.3	9.3	-1.4	0.8	1.00
30	2012	Sole_ulcer1	170	421	759	101.9	103.1	9.2	9.3	-1.2	0.8	1.00
31	2013	Sole_ulcer1	151	452	831	102.7	104.1	8.3	8.4	-1.3	0.8	1.00
32	2014	Sole_ulcer1	113	677	808	102.2	103.5	9.2	9.2	-1.3	0.9	0.99
33	2015	Sole_ulcer1	82	1044	1275	103.9	104.8	10.1	9.9	-0.9	1.3	0.99
34	2016	Sole_ulcer1	66	1028	1298	103.6	104.6	8.8	8.9	-0.9	1.7	0.98
35	2017	Sole_ulcer1	64	926	1066	105.3	106.3	8.9	8.6	-0.9	3.6	0.92
36	2018	Sole_ulcer1	19	622	706	104.3	104.6	8.6	5.9	-0.3	6.4	0.67

## HOL summery statistics for SS and previous breeding value 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	2010	Cork_screw_cla	191	371	1186	98.6	99.9	12.9	12.9	-1.3	1.0	1.00
38	2011	Cork_screw_cla	155	235	484	98.1	99.3	10.4	10.4	-1.2	1.2	0.99
39	2012	Cork_screw_cla	169	352	643	100.1	101.4	12.7	12.5	-1.3	1.0	1.00
40	2013	Cork_screw_cla	151	384	729	100.8	102.0	11.6	11.7	-1.1	1.2	0.99
41	2014	Cork_screw_cla	112	580	692	100.4	101.5	11.5	11.1	-1.2	1.4	0.99
42	2015	Cork_screw_cla	82	953	1164	103.6	104.8	11.7	11.6	-1.2	1.6	0.99
43	2016	Cork_screw_cla	66	984	1238	99.3	100.2	12.9	12.5	-0.9	2.0	0.99
44	2017	Cork_screw_cla	64	875	1007	103.5	105.2	10.8	11.2	-1.7	3.3	0.96
45	2018	Cork_screw_cla	19	588	659	101.5	101.5	11.8	10.8	0.0	4.9	0.91
46	2010	Skin_proferati	190	447	1416	97.0	98.0	10.8	10.8	-1.0	0.7	1.00
47	2011	Skin_proferati	155	280	582	96.6	97.5	12.5	12.5	-0.9	0.8	1.00
48	2012	Skin_proferati	169	412	743	98.3	99.2	10.9	10.9	-1.0	0.8	1.00
49	2013	Skin_proferati	151	440	813	98.8	99.8	10.3	10.2	-1.0	0.8	1.00
50	2014	Skin_proferati	113	660	791	99.9	100.9	12.7	12.5	-1.0	1.0	1.00
51	2015	Skin_proferati	82	1017	1244	103.8	104.6	10.6	10.7	-0.8	1.2	0.99
52	2016	Skin_proferati	66	1009	1272	104.1	104.8	9.1	8.9	-0.7	1.7	0.98
53	2017	Skin_proferati	64	913	1054	103.3	104.5	11.9	11.1	-1.3	3.3	0.96
54	2018	Skin_proferati	19	629	713	101.9	102.2	9.4	8.3	-0.3	5.0	0.85
55	2010	White_line_dou	192	455	1449	93.6	95.7	11.2	11.5	-2.1	1.1	1.00
56	2011	White_line_dou	155	287	599	94.8	97.1	11.3	11.4	-2.3	1.1	1.00
57	2012	White_line_dou	170	423	764	98.7	100.8	11.6	11.7	-2.1	1.1	1.00
58	2013	White_line_dou	151	455	837	102.5	104.7	9.7	10.1	-2.3	1.3	0.99
59	2014	White_line_dou	113	681	813	102.1	104.2	11.9	12.0	-2.2	1.2	0.99
60	2015	White_line_dou	82	1050	1282	106.6	108.7	11.4	11.9	-2.1	1.6	0.99
61	2016	White_line_dou	66	1033	1305	103.0	104.6	13.6	13.6	-1.6	2.7	0.98
62	2017	White_line_dou	64	933	1073	106.3	108.0	12.7	13.1	-1.7	3.8	0.96
63	2018	White_line_dou	19	628	712	105.9	107.1	10.3	8.1	-1.2	6.7	0.76
64	2010	Dermatitis2	192	368	1177	98.8	99.3	11.2	11.2	-0.4	0.8	1.00
65	2011	Dermatitis2	155	231	498	100.2	100.7	13.2	13.0	-0.5	0.8	1.00
66	2012	Dermatitis2	169	355	637	100.5	100.7	11.7	11.6	-0.3	0.8	1.00
67	2013	Dermatitis2	151	373	655	100.1	100.4	11.9	11.9	-0.3	0.9	1.00
68	2014	Dermatitis2	113	592	716	99.8	100.3	14.1	13.9	-0.4	1.1	1.00
69	2015	Dermatitis2	82	897	1109	104.0	104.3	12.2	12.2	-0.3	1.1	1.00
70	2016	Dermatitis2	63	738	926	101.8	102.6	13.6	13.3	-0.9	1.9	0.99
71	2017	Dermatitis2	17	472	361	104.7	104.5	12.4	12.0	0.2	2.5	0.98
72	2010	Heel_horn_eros	181	235	726	97.7	98.8	10.6	10.7	-1.1	0.8	1.00



## HOL summery statistics for SS and previous breeding value 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	2011	Heel_horn_eros	153	143	302	98.3	99.3	11.1	11.3	-1.1	0.9	1.00
74	2012	Heel_horn_eros	168	209	375	99.4	100.6	10.7	10.6	-1.1	0.9	1.00
75	2013	Heel_horn_eros	150	212	361	99.9	101.0	9.7	9.9	-1.1	1.1	0.99
76	2014	Heel_horn_eros	109	313	376	100.8	102.2	11.5	11.4	-1.4	1.0	1.00
77	2015	Heel_horn_eros	82	455	560	103.6	105.1	9.6	10.1	-1.4	1.5	0.99
78	2016	Heel_horn_eros	59	369	445	102.9	104.5	8.8	8.8	-1.5	2.1	0.97
79	2010	Sole_heamorrha	192	346	1103	96.3	97.8	10.3	10.6	-1.5	1.0	1.00
80	2011	Sole_heamorrha	155	218	473	98.0	99.6	10.1	10.4	-1.6	1.0	1.00
81	2012	Sole_heamorrha	169	334	597	100.1	101.7	10.4	10.6	-1.6	0.8	1.00
82	2013	Sole_heamorrha	151	349	603	102.3	104.0	9.9	10.1	-1.7	0.9	1.00
83	2014	Sole_heamorrha	113	531	644	102.0	103.8	10.1	10.1	-1.8	1.0	1.00
84	2015	Sole_heamorrha	82	799	983	104.5	106.0	9.9	9.8	-1.5	1.4	0.99
85	2016	Sole_heamorrha	62	640	791	104.2	105.1	10.6	10.9	-0.8	1.6	0.99
86	2017	Sole_heamorrha	13	438	295	106.4	108.2	10.4	11.5	-1.8	2.4	0.98
87	2010	Sole_ulcer2	191	362	1153	97.1	98.4	9.9	10.1	-1.3	0.9	1.00
88	2011	Sole_ulcer2	155	227	489	98.8	100.2	9.4	9.5	-1.4	0.8	1.00
89	2012	Sole_ulcer2	169	347	619	101.8	103.2	9.5	9.6	-1.4	0.8	1.00
90	2013	Sole_ulcer2	151	361	626	103.1	104.4	8.2	8.3	-1.4	0.8	1.00
91	2014	Sole_ulcer2	113	568	684	102.7	104.0	9.0	9.0	-1.3	1.0	0.99
92	2015	Sole_ulcer2	82	864	1071	103.7	104.8	9.9	9.5	-1.1	1.4	0.99
93	2016	Sole_ulcer2	62	723	900	103.5	103.9	8.6	8.4	-0.4	2.3	0.97
94	2017	Sole_ulcer2	16	435	310	105.0	106.0	6.3	7.0	-1.0	2.7	0.92
95	2010	Cork_screw_cla	190	297	948	97.7	99.1	12.3	12.4	-1.4	1.1	1.00
96	2011	Cork_screw_cla	155	186	396	97.5	98.9	10.3	10.2	-1.4	1.2	0.99
97	2012	Cork_screw_cla	168	289	521	98.8	100.4	11.7	11.5	-1.6	0.9	1.00
98	2013	Cork_screw_cla	151	309	548	100.3	101.7	11.1	11.2	-1.4	1.2	0.99
99	2014	Cork_screw_cla	113	508	615	100.0	101.5	11.8	11.5	-1.5	1.3	0.99
100	2015	Cork_screw_cla	82	814	1004	103.6	105.1	11.5	11.6	-1.5	1.6	0.99
101	2016	Cork_screw_cla	61	680	833	99.1	100.5	13.3	13.2	-1.3	2.0	0.99
102	2017	Cork_screw_cla	14	451	298	102.7	104.9	12.3	11.7	-2.2	2.7	0.98
103	2010	Skin_proferati	189	257	754	96.9	97.9	10.6	10.6	-1.0	0.7	1.00
104	2011	Skin_proferati	152	172	336	97.0	97.9	12.3	12.3	-0.9	0.8	1.00
105	2012	Skin_proferati	167	245	407	98.4	99.4	11.2	11.2	-1.0	0.7	1.00
106	2013	Skin_proferati	149	249	406	98.7	99.6	10.4	10.2	-0.9	0.8	1.00
107	2014	Skin_proferati	108	418	482	100.3	101.4	12.4	12.3	-1.1	1.0	1.00
108	2015	Skin_proferati	79	599	748	103.8	104.7	10.8	10.9	-0.9	1.3	0.99

## HOL summery statistics for SS and previous breeding value 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	2016	Skin_proferati	58	556	682	104.4	105.0	9.1	9.1	-0.5	1.7	0.98
110	2017	Skin_proferati	15	396	274	106.2	106.7	11.5	13.2	-0.5	2.7	0.99
111	2010	White_line_dou	190	255	745	93.6	95.8	10.8	11.1	-2.2	1.0	1.00
112	2011	White_line_dou	152	172	332	95.3	97.7	11.2	11.4	-2.4	1.1	1.00
113	2012	White_line_dou	167	245	402	99.4	101.7	11.8	12.1	-2.3	1.1	1.00
114	2013	White_line_dou	149	250	400	102.5	104.8	9.8	10.1	-2.3	1.1	0.99
115	2014	White_line_dou	108	415	478	102.6	104.9	11.1	11.2	-2.3	1.3	0.99
116	2015	White_line_dou	79	594	744	106.5	108.5	11.7	11.7	-2.0	1.6	0.99
117	2016	White_line_dou	58	548	673	103.5	104.8	13.2	13.3	-1.3	2.9	0.98
118	2017	White_line_dou	15	373	262	104.3	107.1	13.8	13.4	-2.8	4.0	0.96
119	2010	Dermatitis3	187	187	550	98.7	98.9	11.4	11.4	-0.3	0.8	1.00
120	2011	Dermatitis3	150	128	251	100.5	100.7	12.8	12.7	-0.2	0.8	1.00
121	2012	Dermatitis3	166	185	296	100.0	100.1	11.7	11.6	-0.1	0.9	1.00
122	2013	Dermatitis3	148	190	293	99.4	99.6	11.6	11.5	-0.2	1.0	1.00
123	2014	Dermatitis3	105	338	391	99.5	99.7	14.0	13.7	-0.3	1.1	1.00
124	2015	Dermatitis3	75	395	482	103.5	103.9	12.5	12.3	-0.3	1.4	0.99
125	2016	Dermatitis3	10	392	253	101.9	102.5	15.7	15.3	-0.6	1.8	0.99
126	2010	Heel_horn_eros	157	119	309	98.0	98.9	10.7	10.7	-1.0	0.9	1.00
127	2011	Heel_horn_eros	144	74	136	99.4	100.3	10.8	10.8	-0.9	0.8	1.00
128	2012	Heel_horn_eros	157	98	145	99.9	101.0	10.5	10.5	-1.1	0.8	1.00
129	2013	Heel_horn_eros	132	100	140	99.6	100.5	9.9	9.9	-1.0	0.9	1.00
130	2014	Heel_horn_eros	89	178	183	101.3	102.5	10.6	10.3	-1.2	1.0	1.00
131	2015	Heel_horn_eros	55	222	216	103.6	105.1	10.3	10.9	-1.4	1.9	0.99
132	2010	Sole_heamorrha	187	166	478	96.2	97.8	10.1	10.4	-1.6	0.9	1.00
133	2011	Sole_heamorrha	150	115	219	97.5	99.1	9.9	10.2	-1.6	0.9	1.00
134	2012	Sole_heamorrha	166	158	247	99.9	101.5	10.3	10.5	-1.6	0.7	1.00
135	2013	Sole_heamorrha	147	160	241	102.0	103.7	9.4	9.7	-1.6	0.9	1.00
136	2014	Sole_heamorrha	103	276	311	101.5	103.3	10.3	10.3	-1.8	1.0	1.00
137	2015	Sole_heamorrha	71	323	379	104.3	105.8	9.5	9.8	-1.5	1.6	0.99
138	2010	Sole_ulcer3	187	178	516	97.8	99.0	10.0	10.0	-1.2	0.9	1.00
139	2011	Sole_ulcer3	150	123	237	99.8	101.0	9.6	9.8	-1.3	0.8	1.00
140	2012	Sole_ulcer3	165	176	277	102.4	103.7	9.6	9.8	-1.3	0.9	1.00
141	2013	Sole_ulcer3	148	181	277	103.0	104.2	8.7	8.8	-1.2	0.9	0.99
142	2014	Sole_ulcer3	105	322	373	102.8	104.0	9.0	9.1	-1.3	1.0	0.99
143	2015	Sole_ulcer3	73	379	454	102.4	103.1	10.8	9.9	-0.7	2.1	0.98
144	2010	Cork_screw_cla	181	148	424	99.1	100.0	11.9	12.0	-0.9	1.1	1.00

## HOL summery statistics for SS and previous breeding value 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	2011	Cork_screw_cla	148	101	193	98.4	99.2	11.5	11.4	-0.8	1.2	0.99
146	2012	Cork_screw_cla	162	151	239	99.5	100.5	12.1	11.8	-0.9	1.1	1.00
147	2013	Cork_screw_cla	147	165	254	100.6	101.5	11.1	11.2	-0.9	1.3	0.99
148	2014	Cork_screw_cla	104	312	359	99.8	100.7	11.7	11.4	-0.9	1.5	0.99
149	2015	Cork_screw_cla	73	362	433	102.0	103.1	10.8	11.0	-1.1	2.0	0.98
150	2010	Skin_proferati	183	183	529	97.0	97.9	10.7	10.8	-0.9	0.7	1.00
151	2011	Skin_proferati	150	123	240	97.3	98.1	12.6	12.5	-0.8	0.8	1.00
152	2012	Skin_proferati	164	177	283	98.5	99.5	11.2	11.1	-1.0	0.8	1.00
153	2013	Skin_proferati	148	181	281	98.6	99.5	10.5	10.4	-0.9	0.8	1.00
154	2014	Skin_proferati	105	325	378	99.6	100.7	12.7	12.4	-1.1	1.0	1.00
155	2015	Skin_proferati	73	388	464	103.8	104.6	11.1	11.2	-0.8	1.3	0.99
156	2010	White_line_dou	186	179	518	93.8	95.9	11.1	11.4	-2.0	1.0	1.00
157	2011	White_line_dou	150	123	237	95.2	97.4	11.2	11.5	-2.2	1.1	1.00
158	2012	White_line_dou	165	176	278	99.7	101.9	11.5	11.8	-2.2	1.1	1.00
159	2013	White_line_dou	148	181	278	102.7	105.1	10.3	10.6	-2.4	1.3	0.99
160	2014	White_line_dou	105	323	374	102.6	104.8	10.5	10.6	-2.1	1.3	0.99
161	2015	White_line_dou	73	381	456	106.3	108.3	12.2	11.7	-2.0	1.6	0.99
162	2010	Dermatitis	192	464	1478	98.4	98.8	11.1	11.0	-0.4	0.7	1.00
163	2011	Dermatitis	155	292	614	100.1	100.5	12.9	12.8	-0.5	0.7	1.00
164	2012	Dermatitis	170	433	783	100.1	100.5	11.5	11.4	-0.4	0.7	1.00
165	2013	Dermatitis	151	463	860	99.8	100.2	11.6	11.6	-0.4	0.9	1.00
166	2014	Dermatitis	113	712	856	99.7	100.3	13.9	13.7	-0.6	1.0	1.00
167	2015	Dermatitis	82	1094	1341	103.8	104.3	12.2	12.1	-0.4	1.1	1.00
168	2016	Dermatitis	66	1075	1361	102.3	103.0	13.3	13.1	-0.7	1.7	0.99
169	2017	Dermatitis	65	950	1108	103.1	103.9	12.6	11.6	-0.8	2.6	0.98
170	2018	Dermatitis	19	689	773	102.6	103.2	14.1	12.1	-0.6	4.2	0.96
171	2010	Heel_horn_eros	189	298	937	97.7	98.8	10.3	10.3	-1.1	0.9	1.00
172	2011	Heel_horn_eros	154	189	387	98.5	99.6	11.1	11.2	-1.1	0.9	1.00
173	2012	Heel_horn_eros	169	264	476	99.6	100.8	10.5	10.6	-1.2	0.9	1.00
174	2013	Heel_horn_eros	151	277	504	99.8	100.9	9.7	9.8	-1.1	1.0	0.99
175	2014	Heel_horn_eros	111	403	486	100.9	102.3	11.2	11.0	-1.4	1.1	1.00
176	2015	Heel_horn_eros	82	569	700	103.4	104.9	9.7	10.1	-1.5	1.4	0.99
177	2016	Heel_horn_eros	65	566	716	102.8	104.2	8.8	8.5	-1.4	1.9	0.98
178	2017	Heel_horn_eros	61	481	540	102.5	104.8	8.9	8.5	-2.3	2.5	0.96
179	2018	Heel_horn_eros	15	341	356	104.3	106.4	7.0	6.5	-2.1	3.3	0.88
180	2010	Sole_heamorrha	192	439	1398	96.3	97.8	10.1	10.4	-1.5	0.9	1.00

## HOL summery statistics for SS and previous breeding value 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	2011	Sole_heamorrha	155	276	567	97.9	99.5	9.8	10.1	-1.6	0.9	1.00
182	2012	Sole_heamorrha	169	404	726	99.9	101.5	10.2	10.4	-1.6	0.8	1.00
183	2013	Sole_heamorrha	151	433	795	101.8	103.4	9.7	9.9	-1.6	1.0	1.00
184	2014	Sole_heamorrha	113	644	777	101.9	103.6	10.1	10.1	-1.7	1.0	1.00
185	2015	Sole_heamorrha	82	958	1168	104.1	105.7	9.6	9.6	-1.5	1.3	0.99
186	2016	Sole_heamorrha	66	918	1155	104.1	105.0	10.3	10.6	-0.9	1.8	0.99
187	2017	Sole_heamorrha	64	804	916	106.1	108.0	9.7	10.2	-1.9	3.8	0.93
188	2018	Sole_heamorrha	19	546	618	103.7	103.9	9.2	8.0	-0.2	4.5	0.87
189	2010	Sole_ulcer	193	450	1439	97.4	98.7	9.9	9.9	-1.3	0.9	1.00
190	2011	Sole_ulcer	155	286	596	99.3	100.7	9.3	9.4	-1.4	0.8	1.00
191	2012	Sole_ulcer	170	421	759	102.0	103.3	9.4	9.4	-1.3	0.7	1.00
192	2013	Sole_ulcer	151	452	831	103.0	104.3	8.3	8.3	-1.3	0.8	1.00
193	2014	Sole_ulcer	113	677	808	102.6	103.9	8.8	8.8	-1.2	0.9	0.99
194	2015	Sole_ulcer	82	1044	1275	103.4	104.3	10.1	9.5	-0.9	1.6	0.99
195	2016	Sole_ulcer	66	1028	1298	103.8	104.3	8.3	8.3	-0.5	2.0	0.97
196	2017	Sole_ulcer	64	926	1066	104.8	106.0	8.2	8.1	-1.2	3.4	0.91
197	2018	Sole_ulcer	19	622	706	104.0	104.1	8.7	5.8	-0.1	5.8	0.75
198	2010	Cork_screw_cla	191	371	1186	98.6	99.7	12.1	12.1	-1.1	1.0	1.00
199	2011	Cork_screw_cla	155	235	484	98.1	99.3	10.5	10.5	-1.1	1.1	0.99
200	2012	Cork_screw_cla	169	352	643	99.5	100.6	12.1	11.8	-1.1	1.0	1.00
201	2013	Cork_screw_cla	151	384	729	100.4	101.5	11.1	11.1	-1.1	1.2	0.99
202	2014	Cork_screw_cla	112	580	692	100.1	101.2	11.3	11.0	-1.0	1.3	0.99
203	2015	Cork_screw_cla	82	953	1164	102.9	104.2	11.2	11.2	-1.3	1.7	0.99
204	2016	Cork_screw_cla	66	984	1238	99.0	99.8	12.8	12.5	-0.8	2.0	0.99
205	2017	Cork_screw_cla	64	875	1007	103.2	104.9	10.2	10.7	-1.7	3.5	0.94
206	2018	Cork_screw_cla	19	588	659	100.9	101.4	12.2	11.0	-0.5	4.3	0.94
207	2010	Skin_proferati	190	447	1416	97.1	98.0	10.6	10.7	-0.9	0.7	1.00
208	2011	Skin_proferati	155	280	582	96.8	97.7	12.4	12.4	-0.9	0.8	1.00
209	2012	Skin_proferati	169	412	743	98.4	99.4	11.0	10.9	-1.0	0.8	1.00
210	2013	Skin_proferati	151	440	813	98.6	99.5	10.3	10.2	-0.9	0.8	1.00
211	2014	Skin_proferati	113	660	791	99.7	100.8	12.6	12.4	-1.1	1.0	1.00
212	2015	Skin_proferati	82	1017	1244	103.8	104.6	10.6	10.7	-0.8	1.3	0.99
213	2016	Skin_proferati	66	1009	1272	104.0	104.8	9.1	8.9	-0.8	1.8	0.98
214	2017	Skin_proferati	64	913	1054	103.3	104.6	11.5	10.9	-1.3	3.1	0.96
215	2018	Skin_proferati	19	629	713	101.7	102.1	9.1	8.1	-0.3	4.5	0.87
216	2010	White_line_dou	192	455	1449	93.6	95.7	10.9	11.2	-2.1	1.0	1.00

## HOL summery statistics for SS and previous breeding value 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	2011	White_line_dou	155	287	599	95.1	97.5	11.2	11.3	-2.3	1.2	0.99
218	2012	White_line_dou	170	423	764	99.3	101.4	11.4	11.7	-2.1	1.1	1.00
219	2013	White_line_dou	151	455	837	102.5	104.8	9.8	10.1	-2.3	1.1	0.99
220	2014	White_line_dou	113	681	813	102.5	104.7	11.0	11.1	-2.2	1.3	0.99
221	2015	White_line_dou	82	1050	1282	106.4	108.5	11.4	11.4	-2.0	1.5	0.99
222	2016	White_line_dou	66	1033	1305	103.7	105.0	12.4	12.4	-1.3	2.5	0.98
223	2017	White_line_dou	64	933	1073	106.4	108.3	11.5	11.7	-1.9	3.7	0.95
224	2018	White_line_dou	19	628	712	105.6	107.1	10.5	8.1	-1.4	5.9	0.83

**'RDC summery statistics for SS and prev SS breeding value 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	Dermatitis1	10420	100.9	101.4	9.7	9.4	-0.5	1.9	0.98
2	2020	Dermatitis1	16921	100.5	101.0	9.0	8.7	-0.6	2.7	0.95
3	2021	Dermatitis1	23051	101.7	102.5	8.5	8.1	-0.8	1.9	0.97
4	2022	Dermatitis1	6375	102.2	102.6	8.2	7.8	-0.5	1.9	0.97
5	2019	Heel_horn_eros	15168	99.0	100.5	9.3	9.5	-1.5	1.8	0.98
6	2020	Heel_horn_eros	20118	100.4	101.5	7.9	7.8	-1.1	2.1	0.97
7	2021	Heel_horn_eros	23054	101.5	102.7	7.6	7.5	-1.2	1.7	0.98
8	2022	Heel_horn_eros	6375	101.3	102.6	7.5	7.5	-1.3	1.5	0.98
9	2019	Sole_heamorrha	12166	99.5	101.6	8.8	8.7	-2.1	1.8	0.98
10	2020	Sole_heamorrha	18021	101.4	103.0	9.0	7.8	-1.6	4.1	0.89
11	2021	Sole_heamorrha	23054	102.4	104.0	8.5	7.9	-1.5	2.9	0.94
12	2022	Sole_heamorrha	6375	102.2	103.8	7.9	7.5	-1.6	2.4	0.95
13	2019	Sole_ulcer1	11215	97.0	100.9	10.8	9.1	-3.9	2.8	0.97
14	2020	Sole_ulcer1	17139	99.6	102.5	10.4	8.2	-3.0	4.3	0.92
15	2021	Sole_ulcer1	23053	101.0	103.9	9.8	8.0	-2.9	3.3	0.95
16	2022	Sole_ulcer1	6375	100.3	103.4	9.1	7.6	-3.1	2.8	0.96
17	2019	Cork_screw_cla	12028	97.4	100.5	11.1	9.5	-3.1	2.8	0.98
18	2020	Cork_screw_cla	17674	98.7	101.2	9.7	8.3	-2.5	3.3	0.95
19	2021	Cork_screw_cla	23051	98.7	101.4	9.5	8.2	-2.7	2.6	0.97
20	2022	Cork_screw_cla	6375	98.2	101.2	9.5	8.1	-3.1	2.5	0.97
21	2019	Skin_proferati	12187	99.8	101.7	10.1	10.1	-1.9	1.7	0.99
22	2020	Skin_proferati	17728	100.3	102.3	8.5	8.5	-2.0	1.9	0.97
23	2021	Skin_proferati	23055	100.1	102.2	8.3	8.3	-2.2	1.7	0.98
24	2022	Skin_proferati	6375	100.9	102.8	8.1	8.1	-1.9	1.5	0.98
25	2019	White_line_dou	11072	99.0	100.9	10.2	10.4	-1.9	2.5	0.97
26	2020	White_line_dou	16863	97.8	99.3	9.2	9.1	-1.5	3.8	0.91
27	2021	White_line_dou	23053	99.8	101.6	8.6	8.6	-1.8	2.4	0.96
28	2022	White_line_dou	6375	99.5	101.2	8.4	8.2	-1.7	2.3	0.96
29	2019	Dermatitis2	17040	101.1	101.4	9.7	9.3	-0.3	1.9	0.98
30	2020	Dermatitis2	23514	100.9	101.1	8.8	8.4	-0.2	2.6	0.96
31	2021	Dermatitis2	23059	101.8	102.3	8.4	7.9	-0.5	1.8	0.98
32	2022	Dermatitis2	6375	102.3	102.5	8.1	7.7	-0.2	1.8	0.97
33	2019	Heel_horn_eros	19066	99.1	100.5	9.4	9.5	-1.4	1.8	0.98
34	2020	Heel_horn_eros	23526	100.1	101.1	8.1	7.9	-1.0	2.1	0.97
35	2021	Heel_horn_eros	23059	101.5	102.6	7.8	7.5	-1.1	1.7	0.98
36	2022	Heel_horn_eros	6375	101.3	102.5	7.7	7.4	-1.1	1.5	0.98

**'RDC summery statistics for SS and prev SS breeding value 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	Sole_heamorrha	17162	99.3	101.6	9.0	8.9	-2.4	2.0	0.98
38	2020	Sole_heamorrha	23513	101.2	102.9	9.0	7.9	-1.7	4.0	0.89
39	2021	Sole_heamorrha	23059	102.3	104.0	8.7	8.1	-1.7	2.8	0.95
40	2022	Sole_heamorrha	6375	101.9	103.8	8.1	7.7	-1.9	2.3	0.96
41	2019	Sole_ulcer2	16946	97.7	100.9	11.4	9.0	-3.1	3.5	0.97
42	2020	Sole_ulcer2	23508	100.3	102.4	10.8	8.3	-2.1	4.4	0.93
43	2021	Sole_ulcer2	23059	101.7	103.7	10.2	8.0	-1.9	3.5	0.96
44	2022	Sole_ulcer2	6375	101.0	103.2	9.6	7.6	-2.2	3.1	0.96
45	2019	Cork_screw_cla	17598	97.8	100.3	11.5	9.4	-2.6	3.4	0.97
46	2020	Cork_screw_cla	23516	98.9	100.9	10.1	8.2	-2.0	3.6	0.94
47	2021	Cork_screw_cla	23059	99.4	101.5	9.9	8.2	-2.1	2.9	0.97
48	2022	Cork_screw_cla	6375	99.0	101.4	9.9	8.2	-2.4	2.8	0.97
49	2019	Skin_proferati	17614	99.8	102.1	10.4	10.0	-2.3	2.0	0.98
50	2020	Skin_proferati	23510	99.9	102.2	9.0	8.7	-2.4	2.1	0.97
51	2021	Skin_proferati	23059	99.7	102.2	8.7	8.4	-2.6	1.7	0.98
52	2022	Skin_proferati	6375	100.5	102.8	8.5	8.2	-2.3	1.6	0.98
53	2019	White_line_dou	17039	98.0	100.7	10.1	9.5	-2.7	2.8	0.96
54	2020	White_line_dou	23511	97.0	99.4	9.3	8.7	-2.3	3.5	0.92
55	2021	White_line_dou	23059	98.9	101.6	8.9	8.5	-2.7	2.5	0.96
56	2022	White_line_dou	6375	98.5	101.2	8.6	8.0	-2.7	2.4	0.96
57	2019	Dermatitis3	21285	101.4	101.3	9.6	9.2	0.0	2.0	0.98
58	2020	Dermatitis3	23533	101.1	100.9	9.0	8.5	0.2	2.6	0.96
59	2021	Dermatitis3	23059	102.4	102.4	8.4	8.0	-0.1	1.9	0.98
60	2022	Dermatitis3	6375	102.7	102.5	8.2	7.7	0.2	1.9	0.97
61	2019	Heel_horn_eros	21293	98.9	100.5	9.5	9.7	-1.5	1.9	0.98
62	2020	Heel_horn_eros	23533	100.2	101.3	8.1	8.0	-1.1	2.1	0.97
63	2021	Heel_horn_eros	23059	101.5	102.6	7.8	7.6	-1.2	1.7	0.98
64	2022	Heel_horn_eros	6375	101.2	102.5	7.7	7.6	-1.3	1.5	0.98
65	2019	Sole_heamorrha	21287	99.3	101.9	9.4	9.1	-2.6	1.9	0.98
66	2020	Sole_heamorrha	23533	101.1	103.1	9.1	8.0	-1.9	4.0	0.90
67	2021	Sole_heamorrha	23059	102.2	104.2	8.8	8.2	-2.0	2.8	0.95
68	2022	Sole_heamorrha	6375	101.8	103.9	8.3	7.8	-2.1	2.3	0.96
69	2019	Sole_ulcer3	21284	98.3	101.1	11.6	8.9	-2.7	3.6	0.97
70	2020	Sole_ulcer3	23533	100.4	102.0	10.8	8.3	-1.6	4.4	0.93
71	2021	Sole_ulcer3	23059	102.1	103.6	10.3	8.0	-1.5	3.5	0.96
72	2022	Sole_ulcer3	6375	101.5	103.2	9.7	7.6	-1.7	3.2	0.96

**'RDC summery stastistics for SS and prev SS breeding value 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	Cork_screw_cla	21285	98.2	100.3	11.6	9.3	-2.0	3.6	0.97
74	2020	Cork_screw_cla	23533	98.4	100.0	10.1	8.1	-1.6	3.6	0.95
75	2021	Cork_screw_cla	23059	99.0	100.7	10.1	8.2	-1.7	3.0	0.97
76	2022	Cork_screw_cla	6375	98.8	100.7	10.0	8.1	-1.9	3.0	0.97
77	2019	Skin_proferati	21287	99.9	102.2	10.7	10.1	-2.3	2.1	0.98
78	2020	Skin_proferati	23533	99.7	102.0	9.2	8.8	-2.3	2.2	0.97
79	2021	Skin_proferati	23059	99.6	102.2	8.9	8.5	-2.6	1.8	0.98
80	2022	Skin_proferati	6375	100.5	102.8	8.7	8.3	-2.3	1.7	0.98
81	2019	White_line_dou	21285	98.4	100.6	10.1	9.5	-2.2	2.7	0.96
82	2020	White_line_dou	23533	97.0	98.8	9.3	8.9	-1.8	3.4	0.93
83	2021	White_line_dou	23059	98.9	101.1	8.8	8.5	-2.2	2.3	0.96
84	2022	White_line_dou	6375	98.5	100.6	8.4	7.9	-2.1	2.3	0.96
85	2019	Dermatitis	10420	101.1	101.3	9.5	9.1	-0.2	1.8	0.98
86	2020	Dermatitis	16921	100.9	101.1	8.8	8.4	-0.2	2.5	0.96
87	2021	Dermatitis	23051	102.0	102.4	8.4	7.9	-0.4	1.8	0.98
88	2022	Dermatitis	6375	102.4	102.6	8.1	7.7	-0.1	1.9	0.97
89	2019	Heel_horn_eros	15168	98.9	100.4	9.3	9.5	-1.5	1.8	0.98
90	2020	Heel_horn_eros	20118	100.3	101.4	8.0	7.8	-1.0	2.0	0.97
91	2021	Heel_horn_eros	23054	101.5	102.6	7.7	7.6	-1.2	1.7	0.98
92	2022	Heel_horn_eros	6375	101.3	102.5	7.6	7.5	-1.2	1.5	0.98
93	2019	Sole_heamorrha	12166	99.2	101.6	9.0	8.9	-2.4	1.8	0.98
94	2020	Sole_heamorrha	18021	101.2	103.0	9.0	7.9	-1.8	4.0	0.90
95	2021	Sole_heamorrha	23054	102.3	104.1	8.6	8.1	-1.8	2.8	0.95
96	2022	Sole_heamorrha	6375	102.0	103.8	8.1	7.6	-1.9	2.3	0.96
97	2019	Sole_ulcer	11215	97.6	100.8	11.2	8.9	-3.2	3.2	0.98
98	2020	Sole_ulcer	17139	100.2	102.3	10.5	8.1	-2.1	4.3	0.93
99	2021	Sole_ulcer	23053	101.7	103.7	10.0	7.9	-2.0	3.4	0.96
100	2022	Sole_ulcer	6375	101.0	103.3	9.4	7.5	-2.2	3.0	0.96
101	2019	Cork_screw_cla	12028	97.9	100.4	11.2	9.2	-2.5	3.2	0.97
102	2020	Cork_screw_cla	17674	98.7	100.6	9.7	8.0	-1.9	3.4	0.95
103	2021	Cork_screw_cla	23051	99.0	101.1	9.7	8.1	-2.1	2.8	0.97
104	2022	Cork_screw_cla	6375	98.7	101.0	9.7	8.0	-2.4	2.8	0.97
105	2019	Skin_proferati	12187	99.7	101.9	10.4	10.0	-2.2	1.9	0.98
106	2020	Skin_proferati	17728	99.9	102.1	8.8	8.6	-2.3	2.0	0.97
107	2021	Skin_proferati	23055	99.8	102.2	8.7	8.4	-2.5	1.7	0.98
108	2022	Skin_proferati	6375	100.6	102.8	8.4	8.1	-2.2	1.6	0.98



**'RDC summery statistics for SS and prev SS breeding value 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	White_line_dou	11072	98.4	100.7	9.9	9.6	-2.2	2.5	0.97
110	2020	White_line_dou	16863	97.2	99.1	9.1	8.9	-1.9	3.5	0.93
111	2021	White_line_dou	23053	99.2	101.4	8.7	8.4	-2.2	2.3	0.96
112	2022	White_line_dou	6375	98.8	100.9	8.3	7.9	-2.1	2.3	0.96

## RDC summary statistics for SS and previous breeding value 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	Dermatitis1	5443	99.9	101.1	10.9	10.5	-1.1	1.3	0.99
2	2016	Dermatitis1	7643	99.1	100.2	10.2	9.9	-1.1	1.3	0.99
3	2017	Dermatitis1	9095	99.9	100.9	10.5	10.2	-1.0	1.4	0.99
4	2018	Dermatitis1	10721	99.6	100.6	9.9	9.6	-1.0	1.6	0.99
5	2019	Dermatitis1	9841	101.1	101.7	10.0	9.7	-0.5	2.0	0.98
6	2020	Dermatitis1	1937	100.5	100.4	9.3	8.9	0.2	2.7	0.96
7	2015	Heel_horn_eros	3921	98.4	99.8	9.0	9.1	-1.5	1.1	0.99
8	2016	Heel_horn_eros	5282	98.5	100.1	9.1	9.1	-1.5	1.1	0.99
9	2017	Heel_horn_eros	5598	98.9	100.3	8.7	8.8	-1.4	1.2	0.99
10	2018	Heel_horn_eros	6334	99.5	100.8	8.6	8.7	-1.4	1.4	0.99
11	2019	Heel_horn_eros	5261	99.2	100.8	9.9	10.1	-1.6	1.8	0.98
12	2020	Heel_horn_eros	946	99.4	100.6	8.4	8.3	-1.2	2.2	0.97
13	2015	Sole_heamorrha	5712	98.0	100.3	9.0	8.8	-2.2	1.3	0.99
14	2016	Sole_heamorrha	7745	98.3	100.4	9.0	8.8	-2.2	1.3	0.99
15	2017	Sole_heamorrha	8630	98.5	100.6	8.6	8.4	-2.1	1.4	0.99
16	2018	Sole_heamorrha	9622	98.9	100.9	8.6	8.5	-2.0	1.5	0.98
17	2019	Sole_heamorrha	8088	100.0	102.1	8.9	8.8	-2.1	1.9	0.98
18	2020	Sole_heamorrha	1517	101.9	103.3	8.4	7.8	-1.3	3.0	0.93
19	2015	Sole_ulcer1	5472	94.7	99.0	12.4	10.7	-4.3	2.2	0.99
20	2016	Sole_ulcer1	7434	96.4	100.4	11.2	9.7	-4.0	2.0	0.99
21	2017	Sole_ulcer1	8672	96.3	100.0	11.5	9.9	-3.8	2.2	0.99
22	2018	Sole_ulcer1	9986	98.0	101.4	10.7	9.2	-3.4	2.3	0.99
23	2019	Sole_ulcer1	8455	97.6	101.4	10.8	9.1	-3.8	2.8	0.97
24	2020	Sole_ulcer1	1626	98.8	101.9	10.4	8.5	-3.1	3.7	0.94
25	2015	Cork_screw_cla	4774	94.7	97.9	12.0	10.8	-3.2	1.9	0.99
26	2016	Cork_screw_cla	6773	95.2	98.2	11.6	10.4	-3.1	1.9	0.99
27	2017	Cork_screw_cla	7860	96.5	99.6	10.5	9.4	-3.1	1.9	0.99
28	2018	Cork_screw_cla	9297	98.1	100.8	10.4	9.3	-2.6	2.0	0.99
29	2019	Cork_screw_cla	7789	97.7	100.7	11.2	9.7	-3.0	2.8	0.98
30	2020	Cork_screw_cla	1505	98.0	101.0	10.1	8.5	-3.0	3.4	0.95
31	2015	Skin_proferati	5004	98.7	100.9	10.0	10.1	-2.3	1.2	0.99
32	2016	Skin_proferati	6808	97.8	100.1	10.2	10.3	-2.3	1.2	0.99
33	2017	Skin_proferati	7849	99.1	101.4	9.8	9.9	-2.3	1.3	0.99
34	2018	Skin_proferati	9096	98.6	100.9	10.3	10.3	-2.3	1.5	0.99
35	2019	Skin_proferati	7328	100.2	102.2	10.3	10.3	-2.0	1.8	0.99
36	2020	Skin_proferati	1351	100.9	102.5	8.9	8.8	-1.6	1.9	0.98

## RDC summary statistics for SS and previous breeding value 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	2015	White_line_dou	5619	98.3	100.9	11.0	11.0	-2.5	1.3	0.99
38	2016	White_line_dou	7680	96.9	99.2	12.0	12.4	-2.3	1.5	0.99
39	2017	White_line_dou	8806	98.9	101.0	10.4	10.6	-2.1	1.6	0.99
40	2018	White_line_dou	10075	98.1	100.2	10.6	10.9	-2.2	1.8	0.99
41	2019	White_line_dou	8590	99.3	101.2	10.3	10.6	-1.9	2.5	0.97
42	2020	White_line_dou	1650	98.5	99.5	9.3	8.9	-1.0	3.8	0.91
43	2015	Dermatitis2	4539	100.5	101.3	10.4	10.0	-0.8	1.2	0.99
44	2016	Dermatitis2	6385	99.6	100.4	9.9	9.4	-0.8	1.3	0.99
45	2017	Dermatitis2	7766	100.2	101.0	9.8	9.4	-0.7	1.4	0.99
46	2018	Dermatitis2	7971	99.9	100.6	9.5	9.1	-0.7	1.6	0.99
47	2019	Dermatitis2	1159	101.2	101.6	10.1	9.7	-0.4	1.6	0.99
48	2015	Heel_horn_eros	3060	98.6	100.0	9.2	9.1	-1.5	1.1	0.99
49	2016	Heel_horn_eros	4064	98.5	100.0	9.4	9.2	-1.5	1.1	0.99
50	2017	Heel_horn_eros	4590	99.2	100.5	8.8	8.7	-1.3	1.3	0.99
51	2018	Heel_horn_eros	4176	99.6	100.8	8.8	8.7	-1.2	1.5	0.99
52	2019	Heel_horn_eros	575	99.4	100.6	9.5	9.5	-1.2	1.7	0.98
53	2015	Sole_heamorrha	4904	97.7	100.1	9.3	9.2	-2.5	1.3	0.99
54	2016	Sole_heamorrha	6714	97.9	100.3	9.2	9.1	-2.4	1.3	0.99
55	2017	Sole_heamorrha	7717	98.4	100.6	8.8	8.7	-2.3	1.4	0.99
56	2018	Sole_heamorrha	7418	99.0	101.2	8.7	8.6	-2.2	1.5	0.98
57	2019	Sole_heamorrha	1054	100.2	102.5	8.9	8.8	-2.3	1.6	0.98
58	2015	Sole_ulcer2	4658	96.0	99.7	13.8	11.2	-3.7	2.9	0.99
59	2016	Sole_ulcer2	6398	97.5	100.8	12.7	10.3	-3.3	2.8	0.99
60	2017	Sole_ulcer2	7472	97.3	100.4	12.3	10.0	-3.1	2.9	0.99
61	2018	Sole_ulcer2	7194	98.8	101.6	11.6	9.3	-2.7	3.0	0.98
62	2019	Sole_ulcer2	983	98.6	101.4	10.9	8.5	-2.8	3.1	0.98
63	2015	Cork_screw_cla	3930	95.2	98.1	12.5	11.0	-2.8	2.2	0.99
64	2016	Cork_screw_cla	5541	96.1	98.8	12.0	10.5	-2.7	2.2	0.99
65	2017	Cork_screw_cla	6671	97.2	99.7	10.8	9.4	-2.6	2.2	0.99
66	2018	Cork_screw_cla	6255	98.5	100.5	10.5	9.0	-2.1	2.4	0.98
67	2019	Cork_screw_cla	886	98.9	101.0	11.2	9.4	-2.1	2.7	0.98
68	2015	Skin_proferati	4027	98.4	101.2	10.6	10.3	-2.8	1.2	0.99
69	2016	Skin_proferati	5502	97.3	100.0	11.0	10.7	-2.7	1.2	0.99
70	2017	Skin_proferati	6535	99.2	101.8	10.4	10.1	-2.7	1.3	0.99
71	2018	Skin_proferati	5944	98.1	100.8	10.7	10.4	-2.7	1.7	0.99
72	2019	Skin_proferati	803	99.7	102.2	10.5	10.0	-2.5	1.8	0.98

## RDC summary statistics for SS and previous breeding value 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	2015	White_line_dou	4561	96.8	100.2	10.7	10.1	-3.5	1.5	0.99
74	2016	White_line_dou	6209	95.5	98.7	11.4	11.0	-3.3	1.5	0.99
75	2017	White_line_dou	7277	98.2	101.1	10.3	9.7	-2.9	1.7	0.99
76	2018	White_line_dou	6955	97.3	100.3	10.2	9.8	-3.0	2.1	0.98
77	2019	White_line_dou	965	98.8	101.5	9.8	9.4	-2.8	2.5	0.97
78	2015	Dermatitis3	3302	101.1	101.6	10.7	10.1	-0.5	1.4	0.99
79	2016	Dermatitis3	4761	99.9	100.3	10.0	9.5	-0.5	1.4	0.99
80	2017	Dermatitis3	4593	100.7	101.2	10.0	9.5	-0.4	1.6	0.99
81	2018	Dermatitis3	868	99.3	99.8	10.0	9.5	-0.5	1.7	0.99
82	2015	Heel_horn_eros	2021	98.4	100.0	9.4	9.4	-1.5	1.1	0.99
83	2016	Heel_horn_eros	2774	98.9	100.5	9.6	9.5	-1.5	1.1	0.99
84	2017	Heel_horn_eros	2388	99.2	100.6	9.1	9.1	-1.4	1.3	0.99
85	2018	Heel_horn_eros	431	99.5	100.7	8.4	8.4	-1.2	1.4	0.99
86	2015	Sole_heamorrha	3169	97.9	100.7	9.9	9.7	-2.8	1.3	0.99
87	2016	Sole_heamorrha	4133	97.8	100.5	9.8	9.6	-2.7	1.3	0.99
88	2017	Sole_heamorrha	3532	98.4	101.0	9.3	9.0	-2.5	1.4	0.99
89	2018	Sole_heamorrha	650	97.8	100.3	9.6	9.4	-2.5	1.6	0.99
90	2015	Sole_ulcer3	3253	97.4	100.5	14.3	11.6	-3.1	3.1	0.99
91	2016	Sole_ulcer3	4464	98.1	100.9	12.8	10.4	-2.8	2.9	0.99
92	2017	Sole_ulcer3	4142	98.0	100.6	12.8	10.2	-2.6	3.2	0.99
93	2018	Sole_ulcer3	748	97.9	100.3	12.3	9.9	-2.4	3.3	0.98
94	2015	Cork_screw_cla	2794	95.4	97.8	13.0	11.1	-2.3	2.4	0.99
95	2016	Cork_screw_cla	4014	96.5	98.7	11.8	10.1	-2.2	2.4	0.99
96	2017	Cork_screw_cla	3595	97.8	99.8	10.9	9.2	-2.0	2.5	0.98
97	2018	Cork_screw_cla	660	97.1	98.7	11.1	9.3	-1.6	2.7	0.98
98	2015	Skin_proferati	2790	98.8	101.5	10.9	10.4	-2.7	1.3	0.99
99	2016	Skin_proferati	3920	97.5	100.3	11.1	10.7	-2.8	1.3	0.99
100	2017	Skin_proferati	3389	99.6	102.2	10.6	10.2	-2.6	1.5	0.99
101	2018	Skin_proferati	610	96.4	99.3	11.5	10.7	-2.9	1.9	0.99
102	2015	White_line_dou	3139	97.9	100.8	10.6	10.0	-2.9	1.5	0.99
103	2016	White_line_dou	4340	96.1	98.8	11.7	11.3	-2.7	1.5	0.99
104	2017	White_line_dou	4007	98.8	101.1	10.5	9.9	-2.3	1.7	0.99
105	2018	White_line_dou	728	98.4	101.0	10.0	9.6	-2.6	1.9	0.98
106	2015	Dermatitis	5443	100.4	101.1	10.8	10.3	-0.8	1.3	0.99
107	2016	Dermatitis	7643	99.4	100.2	10.0	9.6	-0.8	1.3	0.99
108	2017	Dermatitis	9095	100.2	100.9	10.1	9.7	-0.7	1.4	0.99

## RDC summary statistics for SS and previous breeding value 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	Dermatitis	10721	100.0	100.6	9.7	9.3	-0.6	1.6	0.99
110	2019	Dermatitis	9841	101.3	101.5	9.8	9.4	-0.2	2.0	0.98
111	2020	Dermatitis	1937	100.8	100.4	9.1	8.6	0.4	2.6	0.96
112	2015	Heel_horn_eros	3921	98.4	99.9	9.2	9.2	-1.5	1.1	0.99
113	2016	Heel_horn_eros	5282	98.5	100.0	9.2	9.2	-1.5	1.1	0.99
114	2017	Heel_horn_eros	5598	98.9	100.3	8.8	8.8	-1.4	1.2	0.99
115	2018	Heel_horn_eros	6334	99.6	100.9	8.7	8.7	-1.3	1.5	0.99
116	2019	Heel_horn_eros	5261	99.2	100.8	10.0	10.0	-1.6	1.9	0.98
117	2020	Heel_horn_eros	946	99.2	100.5	8.5	8.4	-1.2	2.1	0.97
118	2015	Sole_heamorrha	5712	97.7	100.3	9.5	9.3	-2.6	1.3	0.99
119	2016	Sole_heamorrha	7745	97.9	100.3	9.4	9.2	-2.4	1.3	0.99
120	2017	Sole_heamorrha	8630	98.3	100.6	8.9	8.7	-2.3	1.4	0.99
121	2018	Sole_heamorrha	9622	98.8	101.1	8.8	8.7	-2.3	1.5	0.99
122	2019	Sole_heamorrha	8088	99.8	102.2	9.2	9.0	-2.4	1.9	0.98
123	2020	Sole_heamorrha	1517	101.6	103.2	8.6	7.9	-1.6	3.0	0.93
124	2015	Sole_ulcer	5472	96.0	99.7	13.5	11.1	-3.7	2.8	0.99
125	2016	Sole_ulcer	7434	97.1	100.4	12.1	10.0	-3.3	2.5	0.99
126	2017	Sole_ulcer	8672	97.1	100.2	12.1	9.9	-3.1	2.7	0.99
127	2018	Sole_ulcer	9986	98.6	101.3	11.1	9.0	-2.7	2.8	0.98
128	2019	Sole_ulcer	8455	98.2	101.3	11.1	8.9	-3.1	3.2	0.97
129	2020	Sole_ulcer	1626	99.4	101.7	10.5	8.3	-2.3	3.8	0.95
130	2015	Cork_screw_cla	4774	95.2	97.9	12.3	10.8	-2.7	2.1	0.99
131	2016	Cork_screw_cla	6773	95.9	98.5	11.5	10.1	-2.6	2.1	0.99
132	2017	Cork_screw_cla	7860	97.1	99.5	10.7	9.2	-2.5	2.2	0.99
133	2018	Cork_screw_cla	9297	98.3	100.4	10.3	8.8	-2.0	2.3	0.98
134	2019	Cork_screw_cla	7789	98.1	100.5	11.4	9.4	-2.4	3.2	0.97
135	2020	Cork_screw_cla	1505	98.2	100.6	10.1	8.2	-2.4	3.6	0.94
136	2015	Skin_proferati	5004	98.5	101.1	10.6	10.4	-2.6	1.2	0.99
137	2016	Skin_proferati	6808	97.4	100.0	10.8	10.6	-2.6	1.2	0.99
138	2017	Skin_proferati	7849	99.0	101.6	10.4	10.1	-2.5	1.3	0.99
139	2018	Skin_proferati	9096	98.2	100.8	10.6	10.3	-2.6	1.6	0.99
140	2019	Skin_proferati	7328	100.1	102.4	10.6	10.2	-2.3	2.0	0.98
141	2020	Skin_proferati	1351	100.7	102.5	9.3	8.9	-1.8	2.1	0.97
142	2015	White_line_dou	5619	97.6	100.6	10.6	10.2	-3.0	1.4	0.99
143	2016	White_line_dou	7680	96.1	98.8	11.7	11.5	-2.7	1.4	0.99
144	2017	White_line_dou	8806	98.6	101.0	10.2	9.9	-2.4	1.6	0.99

**RDC summary statistics for SS and previous breeding value 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	2018	White_line_dou	10075	97.6	100.2	10.3	10.1	-2.6	1.9	0.98
146	2019	White_line_dou	8590	98.7	101.0	10.1	9.7	-2.2	2.6	0.97
147	2020	White_line_dou	1650	97.7	99.3	9.1	8.6	-1.5	3.6	0.92

## RDC summery statistics for SS and previous breeding value 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	Dermatitis1	28775	99.8	100.9	8.9	8.7	-1.1	0.7	1.00
2	2016	Dermatitis1	27300	99.1	100.2	8.1	7.9	-1.1	0.8	1.00
3	2017	Dermatitis1	25393	99.8	100.8	8.5	8.3	-1.0	1.0	0.99
4	2018	Dermatitis1	23426	99.0	100.1	8.1	7.8	-1.0	1.4	0.99
5	2019	Dermatitis1	17219	100.3	101.0	8.2	7.8	-0.7	1.9	0.97
6	2020	Dermatitis1	2326	100.5	100.5	7.3	6.9	0.0	2.7	0.93
7	2015	Heel_horn_eros	21839	98.5	99.9	7.9	8.0	-1.4	0.8	1.00
8	2016	Heel_horn_eros	19553	98.7	100.1	7.6	7.7	-1.4	0.8	0.99
9	2017	Heel_horn_eros	17111	99.2	100.5	7.6	7.8	-1.3	1.1	0.99
10	2018	Heel_horn_eros	15249	99.7	101.0	7.4	7.4	-1.3	1.4	0.98
11	2019	Heel_horn_eros	10189	99.7	101.1	8.4	8.5	-1.4	1.9	0.97
12	2020	Heel_horn_eros	1258	99.8	101.0	7.1	6.9	-1.2	2.4	0.94
13	2015	Sole_heamorrha	29264	98.2	100.3	7.5	7.4	-2.1	0.9	0.99
14	2016	Sole_heamorrha	26529	98.2	100.3	7.5	7.3	-2.1	1.0	0.99
15	2017	Sole_heamorrha	24335	98.5	100.4	7.0	6.9	-2.0	1.1	0.99
16	2018	Sole_heamorrha	21411	98.6	100.5	7.2	7.0	-1.9	1.4	0.98
17	2019	Sole_heamorrha	15006	99.5	101.3	7.6	7.5	-1.8	1.8	0.97
18	2020	Sole_heamorrha	1932	100.9	102.3	6.8	6.2	-1.4	2.8	0.91
19	2015	Sole_ulcer1	29626	95.6	99.6	10.4	9.1	-4.0	1.8	0.99
20	2016	Sole_ulcer1	27446	96.4	100.2	9.4	8.2	-3.8	1.7	0.99
21	2017	Sole_ulcer1	25300	96.5	100.1	9.4	8.1	-3.6	1.9	0.99
22	2018	Sole_ulcer1	23098	97.8	101.1	8.8	7.5	-3.2	2.1	0.98
23	2019	Sole_ulcer1	15923	97.6	101.0	9.0	7.7	-3.4	2.6	0.96
24	2020	Sole_ulcer1	2078	98.2	101.2	8.0	6.6	-3.0	3.3	0.91
25	2015	Cork_screw_cla	26257	96.3	99.2	9.7	8.8	-2.8	1.4	0.99
26	2016	Cork_screw_cla	24715	95.8	98.6	9.6	8.7	-2.8	1.4	0.99
27	2017	Cork_screw_cla	23294	96.9	99.8	8.4	7.6	-2.9	1.5	0.99
28	2018	Cork_screw_cla	21694	98.4	101.0	8.1	7.3	-2.6	1.6	0.98
29	2019	Cork_screw_cla	15249	98.6	101.3	9.0	7.9	-2.7	2.4	0.97
30	2020	Cork_screw_cla	1890	97.9	100.9	8.2	6.7	-3.0	3.4	0.91
31	2015	Skin_proferati	26371	98.4	100.5	8.2	8.3	-2.2	0.9	0.99
32	2016	Skin_proferati	24183	97.7	99.9	8.5	8.5	-2.2	0.9	0.99
33	2017	Skin_proferati	22426	98.9	101.0	8.3	8.3	-2.1	1.1	0.99
34	2018	Skin_proferati	21088	98.3	100.3	8.7	8.6	-2.0	1.5	0.98
35	2019	Skin_proferati	14369	99.8	101.5	8.8	8.7	-1.7	1.9	0.98
36	2020	Skin_proferati	1801	100.0	101.4	7.5	7.2	-1.4	2.3	0.95

## RDC summery statistics for SS and previous breeding value 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	2015	White_line_dou	30018	99.1	101.6	9.3	9.4	-2.5	1.0	0.99
38	2016	White_line_dou	27885	97.7	100.0	10.5	10.8	-2.3	1.1	0.99
39	2017	White_line_dou	25770	98.8	100.9	9.2	9.4	-2.1	1.4	0.99
40	2018	White_line_dou	23511	98.9	101.0	9.3	9.5	-2.1	1.6	0.99
41	2019	White_line_dou	16046	100.1	101.9	9.3	9.5	-1.8	2.3	0.97
42	2020	White_line_dou	2076	98.7	99.9	8.0	7.8	-1.2	3.5	0.90
43	2015	Dermatitis2	23323	100.3	101.1	8.7	8.3	-0.8	0.8	1.00
44	2016	Dermatitis2	21785	99.5	100.3	7.8	7.5	-0.8	0.9	0.99
45	2017	Dermatitis2	20142	100.1	100.9	8.1	7.7	-0.7	1.1	0.99
46	2018	Dermatitis2	14079	99.3	100.1	8.0	7.6	-0.8	1.5	0.98
47	2019	Dermatitis2	1488	100.3	100.9	8.1	7.7	-0.6	1.5	0.98
48	2015	Heel_horn_eros	16252	98.9	100.3	8.2	8.1	-1.4	0.8	1.00
49	2016	Heel_horn_eros	14161	98.6	100.1	7.9	7.8	-1.4	0.9	0.99
50	2017	Heel_horn_eros	12801	99.3	100.6	7.7	7.7	-1.3	1.2	0.99
51	2018	Heel_horn_eros	8206	99.6	100.8	7.8	7.6	-1.2	1.6	0.98
52	2019	Heel_horn_eros	852	99.3	100.6	8.5	8.4	-1.3	1.7	0.98
53	2015	Sole_heamorrha	24667	97.9	100.3	7.7	7.6	-2.4	0.9	0.99
54	2016	Sole_heamorrha	22802	97.9	100.2	7.7	7.7	-2.3	1.0	0.99
55	2017	Sole_heamorrha	20506	98.3	100.5	7.2	7.1	-2.2	1.2	0.99
56	2018	Sole_heamorrha	14005	98.8	100.9	7.2	7.1	-2.1	1.5	0.98
57	2019	Sole_heamorrha	1454	100.0	102.0	7.7	7.6	-2.1	1.5	0.98
58	2015	Sole_ulcer2	24232	96.8	100.2	11.7	9.6	-3.4	2.4	0.99
59	2016	Sole_ulcer2	22572	97.5	100.7	10.6	8.7	-3.2	2.3	0.99
60	2017	Sole_ulcer2	20223	97.3	100.3	10.1	8.2	-3.0	2.4	0.99
61	2018	Sole_ulcer2	13268	98.5	101.1	9.5	7.7	-2.7	2.5	0.98
62	2019	Sole_ulcer2	1386	98.8	101.4	9.4	7.2	-2.6	3.0	0.97
63	2015	Cork_screw_cla	20553	96.6	99.1	10.2	9.1	-2.5	1.6	0.99
64	2016	Cork_screw_cla	19263	96.4	98.8	9.8	8.6	-2.5	1.6	0.99
65	2017	Cork_screw_cla	18201	97.4	99.8	8.7	7.7	-2.4	1.7	0.99
66	2018	Cork_screw_cla	12038	98.5	100.6	8.1	7.1	-2.1	1.9	0.98
67	2019	Cork_screw_cla	1254	100.0	101.8	8.6	7.4	-1.9	2.3	0.97
68	2015	Skin_proferati	20242	98.2	100.9	8.9	8.7	-2.7	0.9	0.99
69	2016	Skin_proferati	18930	97.1	99.8	9.3	9.1	-2.6	1.0	0.99
70	2017	Skin_proferati	17837	98.7	101.2	8.8	8.6	-2.5	1.3	0.99
71	2018	Skin_proferati	11466	97.7	100.2	9.2	8.8	-2.5	1.7	0.98
72	2019	Skin_proferati	1194	99.3	101.6	9.1	8.7	-2.3	1.7	0.98



## RDC summery statistics for SS and previous breeding value 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	2015	White_line_dou	23596	97.3	100.8	8.8	8.4	-3.4	1.1	0.99
74	2016	White_line_dou	21998	96.3	99.5	9.7	9.4	-3.2	1.2	0.99
75	2017	White_line_dou	19944	98.1	100.9	8.6	8.2	-2.9	1.5	0.98
76	2018	White_line_dou	13002	98.0	101.0	8.7	8.3	-3.0	1.9	0.98
77	2019	White_line_dou	1346	99.0	101.6	8.9	8.6	-2.6	2.4	0.96
78	2015	Dermatitis3	16445	100.9	101.4	8.9	8.4	-0.5	1.0	1.00
79	2016	Dermatitis3	15179	99.8	100.3	8.1	7.7	-0.5	1.0	0.99
80	2017	Dermatitis3	9906	100.5	100.9	8.2	7.8	-0.4	1.3	0.99
81	2018	Dermatitis3	1007	99.5	99.8	8.8	8.4	-0.4	1.6	0.98
82	2015	Heel_horn_eros	10294	99.0	100.4	8.4	8.4	-1.5	0.8	1.00
83	2016	Heel_horn_eros	9233	98.7	100.2	8.2	8.1	-1.5	0.9	0.99
84	2017	Heel_horn_eros	5585	99.0	100.4	8.2	8.2	-1.4	1.2	0.99
85	2018	Heel_horn_eros	527	99.6	100.8	7.9	7.9	-1.2	1.7	0.98
86	2015	Sole_heamorrha	14974	98.0	100.7	8.3	8.1	-2.7	1.0	0.99
87	2016	Sole_heamorrha	13196	97.8	100.4	8.4	8.2	-2.6	1.1	0.99
88	2017	Sole_heamorrha	8162	98.3	100.9	7.8	7.6	-2.5	1.2	0.99
89	2018	Sole_heamorrha	855	98.0	100.5	7.9	7.7	-2.4	1.4	0.98
90	2015	Sole_ulcer3	16962	97.9	100.8	12.1	9.8	-3.0	2.5	0.99
91	2016	Sole_ulcer3	15256	98.0	100.7	10.7	8.7	-2.8	2.3	0.99
92	2017	Sole_ulcer3	9329	98.1	100.6	10.5	8.4	-2.5	2.6	0.98
93	2018	Sole_ulcer3	945	98.1	100.2	10.1	8.3	-2.1	2.8	0.97
94	2015	Cork_screw_cla	14452	96.9	99.0	10.6	9.2	-2.0	1.8	0.99
95	2016	Cork_screw_cla	13534	96.8	98.8	9.8	8.4	-2.1	1.8	0.99
96	2017	Cork_screw_cla	8206	97.9	99.8	9.1	7.7	-1.9	2.1	0.98
97	2018	Cork_screw_cla	829	98.2	99.7	8.3	7.0	-1.5	2.3	0.97
98	2015	Skin_proferati	14162	98.3	101.0	9.0	8.7	-2.7	1.0	0.99
99	2016	Skin_proferati	13321	97.2	99.9	9.5	9.1	-2.7	1.1	0.99
100	2017	Skin_proferati	7932	99.0	101.5	9.3	9.0	-2.5	1.3	0.99
101	2018	Skin_proferati	813	96.5	99.0	9.3	8.9	-2.6	1.6	0.99
102	2015	White_line_dou	16449	98.1	101.0	9.0	8.6	-2.9	1.1	0.99
103	2016	White_line_dou	15016	96.9	99.6	10.3	9.9	-2.7	1.2	0.99
104	2017	White_line_dou	9100	98.6	101.0	9.1	8.7	-2.4	1.5	0.99
105	2018	White_line_dou	914	98.6	101.1	8.9	8.5	-2.5	1.7	0.98
106	2015	Dermatitis	28775	100.2	101.0	8.9	8.5	-0.8	0.8	1.00
107	2016	Dermatitis	27300	99.4	100.2	7.9	7.6	-0.8	0.9	0.99
108	2017	Dermatitis	25393	100.1	100.8	8.2	7.8	-0.7	1.1	0.99

## RDC summary statistics for SS and previous breeding value 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	Dermatitis	23426	99.4	100.1	8.0	7.6	-0.7	1.4	0.98
110	2019	Dermatitis	17219	100.6	100.9	8.0	7.5	-0.4	1.9	0.97
111	2020	Dermatitis	2326	100.8	100.5	7.2	6.7	0.3	2.6	0.93
112	2015	Heel_horn_eros	21839	98.6	100.0	8.1	8.1	-1.4	0.8	1.00
113	2016	Heel_horn_eros	19553	98.7	100.1	7.7	7.7	-1.4	0.8	0.99
114	2017	Heel_horn_eros	17111	99.2	100.5	7.7	7.8	-1.3	1.2	0.99
115	2018	Heel_horn_eros	15249	99.8	101.1	7.5	7.5	-1.2	1.5	0.98
116	2019	Heel_horn_eros	10189	99.8	101.1	8.4	8.5	-1.4	2.0	0.97
117	2020	Heel_horn_eros	1258	99.6	100.9	7.3	7.0	-1.3	2.4	0.94
118	2015	Sole_heamorrha	29264	98.0	100.4	7.8	7.7	-2.4	0.9	0.99
119	2016	Sole_heamorrha	26529	97.9	100.2	7.8	7.7	-2.3	1.0	0.99
120	2017	Sole_heamorrha	24335	98.3	100.5	7.3	7.1	-2.2	1.2	0.99
121	2018	Sole_heamorrha	21411	98.6	100.7	7.3	7.2	-2.1	1.5	0.98
122	2019	Sole_heamorrha	15006	99.3	101.4	7.8	7.6	-2.1	1.9	0.97
123	2020	Sole_heamorrha	1932	100.6	102.3	6.8	6.2	-1.7	2.9	0.91
124	2015	Sole_ulcer	29626	96.7	100.1	11.3	9.4	-3.4	2.2	0.99
125	2016	Sole_ulcer	27446	97.2	100.4	10.1	8.4	-3.2	2.0	0.99
126	2017	Sole_ulcer	25300	97.2	100.2	9.8	8.1	-3.0	2.3	0.99
127	2018	Sole_ulcer	23098	98.3	100.9	9.1	7.5	-2.6	2.4	0.98
128	2019	Sole_ulcer	15923	98.1	100.9	9.3	7.4	-2.7	3.0	0.96
129	2020	Sole_ulcer	2078	98.5	100.9	8.2	6.6	-2.4	3.3	0.92
130	2015	Cork_screw_cla	26257	96.8	99.1	10.0	8.9	-2.4	1.5	0.99
131	2016	Cork_screw_cla	24715	96.4	98.7	9.5	8.4	-2.4	1.6	0.99
132	2017	Cork_screw_cla	23294	97.5	99.8	8.6	7.5	-2.3	1.7	0.99
133	2018	Cork_screw_cla	21694	98.6	100.6	7.9	6.9	-2.0	1.9	0.98
134	2019	Cork_screw_cla	15249	98.8	101.0	9.1	7.5	-2.1	2.8	0.96
135	2020	Cork_screw_cla	1890	98.2	100.6	8.1	6.3	-2.4	3.5	0.91
136	2015	Skin_proferati	26371	98.1	100.6	8.8	8.7	-2.5	0.9	0.99
137	2016	Skin_proferati	24183	97.3	99.8	9.1	8.9	-2.5	1.0	0.99
138	2017	Skin_proferati	22426	98.8	101.1	8.9	8.7	-2.3	1.2	0.99
139	2018	Skin_proferati	21088	98.0	100.3	9.0	8.7	-2.3	1.7	0.98
140	2019	Skin_proferati	14369	99.7	101.7	9.1	8.7	-2.0	2.2	0.97
141	2020	Skin_proferati	1801	99.8	101.3	7.9	7.4	-1.5	2.5	0.95
142	2015	White_line_dou	30018	98.4	101.3	9.0	8.7	-2.9	1.0	0.99
143	2016	White_line_dou	27885	97.0	99.7	10.2	10.1	-2.7	1.1	0.99
144	2017	White_line_dou	25770	98.5	100.9	8.9	8.7	-2.4	1.4	0.99

**RDC summary statistics for SS and previous breeding value 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	2018	White_line_dou	23511	98.6	101.0	9.0	8.8	-2.5	1.8	0.98
146	2019	White_line_dou	16046	99.6	101.8	9.0	8.9	-2.1	2.5	0.96
147	2020	White_line_dou	2076	98.1	99.8	7.8	7.5	-1.7	3.4	0.90

## RDC summary statistics for SS and previous breeding value 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	Dermatitis1	156	106	271	97.4	98.5	13.6	13.2	-1.1	0.9	1.00
2	2011	Dermatitis1	163	143	340	97.5	98.6	12.4	12.1	-1.0	0.9	1.00
3	2012	Dermatitis1	164	138	263	99.2	100.2	13.0	12.6	-1.0	1.0	1.00
4	2013	Dermatitis1	118	217	379	100.9	102.0	12.1	11.8	-1.1	0.9	1.00
5	2014	Dermatitis1	85	346	523	98.7	99.8	12.5	12.1	-1.1	1.2	1.00
6	2015	Dermatitis1	71	386	508	101.4	102.3	11.9	11.5	-0.9	1.5	0.99
7	2016	Dermatitis1	70	391	573	101.0	101.8	11.0	10.6	-0.8	2.7	0.97
8	2017	Dermatitis1	60	349	449	102.0	102.6	11.4	10.6	-0.6	3.6	0.95
9	2010	Heel_horn_eros	112	114	249	95.0	96.3	12.1	12.2	-1.3	0.7	1.00
10	2011	Heel_horn_eros	135	138	289	97.0	98.3	10.4	10.6	-1.3	0.7	1.00
11	2012	Heel_horn_eros	132	123	208	96.5	97.9	10.3	10.4	-1.4	0.7	1.00
12	2013	Heel_horn_eros	105	172	287	98.3	99.7	9.5	9.9	-1.4	1.0	1.00
13	2014	Heel_horn_eros	78	254	358	98.4	99.8	10.7	10.5	-1.4	1.0	1.00
14	2015	Heel_horn_eros	71	238	319	99.7	101.0	9.7	9.8	-1.2	1.4	0.99
15	2016	Heel_horn_eros	69	238	352	98.6	99.6	10.4	10.7	-1.1	1.9	0.98
16	2017	Heel_horn_eros	49	223	257	102.2	104.0	9.4	9.2	-1.9	3.5	0.93
17	2010	Sole_heamorrha	152	113	286	95.5	97.7	9.4	9.3	-2.3	0.9	1.00
18	2011	Sole_heamorrha	163	150	350	98.0	100.2	9.4	9.3	-2.2	0.9	1.00
19	2012	Sole_heamorrha	161	142	268	99.0	101.0	10.9	10.8	-2.0	0.9	1.00
20	2013	Sole_heamorrha	117	220	390	98.2	100.4	10.8	10.6	-2.2	1.1	1.00
21	2014	Sole_heamorrha	82	349	516	97.8	100.0	11.1	11.1	-2.2	1.2	0.99
22	2015	Sole_heamorrha	71	358	478	99.2	101.3	9.2	9.4	-2.1	1.3	0.99
23	2016	Sole_heamorrha	69	350	506	98.3	100.4	12.5	12.3	-2.1	2.3	0.98
24	2017	Sole_heamorrha	57	308	382	101.6	102.9	10.2	10.0	-1.4	4.2	0.91
25	2010	Sole_ulcer1	154	110	277	91.7	96.4	12.6	10.9	-4.7	1.9	1.00
26	2011	Sole_ulcer1	163	146	342	98.1	101.9	13.7	11.9	-3.7	2.1	1.00
27	2012	Sole_ulcer1	161	142	271	95.6	99.6	14.5	12.6	-4.0	2.3	1.00
28	2013	Sole_ulcer1	117	222	387	98.5	102.2	13.5	11.8	-3.7	2.1	1.00
29	2014	Sole_ulcer1	84	346	518	96.6	100.5	13.3	11.5	-3.9	2.3	0.99
30	2015	Sole_ulcer1	71	379	498	97.9	101.4	15.0	12.9	-3.5	2.6	0.99
31	2016	Sole_ulcer1	70	381	558	96.9	100.2	15.7	12.9	-3.4	3.8	0.98
32	2017	Sole_ulcer1	57	356	441	99.4	102.6	12.9	10.6	-3.3	4.8	0.94
33	2010	Cork_screw_cla	134	108	254	90.7	94.1	13.8	12.6	-3.4	1.7	1.00
34	2011	Cork_screw_cla	153	140	321	97.0	99.9	11.9	10.8	-2.9	1.6	0.99
35	2012	Cork_screw_cla	147	137	250	96.7	99.8	14.1	12.8	-3.0	1.8	1.00
36	2013	Cork_screw_cla	114	205	355	92.9	96.4	13.1	11.8	-3.4	1.8	0.99

### RDC summary statistics for SS and previous breeding value 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	2014	Cork_screw_cla	82	324	483	93.7	97.0	15.8	14.3	-3.3	2.1	0.99
38	2015	Cork_screw_cla	71	348	467	94.5	97.8	12.2	11.0	-3.3	2.1	0.99
39	2016	Cork_screw_cla	70	360	529	97.9	100.7	13.6	12.0	-2.8	2.6	0.99
40	2017	Cork_screw_cla	58	324	406	100.6	103.7	13.4	10.9	-3.1	4.6	0.95
41	2010	Skin_proferati	132	113	268	95.2	97.4	14.0	14.3	-2.2	0.9	1.00
42	2011	Skin_proferati	152	140	319	94.8	97.0	11.6	11.7	-2.2	0.9	1.00
43	2012	Skin_proferati	146	139	253	96.0	98.2	12.7	12.9	-2.2	1.0	1.00
44	2013	Skin_proferati	113	206	359	96.9	99.2	12.6	12.8	-2.3	0.9	1.00
45	2014	Skin_proferati	81	320	478	98.6	101.0	10.8	11.0	-2.4	1.1	1.00
46	2015	Skin_proferati	71	340	459	100.4	102.8	12.0	12.2	-2.3	1.7	0.99
47	2016	Skin_proferati	70	348	510	100.8	103.1	12.3	12.1	-2.3	2.4	0.98
48	2017	Skin_proferati	57	323	403	101.4	103.9	11.1	11.0	-2.6	3.3	0.96
49	2010	White_line_dou	156	112	283	96.6	99.2	11.5	11.5	-2.7	1.1	1.00
50	2011	White_line_dou	164	148	347	97.8	100.5	13.0	13.2	-2.6	1.1	1.00
51	2012	White_line_dou	164	142	272	97.8	100.2	14.2	14.3	-2.4	1.2	1.00
52	2013	White_line_dou	118	224	392	98.8	101.4	13.6	13.8	-2.5	1.2	1.00
53	2014	White_line_dou	83	356	530	94.9	97.2	14.9	15.0	-2.3	1.7	0.99
54	2015	White_line_dou	71	384	504	99.3	101.1	11.9	12.0	-1.8	2.2	0.98
55	2016	White_line_dou	70	385	564	98.7	100.4	13.3	13.5	-1.8	2.8	0.98
56	2017	White_line_dou	58	357	446	100.1	101.5	11.5	10.9	-1.4	4.7	0.91
57	2010	Dermatitis2	144	88	220	97.9	98.6	13.9	13.5	-0.8	1.0	1.00
58	2011	Dermatitis2	158	113	265	97.3	98.1	12.2	11.7	-0.8	1.0	1.00
59	2012	Dermatitis2	158	116	216	99.2	99.9	12.6	12.0	-0.8	1.1	1.00
60	2013	Dermatitis2	115	179	307	101.0	101.9	11.8	11.3	-0.9	1.0	1.00
61	2014	Dermatitis2	83	282	415	99.5	100.5	12.0	11.5	-1.0	1.2	1.00
62	2015	Dermatitis2	71	308	400	101.6	102.3	11.2	10.7	-0.7	1.5	0.99
63	2016	Dermatitis2	53	285	381	100.4	101.0	11.3	10.7	-0.5	2.6	0.97
64	2010	Heel_horn_eros	97	92	192	93.7	95.2	12.1	11.8	-1.5	0.8	1.00
65	2011	Heel_horn_eros	125	103	211	97.5	98.8	10.7	10.6	-1.3	0.7	1.00
66	2012	Heel_horn_eros	127	95	157	96.8	98.4	10.9	10.8	-1.5	0.8	1.00
67	2013	Heel_horn_eros	91	145	221	98.4	99.8	10.3	10.3	-1.4	1.1	0.99
68	2014	Heel_horn_eros	77	189	261	98.0	99.6	10.6	10.2	-1.5	1.1	1.00
69	2015	Heel_horn_eros	69	186	237	99.6	100.7	9.9	9.7	-1.1	1.4	0.99
70	2016	Heel_horn_eros	46	176	221	97.4	98.6	10.4	10.8	-1.2	1.8	0.99
71	2010	Sole_heamorrha	144	93	232	94.6	97.0	10.1	10.0	-2.5	0.9	1.00
72	2011	Sole_heamorrha	158	120	283	98.0	100.4	9.6	9.6	-2.4	1.0	1.00

### RDC summary statistics for SS and previous breeding value 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	Sole_heamorrha	157	123	229	98.3	100.7	11.6	11.5	-2.4	0.9	1.00
74	2013	Sole_heamorrha	113	192	328	97.5	100.0	11.0	10.9	-2.4	1.0	1.00
75	2014	Sole_heamorrha	82	295	427	97.2	99.7	11.7	11.8	-2.5	1.1	1.00
76	2015	Sole_heamorrha	71	306	396	98.9	101.1	9.6	9.9	-2.3	1.3	0.99
77	2016	Sole_heamorrha	53	277	367	98.4	100.3	12.0	12.4	-1.9	1.8	0.99
78	2010	Sole_ulcer2	144	92	231	94.3	98.2	13.4	10.9	-4.0	2.7	1.00
79	2011	Sole_ulcer2	163	115	272	99.8	102.7	15.4	12.6	-2.9	3.0	1.00
80	2012	Sole_ulcer2	159	120	221	97.1	100.7	16.6	13.4	-3.6	3.4	1.00
81	2013	Sole_ulcer2	116	182	311	100.5	103.2	14.9	12.3	-2.8	2.9	1.00
82	2014	Sole_ulcer2	83	286	420	97.2	100.5	14.6	11.9	-3.3	3.3	0.99
83	2015	Sole_ulcer2	71	304	392	99.3	101.8	15.9	12.8	-2.5	3.7	0.99
84	2016	Sole_ulcer2	53	286	384	99.1	101.5	16.6	12.5	-2.5	5.0	0.98
85	2010	Cork_screw_cla	115	92	208	90.0	93.3	14.5	12.7	-3.3	2.1	1.00
86	2011	Cork_screw_cla	141	112	252	98.8	101.1	12.6	11.1	-2.3	1.9	1.00
87	2012	Cork_screw_cla	149	108	194	97.6	100.2	14.9	13.3	-2.6	2.0	1.00
88	2013	Cork_screw_cla	107	169	282	95.1	98.0	13.0	11.3	-2.8	2.2	0.99
89	2014	Cork_screw_cla	82	257	380	95.0	97.7	15.6	13.8	-2.7	2.4	0.99
90	2015	Cork_screw_cla	71	274	363	95.2	98.2	12.8	10.9	-2.9	2.7	0.99
91	2016	Cork_screw_cla	48	278	352	98.9	100.8	13.7	10.9	-2.0	3.8	0.98
92	2010	Skin_proferati	109	49	65	94.5	97.4	15.0	14.8	-2.9	0.8	1.00
93	2011	Skin_proferati	129	43	35	94.4	97.3	12.3	12.1	-2.9	0.8	1.00
94	2012	Skin_proferati	125	51	61	94.9	97.7	13.9	13.7	-2.8	1.1	1.00
95	2013	Skin_proferati	94	63	81	96.4	99.2	14.5	14.3	-2.8	0.9	1.00
96	2014	Skin_proferati	58	98	101	98.4	101.1	10.3	10.3	-2.7	0.9	1.00
97	2015	Skin_proferati	48	102	107	99.6	102.3	13.8	13.8	-2.7	1.7	0.99
98	2016	Skin_proferati	29	119	101	98.6	101.8	15.5	13.9	-3.2	2.8	0.99
99	2010	White_line_dou	140	47	63	93.4	97.1	12.2	11.6	-3.7	1.2	1.00
100	2011	White_line_dou	143	45	33	96.5	99.8	12.0	11.4	-3.4	1.3	0.99
101	2012	White_line_dou	138	52	57	96.7	100.1	14.5	13.7	-3.4	1.5	1.00
102	2013	White_line_dou	104	63	77	96.2	99.9	13.5	13.1	-3.7	1.4	1.00
103	2014	White_line_dou	60	99	98	93.2	96.2	14.7	13.8	-3.0	1.7	0.99
104	2015	White_line_dou	48	104	104	98.6	101.6	11.1	10.2	-3.0	2.5	0.97
105	2016	White_line_dou	31	115	96	96.6	100.2	12.7	12.9	-3.6	3.7	0.96
106	2010	Dermatitis3	106	36	50	97.3	97.8	14.5	13.8	-0.5	1.1	1.00
107	2011	Dermatitis3	119	35	22	98.3	98.8	12.6	12.0	-0.6	1.2	1.00
108	2012	Dermatitis3	128	38	40	100.5	101.0	13.5	12.8	-0.5	1.3	1.00

### RDC summary statistics for SS and previous breeding value 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	2013	Dermatitis3	86	51	60	101.3	101.8	12.1	11.6	-0.5	1.1	1.00
110	2014	Dermatitis3	54	74	71	98.8	99.3	13.1	12.5	-0.6	1.5	0.99
111	2015	Dermatitis3	36	77	69	100.8	101.1	13.9	13.5	-0.3	1.3	1.00
112	2010	Heel_horn_eros	63	32	31	93.3	94.8	13.0	12.9	-1.5	0.7	1.00
113	2011	Heel_horn_eros	86	28	11	98.1	99.4	10.7	10.7	-1.3	0.7	1.00
114	2012	Heel_horn_eros	78	30	18	97.4	99.0	11.5	11.5	-1.6	0.7	1.00
115	2013	Heel_horn_eros	58	34	24	98.8	100.2	10.5	10.7	-1.4	1.1	0.99
116	2014	Heel_horn_eros	42	43	29	97.5	99.0	10.1	10.1	-1.5	1.0	0.99
117	2015	Heel_horn_eros	18	54	29	101.4	102.8	8.3	8.3	-1.4	0.8	1.00
118	2010	Sole_heamorrha	103	36	46	94.9	97.7	10.4	10.1	-2.8	0.9	1.00
119	2011	Sole_heamorrha	110	34	18	98.7	101.4	10.6	10.3	-2.8	1.0	1.00
120	2012	Sole_heamorrha	109	38	35	98.6	101.2	12.8	12.6	-2.7	1.0	1.00
121	2013	Sole_heamorrha	75	50	51	98.1	100.9	12.6	12.4	-2.8	0.9	1.00
122	2014	Sole_heamorrha	49	66	56	96.9	99.4	11.6	11.7	-2.6	1.0	1.00
123	2015	Sole_heamorrha	24	83	57	99.3	101.6	11.0	10.7	-2.3	1.0	1.00
124	2010	Sole_ulcer3	114	36	49	95.3	98.9	13.7	11.1	-3.5	2.8	1.00
125	2011	Sole_ulcer3	120	36	21	102.3	104.4	14.9	12.1	-2.1	3.1	1.00
126	2012	Sole_ulcer3	125	39	39	97.9	101.1	16.7	13.5	-3.2	3.5	1.00
127	2013	Sole_ulcer3	86	51	58	102.4	104.7	15.0	12.3	-2.2	3.0	1.00
128	2014	Sole_ulcer3	54	72	67	98.6	101.3	12.9	10.2	-2.8	3.2	0.99
129	2015	Sole_ulcer3	35	74	65	99.2	101.8	18.5	14.5	-2.6	4.9	0.99
130	2010	Cork_screw_cla	81	36	44	92.1	94.8	14.7	12.6	-2.7	2.5	1.00
131	2011	Cork_screw_cla	106	33	19	99.4	101.1	13.4	11.7	-1.7	2.1	1.00
132	2012	Cork_screw_cla	106	39	40	98.6	100.4	15.5	13.5	-1.8	2.4	1.00
133	2013	Cork_screw_cla	77	51	59	95.4	97.5	14.0	12.0	-2.2	2.4	0.99
134	2014	Cork_screw_cla	51	72	70	94.9	97.0	14.8	13.2	-2.1	2.6	0.99
135	2015	Cork_screw_cla	31	79	67	96.1	98.4	11.5	8.7	-2.3	3.7	0.97
136	2010	Skin_proferati	82	39	53	94.6	97.7	15.2	14.8	-3.0	1.0	1.00
137	2011	Skin_proferati	107	33	22	93.8	96.7	12.2	11.7	-3.0	1.0	1.00
138	2012	Skin_proferati	102	40	44	95.3	98.1	14.6	13.9	-2.8	1.2	1.00
139	2013	Skin_proferati	72	54	64	96.6	99.6	15.5	15.0	-2.9	1.1	1.00
140	2014	Skin_proferati	50	74	71	98.9	101.7	11.5	11.3	-2.8	1.0	1.00
141	2015	Skin_proferati	29	84	69	100.3	102.8	16.8	16.2	-2.6	1.8	0.99
142	2010	White_line_dou	110	36	49	95.2	98.5	12.5	11.9	-3.3	1.3	1.00
143	2011	White_line_dou	119	35	21	97.3	100.3	12.1	11.7	-3.0	1.3	0.99
144	2012	White_line_dou	126	38	39	96.9	99.8	14.3	13.6	-3.0	1.5	1.00

### RDC summary statistics for SS and previous breeding value 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	2013	White_line_dou	82	52	59	97.1	100.3	14.5	14.0	-3.2	1.5	1.00
146	2014	White_line_dou	53	73	68	93.9	96.6	15.2	14.3	-2.7	1.8	0.99
147	2015	White_line_dou	35	74	65	99.2	101.7	12.4	11.3	-2.5	2.6	0.98
148	2010	Dermatitis	156	106	271	98.2	98.9	13.4	12.9	-0.7	1.1	1.00
149	2011	Dermatitis	163	143	340	98.1	98.8	12.2	11.7	-0.7	1.0	1.00
150	2012	Dermatitis	164	138	263	99.6	100.3	12.8	12.3	-0.8	1.1	1.00
151	2013	Dermatitis	118	217	379	101.2	102.0	11.8	11.4	-0.8	1.0	1.00
152	2014	Dermatitis	85	346	523	99.0	99.9	12.2	11.7	-0.9	1.3	0.99
153	2015	Dermatitis	71	386	508	101.5	102.1	11.5	11.1	-0.6	1.4	0.99
154	2016	Dermatitis	70	391	573	101.4	101.8	10.6	10.2	-0.4	2.7	0.97
155	2017	Dermatitis	60	349	449	102.3	102.7	10.7	10.1	-0.4	3.4	0.95
156	2010	Heel_horn_eros	112	114	249	95.1	96.5	12.3	12.2	-1.4	0.7	1.00
157	2011	Heel_horn_eros	135	138	289	97.3	98.6	10.5	10.5	-1.3	0.8	1.00
158	2012	Heel_horn_eros	132	123	208	96.5	98.1	10.7	10.7	-1.6	0.7	1.00
159	2013	Heel_horn_eros	105	172	287	98.6	99.8	10.0	10.1	-1.3	1.0	1.00
160	2014	Heel_horn_eros	78	254	358	98.2	99.6	10.6	10.4	-1.5	1.1	0.99
161	2015	Heel_horn_eros	71	238	319	99.7	100.9	9.8	9.8	-1.2	1.4	0.99
162	2016	Heel_horn_eros	69	238	352	98.7	99.7	10.3	10.6	-1.0	1.9	0.98
163	2017	Heel_horn_eros	49	223	257	102.0	103.9	9.3	9.1	-1.9	3.4	0.93
164	2010	Sole_heamorrha	152	113	286	95.0	97.5	9.9	9.7	-2.5	0.8	1.00
165	2011	Sole_heamorrha	163	150	350	98.0	100.4	9.8	9.7	-2.4	1.0	1.00
166	2012	Sole_heamorrha	161	142	268	98.6	101.0	11.7	11.5	-2.4	0.9	1.00
167	2013	Sole_heamorrha	117	220	390	98.1	100.6	11.2	11.1	-2.5	1.0	1.00
168	2014	Sole_heamorrha	82	349	516	97.3	99.9	11.8	11.7	-2.5	1.1	1.00
169	2015	Sole_heamorrha	71	358	478	99.1	101.3	9.6	9.6	-2.1	1.3	0.99
170	2016	Sole_heamorrha	69	350	506	98.3	100.4	13.0	12.6	-2.0	2.3	0.98
171	2017	Sole_heamorrha	57	308	382	101.4	103.3	10.6	10.3	-1.9	4.1	0.92
172	2010	Sole_ulcer	154	110	277	93.5	97.7	13.0	10.7	-4.1	2.5	1.00
173	2011	Sole_ulcer	163	146	342	99.5	102.5	14.9	12.4	-3.0	2.7	1.00
174	2012	Sole_ulcer	161	142	271	96.7	100.3	16.2	13.2	-3.6	3.1	1.00
175	2013	Sole_ulcer	117	222	387	100.0	102.9	14.2	11.9	-2.9	2.6	1.00
176	2014	Sole_ulcer	84	346	518	97.3	100.7	14.0	11.6	-3.4	2.9	0.99
177	2015	Sole_ulcer	71	379	498	98.8	101.5	15.6	12.6	-2.7	3.5	0.99
178	2016	Sole_ulcer	70	381	558	97.7	100.4	16.0	12.3	-2.7	4.6	0.98
179	2017	Sole_ulcer	57	356	441	99.7	102.2	13.6	10.5	-2.6	5.1	0.94
180	2010	Cork_screw_cla	134	108	254	91.0	94.2	14.1	12.4	-3.2	2.1	1.00



## RDC summary statistics for SS and previous breeding value 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	2011	Cork_screw_cla	153	140	321	98.1	100.5	12.4	10.9	-2.3	1.8	1.00
182	2012	Cork_screw_cla	147	137	250	97.7	100.2	14.3	12.7	-2.4	2.1	1.00
183	2013	Cork_screw_cla	114	205	355	93.9	96.8	13.5	11.8	-2.9	2.2	0.99
184	2014	Cork_screw_cla	82	324	483	95.0	97.6	15.0	13.3	-2.6	2.4	0.99
185	2015	Cork_screw_cla	71	348	467	95.0	97.8	12.4	10.3	-2.8	2.9	0.98
186	2016	Cork_screw_cla	70	360	529	97.9	100.2	13.6	11.3	-2.4	3.5	0.98
187	2017	Cork_screw_cla	58	324	406	100.6	102.9	12.9	9.9	-2.3	4.9	0.94
188	2010	Skin_proferati	132	113	268	94.4	97.0	14.7	14.5	-2.7	0.9	1.00
189	2011	Skin_proferati	152	140	319	94.3	97.0	11.9	11.8	-2.6	0.8	1.00
190	2012	Skin_proferati	146	139	253	95.4	98.0	13.6	13.5	-2.6	1.0	1.00
191	2013	Skin_proferati	113	206	359	96.4	99.1	13.7	13.5	-2.7	0.9	1.00
192	2014	Skin_proferati	81	320	478	98.1	100.9	11.7	11.6	-2.9	1.0	1.00
193	2015	Skin_proferati	71	340	459	100.3	102.9	12.4	12.2	-2.6	1.7	0.99
194	2016	Skin_proferati	70	348	510	100.7	103.4	12.8	11.9	-2.7	2.5	0.98
195	2017	Skin_proferati	57	323	403	101.2	103.8	11.7	11.1	-2.6	3.5	0.95
196	2010	White_line_dou	156	112	283	95.0	98.2	11.5	11.1	-3.2	1.1	1.00
197	2011	White_line_dou	164	148	347	96.6	99.6	12.8	12.4	-3.0	1.2	1.00
198	2012	White_line_dou	164	142	272	96.9	99.8	14.3	13.7	-2.9	1.4	1.00
199	2013	White_line_dou	118	224	392	97.1	100.2	13.5	13.2	-3.1	1.2	1.00
200	2014	White_line_dou	83	356	530	94.4	97.1	14.4	13.9	-2.7	1.7	0.99
201	2015	White_line_dou	71	384	504	99.3	101.5	10.9	10.4	-2.2	2.4	0.98
202	2016	White_line_dou	70	385	564	98.0	100.1	13.0	12.6	-2.1	3.3	0.97
203	2017	White_line_dou	58	357	446	99.7	101.5	11.0	10.1	-1.8	4.2	0.92

**'JER summery statistics for SS and prev SS breeding value 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	Dermatitis1	8335	98.8	98.5	11.5	11.2	0.3	2.0	0.98
2	2020	Dermatitis1	11761	100.4	100.4	11.0	10.8	0.0	2.4	0.98
3	2021	Dermatitis1	14184	98.7	98.7	10.1	10.0	0.0	2.3	0.97
4	2022	Dermatitis1	3282	100.2	99.5	9.9	9.9	0.7	2.1	0.98
5	2019	Heel_horn_eros	10638	99.1	98.9	10.3	10.6	0.2	2.3	0.98
6	2020	Heel_horn_eros	13749	99.6	99.8	9.9	9.8	-0.1	1.9	0.98
7	2021	Heel_horn_eros	14211	100.4	100.0	8.7	8.7	0.4	1.7	0.98
8	2022	Heel_horn_eros	3282	102.2	101.3	8.4	8.5	1.0	1.7	0.98
9	2019	Sole_heamorrha	8661	100.7	101.4	13.0	12.5	-0.8	2.3	0.98
10	2020	Sole_heamorrha	12147	100.3	100.6	12.0	11.6	-0.3	3.1	0.97
11	2021	Sole_heamorrha	14193	102.6	102.8	10.2	9.8	-0.3	2.5	0.97
12	2022	Sole_heamorrha	3282	102.3	102.9	10.1	9.3	-0.5	2.6	0.97
13	2019	Sole_ulcer1	7906	100.4	100.1	13.5	12.5	0.2	2.8	0.98
14	2020	Sole_ulcer1	11540	99.5	98.6	13.4	12.5	0.9	4.4	0.94
15	2021	Sole_ulcer1	14174	102.5	102.0	11.6	11.1	0.5	3.4	0.96
16	2022	Sole_ulcer1	3282	101.5	101.6	11.0	10.0	-0.2	3.1	0.96
17	2019	Cork_screw_cla	7745	100.1	101.7	13.4	12.7	-1.6	2.9	0.98
18	2020	Cork_screw_cla	11349	100.7	101.8	12.5	11.8	-1.1	3.4	0.96
19	2021	Cork_screw_cla	14185	103.2	104.2	10.6	10.0	-1.0	2.5	0.97
20	2022	Cork_screw_cla	3282	105.4	106.1	9.7	9.1	-0.7	2.5	0.97
21	2019	Skin_proferati	7957	98.4	99.4	10.9	10.0	-1.0	2.0	0.99
22	2020	Skin_proferati	11707	100.4	101.3	9.4	8.8	-0.9	2.1	0.98
23	2021	Skin_proferati	14173	98.7	99.5	9.3	8.6	-0.8	2.0	0.98
24	2022	Skin_proferati	3282	101.4	101.9	8.6	8.0	-0.4	1.8	0.98
25	2019	White_line_dou	7907	101.3	102.7	17.9	16.8	-1.3	3.3	0.98
26	2020	White_line_dou	11562	98.3	99.4	16.8	15.6	-1.2	4.3	0.97
27	2021	White_line_dou	14174	104.3	105.7	14.1	13.3	-1.5	3.3	0.97
28	2022	White_line_dou	3282	103.6	105.8	12.7	11.7	-2.2	3.1	0.97
29	2019	Dermatitis2	10310	98.7	98.7	10.9	10.3	0.0	2.4	0.98
30	2020	Dermatitis2	15485	100.7	100.7	10.1	9.9	0.0	2.5	0.97
31	2021	Dermatitis2	14226	98.6	99.0	9.4	9.2	-0.3	2.4	0.97
32	2022	Dermatitis2	3282	100.3	99.8	9.2	9.0	0.4	2.2	0.97
33	2019	Heel_horn_eros	11953	99.1	99.1	9.3	9.8	0.0	2.1	0.98
34	2020	Heel_horn_eros	15507	99.9	99.8	8.8	9.1	0.1	1.7	0.98
35	2021	Heel_horn_eros	14226	100.5	100.2	7.9	8.0	0.3	1.6	0.98
36	2022	Heel_horn_eros	3282	102.2	101.3	7.5	7.7	0.8	1.6	0.98

**'JER summery statistics for SS and prev SS breeding value 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	Sole_heamorrha	10500	100.9	101.6	13.8	13.0	-0.7	2.6	0.98
38	2020	Sole_heamorrha	15490	99.8	100.3	13.1	12.3	-0.4	3.4	0.97
39	2021	Sole_heamorrha	14226	102.9	103.3	10.9	10.4	-0.3	2.6	0.97
40	2022	Sole_heamorrha	3282	102.5	103.2	10.7	9.7	-0.8	2.7	0.97
41	2019	Sole_ulcer2	10128	100.6	100.1	15.3	14.0	0.5	3.5	0.98
42	2020	Sole_ulcer2	15484	99.0	98.6	14.8	13.8	0.4	4.0	0.96
43	2021	Sole_ulcer2	14226	102.8	102.0	12.8	12.1	0.8	3.2	0.97
44	2022	Sole_ulcer2	3282	101.9	101.9	11.9	10.8	0.0	3.0	0.97
45	2019	Cork_screw_cla	10029	101.0	102.8	13.2	12.8	-1.8	2.8	0.98
46	2020	Cork_screw_cla	15483	100.3	101.4	12.2	11.8	-1.1	3.4	0.96
47	2021	Cork_screw_cla	14226	103.6	104.9	10.3	10.2	-1.3	2.6	0.97
48	2022	Cork_screw_cla	3282	105.0	106.1	9.6	9.3	-1.1	2.5	0.97
49	2019	Skin_proferati	10166	98.6	99.6	10.5	9.8	-1.0	1.9	0.98
50	2020	Skin_proferati	15485	100.4	101.3	8.9	8.4	-0.9	2.1	0.97
51	2021	Skin_proferati	14226	98.9	99.6	8.8	8.2	-0.7	2.0	0.98
52	2022	Skin_proferati	3282	101.4	101.8	8.1	7.7	-0.4	1.7	0.98
53	2019	White_line_dou	10144	101.5	102.3	18.7	17.2	-0.8	3.9	0.98
54	2020	White_line_dou	15484	98.2	99.3	17.7	16.4	-1.2	3.9	0.98
55	2021	White_line_dou	14226	104.0	104.9	15.0	13.9	-0.9	3.2	0.98
56	2022	White_line_dou	3282	103.2	105.0	13.4	12.3	-1.8	3.0	0.98
57	2019	Dermatitis3	12937	98.5	98.5	11.7	11.0	0.0	2.5	0.98
58	2020	Dermatitis3	15534	100.7	100.8	10.7	10.3	-0.1	2.7	0.97
59	2021	Dermatitis3	14226	98.4	98.7	9.9	9.6	-0.3	2.5	0.97
60	2022	Dermatitis3	3282	99.7	99.2	9.5	9.3	0.5	2.2	0.97
61	2019	Heel_horn_eros	12993	98.8	98.1	9.8	10.4	0.7	2.4	0.97
62	2020	Heel_horn_eros	15534	99.8	99.6	9.6	9.6	0.2	2.2	0.97
63	2021	Heel_horn_eros	14226	99.8	98.9	8.5	8.6	0.9	1.9	0.98
64	2022	Heel_horn_eros	3282	101.6	100.1	8.2	8.3	1.5	1.8	0.98
65	2019	Sole_heamorrha	12946	100.9	101.9	14.0	13.2	-1.1	2.5	0.99
66	2020	Sole_heamorrha	15534	99.9	100.5	13.1	12.4	-0.6	3.4	0.97
67	2021	Sole_heamorrha	14226	103.1	103.8	10.8	10.5	-0.7	2.5	0.97
68	2022	Sole_heamorrha	3282	102.9	104.0	10.5	9.6	-1.1	2.6	0.97
69	2019	Sole_ulcer3	12940	100.4	99.6	14.4	13.2	0.9	3.4	0.97
70	2020	Sole_ulcer3	15534	99.0	98.2	14.0	13.1	0.9	4.1	0.96
71	2021	Sole_ulcer3	14226	102.2	101.1	12.4	11.7	1.1	3.4	0.96
72	2022	Sole_ulcer3	3282	100.9	100.7	11.4	10.5	0.2	3.0	0.97

**'JER summery statistics for SS and prev SS breeding value 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	Cork_screw_cla	12935	101.0	102.5	13.1	12.6	-1.5	3.0	0.97
74	2020	Cork_screw_cla	15534	100.6	101.8	12.0	11.5	-1.3	3.4	0.96
75	2021	Cork_screw_cla	14226	103.4	104.3	10.2	10.0	-1.0	2.6	0.97
76	2022	Cork_screw_cla	3282	104.5	105.3	9.5	9.1	-0.9	2.5	0.96
77	2019	Skin_proferati	12938	98.2	99.3	10.9	9.9	-1.1	2.3	0.98
78	2020	Skin_proferati	15534	100.6	101.3	8.9	8.4	-0.6	2.2	0.97
79	2021	Skin_proferati	14226	98.6	99.4	9.0	8.3	-0.9	2.1	0.97
80	2022	Skin_proferati	3282	101.3	101.7	8.3	7.8	-0.4	1.8	0.98
81	2019	White_line_dou	12940	101.1	101.8	18.4	16.7	-0.7	4.1	0.98
82	2020	White_line_dou	15534	98.4	99.6	17.0	15.6	-1.2	3.7	0.98
83	2021	White_line_dou	14226	103.5	104.2	14.5	13.2	-0.7	3.2	0.98
84	2022	White_line_dou	3282	103.2	104.8	13.1	11.8	-1.6	2.9	0.98
85	2019	Dermatitis	8335	98.7	98.7	11.2	10.6	0.1	2.2	0.98
86	2020	Dermatitis	11761	100.6	100.7	10.5	10.2	-0.1	2.4	0.97
87	2021	Dermatitis	14184	98.5	98.7	9.7	9.5	-0.2	2.4	0.97
88	2022	Dermatitis	3282	100.0	99.5	9.5	9.4	0.5	2.1	0.97
89	2019	Heel_horn_eros	10638	99.0	98.7	9.7	10.2	0.4	2.2	0.98
90	2020	Heel_horn_eros	13749	99.7	99.7	9.3	9.4	0.0	1.9	0.98
91	2021	Heel_horn_eros	14211	100.2	99.6	8.3	8.4	0.6	1.7	0.98
92	2022	Heel_horn_eros	3282	101.9	100.7	8.0	8.1	1.2	1.6	0.98
93	2019	Sole_heamorrha	8661	100.8	101.7	13.5	12.8	-0.9	2.4	0.99
94	2020	Sole_heamorrha	12147	100.0	100.5	12.5	12.0	-0.4	3.2	0.97
95	2021	Sole_heamorrha	14193	102.9	103.4	10.5	10.2	-0.5	2.5	0.97
96	2022	Sole_heamorrha	3282	102.6	103.5	10.4	9.5	-0.9	2.6	0.97
97	2019	Sole_ulcer	7906	100.5	99.9	14.0	12.9	0.6	3.1	0.98
98	2020	Sole_ulcer	11540	99.2	98.4	13.8	12.9	0.8	4.1	0.95
99	2021	Sole_ulcer	14174	102.4	101.6	12.2	11.5	0.8	3.3	0.96
100	2022	Sole_ulcer	3282	101.3	101.3	11.3	10.3	0.0	3.0	0.97
101	2019	Cork_screw_cla	7745	100.5	102.1	13.2	12.6	-1.6	2.9	0.98
102	2020	Cork_screw_cla	11349	100.5	101.7	12.0	11.5	-1.2	3.3	0.96
103	2021	Cork_screw_cla	14185	103.4	104.4	10.2	9.9	-1.1	2.5	0.97
104	2022	Cork_screw_cla	3282	104.9	105.7	9.4	9.0	-0.9	2.4	0.97
105	2019	Skin_proferati	7957	98.4	99.4	10.7	9.8	-1.0	2.0	0.98
106	2020	Skin_proferati	11707	100.5	101.3	9.0	8.5	-0.8	2.1	0.97
107	2021	Skin_proferati	14173	98.7	99.5	9.0	8.3	-0.8	2.0	0.98
108	2022	Skin_proferati	3282	101.3	101.8	8.3	7.8	-0.4	1.8	0.98

**'JER summery statistics for SS and prev SS breeding value 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	White_line_dou	7907	101.2	102.1	18.1	16.7	-0.9	3.7	0.98
110	2020	White_line_dou	11562	98.2	99.4	17.0	15.6	-1.2	3.9	0.98
111	2021	White_line_dou	14174	103.9	104.8	14.4	13.3	-1.0	3.2	0.98
112	2022	White_line_dou	3282	103.3	105.2	13.0	11.8	-1.8	3.0	0.98

## JER summary statistics for SS and previous breeding value 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	Dermatitis1	1780	101.6	100.7	10.8	10.5	0.9	1.5	0.99
2	2016	Dermatitis1	2097	101.0	100.1	10.5	10.2	0.8	1.6	0.99
3	2017	Dermatitis1	3181	100.4	99.6	10.7	10.5	0.8	1.8	0.99
4	2018	Dermatitis1	4082	101.1	100.8	10.1	9.8	0.3	1.8	0.98
5	2019	Dermatitis1	4419	97.8	97.6	12.3	12.0	0.3	2.3	0.98
6	2020	Dermatitis1	1362	100.9	100.7	11.7	11.5	0.1	2.7	0.97
7	2015	Heel_horn_eros	988	101.9	101.4	10.0	10.0	0.5	1.3	0.99
8	2016	Heel_horn_eros	1121	99.9	99.3	10.2	10.2	0.5	1.3	0.99
9	2017	Heel_horn_eros	1848	100.2	100.0	9.7	9.7	0.2	1.7	0.99
10	2018	Heel_horn_eros	2138	99.9	99.9	10.0	9.9	0.0	1.8	0.98
11	2019	Heel_horn_eros	2043	98.0	97.9	10.7	11.0	0.2	2.4	0.98
12	2020	Heel_horn_eros	643	100.6	100.7	10.7	10.7	-0.1	2.0	0.98
13	2015	Sole_heamorrha	1759	100.2	100.8	14.3	13.9	-0.6	1.5	0.99
14	2016	Sole_heamorrha	2021	101.3	102.0	15.0	14.6	-0.7	1.5	1.00
15	2017	Sole_heamorrha	3038	102.5	103.2	13.8	13.3	-0.7	1.8	0.99
16	2018	Sole_heamorrha	3766	97.7	98.9	15.1	14.7	-1.2	1.9	0.99
17	2019	Sole_heamorrha	3914	100.2	101.1	12.9	12.3	-0.9	2.5	0.98
18	2020	Sole_heamorrha	1197	102.1	102.8	13.6	12.8	-0.7	3.5	0.97
19	2015	Sole_ulcer1	2149	99.4	99.1	13.6	13.2	0.3	1.8	0.99
20	2016	Sole_ulcer1	2312	100.1	99.5	16.2	15.9	0.5	2.0	0.99
21	2017	Sole_ulcer1	3318	101.3	101.0	13.9	13.3	0.3	2.2	0.99
22	2018	Sole_ulcer1	4320	98.8	99.3	15.0	14.5	-0.4	2.3	0.99
23	2019	Sole_ulcer1	4737	99.9	99.7	14.4	13.3	0.2	3.1	0.98
24	2020	Sole_ulcer1	1490	100.2	99.7	14.0	12.6	0.4	4.1	0.96
25	2015	Cork_screw_cla	1912	102.3	102.7	12.1	11.7	-0.4	1.6	0.99
26	2016	Cork_screw_cla	2225	98.3	99.2	15.2	14.9	-0.9	1.6	0.99
27	2017	Cork_screw_cla	3221	101.2	102.4	13.0	12.6	-1.2	1.8	0.99
28	2018	Cork_screw_cla	4351	97.0	98.4	17.1	16.9	-1.4	2.5	0.99
29	2019	Cork_screw_cla	4785	100.4	102.2	13.2	12.3	-1.8	3.0	0.97
30	2020	Cork_screw_cla	1378	102.2	103.4	13.0	12.0	-1.2	3.7	0.96
31	2015	Skin_proferati	2134	101.8	101.9	9.8	9.2	-0.1	1.5	0.99
32	2016	Skin_proferati	2311	100.7	100.7	10.5	9.8	0.0	1.5	0.99
33	2017	Skin_proferati	3334	100.6	100.8	9.8	9.2	-0.2	1.7	0.99
34	2018	Skin_proferati	4337	100.5	100.6	9.8	9.2	-0.1	1.9	0.98
35	2019	Skin_proferati	4680	98.0	99.0	11.4	10.5	-1.1	2.1	0.98
36	2020	Skin_proferati	1472	100.4	101.2	9.8	9.2	-0.8	2.2	0.97

## JER summary statistics for SS and previous breeding value 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	2015	White_line_dou	2148	100.2	101.2	21.4	20.7	-1.0	1.7	1.00
38	2016	White_line_dou	2332	100.9	101.6	21.5	20.9	-0.6	1.8	1.00
39	2017	White_line_dou	3340	102.0	103.4	16.8	16.2	-1.4	2.2	0.99
40	2018	White_line_dou	4319	96.6	98.2	21.5	20.7	-1.6	2.6	0.99
41	2019	White_line_dou	4731	101.8	103.3	18.3	17.0	-1.5	3.6	0.98
42	2020	White_line_dou	1491	101.5	102.6	17.3	15.8	-1.2	4.4	0.97
43	2015	Dermatitis2	1513	101.5	100.7	10.2	9.9	0.8	1.5	0.99
44	2016	Dermatitis2	1853	100.5	99.8	9.8	9.6	0.7	1.6	0.99
45	2017	Dermatitis2	2716	99.8	99.1	9.9	9.5	0.8	1.7	0.98
46	2018	Dermatitis2	3185	101.2	100.9	9.5	9.1	0.3	1.8	0.98
47	2019	Dermatitis2	908	97.1	97.2	11.5	10.7	0.0	2.5	0.98
48	2015	Heel_horn_eros	759	101.9	101.5	9.6	9.9	0.4	1.4	0.99
49	2016	Heel_horn_eros	960	99.9	99.4	9.2	9.5	0.4	1.3	0.99
50	2017	Heel_horn_eros	1425	100.1	100.0	9.1	9.2	0.1	1.5	0.99
51	2018	Heel_horn_eros	1443	99.7	99.8	9.0	9.1	-0.1	1.9	0.98
52	2019	Heel_horn_eros	365	97.0	96.7	9.9	10.3	0.2	2.1	0.98
53	2015	Sole_heamorrha	1547	100.4	100.9	15.9	15.4	-0.5	1.6	1.00
54	2016	Sole_heamorrha	1813	101.3	101.7	16.6	16.1	-0.4	1.5	1.00
55	2017	Sole_heamorrha	2598	102.7	103.3	14.5	13.9	-0.6	1.8	0.99
56	2018	Sole_heamorrha	2820	97.5	98.7	16.5	15.9	-1.3	2.1	0.99
57	2019	Sole_heamorrha	773	98.3	99.2	14.1	13.3	-0.9	2.5	0.98
58	2015	Sole_ulcer2	1778	100.0	99.6	15.9	15.5	0.4	1.7	0.99
59	2016	Sole_ulcer2	1996	100.3	99.7	19.1	18.6	0.6	1.9	1.00
60	2017	Sole_ulcer2	2858	102.0	101.7	15.8	15.0	0.3	2.2	0.99
61	2018	Sole_ulcer2	3463	98.7	99.3	17.5	16.6	-0.6	2.7	0.99
62	2019	Sole_ulcer2	1039	98.9	98.4	17.8	16.3	0.5	3.7	0.98
63	2015	Cork_screw_cla	1782	101.4	102.2	12.4	12.1	-0.8	1.6	0.99
64	2016	Cork_screw_cla	1956	98.4	99.6	14.4	14.2	-1.2	1.5	0.99
65	2017	Cork_screw_cla	2831	101.5	103.0	12.9	12.7	-1.5	1.7	0.99
66	2018	Cork_screw_cla	3399	96.6	98.1	16.1	16.3	-1.5	2.3	0.99
67	2019	Cork_screw_cla	880	98.9	101.1	13.3	13.0	-2.2	2.6	0.98
68	2015	Skin_proferati	1776	101.7	101.8	9.7	9.3	-0.1	1.4	0.99
69	2016	Skin_proferati	2004	100.7	100.8	10.6	10.1	-0.1	1.4	0.99
70	2017	Skin_proferati	2861	100.7	100.9	9.5	9.0	-0.2	1.5	0.99
71	2018	Skin_proferati	3433	100.2	100.5	9.4	8.7	-0.3	1.9	0.98
72	2019	Skin_proferati	1029	97.0	97.9	10.9	10.0	-0.9	2.0	0.98

## JER summary statistics for SS and previous breeding value 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	2015	White_line_dou	1783	100.3	100.9	23.0	22.4	-0.7	1.6	1.00
74	2016	White_line_dou	2003	100.7	101.1	24.1	23.5	-0.4	1.8	1.00
75	2017	White_line_dou	2857	102.5	103.5	18.7	18.1	-1.0	2.2	0.99
76	2018	White_line_dou	3459	97.2	98.7	22.5	21.6	-1.5	2.7	0.99
77	2019	White_line_dou	1044	100.1	100.9	21.5	19.7	-0.8	4.1	0.98
78	2015	Dermatitis3	1187	101.4	100.8	10.8	10.4	0.6	1.5	0.99
79	2016	Dermatitis3	1436	100.9	100.5	10.2	10.0	0.4	1.6	0.99
80	2017	Dermatitis3	1825	99.9	99.2	10.2	9.9	0.7	1.9	0.98
81	2018	Dermatitis3	527	100.7	100.3	10.3	9.7	0.4	2.1	0.98
82	2015	Heel_horn_eros	655	101.7	101.0	10.4	10.6	0.7	1.4	0.99
83	2016	Heel_horn_eros	734	100.0	99.3	9.8	10.0	0.7	1.4	0.99
84	2017	Heel_horn_eros	881	99.5	98.9	9.1	9.2	0.6	2.0	0.98
85	2018	Heel_horn_eros	202	.	.	.	.	.	.	0.97
86	2015	Sole_heamorrha	1222	100.9	101.5	16.1	15.6	-0.6	1.5	1.00
87	2016	Sole_heamorrha	1380	101.0	101.7	17.0	16.6	-0.6	1.5	1.00
88	2017	Sole_heamorrha	1637	103.1	103.9	14.2	13.7	-0.9	1.8	0.99
89	2018	Sole_heamorrha	438	97.1	98.4	16.3	15.9	-1.3	1.9	0.99
90	2015	Sole_ulcer3	1341	99.8	99.2	15.0	14.8	0.6	1.8	0.99
91	2016	Sole_ulcer3	1527	100.3	99.4	17.9	17.6	0.9	2.0	0.99
92	2017	Sole_ulcer3	1988	101.9	101.3	15.0	14.3	0.5	2.4	0.99
93	2018	Sole_ulcer3	570	100.8	101.0	14.4	13.8	-0.2	2.8	0.98
94	2015	Cork_screw_cla	1390	101.7	102.4	12.4	12.0	-0.7	1.6	0.99
95	2016	Cork_screw_cla	1575	98.7	100.1	14.3	14.0	-1.4	1.6	0.99
96	2017	Cork_screw_cla	1949	102.3	103.6	12.7	12.4	-1.3	1.8	0.99
97	2018	Cork_screw_cla	518	96.6	98.1	17.0	17.4	-1.4	2.4	0.99
98	2015	Skin_proferati	1363	101.5	101.6	9.7	9.1	-0.1	1.6	0.99
99	2016	Skin_proferati	1536	100.7	100.7	9.9	9.4	0.0	1.5	0.99
100	2017	Skin_proferati	1967	100.2	100.4	9.3	8.7	-0.2	1.6	0.99
101	2018	Skin_proferati	562	99.5	99.5	8.9	8.4	0.0	1.7	0.98
102	2015	White_line_dou	1336	101.0	101.6	22.0	21.2	-0.6	1.8	1.00
103	2016	White_line_dou	1534	101.1	101.4	23.7	22.9	-0.3	1.8	1.00
104	2017	White_line_dou	1990	102.7	103.6	17.8	17.0	-0.9	2.2	0.99
105	2018	White_line_dou	569	98.9	100.0	20.4	19.5	-1.1	2.4	0.99
106	2015	Dermatitis	1780	101.4	100.6	10.5	10.2	0.8	1.5	0.99
107	2016	Dermatitis	2097	100.6	99.9	10.1	9.8	0.6	1.6	0.99
108	2017	Dermatitis	3181	100.2	99.5	10.2	9.9	0.8	1.8	0.98



## JER summary statistics for SS and previous breeding value 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	Dermatitis	4082	101.2	100.9	9.8	9.4	0.3	1.8	0.98
110	2019	Dermatitis	4419	97.9	97.8	11.9	11.4	0.1	2.5	0.98
111	2020	Dermatitis	1362	100.9	100.8	11.2	10.8	0.1	2.7	0.97
112	2015	Heel_horn_eros	988	101.9	101.3	9.8	10.0	0.6	1.3	0.99
113	2016	Heel_horn_eros	1121	99.7	99.1	9.5	9.7	0.6	1.3	0.99
114	2017	Heel_horn_eros	1848	100.1	99.8	9.2	9.4	0.3	1.6	0.98
115	2018	Heel_horn_eros	2138	100.1	100.0	9.2	9.1	0.1	1.9	0.98
116	2019	Heel_horn_eros	2043	98.0	97.7	10.0	10.5	0.4	2.3	0.98
117	2020	Heel_horn_eros	643	100.4	100.3	9.9	10.2	0.0	2.0	0.98
118	2015	Sole_heamorrha	1759	100.2	100.8	15.2	14.7	-0.6	1.5	1.00
119	2016	Sole_heamorrha	2021	101.3	101.9	16.2	15.8	-0.6	1.5	1.00
120	2017	Sole_heamorrha	3038	102.5	103.3	14.1	13.6	-0.7	1.8	0.99
121	2018	Sole_heamorrha	3766	97.4	98.7	16.1	15.5	-1.3	2.0	0.99
122	2019	Sole_heamorrha	3914	100.5	101.5	13.5	12.7	-1.0	2.6	0.98
123	2020	Sole_heamorrha	1197	102.1	102.8	14.1	13.0	-0.7	3.6	0.97
124	2015	Sole_ulcer	2149	99.7	99.3	14.5	14.2	0.5	1.8	0.99
125	2016	Sole_ulcer	2312	100.5	99.8	17.6	17.2	0.7	1.9	0.99
126	2017	Sole_ulcer	3318	101.4	101.1	14.8	14.1	0.4	2.3	0.99
127	2018	Sole_ulcer	4320	98.8	99.2	15.8	15.1	-0.4	2.6	0.99
128	2019	Sole_ulcer	4737	100.0	99.5	15.0	13.7	0.6	3.4	0.98
129	2020	Sole_ulcer	1490	100.1	99.6	14.3	13.1	0.4	3.9	0.96
130	2015	Cork_screw_cla	1912	101.7	102.4	12.1	11.8	-0.7	1.6	0.99
131	2016	Cork_screw_cla	2225	98.5	99.7	14.7	14.3	-1.2	1.5	0.99
132	2017	Cork_screw_cla	3221	101.5	102.8	12.7	12.4	-1.3	1.8	0.99
133	2018	Cork_screw_cla	4351	96.7	98.2	16.3	16.4	-1.5	2.5	0.99
134	2019	Cork_screw_cla	4785	100.9	102.7	12.8	12.2	-1.8	3.0	0.97
135	2020	Cork_screw_cla	1378	102.3	103.5	12.7	11.9	-1.2	3.6	0.96
136	2015	Skin_proferati	2134	101.6	101.7	9.6	9.1	-0.1	1.5	0.99
137	2016	Skin_proferati	2311	100.5	100.5	10.2	9.7	0.0	1.5	0.99
138	2017	Skin_proferati	3334	100.6	100.8	9.5	9.0	-0.2	1.6	0.99
139	2018	Skin_proferati	4337	100.5	100.6	9.5	8.9	-0.2	1.9	0.98
140	2019	Skin_proferati	4680	98.0	99.0	11.1	10.2	-1.1	2.2	0.98
141	2020	Skin_proferati	1472	100.3	101.1	9.4	8.9	-0.8	2.2	0.97
142	2015	White_line_dou	2148	100.5	101.3	21.8	21.1	-0.8	1.7	1.00
143	2016	White_line_dou	2332	101.3	101.7	23.0	22.3	-0.4	1.8	1.00
144	2017	White_line_dou	3340	102.3	103.4	17.6	16.9	-1.1	2.2	0.99

**JER summary statistics for SS and previous breeding value 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	2018	White_line_dou	4319	96.9	98.4	22.0	20.9	-1.5	2.6	0.99
146	2019	White_line_dou	4731	101.4	102.4	18.6	17.0	-1.0	4.0	0.98
147	2020	White_line_dou	1491	101.4	102.5	17.4	15.9	-1.1	4.1	0.97

**JER summery statistics for SS and previous breeding value 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	Dermatitis1	9663	101.6	100.7	8.9	8.8	0.9	0.9	0.99
2	2016	Dermatitis1	9822	101.3	100.5	9.0	8.8	0.9	1.1	0.99
3	2017	Dermatitis1	9414	100.5	99.7	9.3	9.1	0.9	1.2	0.99
4	2018	Dermatitis1	10169	101.2	100.8	8.5	8.2	0.3	1.7	0.98
5	2019	Dermatitis1	10037	99.0	98.6	10.3	9.9	0.4	2.4	0.97
6	2020	Dermatitis1	2780	100.9	100.7	10.1	9.7	0.3	3.0	0.95
7	2015	Heel_horn_eros	6089	102.0	101.5	8.4	8.4	0.5	0.8	1.00
8	2016	Heel_horn_eros	6162	100.1	99.6	9.1	9.2	0.5	1.0	0.99
9	2017	Heel_horn_eros	5943	100.6	100.3	7.9	7.9	0.3	1.3	0.99
10	2018	Heel_horn_eros	5436	100.4	100.5	8.6	8.5	0.0	1.8	0.98
11	2019	Heel_horn_eros	4560	99.6	99.4	9.4	9.6	0.3	2.4	0.97
12	2020	Heel_horn_eros	1140	101.0	100.9	9.0	8.9	0.2	2.2	0.97
13	2015	Sole_heamorrha	9601	101.1	101.7	12.2	12.0	-0.5	0.9	1.00
14	2016	Sole_heamorrha	9750	101.4	101.9	13.0	12.8	-0.6	1.0	1.00
15	2017	Sole_heamorrha	8933	102.7	103.3	12.0	11.7	-0.6	1.2	0.99
16	2018	Sole_heamorrha	9097	98.9	100.0	13.0	12.7	-1.1	1.5	0.99
17	2019	Sole_heamorrha	8066	100.9	101.7	11.1	10.6	-0.8	2.2	0.98
18	2020	Sole_heamorrha	1973	103.6	104.2	11.2	10.5	-0.6	3.0	0.96
19	2015	Sole_ulcer1	10526	100.8	100.4	10.9	10.8	0.4	1.1	1.00
20	2016	Sole_ulcer1	10645	100.4	99.7	14.1	14.0	0.6	1.2	1.00
21	2017	Sole_ulcer1	10227	101.4	101.1	11.6	11.2	0.3	1.5	0.99
22	2018	Sole_ulcer1	10841	99.9	100.3	12.3	12.0	-0.3	2.0	0.99
23	2019	Sole_ulcer1	10358	100.2	100.1	12.2	11.2	0.2	2.7	0.98
24	2020	Sole_ulcer1	2811	101.4	101.1	11.3	10.0	0.3	3.7	0.95
25	2015	Cork_screw_cla	9859	102.9	103.3	10.2	9.9	-0.4	1.0	1.00
26	2016	Cork_screw_cla	9970	99.0	99.8	13.6	13.3	-0.8	1.2	1.00
27	2017	Cork_screw_cla	9491	101.8	102.7	11.5	11.3	-0.9	1.4	0.99
28	2018	Cork_screw_cla	10402	98.3	99.6	15.6	15.4	-1.3	2.2	0.99
29	2019	Cork_screw_cla	10185	101.0	102.6	12.1	11.2	-1.6	2.8	0.97
30	2020	Cork_screw_cla	2608	103.7	104.8	11.7	10.6	-1.1	3.5	0.96
31	2015	Skin_proferati	10529	102.1	102.1	8.0	7.5	0.0	1.0	0.99
32	2016	Skin_proferati	10637	101.3	101.2	9.1	8.7	0.1	1.1	0.99
33	2017	Skin_proferati	10237	101.2	101.2	8.2	7.8	-0.1	1.3	0.99
34	2018	Skin_proferati	10865	100.9	101.0	8.2	7.7	-0.1	1.6	0.98
35	2019	Skin_proferati	10352	99.0	99.8	9.8	9.0	-0.8	2.0	0.98
36	2020	Skin_proferati	2794	100.7	101.5	8.7	8.1	-0.9	2.3	0.97

**JER summery statistics for SS and previous breeding value 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	2015	White_line_dou	10509	101.2	102.3	18.8	18.3	-1.0	1.2	1.00
38	2016	White_line_dou	10646	101.0	101.8	19.1	18.6	-0.8	1.4	1.00
39	2017	White_line_dou	10226	102.0	103.3	15.0	14.6	-1.3	1.7	0.99
40	2018	White_line_dou	10805	98.0	99.6	19.0	18.3	-1.5	2.2	0.99
41	2019	White_line_dou	10351	101.9	103.4	16.8	15.7	-1.5	3.2	0.98
42	2020	White_line_dou	2809	103.2	104.4	16.4	14.8	-1.1	4.1	0.97
43	2015	Dermatitis2	8219	101.5	100.7	8.6	8.5	0.8	1.0	0.99
44	2016	Dermatitis2	8339	100.8	100.1	8.5	8.3	0.7	1.1	0.99
45	2017	Dermatitis2	7704	100.3	99.5	8.7	8.5	0.8	1.3	0.99
46	2018	Dermatitis2	7957	101.2	100.9	8.1	7.7	0.3	1.8	0.98
47	2019	Dermatitis2	2328	98.5	98.4	10.0	9.4	0.1	2.5	0.97
48	2015	Heel_horn_eros	5067	101.8	101.4	8.5	8.7	0.4	0.9	0.99
49	2016	Heel_horn_eros	5114	99.9	99.4	8.3	8.5	0.5	1.0	0.99
50	2017	Heel_horn_eros	4222	100.6	100.4	7.6	7.8	0.2	1.3	0.99
51	2018	Heel_horn_eros	3676	100.4	100.5	7.8	7.9	-0.1	1.9	0.97
52	2019	Heel_horn_eros	840	98.4	98.3	8.4	8.9	0.2	2.1	0.97
53	2015	Sole_heamorrha	7955	101.5	102.0	13.4	13.0	-0.4	1.0	1.00
54	2016	Sole_heamorrha	7757	101.7	102.1	14.6	14.3	-0.4	1.1	1.00
55	2017	Sole_heamorrha	6765	102.8	103.4	12.8	12.4	-0.5	1.3	1.00
56	2018	Sole_heamorrha	6349	99.1	100.2	14.2	13.7	-1.1	1.8	0.99
57	2019	Sole_heamorrha	1435	99.4	100.5	12.6	11.9	-1.1	2.2	0.99
58	2015	Sole_ulcer2	8772	101.9	101.4	13.0	12.8	0.5	1.2	1.00
59	2016	Sole_ulcer2	8816	100.9	100.3	16.7	16.3	0.7	1.4	1.00
60	2017	Sole_ulcer2	8279	102.1	101.7	13.3	12.7	0.4	1.7	0.99
61	2018	Sole_ulcer2	8216	99.8	100.2	15.1	14.4	-0.5	2.4	0.99
62	2019	Sole_ulcer2	2408	98.2	98.1	15.2	13.9	0.1	3.2	0.98
63	2015	Cork_screw_cla	8062	102.1	102.9	10.6	10.4	-0.8	1.0	1.00
64	2016	Cork_screw_cla	8260	99.1	100.2	13.0	12.8	-1.1	1.2	1.00
65	2017	Cork_screw_cla	8001	101.8	103.2	11.4	11.2	-1.4	1.3	0.99
66	2018	Cork_screw_cla	7981	98.0	99.5	14.6	14.8	-1.4	2.0	0.99
67	2019	Cork_screw_cla	2200	99.5	101.6	12.5	12.2	-2.1	2.2	0.98
68	2015	Skin_proferati	8788	102.3	102.3	8.1	7.7	0.0	1.0	0.99
69	2016	Skin_proferati	8837	101.1	101.1	9.4	9.0	0.0	1.1	0.99
70	2017	Skin_proferati	8296	101.4	101.4	8.1	7.7	-0.1	1.2	0.99
71	2018	Skin_proferati	8238	100.8	101.0	8.1	7.6	-0.2	1.7	0.98
72	2019	Skin_proferati	2409	98.5	99.1	9.6	9.0	-0.6	1.9	0.98

**JER summery statistics for SS and previous breeding value 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	2015	White_line_dou	8772	102.0	102.6	19.9	19.4	-0.7	1.2	1.00
74	2016	White_line_dou	8826	101.6	102.0	21.4	20.8	-0.5	1.4	1.00
75	2017	White_line_dou	8260	102.5	103.5	16.5	16.0	-1.0	1.7	1.00
76	2018	White_line_dou	8208	98.4	99.8	20.1	19.4	-1.4	2.4	0.99
77	2019	White_line_dou	2412	99.1	100.2	19.6	18.1	-1.2	3.7	0.98
78	2015	Dermatitis3	6050	101.0	100.5	9.1	8.9	0.6	1.1	0.99
79	2016	Dermatitis3	6102	100.8	100.4	8.8	8.5	0.4	1.2	0.99
80	2017	Dermatitis3	4969	100.3	99.6	9.2	8.9	0.7	1.5	0.99
81	2018	Dermatitis3	1498	100.5	100.2	8.5	8.0	0.3	1.8	0.98
82	2019	Dermatitis3	1	.	.	.	.	.	.	.
83	2015	Heel_horn_eros	3540	102.0	101.3	8.9	9.1	0.8	1.0	0.99
84	2016	Heel_horn_eros	3328	99.8	99.1	8.9	9.0	0.7	1.1	0.99
85	2017	Heel_horn_eros	2335	100.5	99.9	8.1	8.3	0.6	1.7	0.98
86	2018	Heel_horn_eros	599	100.3	100.2	8.2	7.8	0.1	2.1	0.97
87	2019	Heel_horn_eros	1	.	.	.	.	.	.	.
88	2015	Sole_heamorrha	5585	101.9	102.5	13.8	13.4	-0.5	1.1	1.00
89	2016	Sole_heamorrha	5458	101.7	102.2	15.0	14.7	-0.5	1.1	1.00
90	2017	Sole_heamorrha	4003	103.3	104.0	12.8	12.5	-0.8	1.3	0.99
91	2018	Sole_heamorrha	936	100.0	101.2	14.9	14.4	-1.2	1.7	0.99
92	2015	Sole_ulcer3	6387	101.6	100.9	12.3	12.2	0.8	1.3	0.99
93	2016	Sole_ulcer3	6491	101.2	100.2	15.5	15.4	1.0	1.5	1.00
94	2017	Sole_ulcer3	5183	102.1	101.5	12.8	12.4	0.6	2.0	0.99
95	2018	Sole_ulcer3	1548	101.2	101.3	12.8	12.4	-0.1	2.7	0.98
96	2019	Sole_ulcer3	1	.	.	.	.	.	.	.
97	2015	Cork_screw_cla	5925	102.2	103.0	10.8	10.5	-0.8	1.2	0.99
98	2016	Cork_screw_cla	6243	99.3	100.7	13.0	12.7	-1.3	1.3	0.99
99	2017	Cork_screw_cla	5156	102.3	103.5	11.2	11.1	-1.2	1.5	0.99
100	2018	Cork_screw_cla	1430	99.4	100.9	15.0	15.3	-1.5	2.2	0.99
101	2019	Cork_screw_cla	1	.	.	.	.	.	.	.
102	2015	Skin_proferati	6430	102.1	102.1	7.8	7.4	0.0	1.1	0.99
103	2016	Skin_proferati	6526	100.8	100.7	8.8	8.5	0.1	1.2	0.99
104	2017	Skin_proferati	5208	101.1	101.1	7.9	7.5	0.0	1.3	0.99
105	2018	Skin_proferati	1552	100.0	100.0	7.7	7.2	0.0	1.6	0.98
106	2019	Skin_proferati	1	.	.	.	.	.	.	.
107	2015	White_line_dou	6390	102.4	103.0	19.5	18.9	-0.6	1.3	1.00
108	2016	White_line_dou	6496	102.1	102.5	21.0	20.2	-0.4	1.5	1.00

## JER summery statistics for SS and previous breeding value 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	2017	White_line_dou	5184	103.1	104.0	16.1	15.4	-0.8	1.8	0.99
110	2018	White_line_dou	1547	100.0	101.2	19.2	18.2	-1.2	2.3	0.99
111	2019	White_line_dou	1	.	.	.	.	.	.	.
112	2015	Dermatitis	9663	101.2	100.5	8.7	8.6	0.7	0.9	0.99
113	2016	Dermatitis	9822	101.0	100.3	8.6	8.4	0.6	1.1	0.99
114	2017	Dermatitis	9414	100.4	99.6	8.9	8.7	0.8	1.3	0.99
115	2018	Dermatitis	10169	101.2	100.9	8.3	7.9	0.3	1.7	0.98
116	2019	Dermatitis	10037	99.0	98.8	10.0	9.3	0.2	2.5	0.97
117	2020	Dermatitis	2780	101.0	100.8	9.5	9.0	0.2	3.0	0.95
118	2015	Heel_horn_eros	6089	101.9	101.3	8.3	8.5	0.6	0.9	1.00
119	2016	Heel_horn_eros	6162	99.9	99.3	8.6	8.8	0.6	0.9	0.99
120	2017	Heel_horn_eros	5943	100.5	100.1	7.6	7.8	0.4	1.3	0.99
121	2018	Heel_horn_eros	5436	100.5	100.4	8.0	7.9	0.1	1.8	0.97
122	2019	Heel_horn_eros	4560	99.6	99.2	8.8	9.2	0.4	2.3	0.97
123	2020	Heel_horn_eros	1140	100.8	100.6	8.5	8.6	0.3	2.2	0.97
124	2015	Sole_heamorrha	9601	101.3	101.8	12.8	12.5	-0.5	0.9	1.00
125	2016	Sole_heamorrha	9750	101.3	101.9	14.0	13.7	-0.5	1.0	1.00
126	2017	Sole_heamorrha	8933	102.7	103.4	12.3	11.9	-0.6	1.2	1.00
127	2018	Sole_heamorrha	9097	98.8	99.9	13.9	13.5	-1.2	1.6	0.99
128	2019	Sole_heamorrha	8066	101.0	101.9	11.7	11.0	-0.9	2.2	0.98
129	2020	Sole_heamorrha	1973	103.7	104.4	11.7	10.8	-0.7	3.1	0.97
130	2015	Sole_ulcer	10526	101.2	100.6	11.8	11.7	0.6	1.1	1.00
131	2016	Sole_ulcer	10645	100.7	99.9	15.3	15.1	0.8	1.3	1.00
132	2017	Sole_ulcer	10227	101.6	101.1	12.5	12.0	0.5	1.6	0.99
133	2018	Sole_ulcer	10841	99.9	100.2	13.2	12.8	-0.3	2.3	0.99
134	2019	Sole_ulcer	10358	100.3	99.8	12.8	11.7	0.5	3.0	0.97
135	2020	Sole_ulcer	2811	101.2	100.9	11.7	10.5	0.3	3.6	0.95
136	2015	Cork_screw_cla	9859	102.2	102.9	10.4	10.1	-0.7	1.0	1.00
137	2016	Cork_screw_cla	9970	99.0	100.1	13.1	12.8	-1.1	1.2	1.00
138	2017	Cork_screw_cla	9491	101.9	103.0	11.5	11.4	-1.2	1.3	0.99
139	2018	Cork_screw_cla	10402	97.9	99.3	15.0	15.2	-1.4	2.2	0.99
140	2019	Cork_screw_cla	10185	101.4	103.0	11.8	11.0	-1.7	2.8	0.97
141	2020	Cork_screw_cla	2608	103.8	104.9	11.7	10.7	-1.1	3.5	0.95
142	2015	Skin_proferati	10529	102.0	102.0	7.9	7.6	0.0	1.0	0.99
143	2016	Skin_proferati	10637	101.1	101.0	9.1	8.7	0.1	1.1	0.99
144	2017	Skin_proferati	10237	101.2	101.2	8.1	7.7	0.0	1.3	0.99

**JER summery statistics for SS and previous breeding value 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	2018	Skin_proferati	10865	100.9	101.0	8.0	7.6	-0.1	1.7	0.98
146	2019	Skin_proferati	10352	99.0	99.8	9.8	9.0	-0.8	2.1	0.98
147	2020	Skin_proferati	2794	100.7	101.5	8.4	7.9	-0.8	2.3	0.96
148	2015	White_line_dou	10509	101.7	102.5	19.3	18.7	-0.8	1.2	1.00
149	2016	White_line_dou	10646	101.3	101.9	20.4	19.8	-0.6	1.4	1.00
150	2017	White_line_dou	10226	102.2	103.2	15.8	15.3	-1.0	1.7	0.99
151	2018	White_line_dou	10805	98.3	99.7	19.6	18.8	-1.4	2.3	0.99
152	2019	White_line_dou	10351	101.6	102.7	17.3	15.8	-1.1	3.6	0.98
153	2020	White_line_dou	2809	103.1	104.1	16.6	14.9	-1.0	4.0	0.97

**JER summery stastistics for SS and previous breeding value 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	Dermatitis1	55	73	87	103.5	102.4	11.9	11.7	1.1	1.1	1.00
2	2011	Dermatitis1	47	65	65	101.5	100.6	13.6	13.2	0.9	1.0	1.00
3	2012	Dermatitis1	47	153	284	103.9	103.3	13.7	13.8	0.6	1.2	1.00
4	2013	Dermatitis1	49	129	243	101.4	100.8	11.6	11.3	0.7	1.2	0.99
5	2014	Dermatitis1	36	221	271	96.9	96.2	14.1	13.9	0.7	1.3	1.00
6	2015	Dermatitis1	30	530	517	101.3	100.7	11.7	11.6	0.6	1.4	0.99
7	2016	Dermatitis1	26	408	426	97.4	97.2	14.8	14.6	0.2	1.6	0.99
8	2017	Dermatitis1	29	506	401	100.1	99.2	13.2	13.5	0.9	3.9	0.96
9	2010	Heel_horn_eros	51	48	53	104.9	104.5	12.4	12.4	0.4	1.0	1.00
10	2011	Heel_horn_eros	40	46	41	100.1	99.6	13.0	12.9	0.5	1.0	1.00
11	2012	Heel_horn_eros	44	95	164	103.5	103.4	13.0	13.5	0.1	1.2	1.00
12	2013	Heel_horn_eros	45	87	168	99.4	98.9	15.1	15.0	0.5	1.1	1.00
13	2014	Heel_horn_eros	35	139	173	97.6	97.3	12.7	12.5	0.3	1.3	0.99
14	2015	Heel_horn_eros	30	305	290	101.7	101.4	10.8	11.1	0.3	2.1	0.98
15	2016	Heel_horn_eros	24	219	215	98.0	97.9	14.0	15.2	0.1	3.1	0.98
16	2017	Heel_horn_eros	29	217	175	102.9	102.9	13.5	13.6	0.0	3.2	0.97
17	2010	Sole_heamorrha	55	75	89	105.9	106.4	14.7	14.3	-0.5	1.2	1.00
18	2011	Sole_heamorrha	47	68	64	102.1	102.7	12.0	11.7	-0.6	1.3	0.99
19	2012	Sole_heamorrha	46	152	268	98.0	99.0	15.9	15.4	-1.0	1.2	1.00
20	2013	Sole_heamorrha	49	126	234	100.4	100.8	16.8	16.3	-0.4	1.4	1.00
21	2014	Sole_heamorrha	36	216	266	103.8	104.5	19.8	19.5	-0.7	1.5	1.00
22	2015	Sole_heamorrha	30	496	483	101.5	102.2	19.8	19.3	-0.6	1.6	1.00
23	2016	Sole_heamorrha	26	362	381	100.4	101.3	16.0	15.6	-0.9	2.7	0.99
24	2017	Sole_heamorrha	29	421	337	103.1	104.7	16.8	14.9	-1.7	5.3	0.95
25	2010	Sole_ulcer1	55	81	95	102.7	102.2	14.4	14.2	0.5	1.3	1.00
26	2011	Sole_ulcer1	47	74	70	97.9	97.6	12.4	12.3	0.3	1.4	0.99
27	2012	Sole_ulcer1	47	169	308	100.4	100.2	14.3	14.1	0.2	1.3	1.00
28	2013	Sole_ulcer1	49	141	261	98.3	97.8	18.0	17.3	0.4	1.8	1.00
29	2014	Sole_ulcer1	36	242	296	101.1	100.8	21.8	21.3	0.4	1.7	1.00
30	2015	Sole_ulcer1	30	565	548	101.9	101.8	18.7	18.0	0.1	2.0	0.99
31	2016	Sole_ulcer1	26	436	454	97.6	98.4	20.3	20.1	-0.8	3.9	0.98
32	2017	Sole_ulcer1	29	537	420	104.0	104.4	17.0	13.1	-0.4	5.9	0.96
33	2010	Cork_screw_cla	55	75	89	102.3	103.3	16.1	15.8	-1.0	1.4	1.00
34	2011	Cork_screw_cla	47	66	61	101.7	102.3	13.6	13.4	-0.6	1.3	1.00
35	2012	Cork_screw_cla	46	162	297	101.7	102.7	13.3	13.2	-1.0	1.2	1.00
36	2013	Cork_screw_cla	50	130	247	99.2	99.9	17.4	17.1	-0.7	1.7	1.00



**JER summery statistics for SS and previous breeding value 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	2014	Cork_screw_cla	36	228	276	101.5	102.8	17.2	16.7	-1.3	2.1	0.99
38	2015	Cork_screw_cla	30	542	537	102.0	102.8	21.3	21.4	-0.8	2.4	0.99
39	2016	Cork_screw_cla	26	429	451	97.8	99.5	22.3	21.1	-1.6	3.8	0.99
40	2017	Cork_screw_cla	29	535	422	106.1	108.1	16.5	14.2	-2.0	5.5	0.95
41	2010	Skin_proferati	55	81	94	101.5	101.4	13.0	12.2	0.1	1.4	1.00
42	2011	Skin_proferati	47	73	69	102.8	102.5	10.9	10.2	0.3	1.2	1.00
43	2012	Skin_proferati	47	170	308	103.6	103.8	11.3	10.9	-0.1	1.3	0.99
44	2013	Skin_proferati	49	140	260	101.1	101.0	11.8	11.2	0.1	1.4	0.99
45	2014	Skin_proferati	36	242	295	98.4	98.6	13.8	13.0	-0.1	1.8	0.99
46	2015	Skin_proferati	30	564	544	101.7	101.8	13.8	12.9	-0.1	1.9	0.99
47	2016	Skin_proferati	26	435	454	99.5	100.0	14.2	13.9	-0.5	2.7	0.98
48	2017	Skin_proferati	29	528	417	101.8	102.4	13.2	12.2	-0.7	3.1	0.97
49	2010	White_line_dou	55	81	95	102.2	103.4	18.6	17.8	-1.2	1.6	1.00
50	2011	White_line_dou	47	74	69	97.9	99.2	13.5	13.2	-1.3	1.2	1.00
51	2012	White_line_dou	47	169	308	98.9	100.3	20.2	19.9	-1.3	1.5	1.00
52	2013	White_line_dou	49	141	263	94.7	95.9	22.2	21.6	-1.1	1.7	1.00
53	2014	White_line_dou	36	242	297	104.5	105.8	24.3	23.5	-1.3	1.9	1.00
54	2015	White_line_dou	30	565	548	100.5	102.0	25.1	24.3	-1.5	2.8	0.99
55	2016	White_line_dou	26	435	454	99.2	101.0	28.7	27.2	-1.8	4.4	0.99
56	2017	White_line_dou	29	536	420	103.3	106.3	21.6	18.1	-2.9	6.8	0.96
57	2010	Dermatitis2	54	60	73	102.0	101.1	10.8	10.6	0.9	1.1	0.99
58	2011	Dermatitis2	46	55	52	100.7	99.9	13.1	12.7	0.8	1.1	1.00
59	2012	Dermatitis2	47	126	226	103.8	103.2	12.8	12.5	0.6	1.1	1.00
60	2013	Dermatitis2	49	109	199	101.8	101.2	10.4	10.2	0.6	1.3	0.99
61	2014	Dermatitis2	36	186	228	96.1	95.6	13.1	12.8	0.5	1.2	1.00
62	2015	Dermatitis2	30	423	396	101.0	100.4	10.8	10.5	0.6	1.5	0.99
63	2016	Dermatitis2	26	297	299	96.8	97.1	14.7	14.0	-0.3	2.3	0.99
64	2017	Dermatitis2	13	240	120	97.8	97.2	14.4	14.2	0.7	4.0	0.96
65	2010	Heel_horn_eros	42	43	44	104.2	103.9	10.2	10.4	0.3	1.1	0.99
66	2011	Heel_horn_eros	36	40	36	100.4	99.8	12.2	12.3	0.6	1.1	1.00
67	2012	Heel_horn_eros	41	81	130	103.0	102.9	12.3	12.9	0.1	1.6	0.99
68	2013	Heel_horn_eros	38	83	140	98.7	97.9	13.8	14.0	0.8	1.2	1.00
69	2014	Heel_horn_eros	32	122	138	97.2	97.0	11.8	11.9	0.2	1.0	1.00
70	2015	Heel_horn_eros	30	216	198	101.3	101.2	10.3	10.8	0.1	2.0	0.98
71	2016	Heel_horn_eros	20	166	131	96.8	96.7	13.2	14.0	0.1	2.4	0.99
72	2010	Sole_heamorrha	55	62	74	105.5	105.8	14.7	14.2	-0.3	1.3	1.00

### JER summery statistics for SS and previous breeding value 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	2011	Sole_heamorrha	46	54	50	101.8	102.2	12.2	11.8	-0.4	1.3	0.99
74	2012	Sole_heamorrha	47	118	206	98.4	99.2	15.8	15.2	-0.8	1.4	1.00
75	2013	Sole_heamorrha	49	104	187	99.3	99.8	18.0	17.5	-0.5	1.4	1.00
76	2014	Sole_heamorrha	36	175	217	104.0	104.6	21.0	20.5	-0.6	1.6	1.00
77	2015	Sole_heamorrha	30	379	355	101.4	102.1	20.9	20.1	-0.7	1.8	1.00
78	2016	Sole_heamorrha	23	272	248	98.0	99.3	18.5	17.7	-1.3	3.2	0.99
79	2017	Sole_heamorrha	10	220	92	103.6	105.1	10.4	9.0	-1.5	3.5	0.95
80	2010	Sole_ulcer2	55	67	81	103.4	102.9	16.0	15.8	0.5	1.4	1.00
81	2011	Sole_ulcer2	46	62	56	99.2	98.8	13.2	13.0	0.4	1.4	0.99
82	2012	Sole_ulcer2	47	137	241	101.0	100.9	16.4	16.3	0.1	1.4	1.00
83	2013	Sole_ulcer2	49	117	212	97.9	97.6	21.2	20.5	0.2	1.8	1.00
84	2014	Sole_ulcer2	36	198	243	102.2	101.8	24.3	23.2	0.4	2.0	1.00
85	2015	Sole_ulcer2	30	454	424	102.3	102.1	22.6	21.4	0.2	2.6	0.99
86	2016	Sole_ulcer2	25	331	322	96.9	97.8	24.5	23.3	-0.9	4.9	0.98
87	2017	Sole_ulcer2	13	254	131	105.1	104.6	20.5	17.5	0.5	4.9	0.98
88	2010	Cork_screw_cla	53	64	75	101.4	102.9	15.6	15.3	-1.5	1.3	1.00
89	2011	Cork_screw_cla	45	56	50	100.9	101.9	14.6	14.5	-1.0	1.2	1.00
90	2012	Cork_screw_cla	47	128	232	99.7	100.8	13.7	13.7	-1.1	1.4	0.99
91	2013	Cork_screw_cla	48	112	203	98.7	99.6	16.2	15.9	-0.9	1.5	1.00
92	2014	Cork_screw_cla	36	189	229	102.3	103.8	17.5	17.3	-1.5	1.9	0.99
93	2015	Cork_screw_cla	30	450	422	100.9	102.3	19.7	20.2	-1.4	2.2	0.99
94	2016	Cork_screw_cla	25	326	317	98.1	100.0	20.2	19.4	-1.9	3.0	0.99
95	2017	Cork_screw_cla	13	247	131	105.5	109.6	17.9	16.1	-4.2	4.8	0.97
96	2010	Skin_proferati	55	66	79	101.2	101.2	12.9	12.3	0.0	1.2	1.00
97	2011	Skin_proferati	46	60	55	102.5	102.2	10.2	9.7	0.3	1.0	1.00
98	2012	Skin_proferati	47	133	235	103.3	103.6	11.2	10.7	-0.3	1.4	0.99
99	2013	Skin_proferati	49	113	203	101.1	101.1	11.9	11.4	0.0	1.3	0.99
100	2014	Skin_proferati	36	195	237	98.8	98.9	13.6	13.1	-0.1	1.7	0.99
101	2015	Skin_proferati	30	443	410	101.6	101.8	13.3	12.6	-0.2	1.9	0.99
102	2016	Skin_proferati	25	327	317	99.9	100.2	14.6	14.0	-0.3	2.8	0.98
103	2017	Skin_proferati	13	250	129	101.3	102.8	13.4	13.0	-1.5	2.8	0.98
104	2010	White_line_dou	55	66	79	103.1	103.8	18.7	18.0	-0.7	1.5	1.00
105	2011	White_line_dou	46	60	55	99.4	100.2	13.8	13.5	-0.8	1.2	1.00
106	2012	White_line_dou	47	133	235	99.6	100.7	21.1	21.2	-1.1	1.3	1.00
107	2013	White_line_dou	49	113	202	94.6	95.6	24.9	24.2	-1.0	1.7	1.00
108	2014	White_line_dou	36	194	236	105.2	106.0	27.1	25.9	-0.8	2.1	1.00

## JER summery stastistics for SS and previous breeding value 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	2015	White_line_dou	30	442	409	100.9	102.0	28.0	27.1	-1.0	2.8	1.00
110	2016	White_line_dou	25	327	318	97.9	99.4	30.4	28.4	-1.4	5.4	0.99
111	2017	White_line_dou	13	252	129	107.3	109.5	20.7	19.3	-2.2	4.6	0.98
112	2010	Dermatitis3	50	49	56	101.7	100.8	11.5	11.2	0.9	1.2	0.99
113	2011	Dermatitis3	45	43	40	100.4	99.6	13.7	13.2	0.8	1.2	1.00
114	2012	Dermatitis3	46	82	129	103.2	102.7	13.3	13.1	0.5	1.1	1.00
115	2013	Dermatitis3	45	83	140	101.3	100.8	10.0	9.6	0.4	1.4	0.99
116	2014	Dermatitis3	35	138	167	97.0	96.6	12.9	12.5	0.4	1.5	0.99
117	2015	Dermatitis3	30	252	208	101.0	100.5	11.7	11.3	0.5	2.0	0.99
118	2010	Heel_horn_eros	29	41	36	105.1	104.4	10.2	10.5	0.7	1.1	0.99
119	2011	Heel_horn_eros	25	36	29	101.3	100.6	14.8	14.9	0.7	0.8	1.00
120	2012	Heel_horn_eros	29	66	84	104.4	104.1	13.3	14.1	0.3	1.6	0.99
121	2013	Heel_horn_eros	27	70	93	96.3	95.4	14.7	14.8	0.9	1.1	1.00
122	2014	Heel_horn_eros	26	95	92	97.8	97.0	11.8	11.9	0.7	1.3	0.99
123	2015	Heel_horn_eros	28	128	97	101.6	101.2	11.0	11.1	0.4	2.3	0.98
124	2010	Sole_heamorrha	48	48	53	104.7	105.3	14.9	14.5	-0.6	1.2	1.00
125	2011	Sole_heamorrha	45	41	37	101.6	102.3	13.0	12.7	-0.7	1.3	0.99
126	2012	Sole_heamorrha	43	80	121	97.9	99.0	14.4	14.0	-1.1	1.3	1.00
127	2013	Sole_heamorrha	44	77	127	98.0	98.5	17.5	16.9	-0.5	1.5	1.00
128	2014	Sole_heamorrha	35	125	153	104.5	105.3	21.5	21.1	-0.8	1.5	1.00
129	2015	Sole_heamorrha	29	222	179	101.8	102.7	20.9	20.4	-0.9	1.7	1.00
130	2010	Sole_ulcer3	51	52	61	103.4	102.5	13.5	13.6	0.9	1.4	0.99
131	2011	Sole_ulcer3	46	47	42	99.4	98.8	14.0	14.0	0.6	1.7	0.99
132	2012	Sole_ulcer3	46	88	137	99.4	99.2	14.8	15.0	0.2	1.7	0.99
133	2013	Sole_ulcer3	48	84	144	97.6	97.1	20.1	19.5	0.5	1.7	1.00
134	2014	Sole_ulcer3	35	149	180	103.0	102.2	23.1	22.7	0.8	2.1	1.00
135	2015	Sole_ulcer3	30	272	224	101.8	101.5	21.1	20.2	0.3	3.2	0.99
136	2010	Cork_screw_cla	48	51	59	101.1	102.5	16.7	16.5	-1.4	1.2	1.00
137	2011	Cork_screw_cla	45	42	37	102.0	102.9	14.1	14.1	-0.9	1.3	1.00
138	2012	Cork_screw_cla	45	85	132	98.9	100.2	13.6	13.8	-1.2	1.5	0.99
139	2013	Cork_screw_cla	47	82	141	99.0	100.4	15.2	14.8	-1.4	1.5	1.00
140	2014	Cork_screw_cla	35	147	176	102.7	104.3	17.3	17.0	-1.5	2.0	0.99
141	2015	Cork_screw_cla	30	272	224	101.6	102.4	20.4	20.9	-0.9	2.5	0.99
142	2010	Skin_proferati	51	52	61	100.7	100.6	13.2	12.4	0.0	1.4	1.00
143	2011	Skin_proferati	46	47	42	101.8	101.5	10.6	10.0	0.3	1.1	1.00
144	2012	Skin_proferati	46	89	138	103.2	103.3	11.1	10.7	-0.2	1.3	0.99

**JER summery statistics for SS and previous breeding value 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	2013	Skin_proferati	48	84	145	100.9	100.6	11.1	10.5	0.3	1.3	0.99
146	2014	Skin_proferati	35	150	181	98.5	98.7	12.6	12.2	-0.2	1.8	0.99
147	2015	Skin_proferati	30	272	223	101.5	101.7	12.7	11.9	-0.2	1.9	0.99
148	2010	White_line_dou	50	53	61	103.6	104.3	17.8	17.1	-0.7	1.5	1.00
149	2011	White_line_dou	46	47	42	100.1	100.9	13.2	12.8	-0.8	1.2	1.00
150	2012	White_line_dou	45	90	138	99.5	100.6	20.1	20.0	-1.1	1.3	1.00
151	2013	White_line_dou	48	84	144	94.5	95.6	24.7	23.9	-1.1	1.8	1.00
152	2014	White_line_dou	35	149	180	105.8	106.5	26.4	24.8	-0.7	2.3	1.00
153	2015	White_line_dou	30	272	224	101.7	102.5	28.1	26.6	-0.8	3.2	0.99
154	2010	Dermatitis	55	73	87	102.2	101.3	11.4	11.2	0.9	1.1	1.00
155	2011	Dermatitis	47	65	65	101.1	100.3	13.3	12.9	0.8	1.2	1.00
156	2012	Dermatitis	47	153	284	103.7	103.1	13.2	13.0	0.7	1.1	1.00
157	2013	Dermatitis	49	129	243	101.8	101.3	10.4	10.1	0.5	1.2	0.99
158	2014	Dermatitis	36	221	271	96.3	95.8	13.6	13.3	0.4	1.3	1.00
159	2015	Dermatitis	30	530	517	101.1	100.5	11.4	11.0	0.7	1.6	0.99
160	2016	Dermatitis	26	408	426	97.1	97.3	15.1	14.6	-0.2	1.8	0.99
161	2017	Dermatitis	29	506	401	100.2	99.2	12.2	12.4	1.0	4.2	0.94
162	2010	Heel_horn_eros	51	48	53	105.0	104.4	11.6	11.8	0.6	0.9	1.00
163	2011	Heel_horn_eros	40	46	41	100.4	99.8	12.6	12.7	0.6	1.0	1.00
164	2012	Heel_horn_eros	44	95	164	103.4	103.3	12.3	13.0	0.2	1.3	1.00
165	2013	Heel_horn_eros	45	87	168	100.0	99.3	14.0	14.1	0.8	1.1	1.00
166	2014	Heel_horn_eros	35	139	173	97.3	96.7	11.8	11.9	0.6	1.1	1.00
167	2015	Heel_horn_eros	30	305	290	101.5	101.2	10.4	10.7	0.3	2.3	0.98
168	2016	Heel_horn_eros	24	219	215	98.5	98.0	13.0	14.2	0.5	2.9	0.98
169	2017	Heel_horn_eros	29	217	175	102.8	102.7	13.1	13.4	0.2	3.2	0.97
170	2010	Sole_heamorrha	55	75	89	105.1	105.5	14.8	14.2	-0.4	1.3	1.00
171	2011	Sole_heamorrha	47	68	64	101.6	102.1	12.4	12.0	-0.5	1.3	0.99
172	2012	Sole_heamorrha	46	152	268	98.3	99.4	15.7	15.2	-1.1	1.2	1.00
173	2013	Sole_heamorrha	49	126	234	99.6	100.1	17.7	17.2	-0.5	1.4	1.00
174	2014	Sole_heamorrha	36	216	266	104.0	104.8	20.7	20.3	-0.8	1.6	1.00
175	2015	Sole_heamorrha	30	496	483	101.4	102.1	20.5	19.7	-0.7	1.8	1.00
176	2016	Sole_heamorrha	26	362	381	100.0	101.2	17.8	17.1	-1.1	3.0	0.99
177	2017	Sole_heamorrha	29	421	337	103.2	105.0	16.8	14.6	-1.8	5.3	0.95
178	2010	Sole_ulcer	55	81	95	103.2	102.5	14.0	14.0	0.7	1.4	0.99
179	2011	Sole_ulcer	47	74	70	98.9	98.5	13.0	13.0	0.4	1.5	0.99
180	2012	Sole_ulcer	47	169	308	100.3	100.3	15.1	15.1	0.1	1.4	1.00

### JER summery statistics for SS and previous breeding value 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	2013	Sole_ulcer	49	141	261	97.9	97.5	19.6	18.9	0.4	1.8	1.00
182	2014	Sole_ulcer	36	242	296	102.2	101.7	22.8	22.1	0.5	1.9	1.00
183	2015	Sole_ulcer	30	565	548	102.0	101.7	20.7	19.7	0.4	2.7	0.99
184	2016	Sole_ulcer	26	436	454	97.9	98.4	21.6	21.1	-0.5	4.3	0.98
185	2017	Sole_ulcer	29	537	420	103.4	103.6	17.5	14.0	-0.2	5.8	0.96
186	2010	Cork_screw_cla	55	75	89	102.0	103.2	15.8	15.6	-1.2	1.3	1.00
187	2011	Cork_screw_cla	47	66	61	101.4	102.2	13.7	13.6	-0.8	1.2	1.00
188	2012	Cork_screw_cla	46	162	297	100.3	101.5	13.5	13.5	-1.1	1.3	1.00
189	2013	Cork_screw_cla	50	130	247	99.1	100.1	15.9	15.5	-1.0	1.6	0.99
190	2014	Cork_screw_cla	36	228	276	102.3	103.8	16.9	16.7	-1.5	2.0	0.99
191	2015	Cork_screw_cla	30	542	537	101.6	102.5	20.4	20.6	-0.9	2.3	0.99
192	2016	Cork_screw_cla	26	429	451	98.6	100.5	20.6	19.4	-1.9	3.6	0.99
193	2017	Cork_screw_cla	29	535	422	105.5	107.7	16.7	14.7	-2.2	5.5	0.95
194	2010	Skin_proferati	55	81	94	101.1	100.9	13.0	12.2	0.1	1.4	1.00
195	2011	Skin_proferati	47	73	69	102.5	102.2	10.6	10.0	0.3	1.2	1.00
196	2012	Skin_proferati	47	170	308	103.4	103.6	11.2	10.7	-0.3	1.3	0.99
197	2013	Skin_proferati	49	140	260	101.2	101.0	11.5	10.9	0.3	1.3	0.99
198	2014	Skin_proferati	36	242	295	98.5	98.5	13.3	12.9	0.0	1.6	0.99
199	2015	Skin_proferati	30	564	544	101.6	101.6	13.1	12.2	0.0	1.9	0.99
200	2016	Skin_proferati	26	435	454	99.5	99.9	14.1	13.5	-0.4	2.8	0.98
201	2017	Skin_proferati	29	528	417	101.9	102.6	12.4	11.7	-0.7	3.2	0.97
202	2010	White_line_dou	55	81	95	103.0	103.9	18.1	17.4	-0.9	1.5	1.00
203	2011	White_line_dou	47	74	69	99.1	100.0	13.2	12.9	-1.0	1.3	1.00
204	2012	White_line_dou	47	169	308	99.6	100.7	20.4	20.3	-1.2	1.3	1.00
205	2013	White_line_dou	49	141	263	94.8	95.9	23.8	23.2	-1.1	1.8	1.00
206	2014	White_line_dou	36	242	297	105.1	105.9	25.7	24.4	-0.8	2.2	1.00
207	2015	White_line_dou	30	565	548	101.2	102.2	27.0	25.9	-1.0	2.7	1.00
208	2016	White_line_dou	26	435	454	98.9	100.5	29.3	27.4	-1.7	4.9	0.99
209	2017	White_line_dou	29	536	420	102.9	105.3	21.6	18.1	-2.4	6.1	0.97