STØTTET AF
Mælkeafgiftsfonden

Summary statistics for Singlestep

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Analysis for singlestep General health in three chapters:
Chapter 1: SS stability between two runs (page 1-75)
Chapter 2: SS full vs reduc run (page 76-150)
Chapter 3: Mendelian sampling (page 151-235)

General health

SS stability between two runs
Comparison of singlestep GEBV for May23 evaluation and Feb23 evaluation. Standardized to base, which is 3-5 years old cows.

Column description:
BYR = birth year
Name = trait name
No = number of animals behind the statistics
Mean_noff = average number of offspring with phenotype
Std_noff = standard deviation of number of offspring with phenotype
Mean_ss = mean singlestep GEBV for May23
Mean_oss = mean singlestep GEBV for Feb23
Std_ss = standard deviation for singlestep GEBV for May23
Std_oss = standard deviation for singlestep GEBV for Feb23
Mean_dif = mean difference between GEBVs (diff = May23 – Feb23)
Std_dif = standard deviation for difference between GEBVs (diff = May23 – Feb23)
Corr_SS = correlation between GEBVs (May23 and Feb23)

HOL 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	bv1 rpl1	192	835	2567	95.6	95.6	10.5	10.5	0.0	0.5	1.00
2	2011	bv1 rpl1	155	505	1058	96.4	96.4	7.5	7.6	0.0	0.5	1.00
3	2012	bv1 rpl1	171	729	1287	99.4	99.3	8.9	8.9	0.1	0.5	1.00
4	2013	bv1 rpl1	151	756	1369	100.3	100.3	9.8	9.8	0.0	0.6	1.00
5	2014	bv1 rpl1	113	1135	1352	101.7	101.7	9.2	9.2	0.0	0.5	1.00
6	2015	bv1 rpl1	82	1680	2040	103.4	103.3	9.5	9.5	0.1	0.6	1.00
7	2016	bv1 rpl1	66	1588	2001	105.8	105.7	7.5	7.6	0.2	0.7	1.00
8	2017	bv1 rpl1	66	1489	1734	104.0	104.1	7.7	7.8	-0.1	1.2	0.99
9	2018	bv1 rpl1	53	539	930	107.6	107.8	8.0	8.2	-0.2	1.8	0.98
10	2010	bv2 rp1	192	835	2567	97.8	97.8	8.4	8.5	0.1	0.6	1.00
11	2011	bv2 rp1	155	505	1058	97.8	97.7	8.8	9.0	0.1	0.7	1.00
12	2012	bv2 rp1	171	729	1286	99.0	98.9	10.0	10.1	0.1	0.7	1.00
13	2013	bv2 rp1	151	753	1352	100.5	100.7	10.0	10.3	-0.2	0.8	1.00
14	2014	bv2 rp1	113	1133	1347	100.8	100.8	11.5	11.7	0.0	0.8	1.00
15	2015	bv2 rp1	82	1674	2033	103.6	103.7	10.9	11.1	-0.1	1.0	1.00
16	2016	bv2 rp1	66	1559	1962	103.2	103.4	10.3	10.5	-0.2	1.4	0.99
17	2017	bv2 rp1	66	1077	1325	102.8	102.7	9.4	9.2	0.1	2.3	0.97
18	2018	bv2 rp1	23	274	427	103.1	103.4	8.3	8.6	-0.3	2.4	0.96
19	2010	bv3 mb1	192	835	2567	96.2	96.1	9.2	9.3	0.0	0.6	1.00
20	2011	bv3 mb1	155	505	1058	98.0	97.9	9.3	9.5	0.1	0.6	1.00
21	2012	bv3 mb1	171	729	1286	100.1	100.1	9.8	9.9	0.0	0.6	1.00
22	2013	bv3 mb1	151	753	1352	101.2	101.2	8.0	8.1	0.1	0.7	1.00
23	2014	bv3 mb1	113	1133	1347	103.3	103.3	8.7	8.8	-0.1	0.8	1.00
24	2015	bv3 mb1	82	1674	2033	105.0	105.2	8.7	8.8	-0.3	0.9	0.99
25	2016	bv3 mb1	66	1559	1962	104.8	104.8	9.9	10.2	0.1	1.1	0.99
26	2017	bv3 mb1	66	1077	1325	105.7	105.5	7.2	7.3	0.3	1.6	0.98
27	2018	bv3 mb1	23	274	427	102.3	103.8	12.1	10.8	-1.6	2.8	0.98
28	2010	bv4 fl1	192	835	2567	97.4	97.4	9.1	9.2	0.0	0.6	1.00
29	2011	bv4 fl1	155	505	1058	96.9	96.9	10.5	10.6	-0.1	0.7	1.00
30	2012	bv4 fl1	171	729	1286	99.8	99.9	9.6	9.7	-0.1	0.7	1.00
31	2013	bv4 fl1	151	753	1352	99.6	99.5	9.6	9.6	0.0	0.7	1.00
32	2014	bv4 fl1	113	1133	1347	101.7	101.7	10.4	10.6	0.0	0.9	1.00
33	2015	bv4 fl1	82	1674	2033	104.1	104.2	10.7	10.9	-0.1	1.2	0.99
34	2016	bv4 fl1	66	1559	1962	103.1	103.0	9.9	10.1	0.1	1.3	0.99
35	2017	bv4 fl1	66	1077	1325	105.4	105.4	9.1	9.5	0.0	2.5	0.97
36	2018	bv4 fl1	23	274	427	101.4	102.9	8.9	8.2	-1.5	3.7	0.91

HOL 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
37	2010	bv5 ket1	192	835	2567	96.4	96.3	11.9	12.0	0.1	0.6	1.00
38	2011	bv5 ket1	155	505	1058	98.9	98.8	9.7	9.9	0.1	0.7	1.00
39	2012	bv5 ket1	171	729	1286	98.7	98.6	11.1	11.3	0.0	0.6	1.00
40	2013	bv5 ket1	151	753	1352	100.5	100.4	9.3	9.6	0.1	0.6	1.00
41	2014	bv5 ket1	113	1133	1347	104.1	104.0	10.0	10.1	0.0	0.8	1.00
42	2015	bv5 ket1	82	1674	2033	105.5	105.5	8.9	8.9	0.0	1.0	0.99
43	2016	bv5 ket1	66	1559	1962	105.8	105.4	11.8	11.9	0.4	1.1	1.00
44	2017	bv5 ket1	66	1077	1325	107.6	107.1	8.8	8.7	0.5	1.8	0.98
45	2018	bv5 ket1	23	274	427	101.3	102.4	14.0	13.1	-1.1	2.5	0.99
46	2010	bv6 bhb1	146	773	2072	99.7	99.7	10.2	10.3	-0.1	0.4	1.00
47	2011	bv6 bhb1	135	416	844	101.3	101.4	10.3	10.4	-0.1	0.5	1.00
48	2012	bv6 bhb1	155	572	934	99.8	99.9	9.9	9.9	-0.1	0.5	1.00
49	2013	bv6 bhb1	121	613	975	102.6	102.5	8.8	8.9	0.0	0.5	1.00
50	2014	bv6 bhb1	104	877	996	103.1	103.1	9.3	9.3	-0.1	0.5	1.00
51	2015	bv6 bhb1	80	1156	1430	102.6	102.7	10.8	10.9	-0.1	0.5	1.00
52	2016	bv6 bhb1	63	1111	1374	103.4	103.3	12.2	12.4	0.1	0.6	1.00
53	2017	bv6 bhb1	66	1103	1371	103.2	102.9	12.1	12.0	0.3	1.0	1.00
54	2018	bv6 bhb1	67	657	972	102.1	102.1	12.0	12.1	0.0	2.6	0.98
55	2010	bv7 ace1	146	773	2072	97.7	97.7	10.0	10.0	-0.1	0.5	1.00
56	2011	bv7 ace1	135	416	844	98.9	98.9	11.0	11.1	0.0	0.5	1.00
57	2012	bv7 ace1	155	572	934	99.0	99.1	10.9	10.9	-0.1	0.5	1.00
58	2013	bv7 ace1	121	613	975	102.0	101.9	10.2	10.3	0.1	0.5	1.00
59	2014	bv7 ace1	104	877	996	103.3	103.3	11.3	11.3	0.0	0.5	1.00
60	2015	bv7 ace1	80	1156	1430	104.0	104.0	12.2	12.3	0.0	0.6	1.00
61	2016	bv7 ace1	63	1111	1374	103.3	103.2	13.8	13.9	0.1	0.7	1.00
62	2017	bv7 ace1	66	1103	1371	104.4	104.1	13.4	13.3	0.3	1.2	1.00
63	2018	bv7 ace1	67	657	972	103.3	103.3	13.3	13.1	0.0	2.7	0.98
64	2010	bv8 rpl2	192	584	1807	96.9	96.8	10.6	10.6	0.1	0.6	1.00
65	2011	bv8 rpl2	155	358	772	98.5	98.4	9.2	9.1	0.1	0.6	1.00
66	2012	bv8 rpl2	171	529	937	101.2	101.1	9.6	9.4	0.1	0.7	1.00
67	2013	bv8 rpl2	151	541	951	99.7	99.6	9.9	9.8	0.1	0.7	1.00
68	2014	bv8 rpl2	113	831	998	101.7	101.6	8.9	8.8	0.1	0.7	1.00
69	2015	bv8 rpl2	82	1248	1531	102.0	102.1	10.5	10.2	-0.1	1.2	0.99
70	2016	bv8 rpl2	66	1047	1344	103.8	103.5	9.1	9.0	0.3	1.5	0.99
71	2017	bv8 rpl2	58	379	531	102.3	102.6	8.5	8.9	-0.3	2.6	0.96
72	2010	bv9 rp2	192	584	1806	98.1	98.0	8.8	8.9	0.1	0.7	1.00

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2011	bv9 rp2	155	358	772	97.6	97.5	9.2	9.4	0.1	0.7	1.00
74	2012	bv9 rp2	171	526	922	98.9	98.9	10.2	10.3	0.0	0.7	1.00
75	2013	bv9 rp2	151	531	882	99.9	100.1	10.4	10.6	-0.2	0.8	1.00
76	2014	bv9 rp2	113	829	996	100.3	100.3	11.8	12.1	0.0	0.9	1.00
77	2015	bv9 rp2	82	1192	1463	102.9	103.0	11.4	11.7	-0.1	1.1	1.00
78	2016	bv9 rp2	65	711	979	102.5	102.7	10.6	10.7	-0.2	1.6	0.99
79	2017	bv9 rp2	24	79	84	101.1	101.7	11.1	10.8	-0.6	2.1	0.98
80	2010	bv10 mb2	192	584	1806	96.8	96.8	9.2	9.2	0.0	0.6	1.00
81	2011	bv10 mb2	155	358	772	99.1	99.1	8.8	8.9	0.0	0.7	1.00
82	2012	bv10 mb2	171	526	922	99.3	99.3	9.7	9.8	0.0	0.7	1.00
83	2013	bv10 mb2	151	531	882	101.2	101.2	7.7	7.8	0.0	0.7	1.00
84	2014	bv10 mb2	113	829	996	101.7	101.7	9.1	9.3	0.0	0.9	1.00
85	2015	bv10 mb2	82	1192	1463	103.2	103.1	8.7	8.7	0.1	1.3	0.99
86	2016	bv10 mb2	65	711	979	103.0	102.7	8.9	9.2	0.3	1.4	0.99
87	2017	bv10 mb2	24	79	84	107.2	107.6	6.2	6.5	-0.4	1.6	0.97
88	2010	bv11 fl2	192	584	1806	97.5	97.6	9.2	9.2	-0.1	0.6	1.00
89	2011	bv11 fl2	155	358	772	97.0	97.1	10.4	10.5	-0.1	0.6	1.00
90	2012	bv11 fl2	171	526	922	100.0	100.1	9.5	9.5	-0.1	0.7	1.00
91	2013	bv11 fl2	151	531	882	99.1	99.0	9.6	9.7	0.1	0.8	1.00
92	2014	bv11 fl2	113	829	996	101.6	101.5	10.1	10.3	0.1	0.9	1.00
93	2015	bv11 fl2	82	1192	1463	103.9	104.1	10.6	10.9	-0.1	1.2	0.99
94	2016	bv11 fl2	65	711	979	102.7	102.6	9.5	9.9	0.1	1.6	0.99
95	2017	bv11 fl2	24	79	84	107.5	107.5	9.5	9.8	0.0	2.0	0.98
96	2010	bv12 ket2	192	584	1806	94.8	94.7	11.1	11.2	0.1	0.6	1.00
97	2011	bv12 ket2	155	358	772	97.1	97.0	10.5	10.6	0.1	0.7	1.00
98	2012	bv12 ket2	171	526	922	99.5	99.4	11.5	11.7	0.1	0.6	1.00
99	2013	bv12 ket2	151	531	882	98.6	98.4	10.5	10.7	0.2	0.8	1.00
100	2014	bv12 ket2	113	829	996	103.4	103.3	11.1	11.2	0.1	0.9	1.00
101	2015	bv12 ket2	82	1192	1463	104.0	103.9	10.0	10.2	0.1	1.1	0.99
102	2016	bv12 ket2	65	711	979	105.1	104.8	12.0	12.1	0.2	1.5	0.99
103	2017	bv12 ket2	24	79	84	110.7	110.5	9.9	10.7	0.1	1.9	0.99
104	2010	bv13 bhb2	165	525	1461	98.1	98.2	10.4	10.5	-0.1	0.5	1.00
105	2011	bv13 bhb2	137	306	609	100.0	100.2	10.8	10.9	-0.2	0.5	1.00
106	2012	bv13 bhb2	139	468	729	100.2	100.2	10.8	10.9	-0.1	0.5	1.00
107	2013	bv13 bhb2	114	501	774	101.4	101.3	9.7	9.8	0.1	0.6	1.00
108	2014	bv13 bhb2	103	684	774	102.0	102.1	11.5	11.5	-0.1	0.6	1.00

HOL 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	bv13 bhb2	79	923	1137	101.2	100.9	12.5	12.7	0.2	0.7	1.00
110	2016	bv13 bhb2	63	845	1058	102.0	102.0	13.2	13.1	0.0	1.0	1.00
111	2017	bv13 bhb2	62	481	640	105.0	104.6	12.0	12.5	0.4	2.0	0.99
112	2018	bv13 bhb2	10	106	129	104.5	102.7	13.4	14.8	1.8	2.0	1.00
113	2010	bv14 ace2	165	525	1461	96.1	96.2	10.4	10.5	0.0	0.6	1.00
114	2011	bv14 ace2	137	306	609	97.5	97.6	11.0	11.1	-0.2	0.6	1.00
115	2012	bv14 ace2	139	468	729	99.4	99.4	11.6	11.7	0.0	0.6	1.00
116	2013	bv14 ace2	114	501	774	100.3	100.2	11.4	11.4	0.1	0.7	1.00
117	2014	bv14 ace2	103	684	774	101.6	101.7	11.9	11.9	-0.1	0.7	1.00
118	2015	bv14 ace2	79	923	1137	101.2	101.1	13.6	13.8	0.2	0.7	1.00
119	2016	bv14 ace2	63	845	1058	101.7	101.6	13.5	13.6	0.1	1.2	1.00
120	2017	bv14 ace2	62	481	640	105.8	105.4	12.2	12.4	0.4	2.2	0.98
121	2018	bv14 ace2	10	106	129	107.2	105.3	13.8	14.1	1.9	2.1	0.99
122	2010	bv15 rpl3	192	392	1222	97.3	97.2	10.5	10.5	0.1	0.6	1.00
123	2011	bv15 rpl3	154	246	536	98.8	98.7	9.9	9.9	0.1	0.6	1.00
124	2012	bv15 rpl3	170	365	628	101.4	101.3	10.0	9.9	0.1	0.7	1.00
125	2013	bv15 rpl3	151	369	613	99.5	99.4	10.1	10.1	0.1	0.7	1.00
126	2014	bv15 rpl3	113	590	725	101.2	101.2	9.5	9.3	0.0	0.8	1.00
127	2015	bv15 rpl3	82	757	957	101.3	101.4	10.8	10.7	-0.1	1.3	0.99
128	2016	bv15 rpl3	52	263	371	102.7	102.4	9.6	9.7	0.3	1.8	0.98
129	2010	bv16 rp3	192	392	1221	98.7	98.6	9.5	9.6	0.1	0.8	1.00
130	2011	bv16 rp3	154	246	536	98.2	98.1	9.8	10.0	0.1	0.8	1.00
131	2012	bv16 rp3	170	360	606	99.4	99.4	10.7	10.9	0.0	0.8	1.00
132	2013	bv16 rp3	151	366	606	100.0	100.2	10.9	11.3	-0.2	0.9	1.00
133	2014	bv16 rp3	113	562	695	100.0	100.0	12.4	12.7	0.0	1.0	1.00
134	2015	bv16 rp3	78	493	647	102.0	102.3	11.9	12.2	-0.4	1.2	1.00
135	2016	bv16 rp3	19	74	81	106.4	106.6	10.4	10.7	-0.3	1.5	0.99
136	2010	bv17 mb3	192	392	1221	96.7	96.7	9.5	9.4	0.0	0.7	1.00
137	2011	bv17 mb3	154	246	536	99.4	99.5	8.0	8.0	-0.1	0.7	1.00
138	2012	bv17 mb3	170	360	606	98.0	98.1	9.6	9.6	0.0	0.7	1.00
139	2013	bv17 mb3	151	366	606	101.2	101.2	7.9	8.0	-0.1	0.7	1.00
140	2014	bv17 mb3	113	562	695	100.6	100.7	8.9	9.0	-0.1	0.9	0.99
141	2015	bv17 mb3	78	493	647	101.6	101.4	8.9	9.1	0.1	1.8	0.98
142	2016	bv17 mb3	19	74	81	100.8	100.9	9.2	9.3	-0.1	2.1	0.97
143	2010	bv18 fl3	192	392	1221	97.4	97.5	9.4	9.6	-0.1	0.7	1.00
144	2011	bv18 fl3	154	246	536	97.1	97.2	10.5	10.6	-0.1	0.7	1.00

HOL 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
145	2012	bv18 fl3	170	360	606	100.0	100.1	9.5	9.5	-0.1	0.8	1.00
146	2013	bv18 fl3	151	366	606	99.2	99.2	9.8	9.8	0.0	0.8	1.00
147	2014	bv18 fl3	113	562	695	101.3	101.3	10.4	10.6	0.0	0.9	1.00
148	2015	bv18 fl3	78	493	647	104.0	103.9	11.4	11.7	0.0	1.3	0.99
149	2016	bv18 fl3	19	74	81	102.7	102.6	9.9	10.3	0.1	1.4	0.99
150	2010	bv19 ket3	192	392	1221	95.4	95.2	10.7	10.8	0.2	0.6	1.00
151	2011	bv19 ket3	154	246	536	97.9	97.8	10.2	10.4	0.1	0.7	1.00
152	2012	bv19 ket3	170	360	606	99.3	99.2	11.7	11.9	0.1	0.7	1.00
153	2013	bv19 ket3	151	366	606	98.7	98.5	10.8	11.1	0.2	0.8	1.00
154	2014	bv19 ket3	113	562	695	102.9	102.9	11.8	12.0	0.0	0.9	1.00
155	2015	bv19 ket3	78	493	647	103.3	103.3	10.1	10.3	0.0	1.3	0.99
156	2016	bv19 ket3	19	74	81	101.1	101.0	12.0	11.8	0.1	2.0	0.99
157	2010	bv20 bhb3	168	333	928	97.3	97.3	10.6	10.6	0.0	0.5	1.00
158	2011	bv20 bhb3	117	237	449	99.2	99.4	10.6	10.7	-0.1	0.6	1.00
159	2012	bv20 bhb3	136	330	502	99.2	99.2	11.5	11.6	0.0	0.6	1.00
160	2013	bv20 bhb3	114	342	493	101.0	101.0	10.1	10.2	0.0	0.6	1.00
161	2014	bv20 bhb3	100	509	574	102.1	102.1	12.2	12.3	0.0	0.7	1.00
162	2015	bv20 bhb3	79	626	791	101.2	100.9	12.7	13.0	0.3	0.9	1.00
163	2016	bv20 bhb3	56	328	460	101.7	101.7	13.1	13.1	0.1	1.3	0.99
164	2010	bv21 ace3	168	333	928	94.9	95.0	10.5	10.5	-0.1	0.6	1.00
165	2011	bv21 ace3	117	237	449	96.1	96.2	11.1	11.1	-0.1	0.6	1.00
166	2012	bv21 ace3	136	330	502	98.1	98.1	12.6	12.8	0.0	0.6	1.00
167	2013	bv21 ace3	114	342	493	99.6	99.6	11.9	11.9	0.0	0.6	1.00
168	2014	bv21 ace3	100	509	574	101.6	101.7	12.5	12.6	-0.1	0.9	1.00
169	2015	bv21 ace3	79	626	791	101.4	101.2	13.2	13.5	0.3	1.1	1.00
170	2016	bv21 ace3	56	328	460	101.5	101.5	13.2	13.2	0.0	1.7	0.99
171	2010	bv22 rpl	192	835	2567	96.7	96.6	9.9	10.0	0.1	0.6	1.00
172	2011	bv22 rpl	155	505	1058	98.0	97.9	8.3	8.3	0.1	0.6	1.00
173	2012	bv22 rpl	171	729	1287	100.8	100.7	9.0	8.9	0.1	0.6	1.00
174	2013	bv22 rpl	151	756	1369	99.8	99.7	9.3	9.4	0.1	0.7	1.00
175	2014	bv22 rpl	113	1135	1352	101.4	101.5	8.6	8.6	-0.1	0.7	1.00
176	2015	bv22 rpl	82	1680	2040	102.1	102.2	9.8	9.6	0.0	1.0	1.00
177	2016	bv22 rpl	66	1588	2001	104.1	103.8	8.4	8.4	0.3	1.3	0.99
178	2017	bv22 rpl	66	1489	1734	102.5	102.7	7.9	8.0	-0.2	2.1	0.97
179	2018	bv22 rpl	53	539	930	104.9	105.1	7.9	8.0	-0.2	1.7	0.98
180	2010	bv23 rp	192	835	2567	98.3	98.3	8.9	8.9	0.0	0.7	1.00

HOL 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
181	2011	bv23 rp	155	505	1058	97.9	97.8	9.1	9.4	0.1	0.7	1.00
182	2012	bv23 rp	171	729	1286	99.1	99.1	10.2	10.4	0.0	0.7	1.00
183	2013	bv23 rp	151	753	1352	100.2	100.3	10.4	10.7	-0.1	0.8	1.00
184	2014	bv23 rp	113	1133	1347	100.4	100.3	11.9	12.1	0.0	0.8	1.00
185	2015	bv23 rp	82	1674	2033	102.8	103.0	11.3	11.6	-0.2	1.2	1.00
186	2016	bv23 rp	66	1559	1962	102.3	102.6	10.9	11.0	-0.3	1.5	0.99
187	2017	bv23 rp	66	1077	1325	101.7	101.7	10.0	9.8	0.0	2.4	0.97
188	2018	bv23 rp	23	274	427	103.0	103.0	8.2	8.8	0.0	2.3	0.96
189	2010	bv24 mb	192	835	2567	96.7	96.7	8.5	8.5	0.0	0.6	1.00
190	2011	bv24 mb	155	505	1058	98.8	98.9	7.9	8.0	0.0	0.7	1.00
191	2012	bv24 mb	171	729	1286	99.0	99.0	8.9	9.0	0.0	0.7	1.00
192	2013	bv24 mb	151	753	1352	101.1	101.2	7.1	7.1	-0.1	0.6	1.00
193	2014	bv24 mb	113	1133	1347	101.7	101.8	8.2	8.1	-0.1	0.8	1.00
194	2015	bv24 mb	82	1674	2033	102.9	102.9	8.1	8.1	0.0	1.3	0.99
195	2016	bv24 mb	66	1559	1962	103.5	103.2	8.1	8.4	0.3	1.3	0.99
196	2017	bv24 mb	66	1077	1325	105.0	104.7	6.2	6.4	0.3	1.4	0.97
197	2018	bv24 mb	23	274	427	101.7	102.3	9.8	9.1	-0.6	2.0	0.98
198	2010	bv25 fl	192	835	2567	97.4	97.5	9.2	9.3	-0.1	0.6	1.00
199	2011	bv25 fl	155	505	1058	97.0	97.1	10.4	10.5	-0.1	0.7	1.00
200	2012	bv25 fl	171	729	1286	99.9	100.1	9.3	9.5	-0.2	0.7	1.00
201	2013	bv25 fl	151	753	1352	99.3	99.2	9.5	9.6	0.0	0.8	1.00
202	2014	bv25 fl	113	1133	1347	101.5	101.5	10.2	10.4	0.0	0.9	1.00
203	2015	bv25 fl	82	1674	2033	104.0	104.0	10.8	11.1	0.0	1.2	0.99
204	2016	bv25 fl	66	1559	1962	102.8	102.8	9.5	9.8	0.0	1.5	0.99
205	2017	bv25 fl	66	1077	1325	105.3	105.3	8.9	9.4	0.0	2.4	0.97
206	2018	bv25 fl	23	274	427	101.7	102.9	8.8	8.2	-1.2	3.3	0.93
207	2010	bv26 ket	192	835	2567	95.6	95.5	10.5	10.6	0.2	0.6	1.00
208	2011	bv26 ket	155	505	1058	98.0	97.9	9.6	9.7	0.1	0.6	1.00
209	2012	bv26 ket	171	729	1286	99.2	99.1	11.0	11.2	0.1	0.6	1.00
210	2013	bv26 ket	151	753	1352	99.2	99.0	9.7	9.8	0.2	0.7	1.00
211	2014	bv26 ket	113	1133	1347	103.4	103.4	10.5	10.7	0.0	0.8	1.00
212	2015	bv26 ket	82	1674	2033	104.2	104.1	9.1	9.2	0.0	1.0	0.99
213	2016	bv26 ket	66	1559	1962	105.0	104.8	11.1	11.2	0.2	1.3	0.99
214	2017	bv26 ket	66	1077	1325	108.2	107.8	8.0	8.2	0.4	1.6	0.98
215	2018	bv26 ket	23	274	427	103.2	103.5	11.8	11.2	-0.3	2.3	0.98
216	2010	bv27 bhb	146	773	2072	96.3	96.3	9.5	9.6	0.0	0.5	1.00

HOL 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
217	2011	bv27 bhb	135	416	844	97.3	97.3	10.4	10.5	0.0	0.5	1.00
218	2012	bv27 bhb	155	572	934	98.3	98.4	11.0	11.1	0.0	0.5	1.00
219	2013	bv27 bhb	121	613	975	100.7	100.5	10.4	10.5	0.1	0.6	1.00
220	2014	bv27 bhb	104	877	996	102.0	102.0	11.1	11.1	0.0	0.7	1.00
221	2015	bv27 bhb	80	1156	1430	102.2	102.0	12.3	12.5	0.1	0.7	1.00
222	2016	bv27 bhb	63	1111	1374	102.5	102.4	12.6	12.7	0.1	1.1	1.00
223	2017	bv27 bhb	66	1103	1371	106.0	105.5	11.5	11.5	0.5	1.7	0.99
224	2018	bv27 bhb	67	657	972	105.1	104.8	11.8	11.6	0.3	2.2	0.98
225	2010	bv29 GH	192	835	2567	98.1	98.1	10.1	10.1	0.0	0.5	1.00
226	2011	bv29 GH	155	505	1058	100.3	100.4	10.4	10.5	-0.1	0.5	1.00
227	2012	bv29 GH	171	729	1287	99.2	99.3	10.3	10.3	0.0	0.5	1.00
228	2013	bv29 GH	151	756	1369	100.7	100.7	9.3	9.4	0.0	0.6	1.00
229	2014	bv29 GH	113	1135	1352	102.4	102.5	10.5	10.6	-0.1	0.6	1.00
230	2015	bv29 GH	82	1680	2040	101.7	101.6	11.6	11.8	0.1	0.7	1.00
231	2016	bv29 GH	66	1588	2001	102.0	102.0	12.5	12.3	0.0	1.0	1.00
232	2017	bv29 GH	66	1489	1734	104.7	104.2	11.4	11.6	0.5	1.6	0.99
233	2018	bv29 GH	53	539	930	103.0	102.3	11.8	11.7	0.7	1.7	0.99

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	65	0	0	106.3	106.5	7.6	7.8	-0.2	0.8	0.99
2	2020	bv1 rpl1	70	.	.	108.7	109.0	6.2	6.0	-0.3	1.1	0.98
3	2021	bv1 rpl1	58	.	.	107.1	107.1	7.3	7.3	0.0	0.7	0.99
4	2022	bv1 rpl1	44	.	.	109.5	109.4	7.0	7.0	0.0	0.9	0.99
5	2019	bv2 rp1	69	0	0	102.2	102.3	8.4	8.3	0.0	1.6	0.98
6	2020	bv2 rp1	70	.	.	103.6	104.0	6.6	6.7	-0.4	1.4	0.98
7	2021	bv2 rp1	58	.	.	101.2	101.4	7.0	7.1	-0.2	1.3	0.98
8	2022	bv2 rp1	44	.	.	102.3	102.4	6.9	7.0	0.0	1.4	0.98
9	2019	bv3 mb1	69	0	0	106.9	107.3	8.3	8.2	-0.4	1.5	0.98
10	2020	bv3 mb1	70	.	.	107.5	107.9	7.2	6.9	-0.4	1.7	0.97
11	2021	bv3 mb1	58	.	.	107.5	107.7	6.9	6.9	-0.2	1.5	0.98
12	2022	bv3 mb1	44	.	.	107.2	107.6	5.8	5.9	-0.4	1.5	0.97
13	2019	bv4 fl1	69	0	0	105.9	105.7	8.1	8.4	0.2	1.5	0.99
14	2020	bv4 fl1	70	.	.	106.1	106.3	8.2	8.2	-0.2	1.9	0.97
15	2021	bv4 fl1	58	.	.	105.1	104.8	6.7	7.0	0.3	1.3	0.98
16	2022	bv4 fl1	44	.	.	105.1	105.3	6.7	7.0	-0.2	1.1	0.99
17	2019	bv5 ket1	69	0	0	107.5	107.9	9.0	9.0	-0.4	1.8	0.98
18	2020	bv5 ket1	70	.	.	107.3	107.6	7.9	7.8	-0.2	1.5	0.98
19	2021	bv5 ket1	58	.	.	108.4	108.7	7.2	7.2	-0.3	1.6	0.98
20	2022	bv5 ket1	44	.	.	107.6	108.0	6.9	6.7	-0.4	1.6	0.97
21	2019	bv6 bhb1	57	0	.	104.4	104.5	9.0	9.0	-0.1	1.0	0.99
22	2020	bv6 bhb1	70	.	.	103.2	103.3	10.3	10.1	0.0	1.2	0.99
23	2021	bv6 bhb1	58	.	.	106.3	106.8	8.8	8.7	-0.6	2.1	0.97
24	2022	bv6 bhb1	44	.	.	103.7	103.9	8.4	8.1	-0.3	1.5	0.99
25	2019	bv7 ace1	57	0	.	106.1	106.2	9.8	9.6	-0.2	1.0	0.99
26	2020	bv7 ace1	70	.	.	104.3	104.2	10.9	10.8	0.0	1.3	0.99
27	2021	bv7 ace1	58	.	.	106.9	107.5	9.1	9.2	-0.6	2.2	0.97
28	2022	bv7 ace1	44	.	.	105.9	106.1	8.6	8.4	-0.2	1.6	0.98
29	2019	bv8 rpl2	69	0	0	102.9	103.5	9.2	9.3	-0.6	1.3	0.99
30	2020	bv8 rpl2	70	.	.	106.7	107.0	7.2	7.0	-0.3	1.3	0.98
31	2021	bv8 rpl2	58	.	.	103.8	103.8	7.4	7.4	0.0	1.0	0.99
32	2022	bv8 rpl2	44	.	.	105.3	105.6	7.4	7.1	-0.3	1.3	0.98
33	2019	bv9 rp2	69	0	0	101.6	101.6	8.5	8.7	-0.1	1.7	0.98
34	2020	bv9 rp2	70	.	.	103.6	103.9	7.0	7.0	-0.3	1.5	0.98
35	2021	bv9 rp2	58	.	.	101.0	101.3	6.8	7.0	-0.3	1.2	0.99
36	2022	bv9 rp2	44	.	.	102.5	102.3	7.1	7.3	0.2	1.4	0.98

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	69	0	0	105.6	105.8	7.9	8.1	-0.1	1.4	0.98
38	2020	bv10 mb2	70	.	.	106.1	106.3	6.9	6.7	-0.2	1.4	0.98
39	2021	bv10 mb2	58	.	.	107.0	107.0	6.6	6.5	0.0	1.4	0.98
40	2022	bv10 mb2	44	.	.	105.7	105.6	5.8	5.7	0.1	1.3	0.97
41	2019	bv11 fl2	69	0	0	106.3	106.0	8.1	8.4	0.3	1.4	0.99
42	2020	bv11 fl2	70	.	.	106.2	106.3	8.0	8.2	-0.1	1.7	0.98
43	2021	bv11 fl2	58	.	.	105.7	105.3	6.7	6.9	0.4	1.2	0.98
44	2022	bv11 fl2	44	.	.	105.3	105.6	6.8	7.1	-0.3	1.2	0.99
45	2019	bv12 ket2	69	0	0	110.9	111.0	7.9	8.1	-0.1	1.4	0.98
46	2020	bv12 ket2	70	.	.	111.5	111.9	7.9	7.7	-0.4	1.4	0.98
47	2021	bv12 ket2	58	.	.	114.5	114.7	6.8	6.9	-0.1	1.2	0.99
48	2022	bv12 ket2	44	.	.	113.7	113.7	6.9	7.1	0.0	1.1	0.99
49	2019	bv13 bhb2	69	0	0	106.4	106.4	8.7	8.9	0.0	2.2	0.97
50	2020	bv13 bhb2	70	.	.	105.5	105.5	10.9	10.5	0.0	1.6	0.99
51	2021	bv13 bhb2	58	.	.	111.2	111.3	8.8	8.8	-0.2	1.7	0.98
52	2022	bv13 bhb2	44	.	.	107.9	107.5	8.9	8.6	0.4	1.2	0.99
53	2019	bv14 ace2	69	0	0	107.9	107.9	8.7	8.8	0.1	2.2	0.97
54	2020	bv14 ace2	70	.	.	107.3	107.3	11.0	10.4	0.0	1.7	0.99
55	2021	bv14 ace2	58	.	.	112.9	112.9	8.2	8.2	-0.1	1.5	0.98
56	2022	bv14 ace2	44	.	.	111.0	110.5	8.2	8.1	0.6	1.3	0.99
57	2019	bv15 rpl3	69	0	0	101.9	102.4	9.5	9.7	-0.5	1.5	0.99
58	2020	bv15 rpl3	70	.	.	106.1	106.5	7.4	7.4	-0.4	1.2	0.99
59	2021	bv15 rpl3	58	.	.	103.0	103.2	7.5	7.5	-0.2	1.2	0.99
60	2022	bv15 rpl3	44	.	.	104.5	104.8	7.9	7.7	-0.3	1.2	0.99
61	2019	bv16 rp3	69	0	0	99.9	100.1	8.7	8.9	-0.2	1.7	0.98
62	2020	bv16 rp3	70	.	.	102.2	102.7	7.4	7.4	-0.5	1.5	0.98
63	2021	bv16 rp3	58	.	.	99.3	99.7	7.3	7.5	-0.3	1.4	0.98
64	2022	bv16 rp3	44	.	.	100.6	100.6	7.2	7.5	0.0	1.4	0.98
65	2019	bv17 mb3	69	0	0	105.0	105.0	6.5	6.7	0.0	1.4	0.98
66	2020	bv17 mb3	70	.	.	104.9	104.9	6.5	6.2	0.0	1.4	0.98
67	2021	bv17 mb3	58	.	.	107.1	106.9	6.5	6.2	0.2	1.4	0.97
68	2022	bv17 mb3	44	.	.	105.5	105.2	6.1	6.0	0.3	1.3	0.98
69	2019	bv18 fl3	69	0	0	105.9	105.6	8.3	8.6	0.3	1.3	0.99
70	2020	bv18 fl3	70	.	.	106.2	106.4	7.8	7.9	-0.1	1.7	0.98
71	2021	bv18 fl3	58	.	.	105.4	105.0	6.7	7.0	0.4	1.2	0.98
72	2022	bv18 fl3	44	.	.	105.2	105.4	6.8	7.2	-0.2	1.2	0.99

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	69	0	0	110.2	110.3	7.7	7.9	-0.1	1.4	0.98
74	2020	bv19 ket3	70	.	.	110.4	110.8	7.9	7.7	-0.4	1.4	0.98
75	2021	bv19 ket3	58	.	.	113.8	113.9	6.7	6.6	-0.1	1.2	0.98
76	2022	bv19 ket3	44	.	.	112.3	112.3	7.0	7.2	0.0	1.2	0.99
77	2019	bv20 bhb3	69	0	0	107.5	107.5	8.2	8.5	0.1	2.0	0.97
78	2020	bv20 bhb3	70	.	.	106.1	106.1	10.7	10.3	-0.1	1.5	0.99
79	2021	bv20 bhb3	58	.	.	112.2	112.4	8.5	8.5	-0.2	1.5	0.99
80	2022	bv20 bhb3	44	.	.	109.3	108.8	8.9	8.6	0.4	1.3	0.99
81	2019	bv21 ace3	69	0	0	109.5	109.3	8.1	8.1	0.3	1.9	0.97
82	2020	bv21 ace3	70	.	.	108.3	108.2	9.8	9.5	0.1	1.5	0.99
83	2021	bv21 ace3	58	.	.	114.1	114.0	7.9	8.0	0.1	1.3	0.99
84	2022	bv21 ace3	44	.	.	112.9	112.2	8.0	7.9	0.7	1.1	0.99
85	2019	bv22 rpl	65	0	0	103.3	103.7	8.4	8.8	-0.4	1.3	0.99
86	2020	bv22 rpl	70	.	.	107.0	107.4	6.6	6.5	-0.4	1.1	0.99
87	2021	bv22 rpl	58	.	.	104.4	104.5	7.1	7.0	-0.1	0.9	0.99
88	2022	bv22 rpl	44	.	.	106.2	106.4	7.2	7.0	-0.2	1.0	0.99
89	2019	bv23 rp	69	0	0	101.0	101.1	8.4	8.5	-0.1	1.7	0.98
90	2020	bv23 rp	70	.	.	102.9	103.3	6.9	7.0	-0.4	1.4	0.98
91	2021	bv23 rp	58	.	.	100.4	100.6	7.0	7.2	-0.2	1.2	0.99
92	2022	bv23 rp	44	.	.	101.6	101.5	6.9	7.2	0.0	1.4	0.98
93	2019	bv24 mb	69	0	0	105.7	105.8	7.1	7.2	-0.1	1.4	0.98
94	2020	bv24 mb	70	.	.	105.9	106.1	6.2	6.0	-0.2	1.3	0.98
95	2021	bv24 mb	58	.	.	107.1	107.1	6.2	6.0	0.0	1.3	0.98
96	2022	bv24 mb	44	.	.	106.1	106.1	5.4	5.2	0.0	1.3	0.97
97	2019	bv25 fl	69	0	0	106.0	105.8	8.1	8.4	0.3	1.3	0.99
98	2020	bv25 fl	70	.	.	106.2	106.3	7.9	8.0	-0.1	1.8	0.97
99	2021	bv25 fl	58	.	.	105.3	105.0	6.6	6.9	0.3	1.2	0.98
100	2022	bv25 fl	44	.	.	105.3	105.5	6.7	7.0	-0.2	1.2	0.98
101	2019	bv26 ket	69	0	0	109.6	109.8	7.7	7.8	-0.1	1.3	0.99
102	2020	bv26 ket	70	.	.	109.7	110.1	7.6	7.4	-0.4	1.3	0.98
103	2021	bv26 ket	58	.	.	112.4	112.5	6.5	6.6	-0.1	1.1	0.99
104	2022	bv26 ket	44	.	.	111.3	111.3	6.6	6.6	0.0	1.0	0.99
105	2019	bv27 bhb	57	0	.	108.5	108.2	8.2	8.2	0.3	1.3	0.99
106	2020	bv27 bhb	70	.	.	106.9	106.7	10.1	9.7	0.1	1.3	0.99
107	2021	bv27 bhb	58	.	.	111.6	111.8	7.9	7.8	-0.2	1.6	0.98
108	2022	bv27 bhb	44	.	.	110.3	109.8	7.8	7.6	0.5	1.2	0.99

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	65	0	0	106.3	106.2	8.2	8.5	0.1	1.9	0.97
110	2020	bv29 GH	70	.	.	105.1	105.1	10.3	10.1	0.0	1.4	0.99
111	2021	bv29 GH	58	.	.	110.1	110.4	8.5	8.3	-0.2	1.7	0.98
112	2022	bv29 GH	44	.	.	107.2	107.0	8.5	8.2	0.2	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
1	2015	bv1 rpl1	183796	95.2	95.2	6.6	6.6	0.0	0.4	1.00
2	2016	bv1 rpl1	178322	97.1	97.1	6.7	6.7	0.0	0.4	1.00
3	2017	bv1 rpl1	159438	98.2	98.2	6.8	6.8	0.0	0.5	1.00
4	2018	bv1 rpl1	151275	99.7	99.7	7.0	7.0	0.0	0.6	1.00
5	2019	bv1 rpl1	142861	99.6	99.6	6.1	6.1	0.0	0.8	0.99
6	2020	bv1 rpl1	96331	100.6	100.6	6.4	6.5	0.0	1.3	0.98
7	2021	bv1 rpl1	1036	99.4	98.5	6.7	6.1	0.9	2.7	0.92
8	2015	bv2 rp1	183796	97.9	97.9	6.8	6.9	0.0	0.5	1.00
9	2016	bv2 rp1	178322	98.6	98.6	7.2	7.3	0.0	0.5	1.00
10	2017	bv2 rp1	159438	99.0	99.0	7.8	7.9	0.0	0.6	1.00
11	2018	bv2 rp1	151275	100.4	100.4	8.2	8.3	-0.1	0.8	1.00
12	2019	bv2 rp1	139102	99.1	99.2	7.1	7.2	-0.1	1.0	0.99
13	2020	bv2 rp1	35938	99.8	99.8	7.2	7.2	0.0	1.4	0.98
14	2015	bv3 mb1	183796	97.1	97.0	6.6	6.7	0.1	0.5	1.00
15	2016	bv3 mb1	178322	98.3	98.3	6.7	6.8	0.0	0.5	1.00
16	2017	bv3 mb1	159438	99.3	99.3	6.6	6.7	0.0	0.6	1.00
17	2018	bv3 mb1	151275	100.2	100.2	7.3	7.4	0.0	0.8	0.99
18	2019	bv3 mb1	139102	100.0	100.0	6.7	6.8	-0.1	0.9	0.99
19	2020	bv3 mb1	35938	100.5	100.7	6.9	6.8	-0.2	1.4	0.98
20	2015	bv4 fl1	183796	97.3	97.3	6.7	6.7	0.0	0.5	1.00
21	2016	bv4 fl1	178322	98.6	98.6	6.7	6.8	0.0	0.5	1.00
22	2017	bv4 fl1	159438	99.0	99.0	6.9	6.9	0.0	0.7	1.00
23	2018	bv4 fl1	151275	100.3	100.3	7.4	7.4	0.0	0.8	0.99
24	2019	bv4 fl1	139102	99.9	100.0	6.9	6.9	0.0	1.0	0.99
25	2020	bv4 fl1	35938	100.3	100.4	7.2	7.1	-0.1	1.6	0.98
26	2015	bv5 ket1	183796	96.3	96.3	7.6	7.7	0.1	0.5	1.00
27	2016	bv5 ket1	178322	97.4	97.3	8.0	8.1	0.1	0.6	1.00
28	2017	bv5 ket1	159438	98.7	98.7	7.8	7.8	0.0	0.7	1.00
29	2018	bv5 ket1	151275	99.8	99.7	8.5	8.5	0.0	0.8	1.00
30	2019	bv5 ket1	139102	99.7	99.7	7.9	7.9	0.0	1.0	0.99
31	2020	bv5 ket1	35938	100.4	100.5	7.9	7.7	-0.1	1.5	0.98
32	2015	bv6 bhb1	123112	99.6	99.7	8.3	8.3	-0.1	0.5	1.00
33	2016	bv6 bhb1	110428	100.1	100.2	8.3	8.4	-0.1	0.6	1.00
34	2017	bv6 bhb1	96595	100.1	100.1	8.5	8.5	0.0	0.7	1.00
35	2018	bv6 bhb1	90815	101.1	101.1	9.3	9.3	0.0	0.9	1.00
36	2019	bv6 bhb1	86328	100.3	100.3	9.0	8.9	0.0	1.2	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
37	2020	bv6 bhb1	77782	100.4	100.3	8.8	8.7	0.1	1.2	0.99
38	2021	bv6 bhb1	8662	100.7	100.6	8.6	8.7	0.1	1.6	0.98
39	2015	bv7 ace1	123112	98.7	98.7	8.5	8.6	0.0	0.5	1.00
40	2016	bv7 ace1	110428	99.9	99.9	8.6	8.6	0.0	0.6	1.00
41	2017	bv7 ace1	96595	100.0	100.0	8.9	9.0	0.0	0.7	1.00
42	2018	bv7 ace1	90815	101.1	101.1	9.8	9.8	0.0	0.8	1.00
43	2019	bv7 ace1	86328	100.6	100.6	9.2	9.2	0.0	1.1	0.99
44	2020	bv7 ace1	77782	101.2	101.1	9.2	9.2	0.1	1.3	0.99
45	2021	bv7 ace1	8662	101.5	101.2	9.3	9.5	0.4	1.8	0.98
46	2015	bv8 rpl2	132687	97.5	97.5	6.6	6.6	0.1	0.5	1.00
47	2016	bv8 rpl2	128458	98.7	98.7	6.7	6.6	0.1	0.5	1.00
48	2017	bv8 rpl2	117534	99.3	99.3	6.9	6.9	0.0	0.6	1.00
49	2018	bv8 rpl2	110503	100.2	100.2	7.2	7.1	0.0	0.9	0.99
50	2019	bv8 rpl2	73431	99.4	99.4	6.4	6.4	0.0	1.3	0.98
51	2020	bv8 rpl2	1490	99.2	99.3	6.5	6.6	-0.1	1.8	0.96
52	2015	bv9 rp2	132687	98.1	98.1	7.1	7.2	0.0	0.5	1.00
53	2016	bv9 rp2	128458	98.8	98.8	7.5	7.6	0.0	0.6	1.00
54	2017	bv9 rp2	117350	99.1	99.1	8.1	8.2	-0.1	0.7	1.00
55	2018	bv9 rp2	103618	100.5	100.6	8.3	8.5	-0.1	0.9	1.00
56	2019	bv9 rp2	22839	99.4	99.5	7.1	7.3	-0.1	1.1	0.99
57	2015	bv10 mb2	132687	97.2	97.2	6.7	6.7	0.0	0.5	1.00
58	2016	bv10 mb2	128458	98.5	98.6	6.7	6.7	-0.1	0.5	1.00
59	2017	bv10 mb2	117350	98.9	99.0	6.7	6.7	-0.1	0.7	0.99
60	2018	bv10 mb2	103618	100.2	100.1	7.3	7.3	0.1	1.0	0.99
61	2019	bv10 mb2	22839	99.7	99.6	6.4	6.5	0.1	1.3	0.98
62	2015	bv11 fl2	132687	97.5	97.6	6.8	6.8	0.0	0.5	1.00
63	2016	bv11 fl2	128458	98.6	98.6	6.7	6.8	0.0	0.6	1.00
64	2017	bv11 fl2	117350	99.2	99.3	7.0	7.1	0.0	0.7	1.00
65	2018	bv11 fl2	103618	100.5	100.4	7.4	7.4	0.0	0.9	0.99
66	2019	bv11 fl2	22839	99.7	99.7	6.8	6.8	0.0	1.2	0.98
67	2015	bv12 ket2	132687	95.3	95.2	8.0	8.1	0.1	0.6	1.00
68	2016	bv12 ket2	128458	96.2	96.2	8.7	8.7	0.1	0.6	1.00
69	2017	bv12 ket2	117350	98.6	98.6	8.9	8.9	0.0	0.8	1.00
70	2018	bv12 ket2	103618	99.2	99.2	8.8	8.8	0.0	1.0	0.99
71	2019	bv12 ket2	22839	99.6	99.7	8.3	8.2	0.0	1.3	0.99
72	2015	bv13 bhb2	88006	98.8	98.8	9.0	9.1	-0.1	0.5	1.00

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	2016	bv13 bhb2	85017	99.0	99.0	9.2	9.3	-0.1	0.6	1.00
74	2017	bv13 bhb2	75764	99.9	99.9	9.4	9.4	0.0	0.7	1.00
75	2018	bv13 bhb2	70737	100.2	100.2	9.9	9.9	0.0	1.1	0.99
76	2019	bv13 bhb2	59836	100.2	100.2	9.1	9.1	0.0	1.8	0.98
77	2020	bv13 bhb2	6092	100.9	100.6	9.0	8.8	0.3	3.0	0.94
78	2015	bv14 ace2	88006	97.8	97.8	8.8	8.9	0.0	0.5	1.00
79	2016	bv14 ace2	85017	98.5	98.5	9.2	9.3	-0.1	0.6	1.00
80	2017	bv14 ace2	75764	99.7	99.8	9.5	9.6	-0.1	0.7	1.00
81	2018	bv14 ace2	70737	100.0	100.0	10.0	10.0	0.0	1.1	0.99
82	2019	bv14 ace2	59836	100.4	100.5	9.0	9.0	0.0	1.7	0.98
83	2020	bv14 ace2	6092	101.4	101.1	9.0	8.7	0.3	2.8	0.95
84	2015	bv15 rpl3	90799	98.2	98.1	6.9	6.8	0.1	0.5	1.00
85	2016	bv15 rpl3	89771	99.4	99.3	6.8	6.8	0.1	0.6	1.00
86	2017	bv15 rpl3	80921	99.7	99.7	7.2	7.2	0.0	0.7	1.00
87	2018	bv15 rpl3	51669	100.7	100.7	7.3	7.3	0.0	1.1	0.99
88	2019	bv15 rpl3	1151	99.9	99.7	6.6	6.5	0.2	1.5	0.97
89	2015	bv16 rp3	90776	99.5	99.5	7.2	7.4	0.0	0.6	1.00
90	2016	bv16 rp3	89277	100.0	100.0	7.6	7.8	0.0	0.6	1.00
91	2017	bv16 rp3	71973	99.9	100.0	8.1	8.2	-0.1	0.8	1.00
92	2018	bv16 rp3	14794	101.4	101.6	8.3	8.6	-0.2	1.1	0.99
93	2015	bv17 mb3	90776	96.9	97.0	6.8	6.8	-0.1	0.5	1.00
94	2016	bv17 mb3	89277	98.3	98.4	6.5	6.5	-0.1	0.6	1.00
95	2017	bv17 mb3	71973	98.6	98.7	6.5	6.5	-0.1	0.9	0.99
96	2018	bv17 mb3	14794	100.3	100.2	6.8	6.7	0.1	1.5	0.98
97	2015	bv18 fl3	90776	97.8	97.8	6.9	7.0	-0.1	0.5	1.00
98	2016	bv18 fl3	89277	98.9	99.0	6.9	7.0	0.0	0.6	1.00
99	2017	bv18 fl3	71973	99.5	99.6	7.3	7.3	-0.1	0.7	0.99
100	2018	bv18 fl3	14794	102.0	101.9	8.0	7.9	0.1	1.1	0.99
101	2015	bv19 ket3	90776	96.0	95.9	8.1	8.2	0.1	0.6	1.00
102	2016	bv19 ket3	89277	96.7	96.6	8.8	8.9	0.1	0.6	1.00
103	2017	bv19 ket3	71973	99.2	99.2	9.0	9.0	0.0	0.8	1.00
104	2018	bv19 ket3	14794	100.5	100.5	8.8	8.8	0.0	1.2	0.99
105	2015	bv20 bhb3	60468	98.2	98.2	9.2	9.3	0.0	0.6	1.00
106	2016	bv20 bhb3	59886	98.5	98.5	9.5	9.6	-0.1	0.6	1.00
107	2017	bv20 bhb3	53493	99.8	99.9	9.6	9.6	0.0	0.8	1.00
108	2018	bv20 bhb3	43015	100.4	100.4	10.0	10.0	0.0	1.3	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	2019	bv20 bhb3	4397	100.8	100.8	9.3	9.1	0.0	2.1	0.97
110	2015	bv21 ace3	60468	96.7	96.7	8.9	8.9	0.0	0.6	1.00
111	2016	bv21 ace3	59886	97.6	97.7	9.3	9.4	-0.1	0.6	1.00
112	2017	bv21 ace3	53493	99.5	99.5	9.4	9.5	-0.1	0.8	1.00
113	2018	bv21 ace3	43015	100.0	100.0	9.9	9.9	0.0	1.3	0.99
114	2019	bv21 ace3	4397	100.5	100.5	8.6	8.4	0.0	2.0	0.97
115	2015	bv22 rpl	183796	97.0	97.0	6.2	6.2	0.1	0.5	1.00
116	2016	bv22 rpl	178322	98.3	98.3	6.3	6.3	0.0	0.5	1.00
117	2017	bv22 rpl	159438	98.9	98.9	6.6	6.6	0.0	0.6	1.00
118	2018	bv22 rpl	151275	100.0	100.0	6.9	6.8	0.0	0.8	0.99
119	2019	bv22 rpl	142861	99.4	99.5	5.9	6.0	-0.1	1.1	0.98
120	2020	bv22 rpl	96331	100.2	100.5	6.1	6.3	-0.2	1.1	0.99
121	2021	bv22 rpl	1036	99.1	100.7	6.4	7.5	-0.1	1.0	0.99
122	2015	bv23 rp	183796	98.5	98.5	6.9	7.0	0.0	0.5	1.00
123	2016	bv23 rp	178322	99.0	99.0	7.3	7.5	0.0	0.6	1.00
124	2017	bv23 rp	159438	99.1	99.2	7.9	8.1	-0.1	0.7	1.00
125	2018	bv23 rp	151275	100.4	100.5	8.1	8.3	-0.1	0.9	1.00
126	2019	bv23 rp	139102	99.1	99.2	7.2	7.4	-0.1	1.1	0.99
127	2020	bv23 rp	35938	99.6	99.7	7.0	7.1	0.0	1.5	0.98
128	2015	bv24 mb	183796	96.9	96.9	6.1	6.2	0.0	0.5	1.00
129	2016	bv24 mb	178322	98.2	98.3	6.1	6.1	-0.1	0.5	1.00
130	2017	bv24 mb	159438	98.7	98.8	6.2	6.2	-0.1	0.7	0.99
131	2018	bv24 mb	151275	99.9	99.8	6.8	6.7	0.1	0.9	0.99
132	2019	bv24 mb	139102	99.8	99.8	5.9	5.9	0.0	1.0	0.99
133	2020	bv24 mb	35938	100.3	100.4	6.1	6.0	-0.1	1.2	0.98
134	2015	bv25 fl	183796	97.3	97.4	6.7	6.7	0.0	0.5	1.00
135	2016	bv25 fl	178322	98.5	98.6	6.7	6.8	0.0	0.5	1.00
136	2017	bv25 fl	159438	99.0	99.1	7.0	7.0	0.0	0.7	1.00
137	2018	bv25 fl	151275	100.3	100.3	7.5	7.5	0.0	0.9	0.99
138	2019	bv25 fl	139102	100.0	100.0	7.0	7.0	0.0	1.1	0.99
139	2020	bv25 fl	35938	100.4	100.5	7.3	7.2	-0.1	1.5	0.98
140	2015	bv26 ket	183796	95.8	95.7	7.6	7.6	0.1	0.5	1.00
141	2016	bv26 ket	178322	96.6	96.6	8.1	8.2	0.1	0.6	1.00
142	2017	bv26 ket	159438	98.6	98.6	8.3	8.3	0.0	0.7	1.00
143	2018	bv26 ket	151275	99.3	99.3	8.3	8.3	0.0	0.9	0.99
144	2019	bv26 ket	139102	99.9	99.9	7.8	7.8	0.0	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
145	2020	bv26 ket	35938	100.7	100.7	7.6	7.5	-0.1	1.4	0.98
146	2015	bv27 bhb	123112	97.3	97.3	8.2	8.2	0.0	0.5	1.00
147	2016	bv27 bhb	110428	98.4	98.5	8.4	8.5	-0.1	0.6	1.00
148	2017	bv27 bhb	96595	99.5	99.6	8.8	8.8	-0.1	0.7	1.00
149	2018	bv27 bhb	90815	100.2	100.2	9.3	9.4	0.0	1.0	0.99
150	2019	bv27 bhb	86328	100.5	100.5	8.3	8.3	0.0	1.3	0.99
151	2020	bv27 bhb	77782	101.5	101.2	8.2	7.9	0.3	3.1	0.93
152	2021	bv27 bhb	8662	102.1	100.4	8.3	6.5	1.6	6.7	0.61
153	2015	bv29 GH	183796	97.8	97.8	8.0	8.0	0.0	0.5	1.00
154	2016	bv29 GH	178322	98.2	98.3	8.1	8.1	0.0	0.5	1.00
155	2017	bv29 GH	159438	98.7	98.7	8.3	8.3	0.0	0.7	1.00
156	2018	bv29 GH	151275	99.3	99.3	8.8	8.8	0.0	0.9	1.00
157	2019	bv29 GH	142861	99.5	99.5	8.2	8.2	0.0	1.4	0.99
158	2020	bv29 GH	96331	99.5	99.2	7.9	7.8	0.2	3.5	0.90
159	2021	bv29 GH	1036	97.7	96.4	6.9	5.7	1.3	7.9	0.23

sum sta 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	bv1 rpl1	10734	96.9	96.8	8.3	8.3	0.0	0.8	0.99
2	2016	bv1 rpl1	16404	98.9	98.9	8.1	8.1	0.0	0.8	0.99
3	2017	bv1 rpl1	23967	100.5	100.4	8.2	8.1	0.0	0.9	0.99
4	2018	bv1 rpl1	33677	102.4	102.4	8.0	8.0	0.1	0.9	0.99
5	2019	bv1 rpl1	37396	102.0	102.1	7.4	7.4	-0.1	0.9	0.99
6	2020	bv1 rpl1	31237	103.5	103.7	7.6	7.6	-0.2	1.0	0.99
7	2021	bv1 rpl1	439	103.6	103.6	7.5	7.5	-0.1	1.3	0.99
8	2015	bv2 rp1	10734	99.1	99.2	8.6	8.7	0.0	1.0	0.99
9	2016	bv2 rp1	16404	99.9	99.9	8.8	8.9	0.0	1.0	0.99
10	2017	bv2 rp1	23967	101.1	101.1	9.4	9.4	-0.1	1.0	0.99
11	2018	bv2 rp1	33677	102.8	102.9	9.2	9.3	-0.1	1.1	0.99
12	2019	bv2 rp1	36913	101.6	101.8	8.7	8.7	-0.2	1.2	0.99
13	2020	bv2 rp1	11602	102.9	103.0	8.4	8.3	-0.2	1.6	0.98
14	2015	bv3 mb1	10734	98.3	98.3	8.1	8.2	0.0	0.9	0.99
15	2016	bv3 mb1	16404	99.8	99.8	7.9	8.0	0.0	0.9	0.99
16	2017	bv3 mb1	23967	101.1	101.1	7.8	7.9	0.0	1.0	0.99
17	2018	bv3 mb1	33677	102.5	102.5	8.3	8.4	0.0	1.0	0.99
18	2019	bv3 mb1	36913	102.5	102.5	7.8	7.9	0.0	1.1	0.99
19	2020	bv3 mb1	11602	103.7	103.9	7.7	7.6	-0.2	1.4	0.98
20	2015	bv4 fl1	10734	97.9	97.8	9.2	9.3	0.1	1.0	0.99
21	2016	bv4 fl1	16404	99.2	99.2	9.4	9.5	0.1	1.0	0.99
22	2017	bv4 fl1	23967	100.9	100.8	9.2	9.2	0.1	1.1	0.99
23	2018	bv4 fl1	33677	102.3	102.2	9.8	9.9	0.1	1.1	0.99
24	2019	bv4 fl1	36913	102.6	102.5	9.2	9.3	0.1	1.1	0.99
25	2020	bv4 fl1	11602	103.7	103.8	8.9	8.7	-0.2	1.6	0.98
26	2015	bv5 ket1	10734	98.4	98.4	8.4	8.4	0.0	1.0	0.99
27	2016	bv5 ket1	16404	99.8	99.9	8.4	8.5	0.0	1.0	0.99
28	2017	bv5 ket1	23967	100.5	100.5	8.4	8.5	0.0	1.0	0.99
29	2018	bv5 ket1	33677	102.2	102.2	8.6	8.6	0.0	1.1	0.99
30	2019	bv5 ket1	36913	102.4	102.3	8.3	8.3	0.0	1.2	0.99
31	2020	bv5 ket1	11602	103.2	103.3	8.1	8.1	-0.1	1.7	0.98
32	2015	bv6 bhb1	8460	98.6	98.5	8.5	8.4	0.1	0.9	0.99
33	2016	bv6 bhb1	12917	99.8	99.7	8.4	8.4	0.1	1.0	0.99
34	2017	bv6 bhb1	19090	101.0	101.0	8.6	8.5	0.0	1.0	0.99
35	2018	bv6 bhb1	26518	102.4	102.3	8.5	8.4	0.0	1.1	0.99
36	2019	bv6 bhb1	22069	101.4	101.5	8.1	8.1	-0.1	1.4	0.98
37	2020	bv6 bhb1	606	102.7	103.1	7.8	8.1	-0.4	1.7	0.98

sum sta 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
38	2015	bv7 ace1	8460	99.4	99.4	8.8	8.9	0.0	1.0	0.99
39	2016	bv7 ace1	12917	100.1	100.1	9.0	9.2	0.0	1.0	0.99
40	2017	bv7 ace1	19081	101.0	101.1	9.5	9.7	-0.1	1.0	0.99
41	2018	bv7 ace1	25535	102.6	102.8	9.3	9.5	-0.1	1.1	0.99
42	2019	bv7 ace1	6797	101.8	102.0	8.5	8.6	-0.2	1.3	0.99
43	2015	bv8 rpl2	8460	98.0	98.1	8.1	8.1	0.0	0.9	0.99
44	2016	bv8 rpl2	12917	99.5	99.6	7.9	7.9	-0.1	0.9	0.99
45	2017	bv8 rpl2	19081	100.3	100.3	7.9	7.9	0.0	1.0	0.99
46	2018	bv8 rpl2	25535	102.2	102.0	8.1	8.1	0.2	1.3	0.99
47	2019	bv8 rpl2	6797	101.6	101.3	7.5	7.6	0.2	1.4	0.98
48	2015	bv9 rp2	8460	97.0	96.9	9.5	9.5	0.1	1.0	0.99
49	2016	bv9 rp2	12917	98.3	98.2	10.0	10.0	0.0	1.0	1.00
50	2017	bv9 rp2	19081	100.7	100.7	9.9	10.0	0.0	1.1	0.99
51	2018	bv9 rp2	25535	101.7	101.6	9.8	9.9	0.0	1.2	0.99
52	2019	bv9 rp2	6797	102.3	102.3	9.5	9.6	0.0	1.2	0.99
53	2015	bv10 mb2	8460	98.6	98.7	8.3	8.4	0.0	1.0	0.99
54	2016	bv10 mb2	12917	99.8	99.9	8.3	8.4	0.0	1.0	0.99
55	2017	bv10 mb2	19081	100.7	100.7	8.5	8.5	0.0	1.0	0.99
56	2018	bv10 mb2	25535	102.2	102.2	8.5	8.6	0.1	1.2	0.99
57	2019	bv10 mb2	6797	101.5	101.4	8.1	8.2	0.0	1.3	0.99
58	2015	bv11 fl2	6352	99.1	99.0	8.7	8.7	0.1	1.0	0.99
59	2016	bv11 fl2	9905	100.2	100.1	8.6	8.6	0.1	1.0	0.99
60	2017	bv11 fl2	14506	101.1	101.1	8.8	8.8	0.0	1.0	0.99
61	2018	bv11 fl2	14280	102.5	102.5	8.6	8.6	0.0	1.2	0.99
62	2019	bv11 fl2	460	101.7	101.6	8.6	8.5	0.1	1.5	0.98
63	2015	bv12 ket2	6352	100.5	100.5	9.0	9.2	0.0	1.0	0.99
64	2016	bv12 ket2	9874	100.9	100.9	9.3	9.5	0.0	1.0	0.99
65	2017	bv12 ket2	13144	101.4	101.6	9.6	9.8	-0.2	1.1	0.99
66	2018	bv12 ket2	3964	103.4	103.6	9.7	10.0	-0.2	1.2	0.99
67	2015	bv13 bhb2	6352	97.8	97.9	8.2	8.2	-0.1	0.9	0.99
68	2016	bv13 bhb2	9874	99.1	99.1	7.9	7.8	-0.1	1.0	0.99
69	2017	bv13 bhb2	13144	99.8	99.8	7.7	7.6	0.0	1.1	0.99
70	2018	bv13 bhb2	3964	102.0	101.7	7.6	7.6	0.2	1.6	0.98
71	2015	bv14 ace2	6352	97.6	97.5	9.5	9.6	0.1	1.0	0.99
72	2016	bv14 ace2	9874	98.5	98.5	10.1	10.2	0.0	1.0	1.00
73	2017	bv14 ace2	13144	101.1	101.1	10.0	10.0	0.0	1.1	0.99
74	2018	bv14 ace2	3964	102.5	102.5	9.5	9.6	0.0	1.3	0.99

sum sta 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
75	2015	bv15 rpl3	6352	99.0	99.0	8.2	8.3	0.0	1.0	0.99
76	2016	bv15 rpl3	9874	100.2	100.2	8.3	8.4	-0.1	1.0	0.99
77	2017	bv15 rpl3	13144	101.1	101.2	8.6	8.7	0.0	1.1	0.99
78	2018	bv15 rpl3	3964	104.0	103.9	8.7	8.7	0.1	1.2	0.99
79	2015	bv16 rp3	7004	99.9	100.0	10.2	10.2	-0.1	1.0	0.99
80	2016	bv16 rp3	8926	100.4	100.4	10.1	10.1	0.0	1.0	0.99
81	2017	bv16 rp3	13008	100.3	100.3	10.2	10.2	0.0	1.1	0.99
82	2018	bv16 rp3	18819	101.8	101.8	11.1	11.2	0.0	1.1	0.99
83	2019	bv16 rp3	20748	101.2	101.2	10.8	10.8	0.0	1.1	0.99
84	2020	bv16 rp3	22470	101.4	101.3	10.7	10.6	0.1	1.5	0.99
85	2021	bv16 rp3	2976	101.5	101.6	10.7	10.3	-0.1	2.6	0.97
86	2015	bv17 mb3	7004	99.3	99.3	10.7	10.7	0.0	1.1	1.00
87	2016	bv17 mb3	8926	100.3	100.3	10.6	10.6	0.0	1.1	0.99
88	2017	bv17 mb3	13008	100.4	100.5	10.9	10.9	0.0	1.1	0.99
89	2018	bv17 mb3	18819	101.9	101.9	11.8	11.7	0.0	1.2	1.00
90	2019	bv17 mb3	20748	101.8	101.7	11.2	11.1	0.0	1.1	0.99
91	2020	bv17 mb3	22470	102.5	102.5	11.2	11.0	0.0	1.5	0.99
92	2021	bv17 mb3	2976	102.6	102.7	11.3	11.0	-0.1	2.7	0.97
93	2015	bv18 fl3	4743	99.4	99.4	11.1	11.1	0.0	1.0	1.00
94	2016	bv18 fl3	7342	99.3	99.4	11.2	11.2	0.0	1.0	1.00
95	2017	bv18 fl3	10762	100.4	100.4	11.1	11.2	0.0	1.1	1.00
96	2018	bv18 fl3	15379	101.0	101.0	11.9	11.8	0.0	1.2	1.00
97	2019	bv18 fl3	15287	101.6	101.6	11.2	11.2	0.0	1.5	0.99
98	2020	bv18 fl3	1974	103.0	102.8	10.6	10.5	0.3	2.2	0.98
99	2015	bv19 ket3	4743	98.8	98.8	11.0	11.0	0.0	1.0	1.00
100	2016	bv19 ket3	7342	98.9	99.0	11.2	11.2	0.0	1.0	1.00
101	2017	bv19 ket3	10762	100.4	100.5	11.4	11.4	-0.1	1.1	1.00
102	2018	bv19 ket3	15379	101.0	101.0	11.9	11.8	0.0	1.2	0.99
103	2019	bv19 ket3	15287	102.2	102.2	10.9	10.9	-0.1	1.5	0.99
104	2020	bv19 ket3	1974	104.0	103.7	10.5	10.4	0.3	2.2	0.98
105	2015	bv20 bhb3	3652	99.1	99.0	11.1	11.1	0.0	1.0	1.00
106	2016	bv20 bhb3	5714	99.0	99.1	11.5	11.5	0.0	1.0	1.00
107	2017	bv20 bhb3	8225	100.6	100.6	11.2	11.3	0.0	1.1	1.00
108	2018	bv20 bhb3	10149	101.4	101.3	11.8	11.8	0.1	1.3	0.99
109	2019	bv20 bhb3	1161	102.5	102.5	11.1	11.1	0.0	1.5	0.99
110	2015	bv21 ace3	3652	98.1	98.0	10.7	10.7	0.0	1.0	1.00
111	2016	bv21 ace3	5714	98.4	98.4	11.3	11.3	0.0	1.0	1.00

sum sta 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
112	2017	bv21 ace3	8225	100.6	100.6	11.2	11.2	0.0	1.1	1.00
113	2018	bv21 ace3	10149	101.3	101.2	11.6	11.6	0.0	1.4	0.99
114	2019	bv21 ace3	1161	102.5	102.4	10.3	10.2	0.1	1.6	0.99
115	2015	bv22 rpl	10734	98.1	98.0	8.0	8.0	0.1	0.9	0.99
116	2016	bv22 rpl	16404	99.5	99.4	7.9	7.9	0.0	0.9	0.99
117	2017	bv22 rpl	23967	100.7	100.7	8.1	8.1	0.0	0.9	0.99
118	2018	bv22 rpl	33677	102.3	102.2	8.1	8.0	0.0	1.0	0.99
119	2019	bv22 rpl	37396	101.5	101.6	7.5	7.6	-0.1	1.2	0.99
120	2020	bv22 rpl	31237	102.6	103.0	7.5	7.7	-0.4	1.2	0.99
121	2021	bv22 rpl	439	102.9	103.1	7.6	7.6	-0.2	1.2	0.99
122	2015	bv23 rp	10734	99.5	99.5	8.8	8.9	0.0	1.0	0.99
123	2016	bv23 rp	16404	100.1	100.1	9.0	9.2	0.0	1.0	0.99
124	2017	bv23 rp	23967	100.9	101.1	9.5	9.6	-0.1	1.1	0.99
125	2018	bv23 rp	33677	102.5	102.7	9.2	9.4	-0.2	1.1	0.99
126	2019	bv23 rp	36913	101.3	101.6	9.0	9.0	-0.3	1.3	0.99
127	2020	bv23 rp	11602	102.4	102.6	8.5	8.4	-0.2	1.6	0.98
128	2015	bv24 mb	10734	97.8	97.9	7.5	7.5	0.0	0.9	0.99
129	2016	bv24 mb	16404	99.3	99.4	7.3	7.3	-0.1	0.9	0.99
130	2017	bv24 mb	23967	100.2	100.2	7.3	7.3	0.0	1.0	0.99
131	2018	bv24 mb	33677	101.9	101.8	7.5	7.5	0.1	1.2	0.99
132	2019	bv24 mb	36913	101.9	101.9	6.9	6.9	0.1	1.1	0.99
133	2020	bv24 mb	11602	103.0	103.1	6.8	6.8	-0.1	1.2	0.98
134	2015	bv25 fl	10734	97.4	97.3	9.0	9.1	0.1	0.9	0.99
135	2016	bv25 fl	16404	98.6	98.5	9.5	9.6	0.1	0.9	1.00
136	2017	bv25 fl	23967	100.8	100.8	9.4	9.4	0.0	1.0	0.99
137	2018	bv25 fl	33677	101.7	101.7	9.4	9.4	0.0	1.1	0.99
138	2019	bv25 fl	36913	102.9	102.9	8.9	9.0	0.0	1.2	0.99
139	2020	bv25 fl	11602	104.2	104.3	8.4	8.4	-0.1	1.4	0.99
140	2015	bv26 ket	10734	98.5	98.5	8.2	8.3	0.0	0.9	0.99
141	2016	bv26 ket	16404	99.8	99.9	8.3	8.4	-0.1	1.0	0.99
142	2017	bv26 ket	23967	100.6	100.7	8.5	8.5	0.0	1.0	0.99
143	2018	bv26 ket	33677	102.3	102.2	8.6	8.6	0.1	1.1	0.99
144	2019	bv26 ket	36913	102.5	102.5	8.2	8.2	0.0	1.2	0.99
145	2020	bv26 ket	11602	103.5	103.5	8.0	8.1	0.0	1.6	0.98
146	2015	bv27 bhb	8460	98.4	98.5	10.4	10.4	0.0	1.1	0.99
147	2016	bv27 bhb	12917	99.1	99.1	10.4	10.4	0.0	1.0	0.99
148	2017	bv27 bhb	19090	99.5	99.5	10.4	10.4	0.0	1.1	0.99

sum sta 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
149	2018	bv27 bhb	26518	100.5	100.5	11.0	10.9	0.0	1.2	0.99
150	2019	bv27 bhb	22069	101.4	101.4	10.4	10.5	0.0	1.1	0.99
151	2020	bv27 bhb	606	101.8	101.8	9.6	9.6	0.0	1.3	0.99
152	2015	bv29 GH	10734	99.3	99.3	8.1	8.1	0.0	0.0	1.00
153	2016	bv29 GH	16404	99.7	99.7	8.0	8.0	0.0	0.0	1.00
154	2017	bv29 GH	23967	100.0	100.0	8.4	8.4	0.0	0.0	1.00
155	2018	bv29 GH	33677	100.8	100.8	9.0	9.0	0.0	0.0	1.00
156	2019	bv29 GH	37396	101.2	101.2	8.2	8.2	0.0	0.0	1.00
157	2020	bv29 GH	31237	100.7	100.7	7.5	7.5	0.0	0.0	1.00
158	2021	bv29 GH	439	99.6	99.6	6.0	6.0	0.0	0.0	1.00

sum sta 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	bv1 rpl1	11669	101.9	101.9	7.5	7.5	0.0	0.8	0.99
2	2020	bv1 rpl1	27570	103.7	103.9	7.7	7.6	-0.3	1.0	0.99
3	2021	bv1 rpl1	61257	103.6	103.7	7.3	7.3	-0.1	1.0	0.99
4	2022	bv1 rpl1	58734	104.6	104.8	7.2	7.2	-0.1	0.9	0.99
5	2023	bv1 rpl1	1822	105.7	105.8	7.0	7.0	-0.1	0.9	0.99
6	2019	bv2 rp1	12152	101.6	101.8	8.6	8.6	-0.2	1.2	0.99
7	2020	bv2 rp1	47205	102.2	102.4	8.1	8.1	-0.1	1.4	0.98
8	2021	bv2 rp1	61696	101.2	101.4	7.5	7.5	-0.2	1.1	0.99
9	2022	bv2 rp1	58734	101.2	101.4	7.4	7.4	-0.2	1.2	0.99
10	2023	bv2 rp1	1822	101.6	101.8	7.0	7.0	-0.2	1.1	0.99
11	2019	bv3 mb1	12152	102.5	102.5	7.8	7.9	0.0	1.1	0.99
12	2020	bv3 mb1	47205	103.1	103.4	7.9	7.8	-0.3	1.4	0.98
13	2021	bv3 mb1	61696	103.3	103.5	7.6	7.7	-0.2	1.4	0.98
14	2022	bv3 mb1	58734	103.8	104.1	7.4	7.4	-0.3	1.3	0.98
15	2023	bv3 mb1	1822	104.8	105.1	7.5	7.4	-0.3	1.3	0.98
16	2019	bv4 fl1	12152	102.5	102.4	8.1	8.2	0.0	1.2	0.99
17	2020	bv4 fl1	47205	102.3	102.5	8.1	8.1	-0.2	1.6	0.98
18	2021	bv4 fl1	61696	102.8	102.8	7.7	7.7	0.0	1.2	0.99
19	2022	bv4 fl1	58734	102.5	102.5	7.4	7.5	0.0	1.3	0.98
20	2023	bv4 fl1	1822	102.5	102.5	7.7	7.7	0.0	1.3	0.99
21	2019	bv5 ket1	12152	102.5	102.5	9.2	9.3	0.1	1.1	0.99
22	2020	bv5 ket1	47205	102.5	102.8	9.0	8.9	-0.3	1.6	0.98
23	2021	bv5 ket1	61696	103.1	103.2	8.8	8.7	-0.2	1.6	0.98
24	2022	bv5 ket1	58734	103.5	103.8	8.3	8.4	-0.3	1.4	0.99
25	2023	bv5 ket1	1822	104.4	104.6	8.4	8.3	-0.3	1.3	0.99
26	2019	bv6 bhb1	28317	100.8	100.8	10.3	10.3	0.0	1.0	0.99
27	2020	bv6 bhb1	36337	100.0	100.0	10.2	10.2	0.0	1.1	0.99
28	2021	bv6 bhb1	58720	101.0	101.1	10.2	10.1	-0.2	2.0	0.98
29	2022	bv6 bhb1	58734	101.5	101.5	9.6	9.5	-0.1	1.6	0.99
30	2023	bv6 bhb1	1822	101.4	101.5	9.6	9.5	-0.1	1.4	0.99
31	2019	bv7 ace1	28317	101.0	101.0	10.7	10.7	0.0	1.1	0.99
32	2020	bv7 ace1	36337	101.4	101.4	10.7	10.6	0.0	1.2	0.99
33	2021	bv7 ace1	58720	101.7	101.9	10.7	10.6	-0.1	2.2	0.98
34	2022	bv7 ace1	58734	102.2	102.2	10.0	10.0	-0.1	1.7	0.99
35	2023	bv7 ace1	1822	102.6	102.6	10.0	9.9	0.0	1.5	0.99
36	2019	bv8 rpl2	26996	101.3	101.5	7.9	8.0	-0.2	1.4	0.98
37	2020	bv8 rpl2	58201	102.6	103.0	7.9	8.1	-0.4	1.4	0.98

sum sta 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
38	2021	bv8 rpl2	61696	102.3	102.4	7.7	7.7	-0.2	1.2	0.99
39	2022	bv8 rpl2	58734	102.5	102.8	7.4	7.4	-0.3	1.1	0.99
40	2023	bv8 rpl2	1822	103.4	103.7	7.4	7.3	-0.3	1.1	0.99
41	2019	bv9 rp2	42268	101.4	101.6	8.9	9.0	-0.2	1.3	0.99
42	2020	bv9 rp2	58807	102.3	102.3	8.2	8.2	0.0	1.5	0.98
43	2021	bv9 rp2	61696	101.0	101.2	7.5	7.6	-0.1	1.2	0.99
44	2022	bv9 rp2	58734	101.2	101.3	7.4	7.5	-0.2	1.2	0.99
45	2023	bv9 rp2	1822	101.6	101.8	7.0	7.1	-0.1	1.2	0.99
46	2019	bv10 mb2	42268	102.0	101.9	7.4	7.4	0.1	1.2	0.99
47	2020	bv10 mb2	58807	102.7	102.8	7.5	7.5	-0.1	1.3	0.99
48	2021	bv10 mb2	61696	102.9	102.9	7.1	7.2	0.0	1.4	0.98
49	2022	bv10 mb2	58734	103.2	103.3	7.0	7.0	-0.1	1.3	0.98
50	2023	bv10 mb2	1822	104.5	104.5	7.2	7.0	0.0	1.2	0.99
51	2019	bv11 fl2	42268	102.8	102.7	8.2	8.3	0.0	1.2	0.99
52	2020	bv11 fl2	58807	102.6	102.7	8.0	8.1	-0.1	1.5	0.98
53	2021	bv11 fl2	61696	102.9	102.9	7.7	7.7	0.0	1.2	0.99
54	2022	bv11 fl2	58734	102.7	102.6	7.4	7.5	0.1	1.3	0.98
55	2023	bv11 fl2	1822	102.7	102.6	7.7	7.7	0.0	1.3	0.99
56	2019	bv12 ket2	42268	103.1	103.2	9.4	9.5	-0.1	1.2	0.99
57	2020	bv12 ket2	58807	103.8	103.9	8.8	8.9	-0.2	1.4	0.99
58	2021	bv12 ket2	61696	105.0	105.2	8.8	8.8	-0.2	1.3	0.99
59	2022	bv12 ket2	58734	106.6	106.8	8.4	8.5	-0.2	1.2	0.99
60	2023	bv12 ket2	1822	107.5	107.7	8.4	8.4	-0.2	1.2	0.99
61	2019	bv13 bhb2	33778	100.8	100.8	10.7	10.8	0.0	1.2	0.99
62	2020	bv13 bhb2	56833	101.1	100.9	10.6	10.6	0.2	1.6	0.99
63	2021	bv13 bhb2	61696	102.4	102.5	10.6	10.5	0.0	1.7	0.99
64	2022	bv13 bhb2	58734	103.6	103.5	9.9	9.8	0.1	1.5	0.99
65	2023	bv13 bhb2	1822	103.3	103.2	9.8	9.7	0.1	1.4	0.99
66	2019	bv14 ace2	33778	101.0	101.1	10.6	10.6	0.0	1.3	0.99
67	2020	bv14 ace2	56833	102.3	102.1	10.6	10.4	0.2	1.7	0.99
68	2021	bv14 ace2	61696	103.5	103.5	10.2	10.2	0.0	1.7	0.99
69	2022	bv14 ace2	58734	104.9	104.8	9.6	9.5	0.1	1.5	0.99
70	2023	bv14 ace2	1822	105.3	105.2	9.6	9.4	0.2	1.4	0.99
71	2019	bv15 rpl3	48605	101.1	101.3	8.2	8.3	-0.2	1.5	0.98
72	2020	bv15 rpl3	58807	102.3	102.8	8.1	8.3	-0.4	1.5	0.98
73	2021	bv15 rpl3	61696	101.8	102.0	7.8	7.9	-0.2	1.3	0.99
74	2022	bv15 rpl3	58734	102.0	102.3	7.5	7.6	-0.3	1.2	0.99

sum sta 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
75	2023	bv15 rpl3	1822	103.0	103.3	7.5	7.5	-0.3	1.2	0.99
76	2019	bv16 rp3	49065	101.0	101.3	9.4	9.5	-0.3	1.3	0.99
77	2020	bv16 rp3	58807	101.7	101.7	8.5	8.5	-0.1	1.5	0.98
78	2021	bv16 rp3	61696	100.3	100.5	7.9	8.0	-0.2	1.2	0.99
79	2022	bv16 rp3	58734	100.2	100.5	7.7	7.8	-0.2	1.2	0.99
80	2023	bv16 rp3	1822	100.7	100.9	7.4	7.5	-0.2	1.2	0.99
81	2019	bv17 mb3	49065	101.5	101.4	7.1	7.1	0.1	1.3	0.98
82	2020	bv17 mb3	58807	101.9	101.9	7.1	7.0	0.0	1.2	0.99
83	2021	bv17 mb3	61696	102.7	102.6	6.7	6.7	0.1	1.3	0.98
84	2022	bv17 mb3	58734	103.0	102.9	6.6	6.6	0.1	1.2	0.98
85	2023	bv17 mb3	1822	104.1	104.0	6.7	6.6	0.1	1.2	0.98
86	2019	bv18 fl3	49065	102.6	102.6	8.2	8.3	0.0	1.3	0.99
87	2020	bv18 fl3	58807	102.9	103.0	8.1	8.1	-0.1	1.5	0.98
88	2021	bv18 fl3	61696	102.9	102.9	7.6	7.6	0.0	1.2	0.99
89	2022	bv18 fl3	58734	102.7	102.6	7.3	7.4	0.1	1.3	0.99
90	2023	bv18 fl3	1822	102.9	102.8	7.5	7.5	0.0	1.3	0.99
91	2019	bv19 ket3	49065	102.9	103.0	9.3	9.4	0.0	1.3	0.99
92	2020	bv19 ket3	58807	103.4	103.6	8.7	8.8	-0.2	1.5	0.99
93	2021	bv19 ket3	61696	104.7	104.8	8.6	8.7	-0.2	1.3	0.99
94	2022	bv19 ket3	58734	106.0	106.3	8.2	8.3	-0.2	1.2	0.99
95	2023	bv19 ket3	1822	106.9	107.1	8.3	8.3	-0.2	1.2	0.99
96	2019	bv20 bhb3	47904	101.4	101.4	10.7	10.8	0.0	1.3	0.99
97	2020	bv20 bhb3	58807	101.5	101.4	10.4	10.4	0.1	1.6	0.99
98	2021	bv20 bhb3	61696	103.1	103.1	10.3	10.3	0.0	1.6	0.99
99	2022	bv20 bhb3	58734	104.1	104.0	9.6	9.6	0.1	1.4	0.99
100	2023	bv20 bhb3	1822	104.1	104.0	9.6	9.5	0.1	1.4	0.99
101	2019	bv21 ace3	47904	101.8	101.8	10.3	10.4	0.0	1.4	0.99
102	2020	bv21 ace3	58807	102.7	102.6	10.2	10.0	0.1	1.6	0.99
103	2021	bv21 ace3	61696	104.3	104.2	9.8	9.8	0.1	1.5	0.99
104	2022	bv21 ace3	58734	105.6	105.5	9.1	9.1	0.1	1.4	0.99
105	2023	bv21 ace3	1822	106.3	106.1	9.2	9.2	0.2	1.3	0.99
106	2019	bv22 rpl	11669	101.3	101.4	7.5	7.6	-0.1	1.2	0.99
107	2020	bv22 rpl	27570	102.9	103.3	7.5	7.6	-0.4	1.2	0.99
108	2021	bv22 rpl	61257	102.5	102.6	7.3	7.3	-0.2	1.1	0.99
109	2022	bv22 rpl	58734	102.9	103.2	7.1	7.1	-0.3	1.0	0.99
110	2023	bv22 rpl	1822	103.9	104.1	7.0	7.0	-0.2	1.0	0.99
111	2019	bv23 rp	12152	101.2	101.5	8.9	8.9	-0.2	1.3	0.99

sum sta 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
112	2020	bv23 rp	47205	101.9	102.0	8.1	8.2	-0.1	1.4	0.98
113	2021	bv23 rp	61696	100.8	100.9	7.6	7.7	-0.2	1.2	0.99
114	2022	bv23 rp	58734	100.7	101.0	7.4	7.6	-0.2	1.2	0.99
115	2023	bv23 rp	1822	101.2	101.4	7.1	7.2	-0.2	1.1	0.99
116	2019	bv24 mb	12152	101.8	101.8	6.9	6.9	0.1	1.1	0.99
117	2020	bv24 mb	47205	102.4	102.5	7.0	7.0	-0.1	1.2	0.99
118	2021	bv24 mb	61696	102.9	103.0	6.7	6.7	0.0	1.3	0.98
119	2022	bv24 mb	58734	103.3	103.4	6.5	6.5	-0.1	1.2	0.98
120	2023	bv24 mb	1822	104.4	104.5	6.7	6.6	-0.1	1.1	0.99
121	2019	bv25 fl	12152	102.6	102.6	8.0	8.1	0.0	1.2	0.99
122	2020	bv25 fl	47205	102.5	102.7	8.0	8.0	-0.1	1.5	0.98
123	2021	bv25 fl	61696	102.8	102.8	7.6	7.6	0.0	1.2	0.99
124	2022	bv25 fl	58734	102.6	102.6	7.3	7.4	0.0	1.3	0.98
125	2023	bv25 fl	1822	102.7	102.7	7.5	7.6	0.0	1.3	0.99
126	2019	bv26 ket	12152	102.7	102.7	8.9	8.9	0.0	1.1	0.99
127	2020	bv26 ket	47205	103.1	103.3	8.4	8.4	-0.2	1.3	0.99
128	2021	bv26 ket	61696	104.3	104.4	8.3	8.4	-0.2	1.3	0.99
129	2022	bv26 ket	58734	105.4	105.7	7.9	8.0	-0.2	1.2	0.99
130	2023	bv26 ket	1822	106.3	106.5	8.0	8.0	-0.2	1.2	0.99
131	2019	bv27 bhb	28317	101.0	101.0	9.9	9.8	0.0	1.1	0.99
132	2020	bv27 bhb	36337	101.8	101.7	9.8	9.7	0.1	1.3	0.99
133	2021	bv27 bhb	58720	103.3	103.3	9.6	9.5	0.0	1.6	0.99
134	2022	bv27 bhb	58734	104.4	104.4	9.0	8.9	0.1	1.3	0.99
135	2023	bv27 bhb	1822	105.0	104.8	9.0	8.9	0.1	1.3	0.99
136	2019	bv29 GH	11669	100.9	100.9	10.1	10.2	0.0	1.1	0.99
137	2020	bv29 GH	27570	101.2	101.1	10.2	10.1	0.1	1.4	0.99
138	2021	bv29 GH	61257	102.3	102.4	10.0	10.0	-0.1	1.7	0.99
139	2022	bv29 GH	58734	103.2	103.1	9.4	9.3	0.1	1.4	0.99
140	2023	bv29 GH	1822	103.1	103.1	9.4	9.2	0.0	1.3	0.99

RDC 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	bv1 rpl1	165	228	548	99.2	99.4	7.9	8.0	-0.2	0.6	1.00
2	2011	bv1 rpl1	167	275	591	100.7	100.9	6.0	6.0	-0.2	0.6	0.99
3	2012	bv1 rpl1	169	261	476	100.9	101.0	7.1	7.1	-0.2	0.7	1.00
4	2013	bv1 rpl1	122	366	613	100.6	100.7	7.5	7.4	-0.1	0.6	1.00
5	2014	bv1 rpl1	85	562	819	100.2	100.4	6.4	6.4	-0.1	0.6	1.00
6	2015	bv1 rpl1	71	608	766	99.9	99.9	7.3	7.3	-0.1	0.9	0.99
7	2016	bv1 rpl1	70	588	850	100.6	100.6	6.7	6.8	0.0	1.1	0.99
8	2017	bv1 rpl1	66	566	770	101.8	101.8	5.8	5.8	0.0	1.4	0.97
9	2018	bv1 rpl1	33	200	257	100.7	101.0	6.6	6.0	-0.3	2.0	0.95
10	2010	bv2 rp1	165	228	548	102.8	102.9	9.1	9.2	-0.2	0.7	1.00
11	2011	bv2 rp1	167	274	590	102.0	102.1	8.5	8.7	-0.1	0.7	1.00
12	2012	bv2 rp1	169	260	474	101.6	101.7	9.6	9.9	0.0	0.8	1.00
13	2013	bv2 rp1	122	364	609	102.7	102.9	9.4	9.5	-0.2	0.8	1.00
14	2014	bv2 rp1	85	561	817	99.6	99.7	8.3	8.5	-0.1	0.8	1.00
15	2015	bv2 rp1	71	605	760	102.4	102.3	10.6	10.7	0.1	1.2	0.99
16	2016	bv2 rp1	70	568	826	99.4	99.2	8.8	9.3	0.1	1.6	0.98
17	2017	bv2 rp1	64	352	484	101.8	101.9	8.2	8.5	-0.2	2.3	0.96
18	2010	bv3 mb1	165	228	548	97.2	97.1	8.9	9.0	0.0	0.6	1.00
19	2011	bv3 mb1	167	274	590	99.4	99.5	7.2	7.2	0.0	0.6	1.00
20	2012	bv3 mb1	169	260	474	96.7	96.7	8.1	8.1	0.0	0.7	1.00
21	2013	bv3 mb1	122	364	609	100.3	100.3	7.9	8.0	0.0	0.7	1.00
22	2014	bv3 mb1	85	561	817	100.1	100.3	8.2	8.2	-0.2	0.8	0.99
23	2015	bv3 mb1	71	605	760	100.0	100.1	7.7	7.7	-0.1	0.9	0.99
24	2016	bv3 mb1	70	568	826	99.9	100.1	7.7	8.0	-0.2	1.2	0.99
25	2017	bv3 mb1	64	352	484	100.4	100.6	8.3	8.5	-0.2	2.0	0.97
26	2010	bv4 fl1	165	228	548	94.9	95.0	10.4	10.4	0.0	0.6	1.00
27	2011	bv4 fl1	167	274	590	95.0	95.0	9.7	9.8	0.0	0.7	1.00
28	2012	bv4 fl1	169	260	474	96.8	96.8	12.7	12.8	0.0	0.9	1.00
29	2013	bv4 fl1	122	364	609	97.8	97.9	11.8	11.9	-0.1	1.0	1.00
30	2014	bv4 fl1	85	561	817	95.2	95.3	11.9	12.0	-0.1	1.3	0.99
31	2015	bv4 fl1	71	605	760	100.0	100.0	12.3	12.3	0.0	1.5	0.99
32	2016	bv4 fl1	70	568	826	100.1	100.1	10.3	10.6	0.1	1.9	0.98
33	2017	bv4 fl1	64	352	484	101.6	101.8	12.0	11.6	-0.2	2.7	0.97
34	2010	bv5 ket1	165	228	548	98.0	97.9	9.3	9.4	0.1	0.6	1.00
35	2011	bv5 ket1	167	274	590	99.7	99.6	9.0	9.1	0.1	0.5	1.00
36	2012	bv5 ket1	169	260	474	95.9	95.8	9.6	9.6	0.1	0.6	1.00

RDC 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
37	2013	bv5 ket1	122	364	609	101.5	101.3	8.6	8.6	0.2	0.6	1.00
38	2014	bv5 ket1	85	561	817	101.8	101.7	8.0	8.0	0.1	0.7	1.00
39	2015	bv5 ket1	71	605	760	100.2	100.0	7.8	7.7	0.1	0.9	0.99
40	2016	bv5 ket1	70	568	826	100.0	99.8	7.9	8.2	0.2	1.1	0.99
41	2017	bv5 ket1	64	352	484	100.8	100.7	7.5	7.5	0.1	2.3	0.95
42	2010	bv6 bhb1	47	169	251	97.4	97.3	8.8	8.8	0.1	0.3	1.00
43	2011	bv6 bhb1	100	120	202	99.9	99.7	9.8	9.8	0.1	0.3	1.00
44	2012	bv6 bhb1	131	117	163	96.0	96.0	10.7	10.7	0.1	0.3	1.00
45	2013	bv6 bhb1	74	123	187	102.7	102.6	10.9	10.9	0.1	0.4	1.00
46	2014	bv6 bhb1	35	227	244	104.0	103.8	9.3	9.3	0.2	0.4	1.00
47	2015	bv6 bhb1	40	188	204	101.0	100.8	9.8	9.8	0.2	0.5	1.00
48	2016	bv6 bhb1	34	210	216	103.1	103.0	11.7	11.7	0.1	0.4	1.00
49	2017	bv6 bhb1	32	173	164	103.4	103.1	11.5	11.7	0.3	0.6	1.00
50	2010	bv7 ace1	47	169	251	96.6	96.3	8.4	8.5	0.3	0.5	1.00
51	2011	bv7 ace1	100	120	202	100.1	99.9	10.7	10.7	0.2	0.4	1.00
52	2012	bv7 ace1	131	117	163	95.0	94.8	11.2	11.3	0.2	0.4	1.00
53	2013	bv7 ace1	74	123	187	101.6	101.5	11.0	11.0	0.1	0.5	1.00
54	2014	bv7 ace1	35	227	244	103.1	102.7	9.7	9.8	0.3	0.5	1.00
55	2015	bv7 ace1	40	188	204	100.3	100.0	10.0	10.0	0.3	0.5	1.00
56	2016	bv7 ace1	34	210	216	102.5	102.1	11.6	11.7	0.4	0.6	1.00
57	2017	bv7 ace1	32	173	164	103.2	102.8	11.1	11.4	0.3	0.9	1.00
58	2010	bv8 rpl2	165	160	394	100.1	100.4	9.0	8.9	-0.3	0.8	1.00
59	2011	bv8 rpl2	167	191	421	100.6	100.8	8.2	8.2	-0.3	0.7	1.00
60	2012	bv8 rpl2	168	186	342	101.6	101.9	8.7	8.7	-0.3	0.7	1.00
61	2013	bv8 rpl2	121	262	440	102.3	102.4	8.3	8.3	-0.2	0.7	1.00
62	2014	bv8 rpl2	84	408	588	99.1	99.2	8.3	8.2	-0.1	0.8	1.00
63	2015	bv8 rpl2	71	444	558	101.6	101.8	9.0	9.0	-0.2	1.1	0.99
64	2016	bv8 rpl2	69	365	549	100.6	100.4	7.5	7.6	0.2	1.7	0.98
65	2017	bv8 rpl2	43	155	199	103.6	103.6	8.5	8.0	0.1	2.1	0.97
66	2010	bv9 rp2	165	160	394	102.5	102.7	10.0	10.4	-0.2	0.9	1.00
67	2011	bv9 rp2	167	188	411	101.7	101.7	9.9	10.4	0.0	0.9	1.00
68	2012	bv9 rp2	168	185	337	100.7	100.8	10.5	11.1	0.0	1.0	1.00
69	2013	bv9 rp2	121	261	438	102.4	102.5	10.4	10.7	-0.2	0.9	1.00
70	2014	bv9 rp2	84	405	582	99.2	99.0	10.2	10.7	0.2	1.1	1.00
71	2015	bv9 rp2	71	421	520	101.5	101.1	11.9	12.1	0.4	1.3	0.99
72	2016	bv9 rp2	61	248	397	98.4	97.8	10.1	10.7	0.7	2.3	0.98

RDC 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
73	2010	bv10 mb2	165	160	394	97.4	97.2	9.3	9.4	0.1	0.6	1.00
74	2011	bv10 mb2	167	188	411	101.4	101.3	7.2	7.3	0.1	0.6	1.00
75	2012	bv10 mb2	168	185	337	98.7	98.6	7.6	7.7	0.1	0.6	1.00
76	2013	bv10 mb2	121	261	438	101.3	101.2	7.5	7.6	0.1	0.7	1.00
77	2014	bv10 mb2	84	405	582	101.2	101.4	8.5	8.6	-0.2	0.9	0.99
78	2015	bv10 mb2	71	421	520	100.7	100.7	7.3	7.3	0.1	1.1	0.99
79	2016	bv10 mb2	61	248	397	101.4	101.5	7.7	7.8	-0.2	1.4	0.98
80	2010	bv11 fl2	165	160	394	95.5	95.4	9.6	9.7	0.0	0.7	1.00
81	2011	bv11 fl2	167	188	411	96.2	96.2	9.8	9.9	0.0	0.8	1.00
82	2012	bv11 fl2	168	185	337	98.1	98.1	11.4	11.4	0.0	0.8	1.00
83	2013	bv11 fl2	121	261	438	99.2	99.1	11.3	11.4	0.0	1.0	1.00
84	2014	bv11 fl2	84	405	582	96.5	96.5	10.9	11.1	0.1	1.3	0.99
85	2015	bv11 fl2	71	421	520	100.6	100.3	12.2	12.5	0.3	1.7	0.99
86	2016	bv11 fl2	61	248	397	101.9	101.5	10.0	10.3	0.4	2.4	0.97
87	2010	bv12 ket2	165	160	394	99.3	99.2	7.8	8.0	0.1	0.5	1.00
88	2011	bv12 ket2	167	188	411	101.9	101.8	7.8	7.9	0.1	0.5	1.00
89	2012	bv12 ket2	168	185	337	98.4	98.3	7.7	7.8	0.1	0.6	1.00
90	2013	bv12 ket2	121	261	438	101.6	101.5	7.2	7.4	0.1	0.6	1.00
91	2014	bv12 ket2	84	405	582	103.6	103.6	7.0	7.1	0.0	0.6	1.00
92	2015	bv12 ket2	71	421	520	101.4	101.4	7.0	7.0	0.1	0.9	0.99
93	2016	bv12 ket2	61	248	397	102.7	102.8	6.3	6.3	-0.1	1.3	0.98
94	2010	bv13 bhb2	99	102	237	97.7	97.6	9.6	9.8	0.2	0.4	1.00
95	2011	bv13 bhb2	124	70	89	102.1	102.1	9.9	10.1	0.0	0.4	1.00
96	2012	bv13 bhb2	75	80	116	98.0	97.9	10.8	11.0	0.1	0.4	1.00
97	2013	bv13 bhb2	48	122	159	102.8	102.7	12.7	12.7	0.1	0.4	1.00
98	2014	bv13 bhb2	32	190	188	105.7	105.8	10.4	10.6	0.0	0.5	1.00
99	2015	bv13 bhb2	36	160	162	100.8	100.7	10.9	11.1	0.1	0.5	1.00
100	2016	bv13 bhb2	27	143	136	105.4	105.6	12.2	12.4	-0.1	0.4	1.00
101	2010	bv14 ace2	99	102	237	98.8	98.6	9.2	9.4	0.1	0.4	1.00
102	2011	bv14 ace2	124	70	89	103.8	103.8	10.3	10.4	0.0	0.4	1.00
103	2012	bv14 ace2	75	80	116	98.3	98.2	10.4	10.7	0.1	0.6	1.00
104	2013	bv14 ace2	48	122	159	102.6	102.5	11.8	11.9	0.1	0.5	1.00
105	2014	bv14 ace2	32	190	188	105.3	105.2	9.7	9.8	0.1	0.4	1.00
106	2015	bv14 ace2	36	160	162	100.8	100.8	9.3	9.5	0.0	0.6	1.00
107	2016	bv14 ace2	27	143	136	105.4	105.4	10.3	10.4	0.0	0.6	1.00
108	2010	bv15 rpl3	158	110	276	100.0	100.1	9.1	9.0	-0.2	0.7	1.00

RDC 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	2011	bv15 rpl3	159	129	272	100.6	100.8	8.1	8.2	-0.2	0.7	1.00
110	2012	bv15 rpl3	162	129	230	101.9	102.0	8.7	8.6	-0.1	0.8	1.00
111	2013	bv15 rpl3	115	190	312	101.9	102.0	8.4	8.3	-0.1	0.8	1.00
112	2014	bv15 rpl3	84	269	382	99.6	99.7	8.5	8.4	-0.2	0.9	0.99
113	2015	bv15 rpl3	71	255	311	101.2	101.4	8.6	8.6	-0.1	1.2	0.99
114	2016	bv15 rpl3	41	116	178	101.0	101.0	8.3	8.6	0.0	1.9	0.98
115	2010	bv16 rp3	158	109	275	102.3	102.6	10.2	10.7	-0.2	0.9	1.00
116	2011	bv16 rp3	159	125	261	102.7	102.8	9.4	9.9	-0.1	0.8	1.00
117	2012	bv16 rp3	162	128	226	101.0	101.1	9.9	10.5	-0.1	0.9	1.00
118	2013	bv16 rp3	115	188	308	102.7	102.8	9.9	10.3	-0.2	0.8	1.00
119	2014	bv16 rp3	83	251	354	100.0	99.7	9.7	10.2	0.3	1.0	1.00
120	2015	bv16 rp3	62	165	186	101.1	100.6	10.7	10.9	0.5	1.2	0.99
121	2010	bv17 mb3	158	109	275	98.2	98.1	9.3	9.4	0.1	0.5	1.00
122	2011	bv17 mb3	159	125	261	102.1	102.1	6.9	7.1	0.0	0.6	1.00
123	2012	bv17 mb3	162	128	226	99.9	99.9	7.2	7.3	0.0	0.6	1.00
124	2013	bv17 mb3	115	188	308	101.7	101.7	7.5	7.6	0.0	0.6	1.00
125	2014	bv17 mb3	83	251	354	101.4	101.5	8.1	8.2	-0.1	1.0	0.99
126	2015	bv17 mb3	62	165	186	100.7	100.8	7.4	7.5	0.0	1.3	0.98
127	2010	bv18 fl3	158	109	275	95.5	95.5	10.1	10.2	0.0	0.8	1.00
128	2011	bv18 fl3	159	125	261	96.7	96.7	10.1	10.3	0.0	0.8	1.00
129	2012	bv18 fl3	162	128	226	98.9	99.0	12.0	12.1	0.0	0.9	1.00
130	2013	bv18 fl3	115	188	308	99.3	99.3	11.7	12.0	0.0	1.1	1.00
131	2014	bv18 fl3	83	251	354	97.4	97.4	11.7	11.9	0.0	1.4	0.99
132	2015	bv18 fl3	62	165	186	100.3	100.2	12.0	12.4	0.1	2.0	0.99
133	2010	bv19 ket3	158	109	275	99.6	99.6	7.7	7.8	0.0	0.5	1.00
134	2011	bv19 ket3	159	125	261	102.2	102.3	7.0	7.2	-0.1	0.5	1.00
135	2012	bv19 ket3	162	128	226	99.4	99.4	7.0	7.2	0.0	0.6	1.00
136	2013	bv19 ket3	115	188	308	101.7	101.8	6.8	6.9	-0.1	0.5	1.00
137	2014	bv19 ket3	83	251	354	103.2	103.2	6.7	6.8	0.0	0.6	1.00
138	2015	bv19 ket3	62	165	186	101.8	101.8	6.6	6.6	0.0	0.7	0.99
139	2010	bv20 bhb3	108	54	113	98.7	98.6	9.0	9.2	0.1	0.5	1.00
140	2011	bv20 bhb3	52	45	47	101.4	101.3	9.3	9.5	0.0	0.4	1.00
141	2012	bv20 bhb3	50	70	88	97.7	97.6	9.6	9.9	0.2	0.5	1.00
142	2013	bv20 bhb3	40	98	117	101.5	101.5	10.6	10.7	0.0	0.4	1.00
143	2014	bv20 bhb3	29	130	117	104.9	105.0	9.6	9.7	0.0	0.3	1.00
144	2015	bv20 bhb3	27	98	78	98.6	98.7	10.1	10.3	0.0	0.4	1.00

RDC 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
145	2010	bv21 ace3	108	54	113	99.4	99.3	8.7	8.9	0.1	0.5	1.00
146	2011	bv21 ace3	52	45	47	102.4	102.3	9.4	9.5	0.1	0.4	1.00
147	2012	bv21 ace3	50	70	88	97.9	97.7	8.7	9.0	0.1	0.6	1.00
148	2013	bv21 ace3	40	98	117	101.3	101.2	9.5	9.8	0.2	0.6	1.00
149	2014	bv21 ace3	29	130	117	103.4	103.5	9.0	9.1	-0.1	0.5	1.00
150	2015	bv21 ace3	27	98	78	99.2	99.2	8.5	8.7	0.0	0.7	1.00
151	2010	bv22 rpl	165	228	548	99.7	99.9	8.5	8.4	-0.2	0.7	1.00
152	2011	bv22 rpl	167	275	591	100.7	100.9	7.3	7.2	-0.2	0.6	1.00
153	2012	bv22 rpl	169	261	476	101.4	101.6	8.1	8.0	-0.2	0.7	1.00
154	2013	bv22 rpl	122	366	613	101.5	101.7	7.8	7.8	-0.2	0.7	1.00
155	2014	bv22 rpl	85	562	819	99.7	99.8	7.5	7.4	-0.1	0.7	1.00
156	2015	bv22 rpl	71	608	766	100.9	101.1	7.9	8.1	-0.2	1.0	0.99
157	2016	bv22 rpl	70	588	850	100.5	100.5	7.0	7.1	0.0	1.4	0.98
158	2017	bv22 rpl	66	566	770	102.5	102.6	6.7	6.6	-0.1	1.6	0.97
159	2018	bv22 rpl	33	200	257	100.9	101.2	6.4	6.0	-0.2	1.9	0.96
160	2010	bv23 rp	165	228	548	102.4	102.6	9.3	9.8	-0.2	0.8	1.00
161	2011	bv23 rp	167	274	590	102.0	102.2	9.0	9.4	-0.1	0.8	1.00
162	2012	bv23 rp	169	260	474	101.1	101.2	9.7	10.1	-0.1	0.9	1.00
163	2013	bv23 rp	122	364	609	102.4	102.6	9.5	9.8	-0.2	0.8	1.00
164	2014	bv23 rp	85	561	817	99.7	99.6	9.1	9.5	0.1	0.9	1.00
165	2015	bv23 rp	71	605	760	101.8	101.5	10.6	10.8	0.3	1.3	0.99
166	2016	bv23 rp	70	568	826	99.1	98.6	8.9	9.5	0.5	2.0	0.98
167	2017	bv23 rp	64	352	484	101.1	101.0	8.0	8.5	0.1	2.0	0.97
168	2010	bv24 mb	165	228	548	97.5	97.4	8.7	8.7	0.0	0.5	1.00
169	2011	bv24 mb	167	274	590	101.1	101.0	6.6	6.7	0.1	0.6	1.00
170	2012	bv24 mb	169	260	474	98.5	98.5	6.9	7.0	0.1	0.6	1.00
171	2013	bv24 mb	122	364	609	101.3	101.2	7.1	7.2	0.0	0.6	1.00
172	2014	bv24 mb	85	561	817	101.0	101.1	7.9	7.9	-0.2	0.8	0.99
173	2015	bv24 mb	71	605	760	100.7	100.7	6.8	6.8	0.0	1.0	0.99
174	2016	bv24 mb	70	568	826	100.7	100.9	7.1	7.0	-0.2	1.2	0.99
175	2017	bv24 mb	64	352	484	101.2	101.3	6.5	6.6	-0.1	1.1	0.99
176	2010	bv25 fl	165	228	548	95.2	95.2	9.7	9.9	0.0	0.7	1.00
177	2011	bv25 fl	167	274	590	96.1	96.1	9.8	9.9	0.0	0.8	1.00
178	2012	bv25 fl	169	260	474	98.1	98.1	11.9	11.9	0.0	0.9	1.00
179	2013	bv25 fl	122	364	609	98.6	98.6	11.4	11.5	0.0	0.9	1.00
180	2014	bv25 fl	85	561	817	96.5	96.6	11.4	11.6	-0.1	1.3	0.99

RDC 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
181	2015	bv25 fl	71	605	760	100.5	100.4	11.8	12.0	0.2	1.7	0.99
182	2016	bv25 fl	70	568	826	101.3	101.3	9.8	10.0	0.1	2.2	0.98
183	2017	bv25 fl	64	352	484	102.3	102.6	11.5	11.1	-0.3	2.6	0.97
184	2010	bv26 ket	165	228	548	99.0	98.9	7.9	8.1	0.1	0.5	1.00
185	2011	bv26 ket	167	274	590	101.3	101.3	7.5	7.7	0.0	0.6	1.00
186	2012	bv26 ket	169	260	474	98.0	97.9	7.6	7.8	0.0	0.6	1.00
187	2013	bv26 ket	122	364	609	101.5	101.6	7.2	7.3	-0.1	0.6	1.00
188	2014	bv26 ket	85	561	817	102.9	102.8	7.0	7.0	0.1	0.6	1.00
189	2015	bv26 ket	71	605	760	101.1	101.1	6.7	6.7	0.0	0.8	0.99
190	2016	bv26 ket	70	568	826	101.3	101.3	6.2	6.4	0.0	1.1	0.99
191	2017	bv26 ket	64	352	484	101.7	101.7	6.0	6.0	0.0	1.6	0.96
192	2010	bv27 bhb	47	169	251	95.6	95.4	7.3	7.4	0.2	0.4	1.00
193	2011	bv27 bhb	100	120	202	102.0	101.9	10.1	10.2	0.0	0.5	1.00
194	2012	bv27 bhb	131	117	163	97.5	97.4	9.3	9.5	0.1	0.5	1.00
195	2013	bv27 bhb	74	123	187	101.5	101.4	9.7	9.9	0.0	0.5	1.00
196	2014	bv27 bhb	35	227	244	103.9	103.9	8.7	8.7	0.0	0.5	1.00
197	2015	bv27 bhb	40	188	204	100.7	100.4	8.2	8.2	0.2	0.5	1.00
198	2016	bv27 bhb	34	210	216	103.6	103.7	9.0	9.2	-0.1	0.7	1.00
199	2017	bv27 bhb	32	173	164	103.8	103.5	8.5	8.8	0.3	0.7	1.00
200	2010	bv29 GH	165	228	548	98.1	98.1	8.5	8.5	0.1	0.4	1.00
201	2011	bv29 GH	167	275	591	101.4	101.4	8.7	8.8	0.1	0.4	1.00
202	2012	bv29 GH	169	261	476	96.7	96.6	10.0	10.1	0.1	0.5	1.00
203	2013	bv29 GH	122	366	613	102.5	102.5	9.3	9.4	0.1	0.4	1.00
204	2014	bv29 GH	85	562	819	104.0	103.9	8.3	8.3	0.1	0.5	1.00
205	2015	bv29 GH	71	608	766	100.7	100.6	9.4	9.3	0.1	0.6	1.00
206	2016	bv29 GH	70	588	850	102.3	102.2	9.2	9.2	0.1	0.5	1.00
207	2017	bv29 GH	66	566	770	102.3	102.3	8.7	8.8	0.0	0.7	1.00
208	2018	bv29 GH	33	200	257	102.8	102.8	9.1	9.3	0.0	0.6	1.00

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	74	.	.	101.3	101.0	4.6	4.5	0.2	0.9	0.98
2	2020	bv1 rpl1	74	.	.	100.9	100.9	5.6	5.5	0.0	1.1	0.98
3	2021	bv1 rpl1	72	.	.	101.8	101.9	4.5	4.5	-0.1	0.8	0.98
4	2022	bv1 rpl1	56	.	.	103.5	103.5	4.8	5.0	0.1	0.8	0.99
5	2019	bv2 rp1	77	0	0	101.2	101.1	6.6	6.5	0.0	1.5	0.97
6	2020	bv2 rp1	74	.	.	102.1	102.1	7.2	7.4	0.1	1.4	0.98
7	2021	bv2 rp1	72	.	.	102.7	102.3	7.0	7.2	0.3	1.2	0.99
8	2022	bv2 rp1	56	.	.	104.1	103.7	6.3	6.6	0.4	1.2	0.98
9	2019	bv3 mb1	77	0	0	100.9	100.6	6.7	6.8	0.3	1.3	0.98
10	2020	bv3 mb1	74	.	.	103.2	103.2	5.8	5.7	0.0	1.2	0.98
11	2021	bv3 mb1	72	.	.	103.1	102.8	6.5	6.6	0.3	1.3	0.98
12	2022	bv3 mb1	56	.	.	104.4	103.8	5.2	5.3	0.5	1.0	0.98
13	2019	bv4 fl1	77	0	0	101.3	101.6	7.8	8.0	-0.4	1.5	0.98
14	2020	bv4 fl1	74	.	.	104.0	103.6	7.5	7.8	0.5	1.9	0.97
15	2021	bv4 fl1	72	.	.	103.2	103.6	7.3	7.3	-0.4	1.3	0.98
16	2022	bv4 fl1	56	.	.	103.9	103.2	6.8	6.8	0.8	1.5	0.98
17	2019	bv5 ket1	77	0	0	101.7	101.2	6.2	6.2	0.5	1.4	0.97
18	2020	bv5 ket1	74	.	.	102.7	102.6	6.5	6.7	0.1	1.1	0.99
19	2021	bv5 ket1	72	.	.	103.1	102.8	6.0	6.0	0.3	1.0	0.99
20	2022	bv5 ket1	56	.	.	104.0	103.3	5.7	5.8	0.6	1.3	0.97
21	2019	bv6 bhb1	77	0	0	102.1	102.0	7.4	7.3	0.1	0.7	1.00
22	2020	bv6 bhb1	74	.	.	103.4	103.3	7.3	7.3	0.1	0.7	1.00
23	2021	bv6 bhb1	72	.	.	104.8	104.7	7.1	7.2	0.1	0.6	1.00
24	2022	bv6 bhb1	56	.	.	103.4	103.3	6.8	6.9	0.1	0.6	1.00
25	2019	bv7 ace1	77	0	0	101.4	101.1	7.0	7.1	0.3	0.8	0.99
26	2020	bv7 ace1	74	.	.	103.6	103.3	6.8	6.8	0.3	0.7	1.00
27	2021	bv7 ace1	72	.	.	103.8	103.7	6.6	6.6	0.1	0.6	1.00
28	2022	bv7 ace1	56	.	.	103.5	103.2	6.2	6.2	0.3	0.7	0.99
29	2019	bv8 rpl2	77	0	0	102.2	102.2	5.7	5.4	0.1	1.4	0.97
30	2020	bv8 rpl2	74	.	.	101.9	101.8	5.9	5.7	0.1	1.0	0.98
31	2021	bv8 rpl2	72	.	.	102.9	102.9	5.9	5.8	-0.1	1.1	0.98
32	2022	bv8 rpl2	56	.	.	104.6	104.3	6.0	6.0	0.3	1.1	0.98
33	2019	bv9 rp2	77	0	0	99.4	99.0	7.0	7.1	0.4	1.5	0.98
34	2020	bv9 rp2	74	.	.	100.0	99.7	8.8	9.1	0.3	1.4	0.99
35	2021	bv9 rp2	72	.	.	100.9	100.3	7.8	8.2	0.6	1.2	0.99
36	2022	bv9 rp2	56	.	.	102.0	101.5	6.6	7.0	0.5	1.2	0.99

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	77	0	0	101.5	101.2	6.8	6.9	0.3	1.0	0.99
38	2020	bv10 mb2	74	.	.	103.2	103.2	5.3	5.2	0.1	0.9	0.98
39	2021	bv10 mb2	72	.	.	103.6	103.4	6.3	6.3	0.2	1.1	0.99
40	2022	bv10 mb2	56	.	.	104.5	104.3	4.8	4.8	0.3	0.7	0.99
41	2019	bv11 fl2	77	0	0	103.2	103.6	7.5	7.8	-0.4	1.7	0.98
42	2020	bv11 fl2	74	.	.	105.0	104.4	7.8	8.2	0.6	1.8	0.98
43	2021	bv11 fl2	72	.	.	104.8	105.1	6.7	6.7	-0.4	1.5	0.98
44	2022	bv11 fl2	56	.	.	105.5	105.1	7.1	7.3	0.5	1.6	0.98
45	2019	bv12 ket2	77	0	0	102.9	102.6	5.2	5.4	0.3	1.3	0.97
46	2020	bv12 ket2	74	.	.	104.3	104.2	5.3	5.6	0.1	0.9	0.99
47	2021	bv12 ket2	72	.	.	104.8	104.6	5.0	5.2	0.2	0.8	0.99
48	2022	bv12 ket2	56	.	.	104.9	104.3	4.5	4.7	0.6	1.0	0.98
49	2019	bv13 bhb2	77	0	0	103.5	103.4	7.5	7.7	0.0	0.6	1.00
50	2020	bv13 bhb2	74	.	.	104.8	104.8	7.6	7.7	0.0	0.5	1.00
51	2021	bv13 bhb2	72	.	.	106.6	106.7	7.3	7.5	-0.1	0.5	1.00
52	2022	bv13 bhb2	56	.	.	104.2	104.2	6.5	6.6	0.0	0.6	1.00
53	2019	bv14 ace2	77	0	0	103.6	103.4	6.4	6.6	0.1	0.7	0.99
54	2020	bv14 ace2	74	.	.	105.5	105.4	6.2	6.4	0.1	0.6	1.00
55	2021	bv14 ace2	72	.	.	106.3	106.3	6.0	6.2	0.0	0.6	1.00
56	2022	bv14 ace2	56	.	.	105.2	105.1	5.5	5.6	0.1	0.5	1.00
57	2019	bv15 rpl3	77	0	0	101.7	101.6	5.5	5.3	0.1	1.3	0.97
58	2020	bv15 rpl3	74	.	.	101.5	101.3	5.7	5.7	0.2	1.2	0.98
59	2021	bv15 rpl3	72	.	.	102.5	102.4	5.8	5.7	0.1	1.1	0.98
60	2022	bv15 rpl3	56	.	.	104.0	103.7	5.7	5.6	0.3	1.0	0.99
61	2019	bv16 rp3	77	0	0	100.7	100.4	6.8	7.0	0.3	1.2	0.98
62	2020	bv16 rp3	74	.	.	101.1	100.8	8.0	8.3	0.3	1.1	0.99
63	2021	bv16 rp3	72	.	.	102.2	101.8	7.4	7.8	0.4	1.0	0.99
64	2022	bv16 rp3	56	.	.	103.4	102.9	6.5	6.8	0.4	1.0	0.99
65	2019	bv17 mb3	77	0	0	101.9	101.7	6.6	6.6	0.2	0.9	0.99
66	2020	bv17 mb3	74	.	.	102.9	103.0	5.0	4.9	-0.1	0.8	0.99
67	2021	bv17 mb3	72	.	.	103.6	103.6	5.5	5.5	0.1	1.0	0.98
68	2022	bv17 mb3	56	.	.	104.3	104.4	4.4	4.5	-0.1	0.7	0.99
69	2019	bv18 fl3	77	0	0	102.8	103.1	7.5	7.8	-0.3	1.6	0.98
70	2020	bv18 fl3	74	.	.	104.9	104.4	7.5	8.0	0.5	1.9	0.97
71	2021	bv18 fl3	72	.	.	104.8	105.3	7.3	7.3	-0.5	1.4	0.98
72	2022	bv18 fl3	56	.	.	105.3	104.8	6.7	7.1	0.5	1.7	0.97

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	77	0	0	102.7	102.5	4.6	4.7	0.2	1.1	0.97
74	2020	bv19 ket3	74	.	.	103.9	103.9	5.0	5.3	0.0	1.0	0.98
75	2021	bv19 ket3	72	.	.	104.6	104.4	4.5	4.6	0.3	0.7	0.99
76	2022	bv19 ket3	56	.	.	104.9	104.3	4.2	4.3	0.5	1.0	0.97
77	2019	bv20 bhb3	77	0	0	103.0	103.1	6.5	6.6	0.0	0.6	1.00
78	2020	bv20 bhb3	74	.	.	104.3	104.3	6.4	6.5	0.0	0.6	1.00
79	2021	bv20 bhb3	72	.	.	105.7	105.8	6.2	6.4	-0.1	0.6	1.00
80	2022	bv20 bhb3	56	.	.	104.1	104.1	5.5	5.5	0.0	0.6	0.99
81	2019	bv21 ace3	77	0	0	102.9	102.8	5.4	5.6	0.1	0.7	0.99
82	2020	bv21 ace3	74	.	.	104.6	104.7	5.1	5.3	0.0	0.7	0.99
83	2021	bv21 ace3	72	.	.	105.2	105.1	5.1	5.3	0.1	0.7	0.99
84	2022	bv21 ace3	56	.	.	105.0	104.7	4.3	4.5	0.3	0.7	0.99
85	2019	bv22 rpl	74	.	.	101.5	101.4	5.0	4.8	0.1	1.2	0.97
86	2020	bv22 rpl	74	.	.	101.4	101.3	5.6	5.4	0.1	1.1	0.98
87	2021	bv22 rpl	72	.	.	102.4	102.4	5.4	5.2	0.0	0.9	0.98
88	2022	bv22 rpl	56	.	.	104.1	103.7	5.3	5.4	0.3	0.8	0.99
89	2019	bv23 rp	77	0	0	100.6	100.3	6.6	6.7	0.2	1.2	0.98
90	2020	bv23 rp	74	.	.	101.2	100.9	7.9	8.1	0.3	1.2	0.99
91	2021	bv23 rp	72	.	.	102.0	101.5	7.3	7.5	0.5	1.1	0.99
92	2022	bv23 rp	56	.	.	103.3	102.8	6.3	6.6	0.5	1.1	0.99
93	2019	bv24 mb	77	0	0	101.5	101.2	6.2	6.2	0.3	1.0	0.99
94	2020	bv24 mb	74	.	.	103.1	103.1	4.9	4.9	0.1	0.8	0.99
95	2021	bv24 mb	72	.	.	103.5	103.3	5.7	5.7	0.2	1.0	0.99
96	2022	bv24 mb	56	.	.	104.4	104.2	4.4	4.4	0.2	0.8	0.99
97	2019	bv25 fl	77	0	0	102.4	102.9	7.4	7.7	-0.5	1.5	0.98
98	2020	bv25 fl	74	.	.	104.7	104.2	7.4	7.9	0.5	1.8	0.97
99	2021	bv25 fl	72	.	.	104.4	104.7	7.0	6.9	-0.3	1.4	0.98
100	2022	bv25 fl	56	.	.	105.0	104.4	6.6	6.9	0.6	1.6	0.97
101	2019	bv26 ket	77	0	0	102.4	102.1	5.0	5.2	0.3	1.2	0.97
102	2020	bv26 ket	74	.	.	103.6	103.6	5.4	5.7	0.1	1.0	0.99
103	2021	bv26 ket	72	.	.	104.1	104.0	5.0	5.1	0.2	0.8	0.99
104	2022	bv26 ket	56	.	.	104.5	104.1	4.5	4.6	0.4	1.0	0.98
105	2019	bv27 bhb	77	0	0	102.6	102.4	5.9	6.1	0.2	0.7	0.99
106	2020	bv27 bhb	74	.	.	104.5	104.5	5.6	5.8	0.0	0.7	0.99
107	2021	bv27 bhb	72	.	.	105.1	105.0	5.6	5.7	0.1	0.6	0.99
108	2022	bv27 bhb	56	.	.	104.6	104.3	5.0	5.1	0.3	0.5	0.99

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	74	.	.	102.7	102.7	7.0	7.1	0.1	0.5	1.00
110	2020	bv29 GH	74	.	.	104.2	104.1	6.8	7.0	0.0	0.5	1.00
111	2021	bv29 GH	72	.	.	105.7	105.7	6.6	6.7	0.0	0.6	1.00
112	2022	bv29 GH	56	.	.	103.9	103.9	6.1	6.1	-0.1	0.6	0.99

RDC 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	bv1 rpl1	55379	98.2	98.3	6.3	6.3	-0.1	0.5	1.00
2	2016	bv1 rpl1	47712	98.7	98.8	6.2	6.2	-0.1	0.5	1.00
3	2017	bv1 rpl1	41178	98.4	98.5	6.1	6.2	-0.1	0.6	1.00
4	2018	bv1 rpl1	35777	98.0	98.1	6.3	6.3	-0.1	0.7	0.99
5	2019	bv1 rpl1	31257	98.5	98.6	6.2	6.2	-0.1	0.9	0.99
6	2020	bv1 rpl1	20112	98.2	98.5	6.3	6.2	-0.3	1.3	0.98
7	2021	bv1 rpl1	295	96.6	97.4	6.8	6.7	-0.8	1.7	0.97
8	2015	bv2 rp1	55379	101.1	101.2	6.8	7.0	-0.2	0.5	1.00
9	2016	bv2 rp1	47712	101.2	101.4	6.7	6.8	-0.2	0.6	1.00
10	2017	bv2 rp1	41178	99.5	99.6	6.5	6.5	-0.1	0.7	0.99
11	2018	bv2 rp1	35777	100.8	100.9	6.4	6.4	-0.1	0.8	0.99
12	2019	bv2 rp1	29343	100.1	99.9	6.1	6.0	0.1	1.1	0.98
13	2020	bv2 rp1	5385	101.4	101.2	5.8	5.6	0.2	1.5	0.96
14	2015	bv3 mb1	55379	97.5	97.5	5.9	6.0	0.1	0.5	1.00
15	2016	bv3 mb1	47712	99.0	99.0	5.9	6.0	0.0	0.5	1.00
16	2017	bv3 mb1	41178	98.0	98.0	5.9	6.0	0.0	0.7	0.99
17	2018	bv3 mb1	35777	98.4	98.4	5.8	5.9	0.0	0.7	0.99
18	2019	bv3 mb1	29343	98.0	98.0	5.7	5.8	0.0	1.0	0.99
19	2020	bv3 mb1	5385	98.5	98.5	5.7	5.7	0.1	1.4	0.97
20	2015	bv4 fl1	55379	98.2	98.2	7.5	7.5	0.0	0.6	1.00
21	2016	bv4 fl1	47712	97.6	97.6	7.5	7.6	0.0	0.6	1.00
22	2017	bv4 fl1	41178	97.4	97.4	8.3	8.3	0.0	0.8	1.00
23	2018	bv4 fl1	35777	97.8	97.7	7.5	7.5	0.1	1.1	0.99
24	2019	bv4 fl1	29343	98.7	98.7	7.8	7.8	0.0	1.3	0.99
25	2020	bv4 fl1	5385	99.1	99.5	6.9	6.7	-0.4	1.8	0.97
26	2015	bv5 ket1	55379	97.3	97.1	5.9	5.9	0.2	0.5	1.00
27	2016	bv5 ket1	47712	99.4	99.2	5.9	5.9	0.2	0.5	1.00
28	2017	bv5 ket1	41178	98.6	98.5	5.7	5.8	0.1	0.6	0.99
29	2018	bv5 ket1	35777	98.5	98.3	5.4	5.4	0.2	0.7	0.99
30	2019	bv5 ket1	29343	98.5	98.4	5.4	5.4	0.1	1.1	0.98
31	2020	bv5 ket1	5385	99.2	98.6	5.4	5.2	0.6	1.6	0.96
32	2015	bv6 bhb1	16514	98.4	98.2	7.3	7.2	0.2	0.4	1.00
33	2016	bv6 bhb1	7114	101.7	101.5	8.1	8.1	0.2	0.4	1.00
34	2017	bv6 bhb1	5516	99.7	99.5	7.6	7.6	0.2	0.4	1.00
35	2018	bv6 bhb1	4729	99.6	99.4	8.3	8.3	0.2	0.4	1.00
36	2019	bv6 bhb1	4009	101.7	101.4	8.3	8.3	0.2	0.5	1.00

RDC 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	2020	bv6 bhb1	1330	101.4	101.2	7.2	7.2	0.2	0.7	0.99
38	2015	bv7 ace1	16514	97.9	97.7	7.4	7.4	0.2	0.4	1.00
39	2016	bv7 ace1	7114	101.4	101.3	7.5	7.5	0.2	0.4	1.00
40	2017	bv7 ace1	5516	99.0	98.8	7.4	7.4	0.2	0.5	1.00
41	2018	bv7 ace1	4729	99.6	99.4	7.7	7.7	0.2	0.5	1.00
42	2019	bv7 ace1	4009	100.2	99.8	7.9	7.9	0.3	0.6	1.00
43	2020	bv7 ace1	1330	100.9	100.6	7.1	7.0	0.3	0.9	0.99
44	2015	bv8 rpl2	39173	99.1	99.3	6.7	6.7	-0.2	0.5	1.00
45	2016	bv8 rpl2	34101	99.3	99.6	6.3	6.3	-0.2	0.6	1.00
46	2017	bv8 rpl2	29399	99.2	99.4	6.2	6.3	-0.2	0.7	0.99
47	2018	bv8 rpl2	25426	98.9	99.1	6.1	6.1	-0.2	0.9	0.99
48	2019	bv8 rpl2	13795	99.2	99.2	6.1	5.9	0.0	1.2	0.98
49	2020	bv8 rpl2	318	100.2	100.2	5.8	5.4	0.0	1.7	0.96
50	2015	bv9 rp2	39173	101.0	101.2	8.6	8.9	-0.2	0.7	1.00
51	2016	bv9 rp2	34101	101.2	101.4	8.3	8.6	-0.2	0.7	1.00
52	2017	bv9 rp2	29285	99.3	99.1	8.4	8.7	0.1	0.8	1.00
53	2018	bv9 rp2	22307	101.0	101.0	7.6	7.8	0.0	1.2	0.99
54	2019	bv9 rp2	2914	99.3	98.8	7.3	7.4	0.4	1.7	0.97
55	2015	bv10 mb2	39173	98.2	98.0	6.4	6.5	0.1	0.5	1.00
56	2016	bv10 mb2	34101	99.6	99.6	6.3	6.4	0.1	0.6	1.00
57	2017	bv10 mb2	29285	98.6	98.5	6.0	6.2	0.0	0.8	0.99
58	2018	bv10 mb2	22307	99.0	99.0	5.8	5.9	0.0	0.9	0.99
59	2019	bv10 mb2	2914	99.2	99.4	5.9	6.0	-0.2	1.1	0.98
60	2015	bv11 fl2	39173	98.7	98.6	7.4	7.4	0.0	0.7	1.00
61	2016	bv11 fl2	34101	98.2	98.1	7.5	7.5	0.1	0.7	1.00
62	2017	bv11 fl2	29285	97.9	97.7	8.4	8.5	0.1	0.9	0.99
63	2018	bv11 fl2	22307	98.2	98.0	7.3	7.5	0.3	1.4	0.98
64	2019	bv11 fl2	2914	99.2	99.0	7.1	7.4	0.2	2.0	0.96
65	2015	bv12 ket2	39173	98.5	98.4	5.4	5.5	0.1	0.5	1.00
66	2016	bv12 ket2	34101	100.2	100.1	5.5	5.7	0.1	0.5	1.00
67	2017	bv12 ket2	29285	99.7	99.6	5.5	5.6	0.1	0.6	0.99
68	2018	bv12 ket2	22307	99.9	99.7	5.3	5.3	0.1	0.7	0.99
69	2019	bv12 ket2	2914	100.3	100.4	5.4	5.4	-0.1	1.1	0.98
70	2015	bv13 bhb2	6119	97.5	97.4	7.8	7.9	0.1	0.4	1.00
71	2016	bv13 bhb2	5389	101.4	101.3	8.6	8.7	0.1	0.4	1.00
72	2017	bv13 bhb2	4247	99.6	99.5	8.4	8.5	0.1	0.4	1.00

RDC 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	2018	bv13 bhb2	3426	99.9	99.8	8.4	8.5	0.1	0.5	1.00
74	2019	bv13 bhb2	760	103.1	103.0	8.6	8.7	0.0	0.6	1.00
75	2015	bv14 ace2	6119	97.1	96.9	6.9	7.0	0.2	0.4	1.00
76	2016	bv14 ace2	5389	101.4	101.3	7.1	7.3	0.1	0.4	1.00
77	2017	bv14 ace2	4247	99.4	99.2	7.3	7.4	0.1	0.5	1.00
78	2018	bv14 ace2	3426	100.7	100.6	7.0	7.2	0.1	0.5	1.00
79	2019	bv14 ace2	760	102.2	102.1	7.3	7.4	0.0	0.7	1.00
80	2015	bv15 rpl3	26583	98.6	98.8	6.9	6.9	-0.2	0.6	1.00
81	2016	bv15 rpl3	23499	99.0	99.2	6.5	6.5	-0.2	0.6	1.00
82	2017	bv15 rpl3	19199	99.0	99.2	6.5	6.4	-0.1	0.7	0.99
83	2018	bv15 rpl3	9980	98.5	98.7	6.4	6.3	-0.2	1.1	0.99
84	2019	bv15 rpl3	204	.	.	.	.	.	.	0.97
85	2015	bv16 rp3	26565	100.6	100.8	8.0	8.4	-0.1	0.7	1.00
86	2016	bv16 rp3	23265	101.1	101.3	7.6	7.9	-0.1	0.7	1.00
87	2017	bv16 rp3	15783	99.3	99.2	7.6	7.9	0.1	0.9	0.99
88	2018	bv16 rp3	1899	101.7	101.6	6.9	6.9	0.0	1.1	0.99
89	2015	bv17 mb3	26565	98.8	98.7	6.3	6.4	0.1	0.5	1.00
90	2016	bv17 mb3	23265	99.8	99.8	6.2	6.3	0.0	0.6	1.00
91	2017	bv17 mb3	15783	98.8	98.8	6.0	6.0	0.0	0.9	0.99
92	2018	bv17 mb3	1899	98.6	98.6	5.6	5.6	0.0	1.2	0.98
93	2015	bv18 fl3	26565	99.1	99.1	7.6	7.7	0.0	0.7	1.00
94	2016	bv18 fl3	23265	98.4	98.4	7.5	7.7	0.0	0.7	1.00
95	2017	bv18 fl3	15783	98.2	98.1	8.7	8.8	0.1	1.0	0.99
96	2018	bv18 fl3	1899	98.0	97.9	8.0	8.1	0.1	1.6	0.98
97	2015	bv19 ket3	26565	98.6	98.5	5.4	5.5	0.0	0.4	1.00
98	2016	bv19 ket3	23265	100.0	100.0	5.6	5.6	0.0	0.5	1.00
99	2017	bv19 ket3	15783	99.6	99.6	5.5	5.6	0.0	0.6	0.99
100	2018	bv19 ket3	1899	99.2	99.1	5.2	5.3	0.1	0.8	0.99
101	2015	bv20 bhb3	4005	97.1	97.0	7.1	7.2	0.1	0.4	1.00
102	2016	bv20 bhb3	3518	100.7	100.7	7.5	7.6	0.0	0.4	1.00
103	2017	bv20 bhb3	2539	99.1	99.1	7.5	7.6	0.0	0.5	1.00
104	2018	bv20 bhb3	536	99.5	99.5	7.4	7.5	0.0	0.6	1.00
105	2015	bv21 ace3	4005	96.6	96.4	6.1	6.3	0.2	0.5	1.00
106	2016	bv21 ace3	3518	100.3	100.2	6.2	6.4	0.1	0.4	1.00
107	2017	bv21 ace3	2539	98.6	98.6	6.5	6.6	0.1	0.5	1.00
108	2018	bv21 ace3	536	99.7	99.6	5.9	6.0	0.1	0.6	0.99

RDC 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	2015	bv22 rpl	55379	98.6	98.8	6.4	6.4	-0.2	0.5	1.00
110	2016	bv22 rpl	47712	99.0	99.2	6.1	6.1	-0.2	0.5	1.00
111	2017	bv22 rpl	41178	98.9	99.0	6.1	6.1	-0.1	0.6	0.99
112	2018	bv22 rpl	35777	98.5	98.6	6.1	6.0	-0.2	0.8	0.99
113	2019	bv22 rpl	31257	99.1	99.0	6.0	5.8	0.0	1.0	0.98
114	2020	bv22 rpl	20112	99.1	99.3	5.9	5.9	0.0	1.1	0.98
115	2021	bv22 rpl	295	97.2	100.6	5.9	3.9	0.3	1.1	0.96
116	2015	bv23 rp	55379	100.7	100.9	7.5	7.8	-0.2	0.6	1.00
117	2016	bv23 rp	47712	101.1	101.3	7.2	7.5	-0.2	0.6	1.00
118	2017	bv23 rp	41178	99.3	99.2	7.2	7.4	0.1	0.7	1.00
119	2018	bv23 rp	35777	100.7	100.7	6.7	6.7	0.0	1.0	0.99
120	2019	bv23 rp	29343	99.8	99.5	6.1	6.2	0.3	1.2	0.98
121	2020	bv23 rp	5385	101.2	101.0	5.8	5.7	0.2	1.5	0.97
122	2015	bv24 mb	55379	98.1	98.0	5.9	6.0	0.1	0.5	1.00
123	2016	bv24 mb	47712	99.5	99.4	5.8	5.9	0.0	0.5	1.00
124	2017	bv24 mb	41178	98.4	98.4	5.6	5.7	0.0	0.7	0.99
125	2018	bv24 mb	35777	98.9	98.9	5.4	5.5	0.0	0.8	0.99
126	2019	bv24 mb	29343	98.8	98.9	5.2	5.3	-0.1	1.0	0.98
127	2020	bv24 mb	5385	99.1	99.1	5.0	5.1	0.0	1.2	0.97
128	2015	bv25 fl	55379	98.6	98.6	7.2	7.3	0.0	0.6	1.00
129	2016	bv25 fl	47712	98.0	98.0	7.3	7.4	0.0	0.7	1.00
130	2017	bv25 fl	41178	97.7	97.6	8.3	8.4	0.1	0.9	0.99
131	2018	bv25 fl	35777	98.1	97.9	7.3	7.4	0.2	1.3	0.99
132	2019	bv25 fl	29343	99.2	99.2	7.5	7.7	-0.1	1.5	0.98
133	2020	bv25 fl	5385	99.5	99.9	6.8	6.7	-0.4	1.8	0.97
134	2015	bv26 ket	55379	98.0	97.9	5.3	5.4	0.1	0.4	1.00
135	2016	bv26 ket	47712	99.8	99.7	5.5	5.5	0.1	0.5	1.00
136	2017	bv26 ket	41178	99.2	99.1	5.4	5.4	0.1	0.5	0.99
137	2018	bv26 ket	35777	99.3	99.2	5.1	5.2	0.1	0.7	0.99
138	2019	bv26 ket	29343	99.3	99.3	5.0	5.1	0.0	1.0	0.98
139	2020	bv26 ket	5385	99.6	99.1	4.8	4.7	0.5	1.2	0.97
140	2015	bv27 bhb	16514	98.0	97.8	6.4	6.5	0.2	0.4	1.00
141	2016	bv27 bhb	7114	101.0	100.8	6.5	6.6	0.1	0.4	1.00
142	2017	bv27 bhb	5516	98.8	98.7	6.6	6.7	0.1	0.4	1.00
143	2018	bv27 bhb	4729	100.2	100.1	6.2	6.3	0.1	0.5	1.00
144	2019	bv27 bhb	4009	100.7	100.5	6.3	6.4	0.2	0.5	1.00

RDC 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
145	2020	bv27 bhb	1330	100.8	100.5	5.3	5.3	0.3	0.7	0.99
146	2015	bv29 GH	55379	98.2	98.1	6.1	6.2	0.1	0.4	1.00
147	2016	bv29 GH	47712	100.5	100.4	6.3	6.4	0.1	0.4	1.00
148	2017	bv29 GH	41178	99.6	99.5	6.0	6.0	0.1	0.4	1.00
149	2018	bv29 GH	35777	99.5	99.5	6.0	6.1	0.1	0.5	1.00
150	2019	bv29 GH	31257	100.3	100.3	6.0	6.0	0.0	1.4	0.97
151	2020	bv29 GH	20112	100.0	99.8	5.2	5.4	0.2	3.8	0.74
152	2021	bv29 GH	295	99.7	99.3	5.2	5.2	0.5	7.1	0.05

sum sta 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	bv1 rpl1	8539	99.1	99.2	6.6	6.6	-0.2	0.7	0.99
2	2016	bv1 rpl1	11907	99.9	100.0	6.4	6.4	-0.1	0.8	0.99
3	2017	bv1 rpl1	13811	99.3	99.4	6.3	6.3	-0.1	0.8	0.99
4	2018	bv1 rpl1	15380	99.4	99.4	6.4	6.4	-0.1	0.9	0.99
5	2019	bv1 rpl1	15701	100.1	100.1	6.1	6.0	0.0	0.9	0.99
6	2020	bv1 rpl1	13251	100.1	100.1	6.0	6.0	0.0	1.1	0.98
7	2021	bv1 rpl1	281	99.8	100.2	6.6	6.4	-0.4	1.4	0.98
8	2015	bv2 rp1	8539	101.0	101.1	8.7	8.8	-0.2	0.9	1.00
9	2016	bv2 rp1	11907	100.7	100.9	8.4	8.6	-0.2	0.9	0.99
10	2017	bv2 rp1	13811	99.4	99.4	8.4	8.5	-0.1	1.0	0.99
11	2018	bv2 rp1	15380	101.1	101.2	8.1	8.2	-0.1	1.1	0.99
12	2019	bv2 rp1	15266	100.5	100.4	7.9	7.9	0.2	1.3	0.99
13	2020	bv2 rp1	3948	102.4	102.1	7.4	7.3	0.3	1.6	0.98
14	2015	bv3 mb1	8539	98.0	97.9	7.1	7.1	0.1	0.8	0.99
15	2016	bv3 mb1	11907	99.7	99.6	7.0	7.1	0.0	0.8	0.99
16	2017	bv3 mb1	13811	98.5	98.5	6.9	7.0	0.0	0.9	0.99
17	2018	bv3 mb1	15380	99.5	99.5	6.7	6.7	0.0	0.9	0.99
18	2019	bv3 mb1	15266	99.0	98.9	6.7	6.8	0.1	1.1	0.99
19	2020	bv3 mb1	3948	99.8	99.7	6.7	6.8	0.1	1.5	0.98
20	2015	bv4 fl1	8539	97.8	97.7	7.2	7.3	0.1	0.8	0.99
21	2016	bv4 fl1	11907	100.3	100.1	7.1	7.1	0.2	0.8	0.99
22	2017	bv4 fl1	13811	99.1	99.0	6.9	6.9	0.1	0.8	0.99
23	2018	bv4 fl1	15380	99.6	99.4	6.7	6.7	0.2	0.9	0.99
24	2019	bv4 fl1	15266	99.5	99.3	6.8	6.8	0.2	1.3	0.98
25	2020	bv4 fl1	3948	100.4	99.6	6.8	6.8	0.8	1.6	0.97
26	2015	bv5 ket1	8539	98.5	98.5	9.2	9.3	0.0	1.0	0.99
27	2016	bv5 ket1	11907	97.4	97.4	9.4	9.5	0.0	1.0	0.99
28	2017	bv5 ket1	13811	97.7	97.7	10.0	10.0	0.0	1.1	0.99
29	2018	bv5 ket1	15380	98.5	98.4	9.1	9.1	0.1	1.3	0.99
30	2019	bv5 ket1	15266	99.3	99.4	9.5	9.6	-0.1	1.5	0.99
31	2020	bv5 ket1	3948	100.1	100.6	8.6	8.3	-0.5	1.9	0.97
32	2015	bv6 bhb1	6515	99.8	100.1	7.9	7.9	-0.3	0.8	0.99
33	2016	bv6 bhb1	9080	100.0	100.3	7.5	7.5	-0.2	0.9	0.99
34	2017	bv6 bhb1	10565	99.8	100.0	7.5	7.5	-0.2	0.9	0.99
35	2018	bv6 bhb1	11856	99.9	100.1	7.2	7.1	-0.2	1.1	0.99
36	2019	bv6 bhb1	8591	100.5	100.5	7.3	7.1	0.0	1.4	0.98
37	2020	bv6 bhb1	276	100.9	101.0	6.7	6.5	-0.1	1.8	0.96

sum sta 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
38	2015	bv7 ace1	6515	100.5	100.6	10.2	10.6	-0.1	1.0	1.00
39	2016	bv7 ace1	9080	100.2	100.2	9.9	10.3	-0.1	1.0	1.00
40	2017	bv7 ace1	10556	98.5	98.3	10.0	10.4	0.2	1.1	0.99
41	2018	bv7 ace1	11118	100.4	100.3	9.4	9.6	0.1	1.4	0.99
42	2019	bv7 ace1	2115	98.3	97.6	8.7	8.9	0.7	1.7	0.98
43	2015	bv8 rpl2	6515	99.0	98.9	7.2	7.3	0.1	0.7	1.00
44	2016	bv8 rpl2	9080	100.5	100.4	7.0	7.1	0.0	0.8	0.99
45	2017	bv8 rpl2	10556	99.2	99.2	6.9	7.0	0.1	0.9	0.99
46	2018	bv8 rpl2	11118	100.2	100.3	6.5	6.6	0.0	1.0	0.99
47	2019	bv8 rpl2	2115	99.8	100.0	6.7	6.7	-0.2	1.2	0.98
48	2015	bv9 rp2	6515	99.3	99.1	6.2	6.3	0.1	0.6	0.99
49	2016	bv9 rp2	9080	101.3	101.2	6.1	6.3	0.1	0.7	0.99
50	2017	bv9 rp2	10556	100.4	100.3	6.0	6.1	0.1	0.7	0.99
51	2018	bv9 rp2	11118	101.3	101.2	5.7	5.8	0.2	0.8	0.99
52	2019	bv9 rp2	2115	101.3	101.4	5.9	6.0	-0.1	1.0	0.99
53	2015	bv10 mb2	6515	99.5	99.4	9.1	9.1	0.1	1.0	0.99
54	2016	bv10 mb2	9080	98.4	98.3	9.3	9.4	0.1	1.1	0.99
55	2017	bv10 mb2	10556	98.7	98.5	10.1	10.2	0.1	1.2	0.99
56	2018	bv10 mb2	11118	99.4	99.0	8.9	9.1	0.4	1.6	0.99
57	2019	bv10 mb2	2115	99.9	99.6	9.1	9.4	0.2	2.0	0.98
58	2015	bv11 fl2	4655	99.5	99.7	7.8	7.7	-0.2	0.8	0.99
59	2016	bv11 fl2	6456	99.9	100.1	7.6	7.5	-0.2	0.9	0.99
60	2017	bv11 fl2	7448	99.8	99.9	7.5	7.5	-0.1	1.0	0.99
61	2018	bv11 fl2	5854	99.9	100.1	7.2	7.1	-0.2	1.2	0.99
62	2019	bv11 fl2	154	.	.	.	.	.	.	0.97
63	2015	bv12 ket2	4655	100.7	100.8	9.5	10.0	-0.1	1.0	1.00
64	2016	bv12 ket2	6434	100.7	100.8	9.1	9.6	-0.1	1.0	1.00
65	2017	bv12 ket2	6648	99.3	99.1	9.2	9.6	0.2	1.1	0.99
66	2018	bv12 ket2	1396	102.9	102.9	8.3	8.5	0.0	1.2	0.99
67	2015	bv13 bhb2	4655	99.7	99.6	7.0	7.1	0.1	0.7	1.00
68	2016	bv13 bhb2	6434	100.8	100.8	6.7	6.8	0.0	0.7	0.99
69	2017	bv13 bhb2	6648	99.7	99.7	6.5	6.6	0.0	1.0	0.99
70	2018	bv13 bhb2	1396	99.9	99.9	6.0	6.0	0.0	1.2	0.98
71	2015	bv14 ace2	4655	99.4	99.4	5.9	6.0	0.0	0.6	0.99
72	2016	bv14 ace2	6434	101.1	101.1	5.9	6.0	0.0	0.6	0.99
73	2017	bv14 ace2	6648	100.4	100.4	5.8	5.9	0.0	0.7	0.99
74	2018	bv14 ace2	1396	100.5	100.4	5.4	5.5	0.1	0.8	0.99

sum sta 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
75	2015	bv15 rpl3	4655	99.9	99.9	9.1	9.2	0.0	1.1	0.99
76	2016	bv15 rpl3	6434	98.8	98.8	9.4	9.5	0.0	1.1	0.99
77	2017	bv15 rpl3	6648	99.1	99.1	10.3	10.5	0.1	1.3	0.99
78	2018	bv15 rpl3	1396	99.8	99.6	9.1	9.2	0.2	1.8	0.98
79	2015	bv16 rp3	3158	98.3	98.1	8.3	8.3	0.2	0.6	1.00
80	2016	bv16 rp3	2238	101.3	101.2	8.6	8.6	0.2	0.6	1.00
81	2017	bv16 rp3	3018	99.5	99.3	8.4	8.4	0.1	0.6	1.00
82	2018	bv16 rp3	3166	99.9	99.7	8.9	8.9	0.2	0.6	1.00
83	2019	bv16 rp3	3096	101.5	101.3	9.1	9.1	0.2	0.6	1.00
84	2020	bv16 rp3	1133	101.2	101.0	8.3	8.3	0.3	0.7	1.00
85	2015	bv17 mb3	3158	97.6	97.4	8.4	8.4	0.2	0.6	1.00
86	2016	bv17 mb3	2238	100.9	100.7	8.3	8.3	0.2	0.6	1.00
87	2017	bv17 mb3	3018	98.7	98.5	8.3	8.3	0.2	0.6	1.00
88	2018	bv17 mb3	3166	99.9	99.7	8.3	8.3	0.2	0.6	1.00
89	2019	bv17 mb3	3096	100.1	99.8	8.6	8.6	0.4	0.6	1.00
90	2020	bv17 mb3	1133	100.9	100.5	8.0	8.1	0.3	0.8	1.00
91	2015	bv18 fl3	1408	97.4	97.3	8.3	8.4	0.1	0.5	1.00
92	2016	bv18 fl3	1780	101.5	101.5	9.2	9.3	0.1	0.5	1.00
93	2017	bv18 fl3	2414	99.6	99.5	9.1	9.2	0.1	0.6	1.00
94	2018	bv18 fl3	2486	100.4	100.4	9.1	9.2	0.1	0.6	1.00
95	2019	bv18 fl3	676	103.7	103.6	9.7	9.8	0.0	0.6	1.00
96	2015	bv19 ket3	1408	97.1	97.0	7.5	7.6	0.1	0.5	1.00
97	2016	bv19 ket3	1780	101.4	101.4	7.8	8.0	0.1	0.5	1.00
98	2017	bv19 ket3	2414	99.5	99.4	7.7	7.9	0.1	0.6	1.00
99	2018	bv19 ket3	2486	101.4	101.3	7.6	7.7	0.1	0.6	1.00
100	2019	bv19 ket3	676	102.6	102.6	8.0	8.1	0.1	0.6	1.00
101	2015	bv20 bhb3	979	97.5	97.4	7.6	7.7	0.1	0.5	1.00
102	2016	bv20 bhb3	1225	100.9	100.9	8.0	8.1	0.0	0.5	1.00
103	2017	bv20 bhb3	1587	99.4	99.3	8.0	8.1	0.0	0.6	1.00
104	2018	bv20 bhb3	499	99.4	99.3	7.6	7.7	0.1	0.7	1.00
105	2015	bv21 ace3	979	97.2	97.1	6.6	6.8	0.2	0.5	1.00
106	2016	bv21 ace3	1225	100.6	100.5	6.7	6.9	0.1	0.6	1.00
107	2017	bv21 ace3	1587	99.1	99.0	6.7	6.9	0.1	0.6	1.00
108	2018	bv21 ace3	499	100.0	99.8	6.1	6.2	0.2	0.7	0.99
109	2015	bv22 rpl	8539	99.4	99.6	7.2	7.2	-0.2	0.8	0.99
110	2016	bv22 rpl	11907	99.9	100.1	6.9	6.9	-0.2	0.8	0.99
111	2017	bv22 rpl	13811	99.6	99.7	6.9	6.9	-0.1	0.9	0.99

sum sta 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
112	2018	bv22 rpl	15380	99.7	99.8	6.7	6.7	-0.1	1.0	0.99
113	2019	bv22 rpl	15701	100.4	100.4	6.6	6.5	0.0	1.2	0.98
114	2020	bv22 rpl	13251	100.8	100.7	6.3	6.3	0.1	1.2	0.98
115	2021	bv22 rpl	281	99.7	100.0	6.7	6.6	-0.3	1.4	0.98
116	2015	bv23 rp	8539	100.6	100.7	9.2	9.6	-0.1	0.9	1.00
117	2016	bv23 rp	11907	100.4	100.5	8.9	9.3	-0.1	1.0	1.00
118	2017	bv23 rp	13811	98.9	98.7	8.9	9.2	0.1	1.0	0.99
119	2018	bv23 rp	15380	100.7	100.6	8.4	8.6	0.1	1.2	0.99
120	2019	bv23 rp	15266	100.0	99.6	8.0	8.2	0.4	1.3	0.99
121	2020	bv23 rp	3948	102.0	101.7	7.5	7.6	0.3	1.5	0.98
122	2015	bv24 mb	8539	98.9	98.8	6.7	6.8	0.1	0.7	0.99
123	2016	bv24 mb	11907	100.2	100.2	6.5	6.6	0.0	0.7	0.99
124	2017	bv24 mb	13811	99.1	99.1	6.3	6.4	0.0	0.9	0.99
125	2018	bv24 mb	15380	100.1	100.1	6.0	6.1	-0.1	0.9	0.99
126	2019	bv24 mb	15266	99.9	99.9	5.8	5.8	0.0	1.0	0.99
127	2020	bv24 mb	3948	100.6	100.5	5.5	5.6	0.1	1.1	0.98
128	2015	bv25 fl	8539	98.7	98.6	6.1	6.2	0.1	0.6	0.99
129	2016	bv25 fl	11907	100.8	100.7	6.1	6.2	0.1	0.7	0.99
130	2017	bv25 fl	13811	99.9	99.8	5.9	6.0	0.1	0.7	0.99
131	2018	bv25 fl	15380	100.7	100.6	5.7	5.7	0.1	0.8	0.99
132	2019	bv25 fl	15266	100.6	100.5	5.7	5.7	0.1	1.0	0.98
133	2020	bv25 fl	3948	101.0	100.4	5.4	5.5	0.6	1.2	0.98
134	2015	bv26 ket	8539	99.2	99.2	8.9	9.0	0.0	1.0	0.99
135	2016	bv26 ket	11907	98.1	98.0	9.2	9.3	0.0	1.0	0.99
136	2017	bv26 ket	13811	98.3	98.1	10.1	10.2	0.1	1.2	0.99
137	2018	bv26 ket	15380	99.1	98.8	8.9	9.1	0.3	1.5	0.99
138	2019	bv26 ket	15266	100.1	100.2	9.3	9.5	-0.1	1.7	0.98
139	2020	bv26 ket	3948	101.0	101.4	8.4	8.3	-0.4	1.9	0.98
140	2015	bv27 bhb	6515	98.7	98.6	7.5	7.6	0.1	0.6	1.00
141	2016	bv27 bhb	9080	101.2	101.1	7.6	7.6	0.1	0.6	1.00
142	2017	bv27 bhb	10565	99.8	99.7	7.4	7.5	0.1	0.6	1.00
143	2018	bv27 bhb	11856	100.4	100.3	7.4	7.5	0.1	0.6	1.00
144	2019	bv27 bhb	8591	101.3	101.3	7.5	7.6	0.0	0.6	1.00
145	2020	bv27 bhb	276	99.5	99.3	7.2	7.2	0.2	0.6	1.00
146	2015	bv29 GH	8539	98.9	98.9	6.2	6.2	0.0	0.0	1.00
147	2016	bv29 GH	11907	101.4	101.4	6.3	6.3	0.0	0.0	1.00
148	2017	bv29 GH	13811	99.7	99.7	6.2	6.2	0.0	0.0	1.00

sum sta 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
149	2018	bv29 GH	15380	100.3	100.3	6.2	6.2	0.0	0.0	1.00
150	2019	bv29 GH	15701	100.4	100.4	6.0	6.0	0.0	0.0	1.00
151	2020	bv29 GH	13251	100.1	100.1	4.9	4.9	0.0	0.0	1.00
152	2021	bv29 GH	281	99.8	99.8	4.9	4.9	0.0	0.0	1.00

sum sta 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	bv1 rpl1	5634	100.0	100.0	6.0	6.0	0.0	0.9	0.99
2	2020	bv1 rpl1	10414	100.4	100.5	5.9	5.9	-0.1	1.1	0.98
3	2021	bv1 rpl1	23494	100.3	100.5	5.9	5.8	-0.2	1.1	0.98
4	2022	bv1 rpl1	22038	101.2	101.3	5.5	5.5	-0.1	0.9	0.99
5	2023	bv1 rpl1	679	101.0	101.1	5.6	5.6	-0.1	0.9	0.99
6	2019	bv2 rp1	6069	100.1	100.0	7.8	7.9	0.2	1.2	0.99
7	2020	bv2 rp1	19717	102.0	102.0	7.3	7.4	0.0	1.5	0.98
8	2021	bv2 rp1	23775	101.2	101.3	6.9	7.1	0.0	1.2	0.98
9	2022	bv2 rp1	22038	102.3	102.1	6.7	6.8	0.2	1.2	0.99
10	2023	bv2 rp1	679	102.9	102.8	6.6	6.7	0.1	1.2	0.98
11	2019	bv3 mb1	6069	99.0	98.9	6.7	6.8	0.1	1.1	0.99
12	2020	bv3 mb1	19717	100.8	100.9	6.4	6.6	-0.1	1.3	0.98
13	2021	bv3 mb1	23775	100.8	100.8	6.4	6.5	0.0	1.2	0.98
14	2022	bv3 mb1	22038	101.7	101.5	6.0	6.0	0.2	1.1	0.98
15	2023	bv3 mb1	679	102.8	102.7	5.6	5.6	0.1	1.0	0.98
16	2019	bv4 fl1	6069	99.2	99.4	9.5	9.5	-0.1	1.5	0.99
17	2020	bv4 fl1	19717	100.4	100.3	8.2	8.0	0.1	1.8	0.98
18	2021	bv4 fl1	23775	100.5	100.4	7.7	7.8	0.1	1.4	0.98
19	2022	bv4 fl1	22038	100.8	100.7	7.5	7.5	0.1	1.5	0.98
20	2023	bv4 fl1	679	101.3	100.9	7.3	7.3	0.5	1.6	0.98
21	2019	bv5 ket1	6069	99.7	99.5	6.7	6.7	0.2	1.2	0.98
22	2020	bv5 ket1	19717	100.9	100.5	6.5	6.6	0.4	1.3	0.98
23	2021	bv5 ket1	23775	101.3	101.2	6.5	6.5	0.1	1.1	0.99
24	2022	bv5 ket1	22038	101.7	101.3	6.1	6.2	0.3	1.1	0.98
25	2023	bv5 ket1	679	102.5	102.2	6.0	6.2	0.2	1.1	0.98
26	2019	bv6 bhb1	18239	100.4	100.2	7.8	7.8	0.2	0.7	1.00
27	2020	bv6 bhb1	22532	100.7	100.5	7.3	7.3	0.1	0.6	1.00
28	2021	bv6 bhb1	23775	101.9	101.7	7.5	7.5	0.1	0.6	1.00
29	2022	bv6 bhb1	22038	102.1	102.0	6.9	6.9	0.1	0.6	1.00
30	2023	bv6 bhb1	679	102.0	101.9	7.1	7.1	0.1	0.6	1.00
31	2019	bv7 ace1	18239	99.8	99.6	7.5	7.5	0.2	0.7	1.00
32	2020	bv7 ace1	22532	100.9	100.7	7.2	7.2	0.2	0.7	1.00
33	2021	bv7 ace1	23775	101.6	101.5	7.0	7.0	0.2	0.7	1.00
34	2022	bv7 ace1	22038	102.0	101.8	6.6	6.6	0.2	0.7	0.99
35	2023	bv7 ace1	679	102.4	102.2	6.5	6.5	0.2	0.7	0.99
36	2019	bv8 rpl2	12744	101.2	101.2	7.2	7.0	0.0	1.4	0.98
37	2020	bv8 rpl2	23389	101.4	101.3	6.7	6.6	0.1	1.4	0.98

sum sta 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
38	2021	bv8 rpl2	23775	100.9	101.1	6.5	6.5	-0.2	1.2	0.98
39	2022	bv8 rpl2	22038	102.1	102.1	6.3	6.1	0.0	1.1	0.98
40	2023	bv8 rpl2	679	101.8	101.8	6.1	6.0	0.1	1.1	0.98
41	2019	bv9 rp2	19220	99.2	98.6	8.6	8.9	0.5	1.5	0.99
42	2020	bv9 rp2	23665	101.0	100.9	8.2	8.4	0.1	1.5	0.98
43	2021	bv9 rp2	23775	100.1	99.9	7.8	8.1	0.2	1.3	0.99
44	2022	bv9 rp2	22038	100.8	100.5	7.4	7.7	0.3	1.2	0.99
45	2023	bv9 rp2	679	101.1	100.9	7.3	7.5	0.3	1.2	0.99
46	2019	bv10 mb2	19220	100.0	99.9	6.3	6.3	0.0	1.0	0.99
47	2020	bv10 mb2	23665	101.2	101.3	5.9	6.0	-0.1	1.0	0.99
48	2021	bv10 mb2	23775	101.4	101.4	6.0	6.1	0.0	0.9	0.99
49	2022	bv10 mb2	22038	102.2	102.2	5.7	5.7	0.1	0.9	0.99
50	2023	bv10 mb2	679	103.0	103.0	5.3	5.4	0.1	0.9	0.99
51	2019	bv11 fl2	19220	100.7	100.9	9.5	9.6	-0.1	1.8	0.98
52	2020	bv11 fl2	23665	101.4	101.1	8.3	8.3	0.3	1.8	0.98
53	2021	bv11 fl2	23775	101.7	101.6	7.7	7.9	0.1	1.5	0.98
54	2022	bv11 fl2	22038	101.9	101.8	7.6	7.6	0.1	1.6	0.98
55	2023	bv11 fl2	679	101.8	101.2	7.4	7.5	0.6	1.5	0.98
56	2019	bv12 ket2	19220	101.1	101.0	5.6	5.8	0.1	1.0	0.98
57	2020	bv12 ket2	23665	101.9	101.6	5.3	5.5	0.3	1.0	0.98
58	2021	bv12 ket2	23775	102.6	102.6	5.3	5.5	0.1	0.9	0.99
59	2022	bv12 ket2	22038	102.6	102.4	4.9	5.1	0.2	0.9	0.99
60	2023	bv12 ket2	679	103.7	103.5	4.8	5.0	0.2	0.9	0.99
61	2019	bv13 bhb2	20659	101.8	101.8	8.1	8.2	0.0	0.6	1.00
62	2020	bv13 bhb2	23665	101.3	101.2	7.4	7.4	0.1	0.6	1.00
63	2021	bv13 bhb2	23775	103.0	103.0	7.5	7.6	0.0	0.6	1.00
64	2022	bv13 bhb2	22038	102.8	102.8	6.8	6.9	0.0	0.6	1.00
65	2023	bv13 bhb2	679	102.9	102.9	7.1	7.3	0.0	0.6	1.00
66	2019	bv14 ace2	20659	102.1	102.1	6.9	7.0	0.1	0.6	1.00
67	2020	bv14 ace2	23665	102.5	102.3	6.3	6.4	0.1	0.6	1.00
68	2021	bv14 ace2	23775	103.5	103.5	6.2	6.3	0.0	0.6	1.00
69	2022	bv14 ace2	22038	103.5	103.4	5.7	5.9	0.1	0.6	0.99
70	2023	bv14 ace2	679	104.2	104.1	5.7	5.9	0.1	0.6	0.99
71	2019	bv15 rpl3	21181	100.5	100.4	7.1	6.9	0.1	1.3	0.98
72	2020	bv15 rpl3	23665	100.9	100.8	6.6	6.5	0.1	1.3	0.98
73	2021	bv15 rpl3	23775	100.6	100.7	6.6	6.5	-0.2	1.2	0.98
74	2022	bv15 rpl3	22038	101.7	101.6	6.3	6.1	0.1	1.1	0.99

sum sta 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
75	2023	bv15 rpl3	679	101.6	101.5	6.1	6.0	0.1	1.1	0.98
76	2019	bv16 rp3	21335	100.0	99.5	8.0	8.3	0.5	1.4	0.99
77	2020	bv16 rp3	23665	101.5	101.2	7.5	7.8	0.3	1.4	0.98
78	2021	bv16 rp3	23775	100.9	100.7	7.2	7.5	0.2	1.1	0.99
79	2022	bv16 rp3	22038	101.5	101.2	6.9	7.2	0.3	1.1	0.99
80	2023	bv16 rp3	679	101.6	101.3	6.8	7.1	0.3	1.1	0.99
81	2019	bv17 mb3	21335	100.5	100.6	5.8	5.8	-0.1	1.0	0.99
82	2020	bv17 mb3	23665	101.4	101.4	5.3	5.4	-0.1	0.9	0.99
83	2021	bv17 mb3	23775	101.6	101.7	5.5	5.6	-0.1	0.9	0.99
84	2022	bv17 mb3	22038	102.4	102.4	5.3	5.3	0.0	0.8	0.99
85	2023	bv17 mb3	679	103.0	103.0	5.0	5.0	-0.1	0.8	0.99
86	2019	bv18 fl3	21335	100.4	100.5	9.4	9.6	-0.1	1.8	0.98
87	2020	bv18 fl3	23665	101.3	101.2	8.3	8.3	0.1	1.9	0.97
88	2021	bv18 fl3	23775	101.7	101.6	7.8	8.0	0.1	1.5	0.98
89	2022	bv18 fl3	22038	101.7	101.7	7.6	7.7	0.0	1.6	0.98
90	2023	bv18 fl3	679	102.0	101.4	7.3	7.5	0.6	1.6	0.98
91	2019	bv19 ket3	21335	101.0	101.0	5.4	5.4	0.0	0.9	0.99
92	2020	bv19 ket3	23665	101.7	101.5	5.0	5.2	0.2	1.0	0.98
93	2021	bv19 ket3	23775	102.4	102.4	5.1	5.2	0.0	0.8	0.99
94	2022	bv19 ket3	22038	102.5	102.3	4.7	4.8	0.2	0.8	0.99
95	2023	bv19 ket3	679	103.6	103.4	4.6	4.8	0.1	0.8	0.99
96	2019	bv20 bhb3	21335	101.5	101.5	6.9	7.0	0.0	0.6	1.00
97	2020	bv20 bhb3	23665	101.3	101.2	6.3	6.4	0.1	0.6	1.00
98	2021	bv20 bhb3	23775	102.7	102.7	6.4	6.5	-0.1	0.5	1.00
99	2022	bv20 bhb3	22038	102.6	102.6	5.8	6.0	0.0	0.6	1.00
100	2023	bv20 bhb3	679	102.9	102.9	6.1	6.2	0.0	0.6	1.00
101	2019	bv21 ace3	21335	101.5	101.5	5.9	6.0	0.0	0.7	0.99
102	2020	bv21 ace3	23665	102.1	101.9	5.3	5.5	0.2	0.7	0.99
103	2021	bv21 ace3	23775	102.9	102.9	5.3	5.4	0.0	0.6	0.99
104	2022	bv21 ace3	22038	102.9	102.8	4.9	5.1	0.1	0.6	0.99
105	2023	bv21 ace3	679	103.8	103.7	4.8	4.9	0.1	0.7	0.99
106	2019	bv22 rpl	5634	100.5	100.5	6.5	6.5	0.0	1.1	0.98
107	2020	bv22 rpl	10414	100.9	100.9	6.1	6.1	0.0	1.2	0.98
108	2021	bv22 rpl	23494	100.6	100.8	6.2	6.1	-0.2	1.1	0.98
109	2022	bv22 rpl	22038	101.6	101.6	5.9	5.8	0.0	1.0	0.99
110	2023	bv22 rpl	679	101.5	101.5	5.8	5.7	0.0	1.0	0.98
111	2019	bv23 rp	6069	99.6	99.2	7.8	8.0	0.4	1.3	0.99

sum sta 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
112	2020	bv23 rp	19717	101.5	101.3	7.5	7.6	0.1	1.4	0.98
113	2021	bv23 rp	23775	100.8	100.7	7.1	7.4	0.1	1.1	0.99
114	2022	bv23 rp	22038	101.6	101.3	6.8	7.0	0.3	1.1	0.99
115	2023	bv23 rp	679	101.9	101.6	6.8	7.0	0.2	1.1	0.99
116	2019	bv24 mb	6069	99.9	99.9	5.8	5.9	0.0	0.9	0.99
117	2020	bv24 mb	19717	101.2	101.3	5.4	5.6	-0.1	1.0	0.98
118	2021	bv24 mb	23775	101.3	101.4	5.6	5.7	-0.1	0.9	0.99
119	2022	bv24 mb	22038	102.1	102.1	5.3	5.3	0.1	0.9	0.99
120	2023	bv24 mb	679	102.9	102.9	4.9	5.0	0.0	0.8	0.99
121	2019	bv25 fl	6069	100.0	100.2	9.2	9.3	-0.2	1.6	0.98
122	2020	bv25 fl	19717	101.1	100.8	8.1	8.0	0.2	1.8	0.98
123	2021	bv25 fl	23775	101.3	101.3	7.6	7.8	0.1	1.4	0.98
124	2022	bv25 fl	22038	101.5	101.4	7.4	7.5	0.1	1.5	0.98
125	2023	bv25 fl	679	101.7	101.2	7.2	7.3	0.5	1.6	0.98
126	2019	bv26 ket	6069	100.6	100.5	5.7	5.7	0.1	1.0	0.98
127	2020	bv26 ket	19717	101.6	101.3	5.3	5.5	0.3	1.0	0.98
128	2021	bv26 ket	23775	102.1	102.1	5.4	5.5	0.1	0.9	0.99
129	2022	bv26 ket	22038	102.3	102.0	5.0	5.1	0.3	0.9	0.98
130	2023	bv26 ket	679	103.3	103.1	4.9	5.1	0.2	0.9	0.98
131	2019	bv27 bhb	18239	101.2	101.1	6.3	6.4	0.1	0.6	0.99
132	2020	bv27 bhb	22532	101.9	101.7	5.8	5.9	0.2	0.6	0.99
133	2021	bv27 bhb	23775	102.7	102.6	5.8	5.9	0.1	0.6	1.00
134	2022	bv27 bhb	22038	102.8	102.6	5.4	5.5	0.1	0.6	0.99
135	2023	bv27 bhb	679	103.5	103.4	5.2	5.4	0.1	0.6	0.99
136	2019	bv29 GH	5634	101.6	101.6	7.4	7.5	0.0	0.6	1.00
137	2020	bv29 GH	10414	101.2	101.2	6.8	6.8	0.1	0.6	1.00
138	2021	bv29 GH	23494	102.5	102.5	6.9	6.9	0.0	0.5	1.00
139	2022	bv29 GH	22038	102.5	102.5	6.3	6.3	0.0	0.6	1.00
140	2023	bv29 GH	679	102.7	102.6	6.5	6.6	0.0	0.6	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
1	2010	bv1 rpl1	55	157	164	97.4	97.3	10.0	10.1	0.0	0.7	1.00
2	2011	bv1 rpl1	47	128	120	98.2	98.2	10.0	10.0	0.0	0.5	1.00
3	2012	bv1 rpl1	47	262	457	95.3	95.3	10.6	10.8	0.0	0.7	1.00
4	2013	bv1 rpl1	50	206	377	99.7	99.8	10.3	10.2	0.0	0.7	1.00
5	2014	bv1 rpl1	36	356	440	95.9	96.0	14.0	14.0	0.0	0.7	1.00
6	2015	bv1 rpl1	30	821	795	98.7	98.9	11.7	11.7	-0.3	0.8	1.00
7	2016	bv1 rpl1	26	590	613	102.7	102.3	7.9	8.0	0.3	1.3	0.99
8	2017	bv1 rpl1	29	761	617	99.9	99.9	7.6	7.9	-0.1	1.8	0.97
9	2018	bv1 rpl1	11	258	282	100.6	100.8	9.9	10.6	-0.2	1.4	0.99
10	2010	bv2 rp1	55	157	164	105.4	105.4	11.4	12.1	0.0	1.1	1.00
11	2011	bv2 rp1	47	128	121	104.6	104.4	11.1	11.8	0.1	1.2	1.00
12	2012	bv2 rp1	47	260	450	100.7	100.2	10.5	11.2	0.5	1.3	0.99
13	2013	bv2 rp1	50	205	376	105.0	104.9	13.7	14.5	0.0	1.4	1.00
14	2014	bv2 rp1	36	356	440	105.5	105.5	11.5	12.4	0.0	1.5	0.99
15	2015	bv2 rp1	30	812	777	98.1	98.1	13.7	14.4	0.0	1.8	0.99
16	2016	bv2 rp1	26	583	603	104.0	104.2	11.3	11.7	-0.2	1.7	0.99
17	2017	bv2 rp1	29	584	475	98.1	98.5	12.3	11.0	-0.4	3.8	0.95
18	2010	bv3 mb1	55	157	164	96.8	96.7	10.0	10.1	0.1	0.6	1.00
19	2011	bv3 mb1	47	128	121	97.2	97.1	11.8	11.9	0.2	0.6	1.00
20	2012	bv3 mb1	47	260	450	98.5	98.4	10.1	10.2	0.1	0.7	1.00
21	2013	bv3 mb1	50	205	376	98.0	98.0	7.9	7.8	0.0	0.7	1.00
22	2014	bv3 mb1	36	356	440	96.9	96.8	11.2	11.2	0.1	0.7	1.00
23	2015	bv3 mb1	30	812	777	98.8	98.9	13.1	12.8	-0.1	1.2	1.00
24	2016	bv3 mb1	26	583	603	102.6	102.4	10.4	10.1	0.2	1.2	0.99
25	2017	bv3 mb1	29	584	475	99.7	100.5	8.6	8.7	-0.8	2.2	0.97
26	2010	bv4 fl1	55	157	164	97.2	97.5	11.1	10.9	-0.3	0.8	1.00
27	2011	bv4 fl1	47	128	121	97.5	97.9	10.3	10.1	-0.4	0.7	1.00
28	2012	bv4 fl1	47	260	450	100.4	100.6	10.0	10.0	-0.2	0.7	1.00
29	2013	bv4 fl1	50	205	376	100.2	100.6	10.7	10.4	-0.3	0.7	1.00
30	2014	bv4 fl1	36	356	440	96.9	97.1	12.1	12.0	-0.3	0.7	1.00
31	2015	bv4 fl1	30	812	777	99.8	99.7	11.9	11.7	0.1	1.0	1.00
32	2016	bv4 fl1	26	583	603	98.9	98.7	13.5	12.9	0.2	1.3	1.00
33	2017	bv4 fl1	29	584	475	101.8	100.9	9.9	10.6	0.9	2.9	0.96
34	2010	bv5 ket1	55	157	164	99.5	99.3	11.5	11.6	0.2	0.6	1.00
35	2011	bv5 ket1	47	128	121	101.0	100.9	14.2	14.2	0.0	0.6	1.00
36	2012	bv5 ket1	47	260	450	100.2	99.9	11.7	11.6	0.2	0.8	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
37	2013	bv5 ket1	50	205	376	100.2	100.2	12.0	12.0	0.0	0.8	1.00
38	2014	bv5 ket1	36	356	440	96.2	96.4	15.6	15.5	-0.1	0.6	1.00
39	2015	bv5 ket1	30	812	777	103.1	103.1	14.9	14.8	-0.1	0.8	1.00
40	2016	bv5 ket1	26	583	603	100.4	100.3	14.2	14.2	0.1	1.3	1.00
41	2017	bv5 ket1	29	584	475	101.8	102.2	12.5	13.0	-0.4	2.5	0.98
42	2010	bv6 bhb1	55	156	162	103.1	103.1	8.5	8.5	0.1	0.6	1.00
43	2011	bv6 bhb1	47	129	122	102.3	102.3	11.9	11.8	0.0	0.4	1.00
44	2012	bv6 bhb1	47	258	447	100.6	100.5	11.0	11.0	0.1	0.4	1.00
45	2013	bv6 bhb1	50	201	364	102.1	102.1	10.0	10.0	0.0	0.7	1.00
46	2014	bv6 bhb1	36	353	434	100.8	100.8	14.8	14.8	0.1	0.6	1.00
47	2015	bv6 bhb1	30	805	773	102.1	102.2	14.0	13.9	-0.1	0.7	1.00
48	2016	bv6 bhb1	26	583	611	100.1	100.1	12.1	12.2	0.0	0.7	1.00
49	2017	bv6 bhb1	29	853	677	100.7	101.1	12.5	12.7	-0.4	0.9	1.00
50	2018	bv6 bhb1	19	475	664	97.3	97.5	9.8	10.1	-0.2	2.6	0.97
51	2010	bv7 ace1	55	156	162	100.7	100.5	8.8	8.8	0.1	0.5	1.00
52	2011	bv7 ace1	47	129	122	100.6	100.6	11.7	11.5	0.0	0.6	1.00
53	2012	bv7 ace1	47	258	447	100.3	100.2	11.0	10.9	0.1	0.6	1.00
54	2013	bv7 ace1	50	201	364	101.3	101.3	9.8	9.8	0.0	0.6	1.00
55	2014	bv7 ace1	36	353	434	99.1	99.1	15.5	15.4	0.1	0.4	1.00
56	2015	bv7 ace1	30	805	773	102.9	102.9	14.4	14.2	0.0	0.6	1.00
57	2016	bv7 ace1	26	583	611	100.1	100.2	12.7	13.0	-0.1	0.8	1.00
58	2017	bv7 ace1	29	853	677	100.8	101.2	12.8	12.8	-0.4	0.9	1.00
59	2018	bv7 ace1	19	475	664	96.8	96.8	10.4	11.1	0.0	2.1	0.98
60	2010	bv8 rpl2	55	113	124	97.3	97.2	9.1	9.4	0.1	0.8	1.00
61	2011	bv8 rpl2	47	94	90	98.5	98.2	9.4	9.5	0.3	0.7	1.00
62	2012	bv8 rpl2	47	196	337	96.4	96.4	8.9	9.4	0.1	1.0	1.00
63	2013	bv8 rpl2	50	156	278	101.0	101.1	10.1	10.2	-0.1	0.9	1.00
64	2014	bv8 rpl2	36	276	341	98.5	98.2	12.2	12.6	0.3	1.0	1.00
65	2015	bv8 rpl2	30	603	556	97.3	97.6	10.3	10.4	-0.3	1.1	0.99
66	2016	bv8 rpl2	26	422	429	103.3	103.2	8.6	8.5	0.2	1.8	0.98
67	2017	bv8 rpl2	25	255	214	99.8	99.8	5.8	6.5	0.0	2.7	0.91
68	2010	bv9 rp2	55	113	124	103.5	103.2	8.9	9.7	0.2	1.1	1.00
69	2011	bv9 rp2	47	94	90	103.0	102.6	10.0	11.0	0.4	1.2	1.00
70	2012	bv9 rp2	47	189	316	100.0	99.5	8.2	9.0	0.5	1.2	0.99
71	2013	bv9 rp2	50	156	277	103.2	102.9	11.7	12.7	0.3	1.4	1.00
72	2014	bv9 rp2	36	276	339	102.7	102.6	10.4	11.1	0.1	1.1	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
73	2015	bv9 rp2	30	581	518	98.0	98.0	10.4	11.2	0.0	1.6	0.99
74	2016	bv9 rp2	26	347	354	104.5	104.8	9.7	10.1	-0.3	1.9	0.98
75	2017	bv9 rp2	15	103	90	92.9	94.0	11.1	10.3	-1.1	3.5	0.95
76	2010	bv10 mb2	55	113	124	99.8	99.7	7.7	7.8	0.2	0.6	1.00
77	2011	bv10 mb2	47	94	90	98.5	98.1	8.1	8.3	0.4	0.7	1.00
78	2012	bv10 mb2	47	189	316	98.4	98.2	9.3	9.5	0.2	0.8	1.00
79	2013	bv10 mb2	50	156	277	99.9	99.7	7.0	7.1	0.2	0.8	0.99
80	2014	bv10 mb2	36	276	339	99.4	99.3	9.6	9.9	0.1	0.8	1.00
81	2015	bv10 mb2	30	581	518	99.7	99.6	9.1	8.9	0.1	1.1	0.99
82	2016	bv10 mb2	26	347	354	102.2	102.4	8.4	8.3	-0.2	1.8	0.98
83	2017	bv10 mb2	15	103	90	96.7	97.2	6.3	5.4	-0.5	2.4	0.92
84	2010	bv11 fl2	55	113	124	99.4	99.6	10.6	10.9	-0.1	0.9	1.00
85	2011	bv11 fl2	47	94	90	98.7	98.7	9.5	9.7	0.0	0.8	1.00
86	2012	bv11 fl2	47	189	316	100.9	101.0	11.9	12.3	-0.1	1.0	1.00
87	2013	bv11 fl2	50	156	277	101.4	101.3	11.3	11.6	0.1	0.8	1.00
88	2014	bv11 fl2	36	276	339	99.7	99.6	13.6	13.8	0.1	1.0	1.00
89	2015	bv11 fl2	30	581	518	98.0	98.0	13.0	13.5	0.0	1.4	1.00
90	2016	bv11 fl2	26	347	354	100.5	100.3	15.2	14.4	0.2	1.8	0.99
91	2017	bv11 fl2	15	103	90	99.7	99.2	13.1	13.7	0.5	3.5	0.97
92	2010	bv12 ket2	55	113	124	99.9	99.8	7.9	8.5	0.1	0.9	1.00
93	2011	bv12 ket2	47	94	90	100.2	100.2	12.3	13.1	0.0	1.0	1.00
94	2012	bv12 ket2	47	189	316	101.3	101.3	9.7	10.2	0.0	1.1	1.00
95	2013	bv12 ket2	50	156	277	102.4	102.5	8.0	8.7	-0.2	1.2	0.99
96	2014	bv12 ket2	36	276	339	99.9	99.9	9.4	9.8	0.0	0.9	1.00
97	2015	bv12 ket2	30	581	518	99.9	99.9	11.3	12.0	-0.1	1.6	0.99
98	2016	bv12 ket2	26	347	354	102.5	102.4	9.1	8.9	0.1	2.7	0.95
99	2017	bv12 ket2	15	103	90	97.4	98.2	9.0	8.3	-0.8	3.4	0.93
100	2010	bv13 bhb2	55	122	131	99.9	99.9	8.6	8.7	0.0	0.4	1.00
101	2011	bv13 bhb2	47	102	98	98.7	98.6	12.5	12.6	0.0	0.6	1.00
102	2012	bv13 bhb2	47	213	366	99.1	99.0	12.1	12.3	0.1	0.5	1.00
103	2013	bv13 bhb2	50	166	295	101.2	101.2	9.6	9.8	0.1	0.7	1.00
104	2014	bv13 bhb2	36	294	360	99.6	99.5	14.9	15.1	0.1	0.6	1.00
105	2015	bv13 bhb2	30	649	605	102.4	102.3	16.1	16.4	0.1	0.8	1.00
106	2016	bv13 bhb2	26	471	483	99.5	99.5	12.6	12.6	0.0	1.0	1.00
107	2017	bv13 bhb2	28	351	288	99.8	100.1	14.7	14.3	-0.3	1.8	0.99
108	2010	bv14 ace2	55	122	131	94.5	94.3	10.2	10.2	0.2	0.5	1.00

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2011	bv14 ace2	47	102	98	95.3	95.1	11.6	11.7	0.1	0.7	1.00
110	2012	bv14 ace2	47	213	366	98.1	98.2	12.6	12.7	0.0	0.6	1.00
111	2013	bv14 ace2	50	166	295	99.6	99.5	9.4	9.6	0.1	0.8	1.00
112	2014	bv14 ace2	36	294	360	96.4	96.2	17.1	17.3	0.3	0.8	1.00
113	2015	bv14 ace2	30	649	605	103.4	103.1	17.3	17.5	0.3	0.7	1.00
114	2016	bv14 ace2	26	471	483	99.8	99.9	14.3	14.4	-0.2	1.5	0.99
115	2017	bv14 ace2	28	351	288	99.1	99.3	18.2	17.7	-0.2	1.7	1.00
116	2010	bv15 rpl3	54	79	88	97.3	97.5	9.0	9.1	-0.2	0.6	1.00
117	2011	bv15 rpl3	46	66	61	98.5	98.4	9.3	9.2	0.1	0.7	1.00
118	2012	bv15 rpl3	47	123	193	96.9	96.9	9.0	9.2	0.0	0.9	1.00
119	2013	bv15 rpl3	49	109	189	101.9	102.1	9.6	9.5	-0.2	0.8	1.00
120	2014	bv15 rpl3	36	194	246	98.3	98.0	10.9	11.0	0.2	0.9	1.00
121	2015	bv15 rpl3	30	359	305	98.4	98.8	10.9	10.6	-0.4	1.4	0.99
122	2016	bv15 rpl3	22	154	164	102.4	101.9	8.7	8.6	0.5	2.0	0.97
123	2010	bv16 rp3	54	79	88	104.7	104.7	10.1	10.7	0.1	1.0	1.00
124	2011	bv16 rp3	46	66	61	104.6	104.3	11.4	12.1	0.3	1.2	1.00
125	2012	bv16 rp3	47	109	166	100.9	100.6	10.2	10.8	0.3	1.3	0.99
126	2013	bv16 rp3	49	108	186	104.1	104.0	12.5	13.0	0.1	1.3	1.00
127	2014	bv16 rp3	36	191	241	104.6	104.6	11.0	11.5	0.0	1.1	1.00
128	2015	bv16 rp3	30	281	234	97.1	97.1	13.3	13.9	0.0	2.1	0.99
129	2016	bv16 rp3	11	70	65	108.0	108.3	7.2	6.8	-0.3	1.8	0.97
130	2010	bv17 mb3	54	79	88	99.1	99.1	7.7	7.7	0.1	0.6	1.00
131	2011	bv17 mb3	46	66	61	96.7	96.5	7.5	7.5	0.2	0.7	1.00
132	2012	bv17 mb3	47	109	166	97.9	97.9	9.2	9.3	0.0	0.8	1.00
133	2013	bv17 mb3	49	108	186	99.0	98.8	7.0	6.9	0.2	1.0	0.99
134	2014	bv17 mb3	36	191	241	99.9	100.0	9.0	9.1	-0.1	0.8	1.00
135	2015	bv17 mb3	30	281	234	98.9	98.8	8.5	8.2	0.1	1.4	0.99
136	2016	bv17 mb3	11	70	65	103.4	104.3	10.1	9.5	-0.9	2.3	0.98
137	2010	bv18 fl3	54	79	88	97.5	97.8	10.7	10.7	-0.3	0.7	1.00
138	2011	bv18 fl3	46	66	61	97.7	97.8	9.0	8.8	-0.1	0.6	1.00
139	2012	bv18 fl3	47	109	166	100.9	101.0	10.1	10.2	-0.1	0.7	1.00
140	2013	bv18 fl3	49	108	186	101.0	101.0	9.9	9.7	-0.1	0.7	1.00
141	2014	bv18 fl3	36	191	241	98.9	98.9	11.9	11.9	0.1	0.8	1.00
142	2015	bv18 fl3	30	281	234	98.4	98.6	12.0	11.9	-0.2	1.2	1.00
143	2016	bv18 fl3	11	70	65	101.5	100.9	14.1	13.6	0.6	1.8	0.99
144	2010	bv19 ket3	54	79	88	100.5	100.6	7.5	7.8	-0.1	0.7	1.00

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2011	bv19 ket3	46	66	61	100.1	100.2	9.2	9.6	-0.1	0.7	1.00
146	2012	bv19 ket3	47	109	166	100.0	100.0	8.1	8.2	0.0	0.7	1.00
147	2013	bv19 ket3	49	108	186	101.3	101.4	7.8	8.1	-0.1	0.8	1.00
148	2014	bv19 ket3	36	191	241	99.7	99.9	8.3	8.7	-0.2	0.9	0.99
149	2015	bv19 ket3	30	281	234	100.6	100.6	8.4	9.0	0.0	1.4	0.99
150	2016	bv19 ket3	11	70	65	104.0	104.0	6.2	6.2	0.0	1.3	0.98
151	2010	bv20 bhb3	54	87	96	99.6	99.5	8.8	8.9	0.1	0.5	1.00
152	2011	bv20 bhb3	47	72	68	97.7	97.6	12.2	12.2	0.1	0.7	1.00
153	2012	bv20 bhb3	47	143	232	98.6	98.5	12.8	12.9	0.1	0.6	1.00
154	2013	bv20 bhb3	49	120	204	100.3	100.1	9.4	9.4	0.3	0.8	1.00
155	2014	bv20 bhb3	36	212	264	99.4	99.4	14.7	15.1	0.1	0.8	1.00
156	2015	bv20 bhb3	30	420	365	102.2	102.1	16.2	16.3	0.1	0.9	1.00
157	2016	bv20 bhb3	22	240	227	98.7	98.6	14.0	14.0	0.1	1.7	0.99
158	2010	bv21 ace3	54	87	96	94.3	93.9	10.1	10.2	0.3	0.6	1.00
159	2011	bv21 ace3	47	72	68	94.3	94.1	11.4	11.8	0.1	0.8	1.00
160	2012	bv21 ace3	47	143	232	97.4	97.3	12.8	12.9	0.1	0.9	1.00
161	2013	bv21 ace3	49	120	204	98.8	98.6	9.5	9.7	0.2	0.8	1.00
162	2014	bv21 ace3	36	212	264	96.5	96.3	15.7	16.0	0.3	0.9	1.00
163	2015	bv21 ace3	30	420	365	103.0	102.8	16.7	16.8	0.2	1.1	1.00
164	2016	bv21 ace3	22	240	227	99.0	98.8	14.6	14.5	0.1	1.9	0.99
165	2010	bv22 rpl	55	157	164	97.2	97.3	9.1	9.2	-0.2	0.7	1.00
166	2011	bv22 rpl	47	128	120	98.3	98.2	9.1	9.1	0.1	0.6	1.00
167	2012	bv22 rpl	47	262	457	96.2	96.2	9.2	9.4	0.0	0.8	1.00
168	2013	bv22 rpl	50	206	377	100.9	101.1	9.5	9.7	-0.2	0.8	1.00
169	2014	bv22 rpl	36	356	440	97.6	97.4	12.0	12.0	0.2	0.9	1.00
170	2015	bv22 rpl	30	821	795	98.2	98.6	10.4	10.2	-0.3	1.0	1.00
171	2016	bv22 rpl	26	590	613	102.5	102.2	7.6	7.4	0.3	1.8	0.97
172	2017	bv22 rpl	29	761	617	100.1	100.1	7.2	7.7	0.1	2.1	0.96
173	2018	bv22 rpl	11	258	282	101.7	101.7	7.5	8.1	0.0	1.4	0.99
174	2010	bv23 rp	55	157	164	104.5	104.5	9.7	10.4	0.1	1.0	1.00
175	2011	bv23 rp	47	128	121	104.0	103.7	10.3	11.1	0.3	1.1	1.00
176	2012	bv23 rp	47	260	450	100.6	100.3	9.0	9.7	0.3	1.2	0.99
177	2013	bv23 rp	50	205	376	104.1	104.0	12.2	13.0	0.1	1.3	1.00
178	2014	bv23 rp	36	356	440	104.4	104.4	10.5	11.0	0.1	1.1	1.00
179	2015	bv23 rp	30	812	777	97.7	97.7	12.1	12.5	0.0	1.7	0.99
180	2016	bv23 rp	26	583	603	104.8	105.2	9.1	9.3	-0.3	1.8	0.98

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
181	2017	bv23 rp	29	584	475	98.4	99.0	11.0	10.0	-0.6	3.5	0.95
182	2010	bv24 mb	55	157	164	98.6	98.4	7.5	7.7	0.2	0.6	1.00
183	2011	bv24 mb	47	128	121	97.3	97.0	8.0	8.1	0.3	0.6	1.00
184	2012	bv24 mb	47	260	450	98.2	98.1	8.9	9.0	0.1	0.8	1.00
185	2013	bv24 mb	50	205	376	98.9	98.8	6.4	6.5	0.1	0.8	0.99
186	2014	bv24 mb	36	356	440	98.8	98.9	9.0	9.3	-0.1	0.8	1.00
187	2015	bv24 mb	30	812	777	99.0	99.0	9.2	9.0	0.0	1.2	0.99
188	2016	bv24 mb	26	583	603	102.1	102.0	8.2	8.0	0.1	1.6	0.98
189	2017	bv24 mb	29	584	475	99.4	99.8	7.0	6.8	-0.4	1.8	0.96
190	2010	bv25 fl	55	157	164	98.0	98.3	10.5	10.6	-0.2	0.6	1.00
191	2011	bv25 fl	47	128	121	97.9	98.0	9.2	9.1	-0.1	0.6	1.00
192	2012	bv25 fl	47	260	450	100.7	100.9	10.3	10.3	-0.2	0.8	1.00
193	2013	bv25 fl	50	205	376	100.8	101.0	10.3	10.2	-0.2	0.8	1.00
194	2014	bv25 fl	36	356	440	98.5	98.5	12.1	12.3	0.0	0.9	1.00
195	2015	bv25 fl	30	812	777	98.8	98.9	11.9	11.8	-0.1	1.2	0.99
196	2016	bv25 fl	26	583	603	99.6	99.4	13.7	13.0	0.2	1.6	0.99
197	2017	bv25 fl	29	584	475	100.6	100.0	10.1	10.8	0.7	2.7	0.97
198	2010	bv26 ket	55	157	164	99.9	99.9	7.8	7.9	0.0	0.7	1.00
199	2011	bv26 ket	47	128	121	100.4	100.3	10.7	11.0	0.1	0.6	1.00
200	2012	bv26 ket	47	260	450	100.3	100.3	8.3	8.5	0.0	0.8	1.00
201	2013	bv26 ket	50	205	376	101.4	101.4	8.0	8.2	0.0	0.7	1.00
202	2014	bv26 ket	36	356	440	98.7	98.8	9.7	9.9	-0.1	0.8	1.00
203	2015	bv26 ket	30	812	777	101.1	101.2	10.0	10.4	-0.1	1.0	1.00
204	2016	bv26 ket	26	583	603	101.3	101.3	9.2	8.9	-0.1	1.6	0.98
205	2017	bv26 ket	29	584	475	101.9	102.2	9.4	9.0	-0.3	1.8	0.98
206	2010	bv27 bhb	55	156	162	96.4	96.1	8.7	8.8	0.3	0.6	1.00
207	2011	bv27 bhb	47	129	122	96.5	96.3	10.8	10.8	0.1	0.7	1.00
208	2012	bv27 bhb	47	258	447	98.5	98.3	11.4	11.6	0.2	0.6	1.00
209	2013	bv27 bhb	50	201	364	99.9	99.8	8.7	8.8	0.1	0.6	1.00
210	2014	bv27 bhb	36	353	434	97.3	97.1	14.9	15.1	0.2	0.7	1.00
211	2015	bv27 bhb	30	805	773	103.2	103.0	15.4	15.6	0.2	0.9	1.00
212	2016	bv27 bhb	26	583	611	99.4	99.5	12.9	12.8	-0.1	1.5	0.99
213	2017	bv27 bhb	29	853	677	99.9	100.2	13.4	13.2	-0.3	1.5	0.99
214	2018	bv27 bhb	19	475	664	97.3	97.4	10.4	10.9	-0.1	1.4	0.99
215	2010	bv29 GH	55	157	164	100.9	100.7	8.1	8.1	0.2	0.5	1.00
216	2011	bv29 GH	47	128	120	99.3	99.2	11.8	11.8	0.1	0.6	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
217	2012	bv29 GH	47	262	457	99.4	99.3	11.6	11.8	0.1	0.7	1.00
218	2013	bv29 GH	50	206	377	101.2	101.1	9.3	9.4	0.1	0.6	1.00
219	2014	bv29 GH	36	356	440	99.9	99.8	14.2	14.4	0.2	0.5	1.00
220	2015	bv29 GH	30	821	795	102.2	102.1	15.1	15.2	0.0	0.6	1.00
221	2016	bv29 GH	26	590	613	99.4	99.5	12.2	12.2	-0.1	1.0	1.00
222	2017	bv29 GH	29	761	617	100.0	100.3	13.0	12.5	-0.3	1.5	0.99
223	2018	bv29 GH	11	258	282	98.8	98.5	8.0	8.0	0.4	2.3	0.96

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	51	0	0	102.4	102.3	6.1	6.2	0.1	1.2	0.98
2	2020	bv1 rpl1	32	.	.	101.8	101.8	7.2	7.1	-0.1	1.1	0.99
3	2021	bv1 rpl1	40	.	.	102.0	102.1	6.2	6.1	-0.1	1.0	0.99
4	2022	bv1 rpl1	23	.	.	104.9	104.5	7.0	6.9	0.4	0.8	0.99
5	2019	bv2 rp1	51	0	0	97.3	97.7	9.8	9.6	-0.4	2.1	0.98
6	2020	bv2 rp1	32	.	.	105.3	105.1	8.8	8.6	0.2	2.1	0.97
7	2021	bv2 rp1	40	.	.	98.9	99.4	5.8	5.7	-0.5	1.4	0.97
8	2022	bv2 rp1	23	.	.	105.7	105.5	8.4	8.1	0.3	1.7	0.98
9	2019	bv3 mb1	51	0	0	102.1	102.3	7.8	7.5	-0.2	1.4	0.98
10	2020	bv3 mb1	32	.	.	105.9	106.5	6.5	6.2	-0.6	1.3	0.98
11	2021	bv3 mb1	40	.	.	104.4	104.2	6.8	6.8	0.2	0.9	0.99
12	2022	bv3 mb1	23	.	.	105.7	106.4	6.9	7.2	-0.7	1.3	0.98
13	2019	bv4 fl1	51	0	0	99.5	99.0	8.3	8.7	0.5	1.8	0.98
14	2020	bv4 fl1	32	.	.	100.0	100.5	6.5	6.2	-0.4	1.6	0.97
15	2021	bv4 fl1	40	.	.	102.2	101.9	6.1	6.2	0.3	1.3	0.98
16	2022	bv4 fl1	23	.	.	102.3	101.7	8.9	8.2	0.5	1.6	0.99
17	2019	bv5 ket1	51	0	0	101.6	101.6	12.0	11.1	0.0	2.0	0.99
18	2020	bv5 ket1	32	.	.	108.2	108.9	8.9	8.8	-0.7	1.8	0.98
19	2021	bv5 ket1	40	.	.	105.0	104.6	7.9	7.5	0.4	1.1	0.99
20	2022	bv5 ket1	23	.	.	107.8	107.9	9.5	9.4	0.0	1.2	0.99
21	2019	bv6 bhb1	39	.	.	98.9	98.9	9.0	8.9	0.0	0.7	1.00
22	2020	bv6 bhb1	32	.	.	106.8	107.3	8.9	8.2	-0.5	1.7	0.98
23	2021	bv6 bhb1	40	.	.	104.5	104.2	6.4	6.1	0.4	1.0	0.99
24	2022	bv6 bhb1	23	.	.	106.6	106.5	9.1	9.3	0.1	1.1	0.99
25	2019	bv7 ace1	39	.	.	99.4	99.4	9.6	9.4	0.0	0.9	1.00
26	2020	bv7 ace1	32	.	.	107.7	108.1	8.7	8.5	-0.4	1.6	0.98
27	2021	bv7 ace1	40	.	.	105.4	105.0	6.3	6.0	0.4	1.0	0.99
28	2022	bv7 ace1	23	.	.	106.2	106.2	8.7	9.2	0.0	0.9	1.00
29	2019	bv8 rpl2	51	0	0	101.8	101.9	5.9	6.2	-0.1	1.5	0.97
30	2020	bv8 rpl2	32	.	.	102.3	101.7	7.2	7.1	0.6	1.3	0.98
31	2021	bv8 rpl2	40	.	.	101.2	101.4	6.0	6.0	-0.2	1.1	0.98
32	2022	bv8 rpl2	23	.	.	104.2	103.9	5.7	5.4	0.3	1.1	0.98
33	2019	bv9 rp2	51	0	0	98.7	99.2	8.6	8.4	-0.5	2.0	0.97
34	2020	bv9 rp2	32	.	.	105.7	106.0	6.5	6.5	-0.3	1.6	0.97
35	2021	bv9 rp2	40	.	.	100.3	100.8	6.1	6.0	-0.5	1.1	0.98
36	2022	bv9 rp2	23	.	.	105.7	106.2	6.8	7.2	-0.5	1.3	0.99

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	51	0	0	101.5	101.6	6.7	5.8	-0.1	1.7	0.97
38	2020	bv10 mb2	32	.	.	105.8	105.9	5.9	6.0	-0.1	1.3	0.98
39	2021	bv10 mb2	40	.	.	104.2	103.9	5.2	5.0	0.4	1.1	0.98
40	2022	bv10 mb2	23	.	.	104.7	105.3	4.5	5.1	-0.6	1.1	0.98
41	2019	bv11 fl2	51	0	0	97.7	97.4	9.6	10.1	0.3	2.0	0.98
42	2020	bv11 fl2	32	.	.	99.3	99.7	6.7	6.8	-0.3	1.4	0.98
43	2021	bv11 fl2	40	.	.	100.8	100.8	6.5	6.4	0.1	1.4	0.98
44	2022	bv11 fl2	23	.	.	100.9	100.4	9.2	8.9	0.5	1.6	0.98
45	2019	bv12 ket2	51	0	0	101.0	101.4	8.1	7.8	-0.4	1.9	0.97
46	2020	bv12 ket2	32	.	.	107.1	107.2	6.3	6.4	-0.1	1.2	0.98
47	2021	bv12 ket2	40	.	.	103.1	103.3	6.2	6.2	-0.2	1.2	0.98
48	2022	bv12 ket2	23	.	.	106.6	106.6	6.7	6.7	0.0	1.0	0.99
49	2019	bv13 bhb2	51	0	0	101.1	100.9	9.8	9.6	0.2	1.1	0.99
50	2020	bv13 bhb2	32	.	.	106.9	107.1	8.6	8.2	-0.2	1.6	0.98
51	2021	bv13 bhb2	40	.	.	106.5	106.3	7.9	7.9	0.3	1.1	0.99
52	2022	bv13 bhb2	23	.	.	106.2	105.9	9.4	10.0	0.3	1.2	0.99
53	2019	bv14 ace2	51	0	0	101.7	101.4	12.6	12.2	0.3	1.5	0.99
54	2020	bv14 ace2	32	.	.	107.2	107.3	9.3	9.5	-0.1	1.2	0.99
55	2021	bv14 ace2	40	.	.	107.3	107.0	8.0	7.7	0.3	1.2	0.99
56	2022	bv14 ace2	23	.	.	104.0	103.8	9.4	10.2	0.3	1.0	1.00
57	2019	bv15 rpl3	51	0	0	101.5	101.3	6.5	6.8	0.3	1.4	0.98
58	2020	bv15 rpl3	32	.	.	102.1	101.6	5.3	5.1	0.4	1.4	0.96
59	2021	bv15 rpl3	40	.	.	102.1	101.9	5.6	5.5	0.2	1.1	0.98
60	2022	bv15 rpl3	23	.	.	104.5	103.6	6.0	5.5	0.9	1.3	0.98
61	2019	bv16 rp3	51	0	0	98.6	99.4	8.4	8.1	-0.8	2.3	0.96
62	2020	bv16 rp3	32	.	.	107.2	106.8	8.6	8.3	0.4	1.7	0.98
63	2021	bv16 rp3	40	.	.	98.8	99.4	5.9	5.8	-0.6	1.6	0.96
64	2022	bv16 rp3	23	.	.	106.7	106.8	6.8	6.8	-0.2	1.7	0.97
65	2019	bv17 mb3	51	0	0	101.5	101.4	5.6	5.2	0.2	1.3	0.97
66	2020	bv17 mb3	32	.	.	104.3	104.4	6.3	6.0	-0.1	1.5	0.97
67	2021	bv17 mb3	40	.	.	104.2	103.8	5.4	5.2	0.4	0.9	0.99
68	2022	bv17 mb3	23	.	.	103.5	103.9	4.7	4.8	-0.4	1.5	0.95
69	2019	bv18 fl3	51	0	0	98.9	98.3	8.6	8.9	0.5	1.7	0.98
70	2020	bv18 fl3	32	.	.	100.4	100.4	6.9	7.0	0.0	1.2	0.98
71	2021	bv18 fl3	40	.	.	101.6	101.2	5.6	5.4	0.4	1.3	0.97
72	2022	bv18 fl3	23	.	.	101.3	100.4	7.6	7.0	0.9	1.3	0.99

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	51	0	0	101.2	101.2	6.9	6.7	0.0	1.0	0.99
74	2020	bv19 ket3	32	.	.	106.4	106.6	5.7	5.5	-0.2	1.1	0.98
75	2021	bv19 ket3	40	.	.	103.9	103.8	5.2	5.1	0.0	0.9	0.99
76	2022	bv19 ket3	23	.	.	106.9	107.1	6.6	6.5	-0.2	0.9	0.99
77	2019	bv20 bhb3	51	0	0	101.7	101.7	9.1	9.1	0.0	1.2	0.99
78	2020	bv20 bhb3	32	.	.	106.7	106.8	7.7	7.6	-0.1	1.2	0.99
79	2021	bv20 bhb3	40	.	.	107.2	106.9	8.1	8.2	0.3	1.1	0.99
80	2022	bv20 bhb3	23	.	.	106.1	105.7	9.5	10.1	0.4	1.2	0.99
81	2019	bv21 ace3	51	0	0	102.6	102.7	10.0	10.1	-0.2	1.2	0.99
82	2020	bv21 ace3	32	.	.	106.3	106.3	8.4	8.5	0.0	1.2	0.99
83	2021	bv21 ace3	40	.	.	107.6	107.6	8.0	8.1	0.1	0.9	0.99
84	2022	bv21 ace3	23	.	.	104.4	104.3	10.0	10.5	0.1	1.1	1.00
85	2019	bv22 rpl	51	0	0	101.8	101.8	6.0	6.2	0.0	1.3	0.98
86	2020	bv22 rpl	32	.	.	101.9	101.7	6.0	5.9	0.2	1.1	0.98
87	2021	bv22 rpl	40	.	.	101.8	101.8	5.7	5.6	0.1	0.9	0.99
88	2022	bv22 rpl	23	.	.	104.6	104.0	5.9	5.7	0.6	1.0	0.99
89	2019	bv23 rp	51	0	0	98.2	98.9	8.6	8.2	-0.7	2.1	0.97
90	2020	bv23 rp	32	.	.	106.3	106.1	7.9	7.5	0.2	1.8	0.97
91	2021	bv23 rp	40	.	.	99.2	99.6	5.6	5.4	-0.3	1.4	0.97
92	2022	bv23 rp	23	.	.	106.1	106.4	7.0	7.0	-0.3	1.7	0.97
93	2019	bv24 mb	51	0	0	101.7	101.7	6.0	5.4	0.0	1.4	0.97
94	2020	bv24 mb	32	.	.	105.2	105.5	6.0	5.7	-0.3	1.3	0.98
95	2021	bv24 mb	40	.	.	104.3	104.0	5.3	5.2	0.3	0.9	0.99
96	2022	bv24 mb	23	.	.	104.4	105.0	4.9	5.4	-0.6	1.4	0.97
97	2019	bv25 fl	51	0	0	98.7	98.4	8.5	9.0	0.4	1.9	0.98
98	2020	bv25 fl	32	.	.	100.0	100.3	6.5	6.6	-0.3	1.3	0.98
99	2021	bv25 fl	40	.	.	101.5	101.4	5.8	5.7	0.1	1.3	0.97
100	2022	bv25 fl	23	.	.	101.4	100.8	8.3	7.7	0.6	1.6	0.98
101	2019	bv26 ket	51	0	0	101.3	101.5	8.2	7.7	-0.2	1.3	0.99
102	2020	bv26 ket	32	.	.	107.1	107.3	6.2	6.1	-0.3	1.2	0.98
103	2021	bv26 ket	40	.	.	103.9	104.0	5.9	5.7	-0.1	1.0	0.99
104	2022	bv26 ket	23	.	.	107.3	107.2	7.1	7.1	0.1	0.9	0.99
105	2019	bv27 bhb	39	.	.	100.9	101.1	9.5	9.5	-0.2	0.9	1.00
106	2020	bv27 bhb	32	.	.	106.9	107.1	8.1	8.3	-0.2	1.2	0.99
107	2021	bv27 bhb	40	.	.	106.8	106.7	7.0	6.8	0.1	0.8	0.99
108	2022	bv27 bhb	23	.	.	105.0	104.9	8.9	9.3	0.0	0.9	1.00

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	51	0	0	101.1	101.0	9.1	8.9	0.1	1.1	0.99
110	2020	bv29 GH	32	.	.	106.8	107.1	8.0	7.7	-0.3	1.4	0.98
111	2021	bv29 GH	40	.	.	106.3	105.9	7.4	7.3	0.4	0.9	0.99
112	2022	bv29 GH	23	.	.	106.2	106.0	8.9	9.7	0.1	1.3	0.99

JER 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	bv1 rpl1	15994	99.6	99.6	6.4	6.4	0.0	0.5	1.00
2	2016	bv1 rpl1	14943	99.7	99.7	7.1	7.1	0.0	0.5	1.00
3	2017	bv1 rpl1	13867	99.6	99.6	6.9	6.9	0.0	0.6	1.00
4	2018	bv1 rpl1	14703	98.5	98.6	7.5	7.5	-0.1	0.7	1.00
5	2019	bv1 rpl1	14136	100.2	100.1	6.1	6.0	0.1	1.0	0.99
6	2020	bv1 rpl1	10275	100.6	100.7	5.6	5.6	-0.1	1.1	0.98
7	2021	bv1 rpl1	1	.	.	.	.	.	.	.
8	2015	bv2 rp1	15994	102.9	102.7	8.3	8.9	0.2	0.9	1.00
9	2016	bv2 rp1	14943	103.8	103.8	8.7	9.0	0.0	0.8	1.00
10	2017	bv2 rp1	13867	100.3	100.2	8.4	8.7	0.1	1.0	0.99
11	2018	bv2 rp1	14703	101.8	101.5	7.5	7.8	0.3	1.1	0.99
12	2019	bv2 rp1	14003	98.9	99.1	7.8	7.7	-0.2	1.8	0.97
13	2020	bv2 rp1	4967	99.8	100.1	8.6	8.2	-0.2	2.5	0.96
14	2015	bv3 mb1	15994	95.8	95.8	5.8	5.8	0.1	0.6	0.99
15	2016	bv3 mb1	14943	97.3	97.2	5.9	6.0	0.1	0.6	0.99
16	2017	bv3 mb1	13867	98.0	97.8	5.7	5.8	0.1	0.7	0.99
17	2018	bv3 mb1	14703	99.8	99.7	8.4	8.4	0.1	0.9	0.99
18	2019	bv3 mb1	14003	99.8	99.8	6.1	6.1	0.0	1.1	0.98
19	2020	bv3 mb1	4967	99.6	99.8	6.0	6.0	-0.2	1.6	0.97
20	2015	bv4 fl1	15994	98.9	99.1	7.0	6.9	-0.2	0.6	1.00
21	2016	bv4 fl1	14943	98.8	99.0	7.6	7.5	-0.2	0.6	1.00
22	2017	bv4 fl1	13867	99.4	99.5	7.2	7.1	-0.1	0.7	1.00
23	2018	bv4 fl1	14703	100.2	100.4	7.2	7.1	-0.3	0.8	0.99
24	2019	bv4 fl1	14003	99.2	99.1	7.5	7.5	0.1	1.5	0.98
25	2020	bv4 fl1	4967	101.2	101.0	6.9	7.2	0.2	2.2	0.95
26	2015	bv5 ket1	15994	98.2	98.0	7.7	7.8	0.2	0.6	1.00
27	2016	bv5 ket1	14943	97.4	97.3	9.7	9.7	0.1	0.6	1.00
28	2017	bv5 ket1	13867	100.3	100.2	8.6	8.6	0.1	0.6	1.00
29	2018	bv5 ket1	14703	101.0	100.9	9.8	9.7	0.1	0.7	1.00
30	2019	bv5 ket1	14003	98.9	99.0	8.1	8.1	-0.1	1.2	0.99
31	2020	bv5 ket1	4967	100.1	100.2	7.9	8.1	0.0	2.0	0.97
32	2015	bv6 bhb1	15825	99.2	99.1	8.5	8.5	0.1	0.5	1.00
33	2016	bv6 bhb1	14779	99.2	99.1	9.4	9.4	0.1	0.5	1.00
34	2017	bv6 bhb1	13640	100.8	100.8	8.9	8.9	0.1	0.5	1.00
35	2018	bv6 bhb1	14363	100.4	100.4	8.3	8.3	0.0	0.6	1.00
36	2019	bv6 bhb1	13942	99.5	99.5	7.3	7.3	0.0	0.8	0.99

JER 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	2020	bv6 bhb1	14207	100.7	100.8	7.0	7.0	-0.1	0.9	0.99
38	2021	bv6 bhb1	2551	101.2	101.2	7.4	7.3	0.0	0.9	0.99
39	2015	bv7 ace1	15825	98.1	98.0	8.0	8.0	0.1	0.5	1.00
40	2016	bv7 ace1	14779	97.9	97.7	9.4	9.4	0.1	0.5	1.00
41	2017	bv7 ace1	13640	100.2	100.0	8.9	8.9	0.1	0.5	1.00
42	2018	bv7 ace1	14363	100.7	100.7	9.1	9.1	0.0	0.6	1.00
43	2019	bv7 ace1	13942	99.3	99.3	7.6	7.6	0.0	0.8	0.99
44	2020	bv7 ace1	14207	100.8	100.9	7.0	7.1	-0.1	0.9	0.99
45	2021	bv7 ace1	2551	101.8	101.8	7.3	7.2	0.0	0.8	0.99
46	2015	bv8 rpl2	11985	100.0	100.0	5.8	6.0	0.0	0.6	0.99
47	2016	bv8 rpl2	11444	100.5	100.4	7.0	7.1	0.1	0.7	1.00
48	2017	bv8 rpl2	10338	99.2	99.2	6.7	6.8	-0.1	0.8	0.99
49	2018	bv8 rpl2	11013	98.7	98.7	7.1	7.1	0.0	1.0	0.99
50	2019	bv8 rpl2	8295	100.6	100.5	5.9	5.8	0.1	1.4	0.97
51	2020	bv8 rpl2	275	100.6	100.6	5.2	5.1	-0.1	1.5	0.96
52	2015	bv9 rp2	11985	100.7	100.3	6.5	7.0	0.4	0.8	1.00
53	2016	bv9 rp2	11444	102.5	102.4	7.2	7.5	0.2	0.8	1.00
54	2017	bv9 rp2	10336	99.9	99.7	6.9	7.4	0.2	0.9	0.99
55	2018	bv9 rp2	10708	101.7	101.5	5.9	6.3	0.2	1.0	0.99
56	2019	bv9 rp2	3561	99.9	100.0	6.8	6.7	-0.1	1.8	0.97
57	2015	bv10 mb2	11985	97.2	97.0	6.2	6.2	0.2	0.6	1.00
58	2016	bv10 mb2	11444	99.7	99.5	5.9	6.0	0.2	0.6	1.00
59	2017	bv10 mb2	10336	99.0	98.7	5.0	5.1	0.3	0.7	0.99
60	2018	bv10 mb2	10708	100.7	100.6	6.2	6.4	0.1	1.0	0.99
61	2019	bv10 mb2	3561	100.4	100.3	5.5	5.4	0.1	1.4	0.97
62	2015	bv11 fl2	11985	99.0	99.0	9.2	9.3	0.0	0.6	1.00
63	2016	bv11 fl2	11444	100.5	100.5	9.1	9.3	0.1	0.7	1.00
64	2017	bv11 fl2	10336	99.3	99.2	8.8	8.9	0.1	0.7	1.00
65	2018	bv11 fl2	10708	101.2	101.4	7.9	8.0	-0.1	1.0	0.99
66	2019	bv11 fl2	3561	98.5	98.5	8.8	8.6	0.0	1.8	0.98
67	2015	bv12 ket2	11985	99.1	99.0	6.4	6.7	0.1	0.7	1.00
68	2016	bv12 ket2	11444	99.8	99.7	6.5	6.8	0.1	0.7	1.00
69	2017	bv12 ket2	10336	99.7	99.8	6.5	6.9	-0.1	0.8	0.99
70	2018	bv12 ket2	10708	100.5	100.2	6.7	7.0	0.3	1.2	0.99
71	2019	bv12 ket2	3561	99.9	100.0	6.2	6.0	-0.1	2.0	0.95
72	2015	bv13 bhb2	12976	97.4	97.3	9.2	9.3	0.0	0.5	1.00

JER 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	2016	bv13 bhb2	12276	97.3	97.2	9.6	9.7	0.1	0.6	1.00
74	2017	bv13 bhb2	11098	99.5	99.3	9.7	9.8	0.1	0.6	1.00
75	2018	bv13 bhb2	11748	99.9	99.8	9.4	9.5	0.1	0.8	1.00
76	2019	bv13 bhb2	10291	99.9	99.9	8.2	8.2	0.0	1.2	0.99
77	2020	bv13 bhb2	1486	101.7	101.7	8.1	8.0	-0.1	1.8	0.98
78	2015	bv14 ace2	12976	95.6	95.4	8.5	8.6	0.2	0.5	1.00
79	2016	bv14 ace2	12276	95.2	95.0	9.8	9.9	0.2	0.6	1.00
80	2017	bv14 ace2	11098	97.9	97.7	10.3	10.4	0.2	0.6	1.00
81	2018	bv14 ace2	11748	100.6	100.5	10.7	10.9	0.1	0.8	1.00
82	2019	bv14 ace2	10291	99.6	99.6	10.1	10.0	0.0	1.2	0.99
83	2020	bv14 ace2	1486	100.7	100.9	10.1	10.0	-0.2	1.5	0.99
84	2015	bv15 rpl3	8194	100.7	100.8	6.3	6.4	-0.1	0.6	1.00
85	2016	bv15 rpl3	7804	100.7	100.8	6.7	6.6	0.0	0.7	1.00
86	2017	bv15 rpl3	6863	99.8	99.9	6.6	6.6	-0.1	0.8	0.99
87	2018	bv15 rpl3	5640	99.1	99.3	7.3	7.2	-0.3	1.2	0.99
88	2019	bv15 rpl3	262	100.9	100.7	6.2	6.1	0.2	1.6	0.96
89	2015	bv16 rp3	8194	102.4	102.2	7.1	7.5	0.2	0.9	0.99
90	2016	bv16 rp3	7787	103.5	103.4	7.6	7.9	0.1	0.8	1.00
91	2017	bv16 rp3	6509	100.1	100.2	8.1	8.2	-0.1	1.0	0.99
92	2018	bv16 rp3	2183	100.5	99.9	6.9	7.2	0.5	1.4	0.98
93	2015	bv17 mb3	8194	97.0	97.0	6.8	6.8	0.0	0.6	1.00
94	2016	bv17 mb3	7787	99.8	99.8	6.4	6.4	0.0	0.6	1.00
95	2017	bv17 mb3	6509	98.6	98.4	5.4	5.4	0.2	0.9	0.99
96	2018	bv17 mb3	2183	99.9	99.8	5.9	6.0	0.1	1.4	0.97
97	2015	bv18 fl3	8194	99.3	99.5	7.9	7.8	-0.1	0.6	1.00
98	2016	bv18 fl3	7787	100.0	100.0	8.5	8.3	-0.1	0.6	1.00
99	2017	bv18 fl3	6509	99.3	99.3	7.8	7.8	0.0	0.8	1.00
100	2018	bv18 fl3	2183	100.5	100.9	7.3	7.2	-0.4	1.2	0.99
101	2015	bv19 ket3	8194	99.4	99.4	5.6	5.8	0.0	0.5	1.00
102	2016	bv19 ket3	7787	100.0	100.1	5.6	5.8	-0.1	0.6	0.99
103	2017	bv19 ket3	6509	99.9	99.9	5.4	5.6	0.0	0.7	0.99
104	2018	bv19 ket3	2183	100.7	100.5	5.4	5.7	0.2	1.1	0.98
105	2015	bv20 bhb3	9142	96.6	96.4	9.4	9.5	0.1	0.6	1.00
106	2016	bv20 bhb3	8626	97.0	96.9	9.8	9.9	0.2	0.6	1.00
107	2017	bv20 bhb3	7723	99.2	99.0	9.9	10.0	0.2	0.6	1.00
108	2018	bv20 bhb3	7381	100.2	100.1	9.8	9.8	0.1	1.0	1.00

JER 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	2019	bv20 bhb3	1141	100.3	100.2	8.7	8.7	0.1	1.6	0.98
110	2015	bv21 ace3	9142	95.0	94.7	9.4	9.6	0.2	0.6	1.00
111	2016	bv21 ace3	8626	95.3	95.1	10.1	10.4	0.2	0.7	1.00
112	2017	bv21 ace3	7723	97.8	97.6	10.4	10.6	0.2	0.7	1.00
113	2018	bv21 ace3	7381	100.8	100.6	10.9	11.0	0.3	1.0	1.00
114	2019	bv21 ace3	1141	100.2	100.2	9.9	9.8	0.1	1.5	0.99
115	2015	bv22 rpl	15994	100.0	100.0	5.7	5.8	0.0	0.6	1.00
116	2016	bv22 rpl	14943	100.1	100.2	6.5	6.5	0.0	0.6	1.00
117	2017	bv22 rpl	13867	99.4	99.5	6.3	6.3	-0.1	0.7	0.99
118	2018	bv22 rpl	14703	98.7	98.9	7.0	6.9	-0.1	0.9	0.99
119	2019	bv22 rpl	14136	100.2	100.0	5.5	5.5	0.1	1.2	0.97
120	2020	bv22 rpl	10275	100.7	100.8	5.0	5.1	0.0	1.2	0.97
121	2021	bv22 rpl	1	.	.	.	.	.	.	.
122	2015	bv23 rp	15994	102.0	101.7	6.9	7.3	0.3	0.8	1.00
123	2016	bv23 rp	14943	103.1	103.1	7.5	7.8	0.1	0.8	1.00
124	2017	bv23 rp	13867	100.0	99.9	7.6	7.9	0.1	0.9	0.99
125	2018	bv23 rp	14703	101.4	101.0	6.3	6.6	0.4	1.1	0.99
126	2019	bv23 rp	14003	99.2	99.5	7.0	6.8	-0.2	1.8	0.97
127	2020	bv23 rp	4967	99.5	99.7	7.7	7.3	-0.2	2.4	0.95
128	2015	bv24 mb	15994	96.4	96.4	5.8	5.8	0.1	0.5	1.00
129	2016	bv24 mb	14943	98.7	98.6	5.5	5.6	0.1	0.6	0.99
130	2017	bv24 mb	13867	98.3	98.1	4.9	4.9	0.2	0.8	0.99
131	2018	bv24 mb	14703	100.1	100.0	6.3	6.4	0.1	1.1	0.99
132	2019	bv24 mb	14003	99.7	99.6	5.0	5.0	0.1	1.1	0.97
133	2020	bv24 mb	4967	99.7	99.9	4.8	4.8	-0.2	1.4	0.96
134	2015	bv25 fl	15994	98.9	99.0	7.7	7.6	-0.1	0.6	1.00
135	2016	bv25 fl	14943	99.5	99.6	8.2	8.1	-0.1	0.6	1.00
136	2017	bv25 fl	13867	99.2	99.2	7.6	7.6	0.0	0.7	1.00
137	2018	bv25 fl	14703	100.5	100.8	7.3	7.2	-0.2	1.0	0.99
138	2019	bv25 fl	14003	99.1	99.0	7.6	7.6	0.1	1.5	0.98
139	2020	bv25 fl	4967	100.8	100.6	6.8	7.1	0.2	2.0	0.96
140	2015	bv26 ket	15994	98.8	98.7	5.6	5.8	0.1	0.5	1.00
141	2016	bv26 ket	14943	99.0	98.9	6.2	6.4	0.1	0.6	1.00
142	2017	bv26 ket	13867	99.8	99.8	5.8	5.9	0.0	0.6	0.99
143	2018	bv26 ket	14703	100.5	100.4	6.3	6.5	0.2	0.8	0.99
144	2019	bv26 ket	14003	99.3	99.4	5.7	5.6	-0.1	1.1	0.98

JER 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
145	2020	bv26 ket	4967	100.4	100.4	5.8	5.7	0.0	1.3	0.98
146	2015	bv27 bhb	15825	96.0	95.8	8.3	8.4	0.2	0.5	1.00
147	2016	bv27 bhb	14779	95.9	95.7	9.2	9.4	0.2	0.6	1.00
148	2017	bv27 bhb	13640	98.3	98.1	9.4	9.5	0.2	0.6	1.00
149	2018	bv27 bhb	14363	100.6	100.4	9.7	9.8	0.1	0.9	1.00
150	2019	bv27 bhb	13942	99.3	99.3	8.3	8.2	0.0	1.4	0.99
151	2020	bv27 bhb	14207	100.4	100.5	7.0	6.9	-0.1	1.5	0.98
152	2021	bv27 bhb	2551	100.6	100.5	4.5	4.2	0.1	1.5	0.94
153	2015	bv29 GH	15994	97.4	97.3	8.8	8.9	0.1	0.5	1.00
154	2016	bv29 GH	14943	97.5	97.4	9.3	9.4	0.1	0.6	1.00
155	2017	bv29 GH	13867	99.6	99.5	9.3	9.4	0.2	0.5	1.00
156	2018	bv29 GH	14703	100.1	100.0	8.9	8.9	0.1	0.8	1.00
157	2019	bv29 GH	14136	99.6	99.7	7.7	7.6	0.0	1.2	0.99
158	2020	bv29 GH	10275	100.5	100.6	7.1	7.0	-0.2	2.1	0.95
159	2021	bv29 GH	1	.	.	.	.	.	.	.

sum sta 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	bv1 rpl1	3418	100.2	100.1	7.8	7.9	0.0	0.8	0.99
2	2016	bv1 rpl1	3739	100.1	100.1	8.4	8.4	0.0	0.9	0.99
3	2017	bv1 rpl1	5065	99.2	99.2	8.2	8.3	0.0	0.8	0.99
4	2018	bv1 rpl1	6344	98.8	98.9	9.1	9.1	-0.1	1.0	0.99
5	2019	bv1 rpl1	7072	100.7	100.5	7.6	7.5	0.1	1.2	0.99
6	2020	bv1 rpl1	6091	100.9	101.1	7.3	7.4	-0.2	1.2	0.99
7	2021	bv1 rpl1	1	.	.	.	.	.	.	.
8	2015	bv2 rp1	3418	102.4	102.1	9.8	10.4	0.2	1.2	0.99
9	2016	bv2 rp1	3739	103.3	103.3	10.0	10.5	0.0	1.2	0.99
10	2017	bv2 rp1	5065	99.3	99.2	9.5	9.9	0.1	1.3	0.99
11	2018	bv2 rp1	6344	101.3	101.0	8.8	9.3	0.3	1.3	0.99
12	2019	bv2 rp1	7014	98.7	98.9	9.1	9.2	-0.2	2.0	0.98
13	2020	bv2 rp1	2856	100.2	100.5	10.2	9.7	-0.3	2.7	0.97
14	2015	bv3 mb1	3418	95.9	95.9	7.6	7.6	0.0	0.8	0.99
15	2016	bv3 mb1	3739	98.0	97.9	7.6	7.6	0.1	0.9	0.99
16	2017	bv3 mb1	5065	98.2	98.0	7.4	7.4	0.1	0.9	0.99
17	2018	bv3 mb1	6344	100.7	100.6	9.7	9.7	0.1	1.1	0.99
18	2019	bv3 mb1	7014	100.2	100.2	7.8	7.8	0.0	1.2	0.99
19	2020	bv3 mb1	2856	99.9	100.2	8.0	8.1	-0.2	1.6	0.98
20	2015	bv4 fl1	3418	98.5	98.3	10.1	10.2	0.2	0.9	1.00
21	2016	bv4 fl1	3739	97.9	97.8	12.1	12.1	0.1	1.1	1.00
22	2017	bv4 fl1	5065	100.9	100.8	10.8	10.8	0.1	1.0	1.00
23	2018	bv4 fl1	6344	102.0	101.9	11.6	11.6	0.1	1.0	1.00
24	2019	bv4 fl1	7014	99.8	99.8	10.3	10.3	0.0	1.3	0.99
25	2020	bv4 fl1	2856	101.0	101.1	10.4	10.5	-0.1	1.9	0.98
26	2015	bv5 ket1	3418	99.0	99.2	8.6	8.4	-0.2	0.9	0.99
27	2016	bv5 ket1	3739	99.3	99.5	8.9	8.8	-0.2	0.9	0.99
28	2017	bv5 ket1	5065	99.6	99.7	8.9	8.8	-0.1	1.0	0.99
29	2018	bv5 ket1	6344	100.5	100.8	8.7	8.5	-0.3	1.0	0.99
30	2019	bv5 ket1	7014	99.4	99.3	9.1	9.0	0.1	1.7	0.98
31	2020	bv5 ket1	2856	101.1	101.0	8.5	9.0	0.2	2.3	0.97
32	2015	bv6 bhb1	2731	100.1	100.1	7.3	7.5	0.0	0.9	0.99
33	2016	bv6 bhb1	3122	100.7	100.7	8.2	8.4	0.0	1.0	0.99
34	2017	bv6 bhb1	4084	98.4	98.6	7.9	8.0	-0.1	1.0	0.99
35	2018	bv6 bhb1	4905	98.8	98.8	8.5	8.5	-0.1	1.2	0.99
36	2019	bv6 bhb1	4634	100.7	100.6	7.1	7.2	0.1	1.5	0.98
37	2020	bv6 bhb1	133	.	.	.	.	.	.	0.97

sum sta 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
38	2015	bv7 ace1	2731	100.4	100.0	7.8	8.4	0.4	1.1	0.99
39	2016	bv7 ace1	3122	102.6	102.5	8.4	8.9	0.1	1.1	0.99
40	2017	bv7 ace1	4084	99.5	99.3	8.2	8.7	0.2	1.2	0.99
41	2018	bv7 ace1	4764	101.9	101.7	7.3	7.8	0.2	1.2	0.99
42	2019	bv7 ace1	1832	100.2	100.5	8.1	8.2	-0.3	1.8	0.98
43	2015	bv8 rpl2	2731	97.2	97.0	7.4	7.5	0.2	0.8	0.99
44	2016	bv8 rpl2	3122	100.3	100.2	6.9	7.0	0.1	0.9	0.99
45	2017	bv8 rpl2	4084	99.5	99.2	6.1	6.1	0.3	0.9	0.99
46	2018	bv8 rpl2	4764	101.5	101.4	7.2	7.3	0.1	1.1	0.99
47	2019	bv8 rpl2	1832	100.9	100.8	6.6	6.5	0.1	1.4	0.98
48	2015	bv9 rp2	2731	99.1	99.0	7.8	8.2	0.1	0.9	0.99
49	2016	bv9 rp2	3122	100.2	100.1	7.7	8.1	0.1	1.0	0.99
50	2017	bv9 rp2	4084	100.0	100.2	8.1	8.5	-0.1	1.0	0.99
51	2018	bv9 rp2	4764	101.2	100.9	7.7	8.0	0.3	1.3	0.99
52	2019	bv9 rp2	1832	100.1	100.4	7.4	7.4	-0.2	2.0	0.96
53	2015	bv10 mb2	2731	98.7	98.6	10.5	10.6	0.0	1.0	1.00
54	2016	bv10 mb2	3122	100.9	100.8	10.5	10.7	0.0	1.1	1.00
55	2017	bv10 mb2	4084	99.3	99.1	10.6	10.7	0.1	1.0	1.00
56	2018	bv10 mb2	4764	101.4	101.6	9.5	9.6	-0.2	1.2	0.99
57	2019	bv10 mb2	1832	98.2	98.2	10.3	10.1	-0.1	1.8	0.98
58	2015	bv11 fl2	2071	100.9	101.0	7.6	7.7	0.0	0.9	0.99
59	2016	bv11 fl2	2336	101.3	101.3	7.7	7.6	0.0	1.0	0.99
60	2017	bv11 fl2	2958	99.4	99.5	8.0	7.9	-0.2	1.0	0.99
61	2018	bv11 fl2	2671	99.2	99.5	8.6	8.5	-0.3	1.3	0.99
62	2019	bv11 fl2	145	.	.	.	.	.	.	0.98
63	2015	bv12 ket2	2071	102.3	102.1	8.7	9.2	0.2	1.2	0.99
64	2016	bv12 ket2	2327	103.4	103.3	8.8	9.2	0.1	1.1	0.99
65	2017	bv12 ket2	2793	99.6	99.7	9.2	9.5	-0.1	1.3	0.99
66	2018	bv12 ket2	956	100.1	99.5	7.9	8.3	0.6	1.5	0.98
67	2015	bv13 bhb2	2071	97.0	97.0	8.0	8.0	0.0	0.8	0.99
68	2016	bv13 bhb2	2327	100.5	100.5	7.2	7.2	0.0	1.0	0.99
69	2017	bv13 bhb2	2793	99.2	98.9	6.2	6.1	0.3	1.1	0.98
70	2018	bv13 bhb2	956	100.6	100.4	6.8	7.0	0.2	1.5	0.98
71	2015	bv14 ace2	2071	99.6	99.6	7.0	7.2	0.0	0.7	0.99
72	2016	bv14 ace2	2327	100.4	100.4	6.9	7.1	0.0	0.9	0.99
73	2017	bv14 ace2	2793	100.3	100.3	6.8	7.0	0.0	0.9	0.99
74	2018	bv14 ace2	956	101.2	100.9	6.6	7.0	0.3	1.2	0.99

sum sta 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
75	2015	bv15 rpl3	2071	99.0	99.1	9.1	9.0	-0.1	0.9	1.00
76	2016	bv15 rpl3	2327	100.3	100.4	9.7	9.5	-0.1	1.0	1.00
77	2017	bv15 rpl3	2793	99.5	99.5	9.1	9.0	0.0	1.0	0.99
78	2018	bv15 rpl3	956	100.5	101.0	8.8	8.6	-0.4	1.3	0.99
79	2015	bv16 rp3	3328	99.1	99.0	11.0	10.9	0.0	0.8	1.00
80	2016	bv16 rp3	3680	99.3	99.2	11.9	11.9	0.1	1.0	1.00
81	2017	bv16 rp3	4926	101.2	101.1	11.3	11.3	0.1	0.8	1.00
82	2018	bv16 rp3	6204	100.8	100.9	10.9	10.8	0.0	0.8	1.00
83	2019	bv16 rp3	7183	99.8	99.8	9.9	9.9	0.0	0.8	1.00
84	2020	bv16 rp3	8299	101.2	101.4	10.1	10.0	-0.2	1.3	0.99
85	2021	bv16 rp3	1381	103.1	103.0	10.0	9.3	0.0	2.1	0.98
86	2015	bv17 mb3	3328	98.1	98.0	10.5	10.5	0.1	0.8	1.00
87	2016	bv17 mb3	3680	98.1	98.0	11.9	11.8	0.1	1.0	1.00
88	2017	bv17 mb3	4926	101.0	100.8	11.3	11.2	0.2	0.8	1.00
89	2018	bv17 mb3	6204	101.5	101.4	11.3	11.3	0.0	0.8	1.00
90	2019	bv17 mb3	7183	99.8	99.8	10.1	10.1	0.0	0.9	1.00
91	2020	bv17 mb3	8299	101.6	101.8	10.1	10.0	-0.2	1.2	0.99
92	2021	bv17 mb3	1381	103.9	103.7	10.1	9.5	0.2	2.1	0.98
93	2015	bv18 fl3	2890	97.3	97.3	12.0	12.0	0.0	0.8	1.00
94	2016	bv18 fl3	3262	97.4	97.2	12.2	12.3	0.1	1.1	1.00
95	2017	bv18 fl3	4243	100.1	100.0	12.5	12.5	0.1	0.8	1.00
96	2018	bv18 fl3	5283	100.7	100.6	12.0	12.1	0.1	0.9	1.00
97	2019	bv18 fl3	5727	100.1	100.1	11.3	11.3	0.0	1.1	1.00
98	2020	bv18 fl3	839	100.8	100.9	11.2	11.1	-0.1	1.4	0.99
99	2015	bv19 ket3	2890	95.7	95.6	10.9	10.9	0.1	0.8	1.00
100	2016	bv19 ket3	3262	95.5	95.2	12.0	12.1	0.3	1.1	1.00
101	2017	bv19 ket3	4243	99.5	99.3	12.2	12.3	0.2	0.8	1.00
102	2018	bv19 ket3	5283	101.9	101.8	12.5	12.6	0.1	0.9	1.00
103	2019	bv19 ket3	5727	100.2	100.2	12.5	12.4	0.0	1.1	1.00
104	2020	bv19 ket3	839	100.3	100.6	12.7	12.6	-0.3	1.3	0.99
105	2015	bv20 bhb3	2231	96.5	96.4	12.2	12.2	0.2	0.9	1.00
106	2016	bv20 bhb3	2505	97.3	97.2	12.2	12.2	0.1	1.2	0.99
107	2017	bv20 bhb3	3182	100.1	99.8	12.4	12.5	0.2	0.9	1.00
108	2018	bv20 bhb3	3408	101.3	101.2	12.1	12.1	0.1	1.1	1.00
109	2019	bv20 bhb3	563	100.0	100.0	11.2	11.2	0.1	1.5	0.99
110	2015	bv21 ace3	2231	95.3	95.0	11.4	11.6	0.2	0.8	1.00
111	2016	bv21 ace3	2505	95.9	95.7	11.9	12.2	0.2	1.4	0.99

sum sta 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
112	2017	bv21 ace3	3182	99.5	99.3	11.9	12.1	0.2	0.9	1.00
113	2018	bv21 ace3	3408	102.4	102.1	12.1	12.2	0.3	1.1	1.00
114	2019	bv21 ace3	563	100.4	100.4	11.5	11.4	0.0	1.6	0.99
115	2015	bv22 rpl	3418	100.2	100.3	7.2	7.3	0.0	0.8	0.99
116	2016	bv22 rpl	3739	100.4	100.4	7.7	7.7	0.0	0.9	0.99
117	2017	bv22 rpl	5065	98.9	99.0	7.6	7.6	-0.1	0.9	0.99
118	2018	bv22 rpl	6344	98.8	99.0	8.4	8.3	-0.1	1.1	0.99
119	2019	bv22 rpl	7072	100.4	100.3	6.8	6.9	0.1	1.3	0.98
120	2020	bv22 rpl	6091	101.1	101.2	6.7	6.8	-0.1	1.3	0.98
121	2021	bv22 rpl	1	.	.	.	.	.	.	.
122	2015	bv23 rp	3418	101.6	101.3	8.3	8.8	0.3	1.1	0.99
123	2016	bv23 rp	3739	102.9	102.8	8.8	9.2	0.1	1.1	0.99
124	2017	bv23 rp	5065	99.1	99.1	8.6	9.0	0.1	1.2	0.99
125	2018	bv23 rp	6344	101.1	100.7	7.5	7.9	0.4	1.3	0.99
126	2019	bv23 rp	7014	99.1	99.3	8.3	8.3	-0.2	1.9	0.97
127	2020	bv23 rp	2856	99.8	100.2	9.2	8.8	-0.3	2.4	0.96
128	2015	bv24 mb	3418	96.5	96.4	7.1	7.1	0.0	0.8	0.99
129	2016	bv24 mb	3739	99.4	99.3	6.5	6.6	0.1	0.8	0.99
130	2017	bv24 mb	5065	98.7	98.4	5.9	5.9	0.3	0.9	0.99
131	2018	bv24 mb	6344	100.8	100.7	7.3	7.4	0.1	1.1	0.99
132	2019	bv24 mb	7014	100.1	100.0	6.3	6.3	0.1	1.1	0.98
133	2020	bv24 mb	2856	100.1	100.3	6.4	6.5	-0.2	1.2	0.98
134	2015	bv25 fl	3418	99.0	98.9	7.3	7.4	0.1	0.7	1.00
135	2016	bv25 fl	3739	99.5	99.4	7.8	8.0	0.0	0.9	0.99
136	2017	bv25 fl	5065	100.2	100.2	7.4	7.5	0.0	0.8	0.99
137	2018	bv25 fl	6344	101.2	101.0	7.6	7.8	0.2	0.9	0.99
138	2019	bv25 fl	7014	99.9	100.0	7.3	7.3	-0.1	1.1	0.99
139	2020	bv25 fl	2856	100.9	101.0	7.5	7.5	-0.1	1.2	0.99
140	2015	bv26 ket	3418	98.7	98.8	9.1	9.0	-0.1	0.8	1.00
141	2016	bv26 ket	3739	99.9	100.0	9.4	9.3	-0.1	0.9	1.00
142	2017	bv26 ket	5065	99.3	99.3	9.2	9.1	0.0	0.9	0.99
143	2018	bv26 ket	6344	100.7	101.0	8.6	8.6	-0.3	1.0	0.99
144	2019	bv26 ket	7014	99.1	99.1	9.1	9.1	0.1	1.6	0.98
145	2020	bv26 ket	2856	100.8	100.7	8.3	8.8	0.1	2.1	0.97
146	2015	bv27 bhb	2731	97.4	97.4	11.4	11.4	0.1	0.8	1.00
147	2016	bv27 bhb	3122	97.8	97.7	11.8	11.9	0.1	1.1	1.00
148	2017	bv27 bhb	4084	100.3	100.1	11.9	11.9	0.2	0.8	1.00

sum sta 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
149	2018	bv27 bhb	4905	101.1	101.0	11.3	11.3	0.1	0.9	1.00
150	2019	bv27 bhb	4634	100.2	100.2	10.5	10.5	0.0	0.9	1.00
151	2020	bv27 bhb	133	.	.	.	.	.	.	1.00
152	2015	bv29 GH	3418	97.5	97.5	9.1	9.1	0.0	0.0	1.00
153	2016	bv29 GH	3739	97.4	97.4	9.9	9.9	0.0	0.0	1.00
154	2017	bv29 GH	5065	100.0	100.0	9.8	9.8	0.0	0.0	1.00
155	2018	bv29 GH	6344	100.6	100.6	9.2	9.2	0.0	0.0	1.00
156	2019	bv29 GH	7072	99.6	99.6	8.0	8.0	0.0	0.0	1.00
157	2020	bv29 GH	6091	100.6	100.6	7.5	7.5	0.0	0.0	1.00
158	2021	bv29 GH	1	.	.	.	.	.	.	.

sum sta 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	bv1 rpl1	5991	100.6	100.5	7.6	7.6	0.1	1.1	0.99
2	2020	bv1 rpl1	9637	100.8	100.9	7.3	7.4	-0.1	1.1	0.99
3	2021	bv1 rpl1	14988	102.1	102.1	6.7	6.7	0.0	1.0	0.99
4	2022	bv1 rpl1	13835	102.0	101.8	6.6	6.6	0.2	1.0	0.99
5	2023	bv1 rpl1	300	101.8	101.8	6.3	6.2	-0.1	1.1	0.99
6	2019	bv2 rp1	6049	98.1	98.2	8.9	9.1	-0.1	1.9	0.98
7	2020	bv2 rp1	12872	101.3	101.1	9.3	8.9	0.2	2.5	0.96
8	2021	bv2 rp1	14989	99.2	99.2	7.8	7.9	0.0	1.8	0.97
9	2022	bv2 rp1	13835	101.7	101.5	8.0	8.1	0.1	1.7	0.98
10	2023	bv2 rp1	300	103.5	103.3	7.7	7.6	0.2	1.7	0.98
11	2019	bv3 mb1	6049	99.9	99.9	7.7	7.7	0.0	1.2	0.99
12	2020	bv3 mb1	12872	100.6	101.0	7.9	7.9	-0.4	1.5	0.98
13	2021	bv3 mb1	14989	103.0	103.0	7.4	7.2	0.1	1.3	0.99
14	2022	bv3 mb1	13835	103.1	103.3	7.1	7.1	-0.1	1.2	0.99
15	2023	bv3 mb1	300	103.7	104.1	7.2	7.1	-0.4	1.1	0.99
16	2019	bv4 fl1	6049	98.9	98.8	8.8	8.7	0.1	1.6	0.98
17	2020	bv4 fl1	12872	99.6	99.8	8.4	8.5	-0.2	2.1	0.97
18	2021	bv4 fl1	14989	100.6	100.7	7.5	7.3	0.0	1.5	0.98
19	2022	bv4 fl1	13835	101.7	101.5	6.8	6.8	0.2	1.4	0.98
20	2023	bv4 fl1	300	100.7	100.9	6.4	6.4	-0.2	1.4	0.98
21	2019	bv5 ket1	6049	99.6	99.7	10.4	10.4	-0.1	1.3	0.99
22	2020	bv5 ket1	12872	101.4	101.8	10.3	10.2	-0.4	1.8	0.98
23	2021	bv5 ket1	14989	104.1	103.9	10.3	9.7	0.2	1.9	0.98
24	2022	bv5 ket1	13835	104.1	104.2	9.2	9.1	0.0	1.3	0.99
25	2023	bv5 ket1	300	104.7	105.0	9.3	9.0	-0.3	1.5	0.99
26	2019	bv6 bhb1	5880	99.8	99.7	10.0	9.9	0.0	0.8	1.00
27	2020	bv6 bhb1	7429	100.8	100.9	9.9	9.8	-0.2	1.2	0.99
28	2021	bv6 bhb1	13608	102.3	102.1	9.7	9.3	0.2	1.5	0.99
29	2022	bv6 bhb1	13835	101.7	101.8	9.2	9.1	-0.2	1.0	0.99
30	2023	bv6 bhb1	300	103.0	103.2	8.6	8.2	-0.2	1.4	0.99
31	2019	bv7 ace1	5880	99.8	99.8	10.2	10.2	0.0	0.8	1.00
32	2020	bv7 ace1	7429	101.0	101.2	9.8	9.8	-0.2	1.1	0.99
33	2021	bv7 ace1	13608	103.0	102.7	10.1	9.5	0.3	1.6	0.99
34	2022	bv7 ace1	13835	102.6	102.6	9.3	9.1	-0.1	1.0	0.99
35	2023	bv7 ace1	300	103.9	104.0	8.7	8.5	-0.1	1.4	0.99
36	2019	bv8 rpl2	8429	100.3	100.3	7.0	7.1	0.1	1.5	0.98
37	2020	bv8 rpl2	15595	101.0	101.0	7.0	7.1	0.0	1.5	0.98

sum sta 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
38	2021	bv8 rpl2	14989	101.4	101.5	6.4	6.6	0.0	1.3	0.98
39	2022	bv8 rpl2	13835	101.8	101.6	6.2	6.3	0.2	1.2	0.98
40	2023	bv8 rpl2	300	101.9	101.7	6.0	5.9	0.1	1.2	0.98
41	2019	bv9 rp2	11231	98.6	98.7	7.9	8.1	-0.1	1.7	0.98
42	2020	bv9 rp2	15728	100.9	101.0	8.3	8.3	-0.1	1.9	0.97
43	2021	bv9 rp2	14989	100.8	100.9	6.7	7.0	-0.1	1.6	0.97
44	2022	bv9 rp2	13835	102.6	102.7	6.7	6.9	-0.1	1.4	0.98
45	2023	bv9 rp2	300	103.9	104.2	6.5	6.7	-0.2	1.4	0.98
46	2019	bv10 mb2	11231	99.6	99.5	6.4	6.3	0.0	1.3	0.98
47	2020	bv10 mb2	15728	100.8	101.0	6.3	6.4	-0.2	1.2	0.98
48	2021	bv10 mb2	14989	102.7	102.4	6.0	5.7	0.3	1.3	0.98
49	2022	bv10 mb2	13835	103.1	103.0	5.7	5.7	0.0	1.1	0.98
50	2023	bv10 mb2	300	104.1	104.3	5.7	5.8	-0.1	1.0	0.98
51	2019	bv11 fl2	11231	98.6	98.6	9.9	9.9	0.0	1.8	0.98
52	2020	bv11 fl2	15728	99.5	99.6	8.9	9.3	-0.1	1.9	0.98
53	2021	bv11 fl2	14989	99.5	99.6	8.0	8.1	-0.1	1.5	0.98
54	2022	bv11 fl2	13835	101.0	100.9	7.5	7.6	0.2	1.3	0.99
55	2023	bv11 fl2	300	100.4	100.5	7.0	7.1	-0.1	1.3	0.98
56	2019	bv12 ket2	11231	99.7	99.9	7.3	7.4	-0.2	1.7	0.97
57	2020	bv12 ket2	15728	100.8	100.8	7.3	7.3	0.0	1.3	0.98
58	2021	bv12 ket2	14989	102.3	102.3	6.5	6.5	0.0	1.4	0.98
59	2022	bv12 ket2	13835	103.8	103.7	6.1	6.3	0.0	1.1	0.98
60	2023	bv12 ket2	300	103.8	103.9	6.4	6.4	-0.1	1.0	0.99
61	2019	bv13 bhb2	7336	99.9	100.0	11.4	11.4	0.0	1.0	1.00
62	2020	bv13 bhb2	14889	100.9	101.1	10.8	10.7	-0.1	1.2	0.99
63	2021	bv13 bhb2	14989	102.1	102.0	10.4	10.2	0.1	1.3	0.99
64	2022	bv13 bhb2	13835	101.7	101.8	9.8	9.7	-0.1	1.1	0.99
65	2023	bv13 bhb2	300	102.7	102.7	9.1	8.9	0.0	1.3	0.99
66	2019	bv14 ace2	7336	99.8	99.8	12.7	12.7	0.0	1.1	1.00
67	2020	bv14 ace2	14889	101.6	101.8	11.8	11.7	-0.1	1.0	1.00
68	2021	bv14 ace2	14989	102.9	102.5	10.8	10.5	0.4	1.4	0.99
69	2022	bv14 ace2	13835	102.9	102.8	9.7	9.7	0.1	1.0	0.99
70	2023	bv14 ace2	300	103.8	103.7	9.4	9.4	0.1	1.1	0.99
71	2019	bv15 rpl3	12918	100.1	100.0	7.0	7.1	0.2	1.5	0.98
72	2020	bv15 rpl3	15728	101.2	101.2	6.8	6.8	0.1	1.4	0.98
73	2021	bv15 rpl3	14989	101.5	101.4	6.4	6.4	0.1	1.2	0.98
74	2022	bv15 rpl3	13835	102.1	101.8	6.1	6.1	0.3	1.1	0.98

sum sta 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
75	2023	bv15 rpl3	300	102.0	101.8	5.7	5.6	0.2	1.2	0.98
76	2019	bv16 rp3	13063	99.1	99.4	8.7	8.7	-0.3	2.2	0.97
77	2020	bv16 rp3	15728	100.9	100.8	9.2	8.9	0.1	2.6	0.96
78	2021	bv16 rp3	14989	100.0	100.1	7.2	7.3	-0.1	1.8	0.97
79	2022	bv16 rp3	13835	102.3	102.2	7.3	7.3	0.1	1.7	0.97
80	2023	bv16 rp3	300	103.9	103.7	7.1	7.1	0.2	1.7	0.97
81	2019	bv17 mb3	13063	99.9	99.8	6.4	6.3	0.1	1.3	0.98
82	2020	bv17 mb3	15728	100.4	100.5	6.1	6.0	-0.1	1.3	0.98
83	2021	bv17 mb3	14989	101.9	101.5	5.5	5.3	0.3	1.1	0.98
84	2022	bv17 mb3	13835	102.1	102.1	5.5	5.5	0.1	1.1	0.98
85	2023	bv17 mb3	300	103.2	103.2	5.1	5.2	0.0	1.2	0.97
86	2019	bv18 fl3	13063	98.9	98.7	9.0	9.0	0.1	1.5	0.99
87	2020	bv18 fl3	15728	100.0	100.1	8.0	8.3	-0.1	1.8	0.98
88	2021	bv18 fl3	14989	100.2	100.1	7.1	7.1	0.1	1.3	0.98
89	2022	bv18 fl3	13835	101.5	101.2	6.6	6.5	0.3	1.2	0.98
90	2023	bv18 fl3	300	100.9	101.0	6.2	6.1	-0.1	1.1	0.98
91	2019	bv19 ket3	13063	99.7	99.8	6.8	6.8	-0.1	1.1	0.99
92	2020	bv19 ket3	15728	100.8	100.9	7.1	6.9	-0.1	1.1	0.99
93	2021	bv19 ket3	14989	102.0	102.0	6.1	6.0	0.0	1.1	0.99
94	2022	bv19 ket3	13835	103.1	103.1	5.9	5.9	0.0	0.9	0.99
95	2023	bv19 ket3	300	103.8	103.8	5.8	5.8	0.0	0.9	0.99
96	2019	bv20 bhb3	12500	100.1	100.2	11.1	11.1	-0.1	1.1	0.99
97	2020	bv20 bhb3	15728	100.7	100.9	10.5	10.5	-0.1	1.2	0.99
98	2021	bv20 bhb3	14989	102.3	102.2	9.9	9.8	0.1	1.2	0.99
99	2022	bv20 bhb3	13835	102.2	102.3	9.3	9.3	-0.1	1.1	0.99
100	2023	bv20 bhb3	300	102.5	102.6	8.9	8.9	-0.1	1.2	0.99
101	2019	bv21 ace3	12500	100.1	100.2	11.1	11.1	-0.2	1.2	0.99
102	2020	bv21 ace3	15728	101.2	101.3	10.2	10.2	-0.1	1.1	0.99
103	2021	bv21 ace3	14989	102.6	102.5	9.0	9.0	0.1	1.1	0.99
104	2022	bv21 ace3	13835	103.5	103.4	8.3	8.4	0.1	1.0	0.99
105	2023	bv21 ace3	300	103.0	102.9	8.7	8.8	0.1	0.9	0.99
106	2019	bv22 rpl	5990	100.3	100.2	6.9	6.9	0.1	1.3	0.98
107	2020	bv22 rpl	9632	101.0	101.0	6.6	6.7	0.1	1.2	0.98
108	2021	bv22 rpl	14979	101.7	101.6	6.2	6.3	0.0	1.1	0.98
109	2022	bv22 rpl	13835	102.0	101.7	6.0	6.1	0.3	1.1	0.98
110	2023	bv22 rpl	300	101.9	101.8	5.8	5.7	0.1	1.1	0.98
111	2019	bv23 rp	6049	98.6	98.8	8.1	8.2	-0.2	1.9	0.97

sum sta 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
112	2020	bv23 rp	12872	101.2	101.0	8.6	8.3	0.2	2.3	0.96
113	2021	bv23 rp	14989	100.0	100.0	6.9	7.0	-0.1	1.7	0.97
114	2022	bv23 rp	13835	102.2	102.1	7.1	7.1	0.1	1.6	0.98
115	2023	bv23 rp	300	103.8	103.7	6.8	6.8	0.1	1.5	0.97
116	2019	bv24 mb	6049	99.7	99.7	6.3	6.2	0.1	1.1	0.98
117	2020	bv24 mb	12872	100.6	100.8	6.2	6.2	-0.2	1.2	0.98
118	2021	bv24 mb	14989	102.4	102.2	5.7	5.6	0.3	1.1	0.98
119	2022	bv24 mb	13835	102.7	102.7	5.7	5.7	0.0	1.0	0.98
120	2023	bv24 mb	300	103.6	103.8	5.5	5.6	-0.2	1.0	0.98
121	2019	bv25 fl	6049	98.5	98.5	8.9	8.8	0.0	1.5	0.98
122	2020	bv25 fl	12872	99.6	99.8	8.1	8.3	-0.1	1.8	0.98
123	2021	bv25 fl	14989	100.2	100.2	7.2	7.2	0.0	1.3	0.98
124	2022	bv25 fl	13835	101.4	101.2	6.7	6.7	0.2	1.2	0.98
125	2023	bv25 fl	300	100.7	100.8	6.3	6.3	-0.1	1.2	0.98
126	2019	bv26 ket	6049	99.5	99.6	7.3	7.2	-0.1	1.1	0.99
127	2020	bv26 ket	12872	101.0	101.1	7.4	7.3	-0.1	1.2	0.99
128	2021	bv26 ket	14989	102.7	102.6	6.9	6.7	0.1	1.2	0.98
129	2022	bv26 ket	13835	103.6	103.6	6.4	6.4	0.0	0.9	0.99
130	2023	bv26 ket	300	104.0	104.2	6.6	6.4	-0.1	1.0	0.99
131	2019	bv27 bhb	5880	100.0	100.1	10.7	10.6	-0.1	0.9	1.00
132	2020	bv27 bhb	7429	100.8	100.9	9.8	9.8	-0.1	0.9	1.00
133	2021	bv27 bhb	13608	102.8	102.6	9.2	9.0	0.2	1.2	0.99
134	2022	bv27 bhb	13835	103.1	103.0	8.4	8.4	0.0	0.9	0.99
135	2023	bv27 bhb	300	103.5	103.5	8.3	8.3	0.0	1.0	0.99
136	2019	bv29 GH	5991	99.9	100.0	10.5	10.5	-0.1	0.9	1.00
137	2020	bv29 GH	9637	100.6	100.8	10.0	9.9	-0.2	1.2	0.99
138	2021	bv29 GH	14988	102.3	102.1	9.7	9.5	0.1	1.3	0.99
139	2022	bv29 GH	13835	101.9	102.0	9.2	9.1	-0.1	1.0	0.99
140	2023	bv29 GH	300	102.7	102.8	8.6	8.4	-0.1	1.3	0.99

General health

SS full vs reduc run

Comparison of singlestep GEBV full for Feb23 evaluation and singlestep GEBV reduced for Feb23 evaluation. Standardized to base, which is cows born from 9 to 11 years back.

Column description:
BYR = birth year
Name = trait name
No = number of animals behind the statistics
Mean_noff = average number of offspring with phenotype
Std_noff = standard deviation of number of offspring with phenotype
Mean_ss = mean singlestep full GEBV for Feb23
Mean_oss = mean singlestep reduced GEBV for Feb23
Std_ss = standard deviation for singlestep full GEBV for Feb23
Std_oss = standard deviation for singlestep reduced GEBV for Feb23
Mean_dif = mean difference between GEBVs (diff = full Feb23 – reduced Feb23)
Std_dif = standard deviation for difference between GEBVs (diff = full Feb23 – reduced Feb23)
Corr_SS = correlation between GEBVs (full Feb23 and reduced Feb23)

HOL 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	bv1 rpl1	192	835	2567	96.7	96.6	11.0	11.0	0.0	1.6	0.99
2	2011	bv1 rpl1	155	505	1058	97.5	97.5	7.9	8.1	0.1	1.7	0.98
3	2012	bv1 rpl1	171	729	1287	100.6	100.5	9.3	9.4	0.1	1.8	0.98
4	2013	bv1 rpl1	151	756	1369	101.6	101.4	10.3	10.4	0.2	1.8	0.99
5	2014	bv1 rpl1	113	1135	1352	103.0	102.5	9.6	9.7	0.6	2.1	0.98
6	2015	bv1 rpl1	82	1680	2040	104.8	103.6	9.9	8.9	1.1	6.0	0.80
7	2016	bv1 rpl1	66	1588	2001	107.2	104.7	8.0	7.2	2.5	5.6	0.73
8	2017	bv1 rpl1	66	1489	1734	105.6	104.3	8.2	8.3	1.3	5.9	0.75
9	2018	bv1 rpl1	53	539	930	109.6	107.5	8.5	7.4	2.0	5.3	0.79
10	2010	bv2 rp1	192	835	2567	98.6	98.6	8.4	8.3	0.0	1.7	0.98
11	2011	bv2 rp1	155	505	1058	98.5	98.5	8.9	8.9	0.1	1.6	0.98
12	2012	bv2 rp1	171	729	1286	99.7	99.4	10.0	9.6	0.3	1.6	0.99
13	2013	bv2 rp1	151	753	1352	101.4	101.0	10.1	9.9	0.4	1.9	0.98
14	2014	bv2 rp1	113	1133	1347	101.6	100.6	11.5	11.1	0.9	1.8	0.99
15	2015	bv2 rp1	82	1674	2033	104.6	102.6	11.0	7.7	2.0	7.4	0.74
16	2016	bv2 rp1	66	1559	1962	104.1	101.5	10.3	8.8	2.5	5.1	0.87
17	2017	bv2 rp1	66	1077	1325	103.4	102.8	9.1	7.4	0.6	5.1	0.83
18	2018	bv2 rp1	23	274	427	104.3	100.8	8.7	6.4	3.5	4.3	0.88
19	2010	bv3 mb1	192	835	2567	97.5	97.5	9.7	9.7	0.0	1.6	0.99
20	2011	bv3 mb1	155	505	1058	99.4	99.3	9.9	9.9	0.1	1.8	0.98
21	2012	bv3 mb1	171	729	1286	101.6	101.7	10.3	10.4	-0.1	1.9	0.98
22	2013	bv3 mb1	151	753	1352	102.7	102.9	8.5	8.7	-0.3	1.9	0.98
23	2014	bv3 mb1	113	1133	1347	104.9	103.9	9.2	9.0	1.0	2.1	0.97
24	2015	bv3 mb1	82	1674	2033	107.0	104.6	9.1	8.4	2.4	6.2	0.76
25	2016	bv3 mb1	66	1559	1962	106.5	105.4	10.7	8.2	1.1	6.9	0.76
26	2017	bv3 mb1	66	1077	1325	107.3	105.5	7.6	6.8	1.8	6.1	0.65
27	2018	bv3 mb1	23	274	427	105.4	104.9	11.3	6.3	0.5	8.8	0.64
28	2010	bv4 fl1	192	835	2567	98.5	98.6	9.6	9.5	-0.1	1.6	0.99
29	2011	bv4 fl1	155	505	1058	98.0	98.2	11.1	11.1	-0.3	1.7	0.99
30	2012	bv4 fl1	171	729	1286	101.1	101.3	10.0	10.2	-0.2	1.9	0.98
31	2013	bv4 fl1	151	753	1352	100.8	100.7	10.0	10.1	0.0	1.9	0.98
32	2014	bv4 fl1	113	1133	1347	103.0	102.2	11.0	11.1	0.8	1.7	0.99
33	2015	bv4 fl1	82	1674	2033	105.6	104.6	11.5	9.7	1.0	6.4	0.83
34	2016	bv4 fl1	66	1559	1962	104.3	104.2	10.5	8.2	0.2	6.2	0.81
35	2017	bv4 fl1	66	1077	1325	106.9	104.9	9.8	8.2	2.0	6.5	0.75
36	2018	bv4 fl1	23	274	427	104.2	103.8	8.6	7.8	0.4	4.2	0.87

HOL 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
37	2010	bv5 ket1	192	835	2567	98.0	98.0	12.3	12.1	0.0	1.5	0.99
38	2011	bv5 ket1	155	505	1058	100.6	100.5	10.1	10.2	0.1	1.7	0.99
39	2012	bv5 ket1	171	729	1286	100.5	100.4	11.5	11.5	0.1	1.7	0.99
40	2013	bv5 ket1	151	753	1352	102.3	102.1	9.8	9.9	0.2	1.8	0.98
41	2014	bv5 ket1	113	1133	1347	105.9	104.9	10.3	10.1	1.0	2.2	0.98
42	2015	bv5 ket1	82	1674	2033	107.4	104.0	9.2	8.1	3.5	6.9	0.69
43	2016	bv5 ket1	66	1559	1962	107.4	106.5	12.2	9.1	0.9	8.0	0.75
44	2017	bv5 ket1	66	1077	1325	109.1	106.3	9.0	6.6	2.8	6.9	0.64
45	2018	bv5 ket1	23	274	427	104.3	104.0	13.3	7.5	0.3	9.4	0.73
46	2010	bv6 bhb1	146	773	2072	99.9	100.0	10.4	10.3	0.0	1.1	0.99
47	2011	bv6 bhb1	135	416	844	101.6	101.7	10.5	10.5	-0.1	1.2	0.99
48	2012	bv6 bhb1	155	572	934	100.0	100.0	9.9	9.8	0.0	1.3	0.99
49	2013	bv6 bhb1	121	613	975	102.8	102.3	8.9	8.7	0.6	1.5	0.99
50	2014	bv6 bhb1	104	877	996	103.4	102.2	9.5	9.2	1.2	1.4	0.99
51	2015	bv6 bhb1	80	1156	1430	102.9	100.2	11.0	9.3	2.7	7.2	0.76
52	2016	bv6 bhb1	63	1111	1374	103.5	102.3	12.5	9.5	1.3	7.4	0.81
53	2017	bv6 bhb1	66	1103	1371	103.2	102.1	12.1	7.6	1.1	8.0	0.76
54	2018	bv6 bhb1	67	657	972	102.4	101.2	12.2	9.0	1.2	7.7	0.78
55	2010	bv7 ace1	146	773	2072	98.1	98.2	10.1	9.9	-0.1	1.5	0.99
56	2011	bv7 ace1	135	416	844	99.3	99.6	11.2	11.2	-0.2	1.4	0.99
57	2012	bv7 ace1	155	572	934	99.4	99.5	11.1	10.8	-0.1	1.7	0.99
58	2013	bv7 ace1	121	613	975	102.3	101.9	10.5	9.9	0.4	1.9	0.98
59	2014	bv7 ace1	104	877	996	103.8	102.8	11.4	10.9	0.9	1.7	0.99
60	2015	bv7 ace1	80	1156	1430	104.5	101.2	12.4	10.0	3.4	7.6	0.79
61	2016	bv7 ace1	63	1111	1374	103.6	102.7	14.0	10.3	0.8	8.7	0.78
62	2017	bv7 ace1	66	1103	1371	104.5	103.0	13.4	8.1	1.5	9.0	0.75
63	2018	bv7 ace1	67	657	972	103.8	102.6	13.3	8.9	1.2	9.8	0.68
64	2010	bv8 rpl2	192	584	1807	97.8	97.7	10.9	10.9	0.1	1.5	0.99
65	2011	bv8 rpl2	155	358	772	99.4	99.5	9.4	9.6	-0.1	1.3	0.99
66	2012	bv8 rpl2	171	529	937	102.2	102.3	9.7	9.7	0.0	1.5	0.99
67	2013	bv8 rpl2	151	541	951	100.7	100.9	10.2	10.2	-0.2	1.7	0.99
68	2014	bv8 rpl2	113	831	998	102.8	102.8	9.1	9.2	-0.1	1.8	0.98
69	2015	bv8 rpl2	82	1248	1531	103.3	102.9	10.5	8.0	0.4	6.9	0.75
70	2016	bv8 rpl2	66	1047	1344	104.8	103.9	9.3	8.5	0.9	5.7	0.80
71	2017	bv8 rpl2	58	379	531	103.8	103.4	9.2	7.8	0.4	4.9	0.84
72	2010	bv9 rp2	192	584	1806	98.9	98.9	8.9	8.7	0.0	1.6	0.98

HOL 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
73	2011	bv9 rp2	155	358	772	98.4	98.4	9.3	9.4	0.0	1.5	0.99
74	2012	bv9 rp2	171	526	922	99.8	99.5	10.2	10.0	0.3	1.6	0.99
75	2013	bv9 rp2	151	531	882	100.9	100.5	10.5	10.4	0.4	1.9	0.98
76	2014	bv9 rp2	113	829	996	101.1	100.5	12.0	11.7	0.7	1.6	0.99
77	2015	bv9 rp2	82	1192	1463	103.9	102.3	11.6	8.4	1.5	7.5	0.76
78	2016	bv9 rp2	65	711	979	103.5	101.0	10.7	9.1	2.5	5.2	0.87
79	2017	bv9 rp2	24	79	84	102.6	104.0	10.6	6.8	-1.4	5.2	0.92
80	2010	bv10 mb2	192	584	1806	97.8	97.8	9.5	9.5	0.0	1.3	0.99
81	2011	bv10 mb2	155	358	772	100.2	100.2	9.2	9.2	0.0	1.3	0.99
82	2012	bv10 mb2	171	526	922	100.4	100.6	10.2	10.2	-0.2	1.4	0.99
83	2013	bv10 mb2	151	531	882	102.4	102.7	8.0	8.3	-0.3	1.4	0.98
84	2014	bv10 mb2	113	829	996	102.8	102.7	9.5	9.6	0.2	1.4	0.99
85	2015	bv10 mb2	82	1192	1463	104.4	102.9	9.1	8.4	1.4	5.7	0.79
86	2016	bv10 mb2	65	711	979	103.9	103.7	9.5	8.4	0.2	5.2	0.84
87	2017	bv10 mb2	24	79	84	109.1	106.7	6.7	6.3	2.5	5.5	0.65
88	2010	bv11 fl2	192	584	1806	98.8	98.9	9.7	9.6	-0.1	1.5	0.99
89	2011	bv11 fl2	155	358	772	98.4	98.5	10.9	11.0	-0.2	1.6	0.99
90	2012	bv11 fl2	171	526	922	101.4	101.6	10.0	10.2	-0.2	1.8	0.98
91	2013	bv11 fl2	151	531	882	100.3	100.3	10.1	10.1	0.1	1.8	0.98
92	2014	bv11 fl2	113	829	996	103.0	102.5	10.8	10.9	0.5	1.5	0.99
93	2015	bv11 fl2	82	1192	1463	105.5	104.6	11.4	9.6	0.9	6.6	0.82
94	2016	bv11 fl2	65	711	979	104.1	104.4	10.3	8.2	-0.3	6.0	0.81
95	2017	bv11 fl2	24	79	84	109.3	106.3	10.3	8.3	3.0	7.1	0.73
96	2010	bv12 ket2	192	584	1806	97.2	97.2	11.5	11.4	0.0	1.2	0.99
97	2011	bv12 ket2	155	358	772	99.5	99.4	10.9	11.1	0.1	1.4	0.99
98	2012	bv12 ket2	171	526	922	102.0	102.0	12.0	12.3	0.0	1.4	0.99
99	2013	bv12 ket2	151	531	882	101.1	100.8	11.0	11.0	0.3	1.7	0.99
100	2014	bv12 ket2	113	829	996	106.2	105.3	11.5	11.3	0.9	1.6	0.99
101	2015	bv12 ket2	82	1192	1463	106.8	104.0	10.6	8.6	2.7	7.9	0.68
102	2016	bv12 ket2	65	711	979	107.7	107.4	12.5	9.7	0.3	7.6	0.79
103	2017	bv12 ket2	24	79	84	113.7	109.7	11.2	7.7	4.0	8.2	0.68
104	2010	bv13 bhb2	165	525	1461	98.7	98.8	10.6	10.4	0.0	1.2	0.99
105	2011	bv13 bhb2	137	306	609	100.7	100.6	11.1	11.0	0.1	1.2	0.99
106	2012	bv13 bhb2	139	468	729	100.8	100.6	11.0	10.9	0.3	1.1	0.99
107	2013	bv13 bhb2	114	501	774	102.0	101.0	9.8	9.8	1.1	1.4	0.99
108	2014	bv13 bhb2	103	684	774	102.7	101.5	11.7	11.7	1.2	1.3	0.99

HOL 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	bv13 bhb2	79	923	1137	101.6	99.5	12.8	11.2	2.2	7.7	0.80
110	2016	bv13 bhb2	63	845	1058	102.7	101.9	13.3	9.9	0.8	7.2	0.84
111	2017	bv13 bhb2	62	481	640	105.3	103.7	12.6	9.1	1.6	7.8	0.79
112	2018	bv13 bhb2	10	106	129	103.4	98.9	15.0	13.3	4.5	4.7	0.95
113	2010	bv14 ace2	165	525	1461	97.1	97.2	10.6	10.3	-0.1	1.3	0.99
114	2011	bv14 ace2	137	306	609	98.6	98.6	11.2	11.1	0.0	1.3	0.99
115	2012	bv14 ace2	139	468	729	100.4	100.3	11.8	11.6	0.2	1.4	0.99
116	2013	bv14 ace2	114	501	774	101.2	100.4	11.5	11.4	0.9	1.5	0.99
117	2014	bv14 ace2	103	684	774	102.7	101.9	12.0	11.9	0.8	1.6	0.99
118	2015	bv14 ace2	79	923	1137	102.0	100.1	13.9	10.9	2.0	8.3	0.80
119	2016	bv14 ace2	63	845	1058	102.6	102.4	13.7	9.6	0.2	8.1	0.82
120	2017	bv14 ace2	62	481	640	106.4	104.4	12.4	8.4	2.0	8.3	0.75
121	2018	bv14 ace2	10	106	129	106.4	102.1	14.2	11.4	4.3	6.3	0.90
122	2010	bv15 rpl3	192	392	1222	98.0	98.0	10.7	10.7	0.0	1.4	0.99
123	2011	bv15 rpl3	154	246	536	99.6	99.7	10.1	10.2	-0.1	1.3	0.99
124	2012	bv15 rpl3	170	365	628	102.2	102.3	10.1	10.0	-0.1	1.5	0.99
125	2013	bv15 rpl3	151	369	613	100.4	100.5	10.4	10.5	-0.2	1.7	0.99
126	2014	bv15 rpl3	113	590	725	102.2	102.5	9.6	9.8	-0.3	1.7	0.99
127	2015	bv15 rpl3	82	757	957	102.4	102.3	10.9	8.3	0.1	7.3	0.75
128	2016	bv15 rpl3	52	263	371	103.3	102.7	10.0	8.9	0.7	5.7	0.82
129	2010	bv16 rp3	192	392	1221	99.3	99.2	9.5	9.4	0.0	1.7	0.98
130	2011	bv16 rp3	154	246	536	98.7	98.7	10.0	9.9	0.0	1.6	0.99
131	2012	bv16 rp3	170	360	606	100.0	99.7	10.8	10.5	0.3	1.7	0.99
132	2013	bv16 rp3	151	366	606	100.8	100.5	11.2	11.0	0.4	2.0	0.98
133	2014	bv16 rp3	113	562	695	100.7	100.0	12.6	12.2	0.7	1.8	0.99
134	2015	bv16 rp3	78	493	647	103.0	101.7	12.1	8.7	1.3	8.1	0.75
135	2016	bv16 rp3	19	74	81	107.3	102.3	10.4	9.7	5.1	4.9	0.88
136	2010	bv17 mb3	192	392	1221	97.4	97.4	9.7	9.7	0.0	1.0	0.99
137	2011	bv17 mb3	154	246	536	100.3	100.2	8.2	8.3	0.1	1.0	0.99
138	2012	bv17 mb3	170	360	606	98.8	98.8	9.8	9.8	0.0	1.1	0.99
139	2013	bv17 mb3	151	366	606	102.1	102.0	8.1	8.2	0.1	1.2	0.99
140	2014	bv17 mb3	113	562	695	101.6	101.0	9.2	9.2	0.5	1.3	0.99
141	2015	bv17 mb3	78	493	647	102.1	101.3	9.4	8.6	0.8	5.5	0.81
142	2016	bv17 mb3	19	74	81	101.6	100.7	9.6	9.3	0.9	4.3	0.90
143	2010	bv18 fl3	192	392	1221	98.6	98.7	10.1	10.0	-0.1	1.5	0.99
144	2011	bv18 fl3	154	246	536	98.3	98.5	11.2	11.2	-0.2	1.5	0.99

HOL 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
145	2012	bv18 fl3	170	360	606	101.4	101.6	10.0	10.2	-0.2	1.8	0.99
146	2013	bv18 fl3	151	366	606	100.4	100.4	10.3	10.4	0.0	1.7	0.99
147	2014	bv18 fl3	113	562	695	102.7	102.2	11.1	11.0	0.5	1.6	0.99
148	2015	bv18 fl3	78	493	647	105.4	104.6	12.2	10.3	0.8	6.5	0.85
149	2016	bv18 fl3	19	74	81	104.1	103.2	10.7	10.3	0.9	5.8	0.85
150	2010	bv19 ket3	192	392	1221	97.7	97.7	11.1	11.0	-0.1	1.3	0.99
151	2011	bv19 ket3	154	246	536	100.4	100.2	10.7	10.8	0.2	1.4	0.99
152	2012	bv19 ket3	170	360	606	101.8	101.6	12.3	12.5	0.2	1.4	0.99
153	2013	bv19 ket3	151	366	606	101.1	100.7	11.3	11.4	0.3	1.6	0.99
154	2014	bv19 ket3	113	562	695	105.6	104.8	12.3	12.0	0.8	1.6	0.99
155	2015	bv19 ket3	78	493	647	106.0	103.7	10.6	8.5	2.3	8.1	0.66
156	2016	bv19 ket3	19	74	81	103.5	105.2	12.1	10.2	-1.7	9.0	0.69
157	2010	bv20 bhb3	168	333	928	98.2	98.2	10.7	10.6	0.0	1.1	0.99
158	2011	bv20 bhb3	117	237	449	100.3	100.2	10.7	10.7	0.1	1.1	0.99
159	2012	bv20 bhb3	136	330	502	100.1	99.7	11.7	11.6	0.4	1.1	1.00
160	2013	bv20 bhb3	114	342	493	101.9	100.8	10.3	10.4	1.1	1.5	0.99
161	2014	bv20 bhb3	100	509	574	103.0	101.8	12.4	12.4	1.3	1.2	0.99
162	2015	bv20 bhb3	79	626	791	101.8	99.6	13.0	11.0	2.2	7.5	0.82
163	2016	bv20 bhb3	56	328	460	102.6	101.9	13.1	10.0	0.7	6.7	0.86
164	2010	bv21 ace3	168	333	928	96.5	96.5	10.5	10.4	0.0	1.2	0.99
165	2011	bv21 ace3	117	237	449	97.8	97.8	11.1	11.1	0.0	1.2	0.99
166	2012	bv21 ace3	136	330	502	99.6	99.3	12.8	12.7	0.3	1.5	0.99
167	2013	bv21 ace3	114	342	493	101.1	100.2	12.0	12.0	0.9	1.5	0.99
168	2014	bv21 ace3	100	509	574	103.3	102.4	12.7	12.6	0.9	1.6	0.99
169	2015	bv21 ace3	79	626	791	102.7	100.5	13.6	10.5	2.2	8.4	0.79
170	2016	bv21 ace3	56	328	460	103.0	102.6	13.2	9.9	0.4	7.1	0.85
171	2010	bv22 rpl	192	835	2567	97.7	97.6	10.3	10.2	0.0	1.4	0.99
172	2011	bv22 rpl	155	505	1058	98.9	99.0	8.5	8.7	-0.1	1.3	0.99
173	2012	bv22 rpl	171	729	1287	101.8	101.7	9.2	9.1	0.0	1.4	0.99
174	2013	bv22 rpl	151	756	1369	100.8	100.9	9.7	9.7	-0.1	1.6	0.99
175	2014	bv22 rpl	113	1135	1352	102.5	102.6	8.9	9.0	-0.1	1.6	0.98
176	2015	bv22 rpl	82	1680	2040	103.3	102.9	9.9	7.8	0.4	6.3	0.77
177	2016	bv22 rpl	66	1588	2001	105.1	103.8	8.7	8.0	1.3	5.2	0.81
178	2017	bv22 rpl	66	1489	1734	103.9	103.5	8.3	7.4	0.3	4.8	0.82
179	2018	bv22 rpl	53	539	930	106.5	105.7	8.3	7.5	0.8	4.4	0.85
180	2010	bv23 rp	192	835	2567	99.0	98.9	8.9	8.7	0.1	1.7	0.98

HOL 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
181	2011	bv23 rp	155	505	1058	98.6	98.6	9.3	9.4	0.1	1.6	0.99
182	2012	bv23 rp	171	729	1286	99.9	99.5	10.3	10.0	0.4	1.6	0.99
183	2013	bv23 rp	151	753	1352	101.1	100.6	10.6	10.4	0.5	1.9	0.98
184	2014	bv23 rp	113	1133	1347	101.1	100.3	12.0	11.7	0.8	1.6	0.99
185	2015	bv23 rp	82	1674	2033	103.6	102.2	11.5	8.2	1.5	7.6	0.75
186	2016	bv23 rp	66	1559	1962	103.4	100.7	11.0	9.3	2.7	5.4	0.87
187	2017	bv23 rp	66	1077	1325	102.4	102.0	9.7	7.7	0.4	5.1	0.85
188	2018	bv23 rp	23	274	427	103.7	100.2	8.7	6.7	3.5	4.0	0.90
189	2010	bv24 mb	192	835	2567	97.6	97.6	8.8	8.8	0.0	1.1	0.99
190	2011	bv24 mb	155	505	1058	99.9	100.0	8.2	8.2	-0.1	1.2	0.99
191	2012	bv24 mb	171	729	1286	100.1	100.1	9.3	9.3	0.0	1.3	0.99
192	2013	bv24 mb	151	753	1352	102.3	102.5	7.3	7.6	-0.2	1.3	0.99
193	2014	bv24 mb	113	1133	1347	102.8	102.4	8.5	8.4	0.5	1.3	0.99
194	2015	bv24 mb	82	1674	2033	104.2	102.6	8.4	7.7	1.6	5.2	0.79
195	2016	bv24 mb	66	1559	1962	104.4	103.5	8.6	7.5	0.9	4.7	0.84
196	2017	bv24 mb	66	1077	1325	106.0	104.6	6.6	5.9	1.4	4.7	0.72
197	2018	bv24 mb	23	274	427	103.5	102.3	9.4	7.0	1.2	5.4	0.82
198	2010	bv25 fl	192	835	2567	98.7	98.7	9.7	9.6	0.0	1.5	0.99
199	2011	bv25 fl	155	505	1058	98.2	98.4	11.0	11.0	-0.2	1.6	0.99
200	2012	bv25 fl	171	729	1286	101.3	101.5	9.9	10.1	-0.2	1.8	0.98
201	2013	bv25 fl	151	753	1352	100.5	100.5	10.1	10.2	0.0	1.8	0.98
202	2014	bv25 fl	113	1133	1347	102.8	102.3	10.9	10.9	0.6	1.5	0.99
203	2015	bv25 fl	82	1674	2033	105.5	104.6	11.6	9.8	0.9	6.5	0.83
204	2016	bv25 fl	66	1559	1962	104.1	104.1	10.3	8.3	0.0	5.9	0.82
205	2017	bv25 fl	66	1077	1325	106.9	105.1	9.7	8.5	1.8	6.0	0.79
206	2018	bv25 fl	23	274	427	104.5	104.0	8.6	8.3	0.4	3.9	0.90
207	2010	bv26 ket	192	835	2567	97.8	97.8	11.0	10.8	0.0	1.2	0.99
208	2011	bv26 ket	155	505	1058	100.2	100.0	10.0	10.2	0.2	1.4	0.99
209	2012	bv26 ket	171	729	1286	101.5	101.4	11.4	11.7	0.1	1.3	0.99
210	2013	bv26 ket	151	753	1352	101.4	101.2	10.1	10.2	0.2	1.5	0.99
211	2014	bv26 ket	113	1133	1347	105.8	104.9	11.0	10.7	0.9	1.6	0.99
212	2015	bv26 ket	82	1674	2033	106.6	103.8	9.5	8.1	2.9	7.3	0.67
213	2016	bv26 ket	66	1559	1962	107.4	107.0	11.5	9.1	0.4	6.9	0.80
214	2017	bv26 ket	66	1077	1325	110.4	107.4	8.4	6.7	3.0	6.3	0.68
215	2018	bv26 ket	23	274	427	106.1	105.9	11.4	7.8	0.3	6.8	0.81
216	2010	bv27 bhb	146	773	2072	97.3	97.5	9.7	9.4	-0.1	1.1	0.99

HOL 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
217	2011	bv27 bhb	135	416	844	98.4	98.5	10.6	10.5	-0.1	1.0	1.00
218	2012	bv27 bhb	155	572	934	99.4	99.3	11.2	10.9	0.1	1.3	0.99
219	2013	bv27 bhb	121	613	975	101.6	100.9	10.6	10.2	0.7	1.5	0.99
220	2014	bv27 bhb	104	877	996	103.1	102.3	11.2	11.0	0.8	1.4	0.99
221	2015	bv27 bhb	80	1156	1430	103.0	100.6	12.6	10.0	2.4	7.3	0.82
222	2016	bv27 bhb	63	1111	1374	103.5	103.0	12.7	9.3	0.5	7.3	0.83
223	2017	bv27 bhb	66	1103	1371	106.6	104.3	11.5	7.7	2.2	7.4	0.78
224	2018	bv27 bhb	67	657	972	105.8	104.2	11.7	8.8	1.6	6.8	0.81
225	2010	bv29 GH	192	835	2567	98.8	98.8	10.2	10.0	0.0	1.3	0.99
226	2011	bv29 GH	155	505	1058	101.1	100.9	10.6	10.6	0.1	1.2	0.99
227	2012	bv29 GH	171	729	1287	99.9	99.6	10.4	10.4	0.4	1.3	0.99
228	2013	bv29 GH	151	756	1369	101.3	100.8	9.5	9.4	0.6	1.6	0.99
229	2014	bv29 GH	113	1135	1352	103.2	101.9	10.7	10.5	1.3	1.3	0.99
230	2015	bv29 GH	82	1680	2040	102.3	99.8	11.8	10.3	2.4	6.9	0.81
231	2016	bv29 GH	66	1588	2001	102.6	101.8	12.5	9.5	0.8	6.6	0.85
232	2017	bv29 GH	66	1489	1734	105.0	103.4	11.7	8.3	1.5	7.3	0.79
233	2018	bv29 GH	53	539	930	103.0	101.8	11.9	9.6	1.2	6.3	0.85

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	65	0	0	108.2	105.4	8.1	7.9	2.8	4.1	0.87
2	2020	bv1 rpl1	70	.	.	110.7	108.5	6.3	6.5	2.2	3.8	0.83
3	2021	bv1 rpl1	58	.	.	108.6	106.2	7.5	7.1	2.4	3.5	0.88
4	2022	bv1 rpl1	44	.	.	111.2	109.1	7.3	6.3	2.1	3.1	0.91
5	2019	bv2 rp1	69	0	0	103.1	100.7	8.3	7.6	2.5	3.1	0.93
6	2020	bv2 rp1	70	.	.	104.8	102.2	6.5	5.7	2.6	3.0	0.89
7	2021	bv2 rp1	58	.	.	102.2	100.7	7.0	6.7	1.5	2.9	0.91
8	2022	bv2 rp1	44	.	.	103.2	100.9	6.8	5.2	2.3	3.0	0.91
9	2019	bv3 mb1	69	0	0	109.1	106.5	8.7	7.7	2.5	3.8	0.90
10	2020	bv3 mb1	70	.	.	109.8	107.8	7.1	6.5	2.0	4.9	0.74
11	2021	bv3 mb1	58	.	.	109.7	107.3	7.2	6.3	2.3	4.2	0.81
12	2022	bv3 mb1	44	.	.	109.5	108.9	6.2	6.2	0.5	3.0	0.88
13	2019	bv4 fl1	69	0	0	107.2	104.8	8.7	8.6	2.4	4.0	0.89
14	2020	bv4 fl1	70	.	.	107.8	106.6	8.5	7.3	1.2	3.4	0.92
15	2021	bv4 fl1	58	.	.	106.2	103.3	7.3	7.1	2.9	3.6	0.88
16	2022	bv4 fl1	44	.	.	106.8	105.8	7.2	7.2	0.9	3.3	0.90
17	2019	bv5 ket1	69	0	0	109.9	107.2	9.3	7.3	2.7	4.4	0.89
18	2020	bv5 ket1	70	.	.	109.6	107.8	7.9	7.1	1.8	4.7	0.81
19	2021	bv5 ket1	58	.	.	110.7	109.1	7.4	6.9	1.6	4.0	0.84
20	2022	bv5 ket1	44	.	.	110.0	110.0	6.8	6.6	0.1	3.2	0.89
21	2019	bv6 bhb1	57	0	.	104.7	101.4	9.0	7.3	3.3	4.9	0.84
22	2020	bv6 bhb1	70	.	.	103.5	100.5	10.3	8.9	3.0	4.4	0.90
23	2021	bv6 bhb1	58	.	.	107.1	104.9	8.8	6.7	2.2	4.8	0.84
24	2022	bv6 bhb1	44	.	.	104.1	103.1	8.2	7.3	1.0	2.8	0.94
25	2019	bv7 ace1	57	0	.	106.6	103.3	9.6	7.4	3.3	5.5	0.82
26	2020	bv7 ace1	70	.	.	104.6	102.2	11.0	8.8	2.4	5.9	0.84
27	2021	bv7 ace1	58	.	.	107.9	106.0	9.2	7.0	1.9	5.4	0.82
28	2022	bv7 ace1	44	.	.	106.5	105.5	8.5	7.7	1.0	3.3	0.92
29	2019	bv8 rpl2	69	0	0	104.6	104.0	9.7	8.8	0.7	3.6	0.93
30	2020	bv8 rpl2	70	.	.	108.5	107.4	7.4	7.3	1.1	3.2	0.91
31	2021	bv8 rpl2	58	.	.	105.1	105.1	7.6	7.1	0.0	3.0	0.92
32	2022	bv8 rpl2	44	.	.	106.9	107.0	7.4	6.5	-0.1	2.6	0.94
33	2019	bv9 rp2	69	0	0	102.4	100.0	8.5	7.9	2.4	3.4	0.92
34	2020	bv9 rp2	70	.	.	104.7	101.9	7.0	6.1	2.8	3.0	0.91
35	2021	bv9 rp2	58	.	.	102.1	100.3	7.0	6.9	1.8	3.0	0.91
36	2022	bv9 rp2	44	.	.	103.2	100.3	7.3	5.7	2.9	3.1	0.92

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	69	0	0	107.0	105.1	8.3	7.5	1.9	3.2	0.92
38	2020	bv10 mb2	70	.	.	107.5	106.2	6.9	6.4	1.3	3.4	0.87
39	2021	bv10 mb2	58	.	.	108.3	106.9	6.7	5.9	1.4	3.1	0.88
40	2022	bv10 mb2	44	.	.	107.0	106.8	5.9	5.9	0.2	2.5	0.91
41	2019	bv11 fl2	69	0	0	107.6	105.3	8.8	8.5	2.3	4.0	0.90
42	2020	bv11 fl2	70	.	.	108.0	106.9	8.5	7.4	1.1	3.2	0.93
43	2021	bv11 fl2	58	.	.	106.9	104.2	7.2	6.9	2.7	3.6	0.87
44	2022	bv11 fl2	44	.	.	107.1	106.3	7.4	7.3	0.9	3.2	0.91
45	2019	bv12 ket2	69	0	0	114.0	110.2	8.5	7.8	3.9	3.9	0.89
46	2020	bv12 ket2	70	.	.	115.0	112.4	8.1	7.2	2.6	3.8	0.88
47	2021	bv12 ket2	58	.	.	117.7	114.7	7.0	6.4	3.1	3.8	0.84
48	2022	bv12 ket2	44	.	.	116.8	115.3	7.4	7.0	1.5	2.6	0.93
49	2019	bv13 bhb2	69	0	0	107.1	103.3	9.1	7.8	3.8	4.7	0.86
50	2020	bv13 bhb2	70	.	.	106.1	102.9	10.6	8.9	3.2	4.0	0.93
51	2021	bv13 bhb2	58	.	.	112.2	109.2	8.8	7.2	2.9	4.4	0.87
52	2022	bv13 bhb2	44	.	.	108.3	106.2	8.7	7.4	2.1	2.8	0.95
53	2019	bv14 ace2	69	0	0	108.9	105.0	8.9	7.3	3.9	5.0	0.82
54	2020	bv14 ace2	70	.	.	108.3	105.3	10.6	8.3	3.0	4.7	0.90
55	2021	bv14 ace2	58	.	.	114.2	110.9	8.3	6.5	3.2	4.4	0.85
56	2022	bv14 ace2	44	.	.	111.6	108.9	8.2	6.8	2.7	3.0	0.94
57	2019	bv15 rpl3	69	0	0	103.4	102.9	10.0	9.1	0.4	3.6	0.93
58	2020	bv15 rpl3	70	.	.	107.6	106.5	7.6	7.5	1.1	3.3	0.91
59	2021	bv15 rpl3	58	.	.	104.2	104.3	7.6	7.2	-0.1	2.9	0.92
60	2022	bv15 rpl3	44	.	.	105.8	105.7	7.9	6.9	0.1	2.7	0.94
61	2019	bv16 rp3	69	0	0	100.7	98.7	8.7	8.0	2.0	3.7	0.91
62	2020	bv16 rp3	70	.	.	103.2	100.5	7.4	6.4	2.8	3.2	0.90
63	2021	bv16 rp3	58	.	.	100.3	98.9	7.4	7.1	1.4	3.2	0.91
64	2022	bv16 rp3	44	.	.	101.3	98.6	7.4	6.1	2.7	3.0	0.92
65	2019	bv17 mb3	69	0	0	105.8	103.4	6.9	6.7	2.4	2.8	0.92
66	2020	bv17 mb3	70	.	.	105.8	104.2	6.3	6.1	1.6	2.6	0.91
67	2021	bv17 mb3	58	.	.	107.8	105.9	6.4	5.7	2.0	2.4	0.93
68	2022	bv17 mb3	44	.	.	106.2	105.0	6.1	5.7	1.2	2.3	0.93
69	2019	bv18 fl3	69	0	0	107.1	104.9	9.1	8.9	2.3	3.6	0.92
70	2020	bv18 fl3	70	.	.	108.0	106.7	8.3	7.3	1.3	3.0	0.93
71	2021	bv18 fl3	58	.	.	106.5	103.8	7.4	7.2	2.7	3.2	0.90
72	2022	bv18 fl3	44	.	.	106.9	105.7	7.5	7.0	1.1	3.0	0.92

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	69	0	0	113.2	109.9	8.1	7.6	3.4	3.6	0.90
74	2020	bv19 ket3	70	.	.	113.8	111.4	8.0	7.1	2.3	3.6	0.89
75	2021	bv19 ket3	58	.	.	116.9	114.3	6.8	6.3	2.6	3.5	0.86
76	2022	bv19 ket3	44	.	.	115.3	114.1	7.5	6.9	1.2	2.6	0.94
77	2019	bv20 bhb3	69	0	0	108.4	104.4	8.5	7.6	4.0	4.2	0.87
78	2020	bv20 bhb3	70	.	.	107.1	103.9	10.4	8.7	3.2	4.0	0.93
79	2021	bv20 bhb3	58	.	.	113.4	110.4	8.6	7.0	3.0	3.9	0.89
80	2022	bv20 bhb3	44	.	.	109.8	107.6	8.6	7.5	2.2	2.6	0.96
81	2019	bv21 ace3	69	0	0	110.9	106.6	8.1	7.1	4.3	4.2	0.86
82	2020	bv21 ace3	70	.	.	109.7	107.0	9.5	7.6	2.7	4.4	0.89
83	2021	bv21 ace3	58	.	.	115.5	112.0	8.0	6.8	3.5	3.8	0.88
84	2022	bv21 ace3	44	.	.	113.7	110.9	7.9	6.8	2.8	3.0	0.93
85	2019	bv22 rpl	65	0	0	105.0	103.8	9.1	8.3	1.2	3.7	0.92
86	2020	bv22 rpl	70	.	.	108.7	107.3	6.8	6.8	1.5	3.1	0.90
87	2021	bv22 rpl	58	.	.	105.7	105.1	7.3	6.9	0.6	3.0	0.91
88	2022	bv22 rpl	44	.	.	107.6	107.0	7.3	6.4	0.6	2.5	0.94
89	2019	bv23 rp	69	0	0	101.9	99.6	8.5	7.8	2.3	3.4	0.92
90	2020	bv23 rp	70	.	.	104.0	101.3	7.0	6.0	2.7	3.0	0.90
91	2021	bv23 rp	58	.	.	101.3	99.7	7.1	6.9	1.6	3.1	0.91
92	2022	bv23 rp	44	.	.	102.3	99.7	7.1	5.7	2.6	2.9	0.92
93	2019	bv24 mb	69	0	0	107.2	104.8	7.4	6.9	2.4	3.0	0.91
94	2020	bv24 mb	70	.	.	107.4	105.7	6.2	5.7	1.7	3.2	0.86
95	2021	bv24 mb	58	.	.	108.5	106.6	6.2	5.4	1.9	3.0	0.88
96	2022	bv24 mb	44	.	.	107.4	106.7	5.6	5.4	0.7	2.3	0.91
97	2019	bv25 fl	69	0	0	107.3	105.0	8.9	8.7	2.3	3.7	0.91
98	2020	bv25 fl	70	.	.	108.0	106.7	8.4	7.3	1.2	3.2	0.93
99	2021	bv25 fl	58	.	.	106.5	103.8	7.3	7.1	2.7	3.4	0.89
100	2022	bv25 fl	44	.	.	106.9	105.9	7.3	7.2	1.0	3.3	0.90
101	2019	bv26 ket	69	0	0	112.5	109.1	8.1	7.2	3.3	3.6	0.90
102	2020	bv26 ket	70	.	.	112.9	110.6	7.7	6.8	2.3	3.8	0.87
103	2021	bv26 ket	58	.	.	115.3	112.9	6.7	6.1	2.4	3.6	0.84
104	2022	bv26 ket	44	.	.	114.1	113.2	6.9	6.6	0.9	2.3	0.94
105	2019	bv27 bhb	57	0	.	109.4	105.4	8.3	6.6	3.9	4.6	0.84
106	2020	bv27 bhb	70	.	.	107.8	105.2	9.8	7.8	2.6	4.6	0.89
107	2021	bv27 bhb	58	.	.	112.9	110.0	7.8	6.3	2.9	4.0	0.86
108	2022	bv27 bhb	44	.	.	110.9	108.8	7.7	6.6	2.1	2.6	0.95

HOL summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	65	0	0	106.9	103.3	8.5	7.4	3.5	4.4	0.86
110	2020	bv29 GH	70	.	.	105.7	102.6	10.1	8.5	3.1	3.8	0.93
111	2021	bv29 GH	58	.	.	111.1	108.5	8.4	6.7	2.6	4.2	0.87
112	2022	bv29 GH	44	.	.	107.8	105.9	8.2	7.1	1.9	2.4	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	bv1 rpl1	183796	96.3	96.3	6.9	6.8	0.0	1.0	0.99
2	2016	bv1 rpl1	178322	98.2	98.1	7.0	7.0	0.2	1.1	0.99
3	2017	bv1 rpl1	159438	99.4	98.8	7.1	6.9	0.6	2.3	0.95
4	2018	bv1 rpl1	151275	101.0	100.6	7.3	7.2	0.4	3.2	0.91
5	2019	bv1 rpl1	142861	100.9	100.4	6.4	6.0	0.5	3.3	0.86
6	2020	bv1 rpl1	96331	101.7	100.8	6.8	6.3	1.0	3.1	0.89
7	2021	bv1 rpl1	1036	98.5	98.5	6.2	6.1	0.0	0.5	1.00
8	2015	bv2 rp1	183796	98.7	98.6	6.8	6.7	0.1	0.9	0.99
9	2016	bv2 rp1	178322	99.4	99.0	7.3	7.1	0.4	1.0	0.99
10	2017	bv2 rp1	159438	99.8	99.1	7.9	6.9	0.7	2.9	0.93
11	2018	bv2 rp1	151275	101.2	100.0	8.3	6.9	1.3	3.3	0.92
12	2019	bv2 rp1	139102	100.0	99.5	7.2	6.1	0.5	3.0	0.91
13	2020	bv2 rp1	35938	100.6	99.6	7.1	6.1	1.0	2.9	0.92
14	2015	bv3 mb1	183796	98.4	98.4	7.0	7.0	0.1	1.2	0.99
15	2016	bv3 mb1	178322	99.7	99.6	7.1	7.0	0.2	1.3	0.98
16	2017	bv3 mb1	159438	100.8	99.9	6.9	6.6	0.9	2.8	0.92
17	2018	bv3 mb1	151275	101.7	101.5	7.7	7.0	0.2	4.0	0.86
18	2019	bv3 mb1	139102	101.5	101.2	7.1	6.0	0.4	3.9	0.83
19	2020	bv3 mb1	35938	102.3	101.2	7.1	5.8	1.1	3.8	0.85
20	2015	bv4 fl1	183796	98.4	98.5	7.0	7.1	-0.1	1.1	0.99
21	2016	bv4 fl1	178322	99.8	99.6	7.1	7.1	0.1	1.2	0.99
22	2017	bv4 fl1	159438	100.2	99.7	7.2	6.9	0.5	2.6	0.93
23	2018	bv4 fl1	151275	101.5	100.9	7.7	6.9	0.6	3.5	0.89
24	2019	bv4 fl1	139102	101.2	100.5	7.2	6.2	0.6	3.8	0.85
25	2020	bv4 fl1	35938	101.6	100.4	7.5	6.5	1.2	3.6	0.87
26	2015	bv5 ket1	183796	98.0	97.9	7.9	7.9	0.1	1.2	0.99
27	2016	bv5 ket1	178322	99.1	98.8	8.3	8.1	0.3	1.3	0.99
28	2017	bv5 ket1	159438	100.4	99.6	8.0	7.3	0.9	3.4	0.90
29	2018	bv5 ket1	151275	101.6	100.9	8.7	7.1	0.6	4.9	0.83
30	2019	bv5 ket1	139102	101.6	101.2	8.1	6.4	0.4	4.8	0.81
31	2020	bv5 ket1	35938	102.4	101.0	7.9	6.1	1.3	4.4	0.83
32	2015	bv6 bhb1	123112	99.9	99.8	8.4	8.3	0.1	1.6	0.98
33	2016	bv6 bhb1	110428	100.4	99.9	8.4	8.3	0.5	1.8	0.98
34	2017	bv6 bhb1	96595	100.3	99.7	8.6	7.7	0.6	4.3	0.87
35	2018	bv6 bhb1	90815	101.3	100.4	9.4	7.1	0.9	6.1	0.76
36	2019	bv6 bhb1	86328	100.5	99.8	9.0	6.1	0.7	6.3	0.72

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	2020	bv6 bhb1	77782	100.5	99.4	8.8	6.5	1.1	5.7	0.77
38	2021	bv6 bhb1	8662	100.6	100.5	8.7	8.5	0.1	1.4	0.99
39	2015	bv7 ace1	123112	99.1	99.0	8.6	8.5	0.1	1.7	0.98
40	2016	bv7 ace1	110428	100.3	99.8	8.7	8.5	0.5	1.8	0.98
41	2017	bv7 ace1	96595	100.4	99.8	9.0	8.1	0.6	4.2	0.89
42	2018	bv7 ace1	90815	101.5	100.9	9.9	7.6	0.7	6.1	0.79
43	2019	bv7 ace1	86328	101.0	100.4	9.3	6.3	0.6	6.4	0.72
44	2020	bv7 ace1	77782	101.4	100.1	9.3	6.7	1.3	6.1	0.76
45	2021	bv7 ace1	8662	101.2	101.1	9.5	9.3	0.1	1.6	0.99
46	2015	bv8 rpl2	132687	98.5	98.6	6.8	6.8	-0.1	1.0	0.99
47	2016	bv8 rpl2	128458	99.7	99.9	6.9	6.9	-0.1	1.0	0.99
48	2017	bv8 rpl2	117534	100.3	100.3	7.1	6.5	0.0	2.7	0.93
49	2018	bv8 rpl2	110503	101.3	101.3	7.3	6.6	0.0	3.4	0.88
50	2019	bv8 rpl2	73431	100.5	100.8	6.6	6.0	-0.4	3.1	0.88
51	2020	bv8 rpl2	1490	100.4	100.5	6.8	6.1	-0.1	2.9	0.91
52	2015	bv9 rp2	132687	99.0	98.9	7.2	7.1	0.1	0.9	0.99
53	2016	bv9 rp2	128458	99.7	99.4	7.6	7.5	0.3	1.0	0.99
54	2017	bv9 rp2	117350	100.0	99.4	8.2	7.4	0.6	2.9	0.93
55	2018	bv9 rp2	103618	101.4	100.1	8.5	7.3	1.3	3.1	0.93
56	2019	bv9 rp2	22839	100.4	99.4	7.2	6.3	1.0	2.9	0.92
57	2015	bv10 mb2	132687	98.2	98.3	7.0	7.0	-0.1	1.0	0.99
58	2016	bv10 mb2	128458	99.6	99.7	7.0	7.0	-0.1	1.0	0.99
59	2017	bv10 mb2	117350	100.0	99.6	7.0	6.6	0.4	2.7	0.93
60	2018	bv10 mb2	103618	101.2	101.2	7.5	6.9	0.0	3.4	0.89
61	2019	bv10 mb2	22839	100.7	100.9	6.7	6.0	-0.2	3.3	0.87
62	2015	bv11 fl2	132687	98.8	98.9	7.1	7.2	-0.1	1.0	0.99
63	2016	bv11 fl2	128458	99.9	99.8	7.1	7.1	0.1	1.1	0.99
64	2017	bv11 fl2	117350	100.6	100.1	7.4	7.1	0.5	2.7	0.93
65	2018	bv11 fl2	103618	101.8	101.1	7.7	7.0	0.7	3.5	0.89
66	2019	bv11 fl2	22839	101.1	100.9	7.1	6.2	0.2	3.6	0.86
67	2015	bv12 ket2	132687	97.7	97.5	8.3	8.3	0.2	1.1	0.99
68	2016	bv12 ket2	128458	98.7	98.4	9.0	8.9	0.3	1.1	0.99
69	2017	bv12 ket2	117350	101.2	100.1	9.2	8.6	1.1	3.2	0.94
70	2018	bv12 ket2	103618	101.9	101.2	9.0	7.9	0.7	4.7	0.85
71	2019	bv12 ket2	22839	102.3	102.4	8.5	7.4	-0.1	4.6	0.84
72	2015	bv13 bhb2	88006	99.4	99.2	9.2	9.1	0.3	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	2016	bv13 bhb2	85017	99.6	98.9	9.4	9.3	0.7	1.7	0.98
74	2017	bv13 bhb2	75764	100.5	99.8	9.6	8.7	0.8	4.4	0.89
75	2018	bv13 bhb2	70737	100.9	99.8	10.0	7.6	1.1	6.1	0.80
76	2019	bv13 bhb2	59836	100.8	99.9	9.2	6.9	0.9	5.8	0.78
77	2020	bv13 bhb2	6092	101.2	99.8	9.0	6.8	1.3	5.2	0.82
78	2015	bv14 ace2	88006	98.8	98.6	9.0	8.8	0.2	1.5	0.99
79	2016	bv14 ace2	85017	99.5	99.0	9.3	9.2	0.6	1.5	0.99
80	2017	bv14 ace2	75764	100.7	100.1	9.7	8.7	0.7	4.2	0.90
81	2018	bv14 ace2	70737	101.0	100.3	10.1	7.6	0.7	5.9	0.81
82	2019	bv14 ace2	59836	101.5	100.6	9.1	6.7	0.9	5.7	0.78
83	2020	bv14 ace2	6092	102.1	100.8	8.8	6.7	1.3	4.9	0.84
84	2015	bv15 rpl3	90799	99.1	99.2	7.0	7.0	-0.1	1.0	0.99
85	2016	bv15 rpl3	89771	100.2	100.4	7.0	6.9	-0.2	1.0	0.99
86	2017	bv15 rpl3	80921	100.6	100.7	7.3	6.7	-0.1	2.7	0.93
87	2018	bv15 rpl3	51669	101.7	101.5	7.4	6.7	0.2	3.5	0.88
88	2019	bv15 rpl3	1151	100.6	101.1	6.6	6.2	-0.5	3.0	0.89
89	2015	bv16 rp3	90776	100.1	100.0	7.3	7.2	0.1	1.0	0.99
90	2016	bv16 rp3	89277	100.6	100.3	7.7	7.6	0.3	1.0	0.99
91	2017	bv16 rp3	71973	100.7	100.0	8.2	7.5	0.6	3.0	0.93
92	2018	bv16 rp3	14794	102.2	100.9	8.5	7.2	1.3	3.8	0.90
93	2015	bv17 mb3	90776	97.7	97.7	7.0	7.0	0.0	0.9	0.99
94	2016	bv17 mb3	89277	99.1	99.0	6.6	6.6	0.1	0.9	0.99
95	2017	bv17 mb3	71973	99.4	98.9	6.6	6.3	0.5	2.5	0.93
96	2018	bv17 mb3	14794	101.0	100.4	6.9	6.2	0.6	3.4	0.87
97	2015	bv18 fl3	90776	99.0	99.1	7.3	7.4	-0.1	1.0	0.99
98	2016	bv18 fl3	89277	100.2	100.1	7.3	7.3	0.1	1.0	0.99
99	2017	bv18 fl3	71973	100.9	100.4	7.6	7.3	0.5	2.7	0.93
100	2018	bv18 fl3	14794	103.3	102.6	8.3	7.8	0.7	3.7	0.90
101	2015	bv19 ket3	90776	98.4	98.2	8.5	8.5	0.2	1.1	0.99
102	2016	bv19 ket3	89277	99.1	98.8	9.2	9.1	0.3	1.1	0.99
103	2017	bv19 ket3	71973	101.8	100.8	9.3	8.7	1.1	3.5	0.93
104	2018	bv19 ket3	14794	103.1	101.4	9.1	7.7	1.7	4.4	0.87
105	2015	bv20 bhb3	60468	99.2	98.8	9.3	9.2	0.4	1.5	0.99
106	2016	bv20 bhb3	59886	99.5	98.7	9.6	9.5	0.7	1.6	0.99
107	2017	bv20 bhb3	53493	100.8	99.9	9.7	8.9	0.9	4.3	0.90
108	2018	bv20 bhb3	43015	101.3	99.9	10.0	7.6	1.4	5.8	0.82

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	2019	bv20 bhb3	4397	101.8	100.9	9.1	7.0	0.9	5.3	0.81
110	2015	bv21 ace3	60468	98.2	97.9	8.9	8.8	0.3	1.3	0.99
111	2016	bv21 ace3	59886	99.2	98.6	9.4	9.3	0.6	1.3	0.99
112	2017	bv21 ace3	53493	101.1	100.2	9.5	8.7	0.9	4.0	0.91
113	2018	bv21 ace3	43015	101.6	100.5	9.9	7.4	1.1	5.6	0.82
114	2019	bv21 ace3	4397	102.1	101.5	8.4	6.8	0.6	4.7	0.83
115	2015	bv22 rpl	183796	97.9	98.0	6.4	6.4	-0.1	0.9	0.99
116	2016	bv22 rpl	178319	99.3	99.4	6.5	6.5	-0.1	0.9	0.99
117	2017	bv22 rpl	159410	100.0	99.8	6.8	6.3	0.1	2.3	0.94
118	2018	bv22 rpl	151227	101.1	101.0	7.0	6.5	0.1	3.1	0.90
119	2019	bv22 rpl	141852	100.5	100.7	6.2	5.7	-0.1	2.9	0.89
120	2020	bv22 rpl	80884	101.6	101.2	6.5	5.9	0.5	2.8	0.90
121	2021	bv22 rpl	31	101.8	101.2	7.7	6.9	0.6	2.4	0.95
122	2015	bv23 rp	183796	99.2	99.1	7.0	6.9	0.1	0.9	0.99
123	2016	bv23 rp	178322	99.8	99.5	7.4	7.3	0.3	1.0	0.99
124	2017	bv23 rp	159438	100.0	99.4	8.0	7.3	0.6	2.9	0.93
125	2018	bv23 rp	151275	101.2	100.0	8.3	7.1	1.2	3.2	0.93
126	2019	bv23 rp	139102	100.0	99.5	7.3	6.2	0.5	3.1	0.90
127	2020	bv23 rp	35938	100.4	99.5	7.0	6.1	0.9	2.8	0.92
128	2015	bv24 mb	183796	97.9	97.9	6.4	6.4	0.0	0.9	0.99
129	2016	bv24 mb	178322	99.3	99.2	6.3	6.3	0.1	0.9	0.99
130	2017	bv24 mb	159438	99.8	99.2	6.4	6.0	0.5	2.4	0.93
131	2018	bv24 mb	151275	100.9	100.7	7.0	6.3	0.2	3.1	0.89
132	2019	bv24 mb	139102	100.9	100.5	6.1	5.4	0.4	3.0	0.87
133	2020	bv24 mb	35938	101.5	100.7	6.2	5.4	0.8	2.9	0.88
134	2015	bv25 fl	183796	98.6	98.6	7.1	7.2	-0.1	1.0	0.99
135	2016	bv25 fl	178322	99.8	99.7	7.1	7.1	0.1	1.1	0.99
136	2017	bv25 fl	159438	100.3	99.9	7.4	7.0	0.4	2.6	0.94
137	2018	bv25 fl	151275	101.6	101.0	7.8	7.1	0.6	3.3	0.90
138	2019	bv25 fl	139102	101.3	100.7	7.3	6.4	0.6	3.6	0.87
139	2020	bv25 fl	35938	101.8	100.7	7.6	6.7	1.1	3.4	0.90
140	2015	bv26 ket	183796	98.0	97.8	7.9	7.9	0.1	1.0	0.99
141	2016	bv26 ket	178322	98.9	98.6	8.5	8.4	0.3	1.1	0.99
142	2017	bv26 ket	159438	101.0	100.0	8.5	8.0	1.0	3.2	0.93
143	2018	bv26 ket	151275	101.7	101.0	8.5	7.4	0.6	4.4	0.86
144	2019	bv26 ket	139102	102.3	101.7	8.0	6.8	0.6	4.2	0.85

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
145	2020	bv26 ket	35938	103.2	101.7	7.7	6.4	1.5	3.7	0.88
146	2015	bv27 bhb	123112	98.4	98.2	8.3	8.1	0.2	1.3	0.99
147	2016	bv27 bhb	110428	99.5	98.9	8.5	8.4	0.6	1.4	0.99
148	2017	bv27 bhb	96595	100.6	99.9	8.9	8.0	0.7	3.8	0.91
149	2018	bv27 bhb	90815	101.2	100.4	9.4	7.1	0.8	5.3	0.83
150	2019	bv27 bhb	86328	101.6	100.7	8.4	6.2	0.9	5.2	0.79
151	2020	bv27 bhb	77782	102.0	100.7	7.9	6.0	1.3	4.5	0.83
152	2021	bv27 bhb	8662	100.5	100.4	6.5	6.3	0.1	1.3	0.98
153	2015	bv29 GH	183796	98.5	98.2	8.1	8.0	0.2	1.3	0.99
154	2016	bv29 GH	178322	98.9	98.3	8.2	8.0	0.6	1.4	0.99
155	2017	bv29 GH	159438	99.3	98.7	8.4	7.8	0.6	3.4	0.91
156	2018	bv29 GH	151275	99.9	99.1	8.9	7.2	0.9	4.7	0.85
157	2019	bv29 GH	142861	100.2	99.4	8.3	6.5	0.8	4.6	0.83
158	2020	bv29 GH	96331	99.7	98.8	7.9	6.4	1.0	4.1	0.85
159	2021	bv29 GH	1036	96.4	96.4	5.7	5.6	0.0	0.5	1.00

sum sta 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	bv1 rpl1	10734	98.0	98.0	8.6	8.5	0.0	2.3	0.96
2	2016	bv1 rpl1	16404	100.1	99.9	8.4	8.3	0.2	2.3	0.96
3	2017	bv1 rpl1	23967	101.8	100.8	8.5	8.3	0.9	3.1	0.93
4	2018	bv1 rpl1	33677	103.8	103.3	8.3	8.2	0.5	3.7	0.90
5	2019	bv1 rpl1	37396	103.5	102.9	7.8	7.4	0.5	3.9	0.87
6	2020	bv1 rpl1	31237	105.2	103.8	7.9	7.5	1.4	3.8	0.88
7	2021	bv1 rpl1	439	105.1	103.8	7.8	7.4	1.2	3.4	0.90
8	2015	bv2 rp1	10734	100.0	99.8	8.6	8.2	0.2	2.0	0.97
9	2016	bv2 rp1	16404	100.8	100.3	8.8	8.4	0.5	2.0	0.97
10	2017	bv2 rp1	23967	101.9	100.7	9.4	8.2	1.2	3.9	0.91
11	2018	bv2 rp1	33677	103.7	102.0	9.2	7.9	1.7	3.8	0.91
12	2019	bv2 rp1	36913	102.6	101.7	8.6	7.4	0.9	3.7	0.90
13	2020	bv2 rp1	11602	103.8	102.1	8.3	7.2	1.7	3.5	0.91
14	2015	bv3 mb1	10734	99.8	99.6	8.5	8.3	0.1	2.5	0.96
15	2016	bv3 mb1	16404	101.4	101.1	8.3	8.0	0.3	2.5	0.95
16	2017	bv3 mb1	23967	102.7	101.4	8.3	7.9	1.4	3.5	0.90
17	2018	bv3 mb1	33677	104.1	103.7	8.7	8.0	0.4	4.5	0.86
18	2019	bv3 mb1	36913	104.2	103.5	8.2	7.2	0.6	4.3	0.85
19	2020	bv3 mb1	11602	105.6	103.9	7.9	7.0	1.7	4.1	0.85
20	2015	bv4 fl1	10734	99.6	99.4	9.5	9.1	0.2	2.5	0.96
21	2016	bv4 fl1	16404	101.0	100.6	9.7	9.3	0.4	2.5	0.97
22	2017	bv4 fl1	23967	102.6	101.2	9.5	8.5	1.5	4.2	0.89
23	2018	bv4 fl1	33677	104.1	103.1	10.1	8.3	1.0	5.5	0.84
24	2019	bv4 fl1	36913	104.4	103.7	9.5	7.8	0.7	5.2	0.84
25	2020	bv4 fl1	11602	105.7	103.5	8.9	7.4	2.2	4.6	0.86
26	2015	bv5 ket1	10734	99.6	99.5	8.8	8.6	0.0	2.3	0.97
27	2016	bv5 ket1	16404	101.1	100.9	8.8	8.7	0.2	2.3	0.97
28	2017	bv5 ket1	23967	101.8	100.9	8.9	8.4	0.8	3.6	0.91
29	2018	bv5 ket1	33677	103.5	102.5	9.0	8.2	0.9	4.1	0.89
30	2019	bv5 ket1	36913	103.6	102.6	8.7	7.5	1.0	4.6	0.85
31	2020	bv5 ket1	11602	104.6	103.0	8.5	7.6	1.6	4.2	0.87
32	2015	bv6 bhb1	8460	99.6	99.7	8.7	8.5	-0.2	2.1	0.97
33	2016	bv6 bhb1	12917	100.8	101.0	8.7	8.5	-0.2	2.1	0.97
34	2017	bv6 bhb1	19090	102.1	101.9	8.8	8.1	0.2	3.3	0.93
35	2018	bv6 bhb1	26518	103.5	103.4	8.7	8.1	0.1	3.9	0.89
36	2019	bv6 bhb1	22069	102.6	103.0	8.4	7.7	-0.3	3.6	0.90
37	2020	bv6 bhb1	606	104.3	103.8	8.4	7.4	0.5	3.6	0.90

sum sta 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
38	2015	bv7 ace1	8460	100.3	100.1	8.8	8.5	0.2	2.0	0.98
39	2016	bv7 ace1	12917	100.9	100.5	9.1	8.8	0.4	1.9	0.98
40	2017	bv7 ace1	19081	101.9	100.9	9.6	8.6	1.0	3.9	0.91
41	2018	bv7 ace1	25535	103.6	101.9	9.4	8.2	1.6	3.6	0.92
42	2019	bv7 ace1	6797	102.8	101.2	8.5	7.6	1.6	3.6	0.91
43	2015	bv8 rpl2	8460	99.1	99.2	8.4	8.2	-0.2	1.9	0.97
44	2016	bv8 rpl2	12917	100.7	100.8	8.2	8.1	-0.1	1.9	0.97
45	2017	bv8 rpl2	19081	101.4	100.7	8.1	7.7	0.7	3.1	0.93
46	2018	bv8 rpl2	25535	103.1	103.0	8.3	7.8	0.2	3.6	0.90
47	2019	bv8 rpl2	6797	102.4	102.6	7.9	7.2	-0.2	3.5	0.90
48	2015	bv9 rp2	8460	99.4	99.2	9.9	9.7	0.3	2.2	0.98
49	2016	bv9 rp2	12917	100.9	100.5	10.4	10.0	0.4	2.1	0.98
50	2017	bv9 rp2	19081	103.5	101.9	10.3	9.7	1.6	3.9	0.93
51	2018	bv9 rp2	25535	104.4	103.7	10.2	9.0	0.7	5.2	0.86
52	2019	bv9 rp2	6797	105.1	105.3	9.9	8.4	-0.3	5.1	0.86
53	2015	bv10 mb2	8460	100.0	100.0	8.7	8.6	0.0	2.2	0.97
54	2016	bv10 mb2	12917	101.2	101.0	8.8	8.6	0.2	2.2	0.97
55	2017	bv10 mb2	19081	102.1	101.3	8.9	8.5	0.8	3.7	0.91
56	2018	bv10 mb2	25535	103.6	102.7	9.0	8.2	0.9	4.2	0.89
57	2019	bv10 mb2	6797	102.9	102.6	8.5	7.5	0.2	4.3	0.87
58	2015	bv11 fl2	6352	100.0	100.2	8.9	8.8	-0.2	2.1	0.97
59	2016	bv11 fl2	9905	101.1	101.3	8.8	8.6	-0.3	2.0	0.97
60	2017	bv11 fl2	14506	102.1	102.1	9.0	8.3	0.0	3.3	0.93
61	2018	bv11 fl2	14280	103.5	103.4	8.8	8.2	0.1	3.9	0.89
62	2019	bv11 fl2	460	102.6	102.9	8.7	8.2	-0.3	3.5	0.91
63	2015	bv12 ket2	6352	101.1	101.0	9.1	8.8	0.2	2.0	0.98
64	2016	bv12 ket2	9874	101.6	101.1	9.4	9.1	0.4	2.0	0.98
65	2017	bv12 ket2	13144	102.2	101.3	9.7	8.9	1.0	3.9	0.92
66	2018	bv12 ket2	3964	104.3	102.6	9.9	8.6	1.7	4.3	0.90
67	2015	bv13 bhb2	6352	98.6	98.6	8.4	8.3	0.0	1.6	0.98
68	2016	bv13 bhb2	9874	99.9	99.7	8.0	7.9	0.2	1.6	0.98
69	2017	bv13 bhb2	13144	100.6	99.9	7.8	7.5	0.7	2.9	0.93
70	2018	bv13 bhb2	3964	102.6	101.8	7.7	7.4	0.8	3.5	0.89
71	2015	bv14 ace2	6352	100.0	99.7	9.9	9.8	0.3	2.1	0.98
72	2016	bv14 ace2	9874	101.1	100.7	10.5	10.2	0.4	2.0	0.98
73	2017	bv14 ace2	13144	103.8	102.2	10.3	9.7	1.6	4.1	0.92
74	2018	bv14 ace2	3964	105.2	103.3	9.8	8.8	1.9	4.8	0.87

sum sta 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
75	2015	bv15 rpl3	6352	100.3	100.3	8.7	8.6	0.0	2.1	0.97
76	2016	bv15 rpl3	9874	101.5	101.4	8.9	8.7	0.2	2.1	0.97
77	2017	bv15 rpl3	13144	102.5	101.7	9.1	8.7	0.8	3.6	0.92
78	2018	bv15 rpl3	3964	105.4	104.5	9.1	8.7	0.9	4.1	0.89
79	2015	bv16 rp3	7004	100.2	100.0	10.3	9.6	0.2	3.0	0.96
80	2016	bv16 rp3	8926	100.6	100.0	10.2	9.5	0.6	3.0	0.96
81	2017	bv16 rp3	13008	100.5	99.7	10.3	9.2	0.8	4.6	0.89
82	2018	bv16 rp3	18819	102.0	100.9	11.2	9.1	1.1	5.8	0.86
83	2019	bv16 rp3	20748	101.4	100.5	10.9	8.5	0.9	5.9	0.84
84	2020	bv16 rp3	22470	101.5	99.7	10.6	8.4	1.8	5.8	0.84
85	2021	bv16 rp3	2976	101.8	100.2	10.4	8.1	1.7	5.7	0.84
86	2015	bv17 mb3	7004	99.7	99.5	10.8	9.9	0.2	3.3	0.95
87	2016	bv17 mb3	8926	100.6	100.0	10.7	9.8	0.7	3.3	0.95
88	2017	bv17 mb3	13008	100.8	100.1	11.0	9.6	0.8	4.8	0.90
89	2018	bv17 mb3	18819	102.2	101.5	11.9	9.5	0.8	6.0	0.86
90	2019	bv17 mb3	20748	102.1	101.3	11.3	8.6	0.8	6.3	0.83
91	2020	bv17 mb3	22470	102.9	100.6	11.1	8.3	2.2	6.6	0.81
92	2021	bv17 mb3	2976	103.1	101.1	11.1	8.2	2.0	6.6	0.81
93	2015	bv18 fl3	4743	100.0	99.6	11.2	10.7	0.4	2.7	0.97
94	2016	bv18 fl3	7342	100.0	99.2	11.4	10.8	0.8	2.7	0.97
95	2017	bv18 fl3	10762	101.1	100.0	11.3	10.3	1.1	4.6	0.91
96	2018	bv18 fl3	15379	101.7	100.5	12.0	9.8	1.1	5.7	0.88
97	2019	bv18 fl3	15287	102.3	101.1	11.3	9.3	1.2	5.6	0.87
98	2020	bv18 fl3	1974	103.4	101.4	10.7	9.1	2.0	5.1	0.88
99	2015	bv19 ket3	4743	99.8	99.4	11.1	10.4	0.3	2.7	0.97
100	2016	bv19 ket3	7342	99.9	99.3	11.3	10.7	0.6	2.6	0.97
101	2017	bv19 ket3	10762	101.5	100.6	11.5	10.2	0.9	4.7	0.91
102	2018	bv19 ket3	15379	102.0	101.3	11.9	9.5	0.6	5.8	0.88
103	2019	bv19 ket3	15287	103.2	102.1	11.0	8.8	1.2	5.8	0.85
104	2020	bv19 ket3	1974	104.8	102.8	10.5	8.6	1.9	5.0	0.88
105	2015	bv20 bhb3	3652	100.0	99.5	11.2	10.7	0.5	2.4	0.98
106	2016	bv20 bhb3	5714	100.0	99.2	11.6	11.1	0.8	2.4	0.98
107	2017	bv20 bhb3	8225	101.5	100.3	11.3	10.4	1.2	4.6	0.92
108	2018	bv20 bhb3	10149	102.3	100.8	11.8	9.6	1.4	5.5	0.89
109	2019	bv20 bhb3	1161	103.4	102.8	11.1	9.1	0.7	5.2	0.88
110	2015	bv21 ace3	3652	99.6	99.1	10.8	10.3	0.4	2.4	0.98
111	2016	bv21 ace3	5714	100.0	99.3	11.3	10.8	0.7	2.3	0.98

sum sta 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
112	2017	bv21 ace3	8225	102.1	100.8	11.3	10.1	1.3	4.6	0.91
113	2018	bv21 ace3	10149	102.8	101.8	11.6	9.1	1.0	5.7	0.88
114	2019	bv21 ace3	1161	104.0	103.6	10.2	8.6	0.3	4.9	0.88
115	2015	bv22 rpl	10734	99.0	99.2	8.3	8.1	-0.1	2.1	0.97
116	2016	bv22 rpl	16404	100.5	100.6	8.2	8.0	-0.1	2.0	0.97
117	2017	bv22 rpl	23967	101.8	101.5	8.3	7.8	0.4	3.0	0.93
118	2018	bv22 rpl	33677	103.4	103.2	8.3	7.8	0.2	3.6	0.90
119	2019	bv22 rpl	37396	102.7	102.8	7.8	7.3	-0.1	3.4	0.90
120	2020	bv22 rpl	31234	104.2	103.5	7.9	7.4	0.7	3.3	0.91
121	2021	bv22 rpl	438	104.2	103.5	7.8	7.6	0.7	2.7	0.94
122	2015	bv23 rp	10734	100.3	100.1	8.8	8.5	0.2	2.0	0.97
123	2016	bv23 rp	16404	100.9	100.4	9.1	8.8	0.4	2.0	0.98
124	2017	bv23 rp	23967	101.8	100.8	9.6	8.5	1.0	3.9	0.91
125	2018	bv23 rp	33677	103.4	101.8	9.3	8.2	1.6	3.7	0.92
126	2019	bv23 rp	36913	102.3	101.4	9.0	7.8	0.9	3.9	0.90
127	2020	bv23 rp	11602	103.3	101.8	8.4	7.4	1.5	3.4	0.91
128	2015	bv24 mb	10734	98.9	98.9	7.8	7.6	0.0	1.8	0.97
129	2016	bv24 mb	16404	100.4	100.3	7.5	7.3	0.1	1.8	0.97
130	2017	bv24 mb	23967	101.3	100.4	7.5	7.1	0.9	2.8	0.93
131	2018	bv24 mb	33677	102.9	102.5	7.8	7.2	0.4	3.3	0.91
132	2019	bv24 mb	36913	103.0	102.4	7.1	6.5	0.6	3.3	0.89
133	2020	bv24 mb	11602	104.3	103.0	7.0	6.5	1.3	3.1	0.90
134	2015	bv25 fl	10734	99.6	99.4	9.3	9.1	0.2	2.1	0.98
135	2016	bv25 fl	16404	100.9	100.5	9.8	9.5	0.4	2.0	0.98
136	2017	bv25 fl	23967	103.2	101.7	9.7	9.0	1.5	3.9	0.92
137	2018	bv25 fl	33677	104.1	103.4	9.7	8.4	0.8	4.9	0.86
138	2019	bv25 fl	36913	105.4	104.5	9.2	7.9	0.9	4.6	0.86
139	2020	bv25 fl	11602	106.8	104.6	8.6	7.6	2.1	3.9	0.89
140	2015	bv26 ket	10734	99.7	99.7	8.7	8.5	0.0	2.1	0.97
141	2016	bv26 ket	16404	101.1	100.9	8.8	8.6	0.2	2.1	0.97
142	2017	bv26 ket	23967	102.0	101.2	8.9	8.5	0.8	3.6	0.92
143	2018	bv26 ket	33677	103.6	102.7	9.0	8.3	0.8	4.0	0.90
144	2019	bv26 ket	36913	103.9	102.9	8.6	7.5	1.0	4.3	0.87
145	2020	bv26 ket	11602	104.9	103.4	8.5	7.7	1.5	4.0	0.88
146	2015	bv27 bhb	8460	99.1	98.8	10.5	9.9	0.3	2.6	0.97
147	2016	bv27 bhb	12917	99.7	99.0	10.4	9.9	0.7	2.6	0.97
148	2017	bv27 bhb	19090	100.1	99.3	10.5	9.7	0.8	4.1	0.92

sum sta 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
149	2018	bv27 bhb	26518	101.1	100.1	11.0	9.3	1.1	5.0	0.89
150	2019	bv27 bhb	22069	102.1	101.0	10.6	8.8	1.1	5.0	0.88
151	2020	bv27 bhb	606	102.4	100.9	9.7	8.2	1.5	4.6	0.88
152	2015	bv29 GH	10734	99.3	99.3	8.1	8.1	0.0	0.0	1.00
153	2016	bv29 GH	16404	99.7	99.7	8.0	8.0	0.0	0.0	1.00
154	2017	bv29 GH	23967	100.0	100.0	8.4	8.4	0.0	0.0	1.00
155	2018	bv29 GH	33677	100.8	100.8	9.0	9.0	0.0	0.0	1.00
156	2019	bv29 GH	37396	101.2	101.2	8.2	8.2	0.0	0.0	1.00
157	2020	bv29 GH	31237	100.7	100.7	7.5	7.5	0.0	0.0	1.00
158	2021	bv29 GH	439	99.6	99.6	6.0	6.0	0.0	0.0	1.00

sum sta 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	bv1 rpl1	11669	103.3	102.7	7.9	7.6	0.6	3.8	0.88
2	2020	bv1 rpl1	27570	105.4	104.0	8.0	7.6	1.4	3.8	0.88
3	2021	bv1 rpl1	61258	105.2	103.7	7.7	7.2	1.5	3.5	0.89
4	2022	bv1 rpl1	58759	106.3	104.5	7.5	7.0	1.8	3.3	0.90
5	2023	bv1 rpl1	1822	107.4	105.8	7.3	6.7	1.6	3.2	0.90
6	2019	bv2 rp1	12152	102.6	101.6	8.5	7.4	0.9	3.7	0.90
7	2020	bv2 rp1	47205	103.2	101.3	8.0	7.1	1.9	3.3	0.91
8	2021	bv2 rp1	61697	102.2	100.5	7.4	6.7	1.7	3.0	0.91
9	2022	bv2 rp1	58759	102.2	100.5	7.4	6.6	1.8	2.8	0.93
10	2023	bv2 rp1	1822	102.6	100.9	7.0	6.3	1.7	2.6	0.93
11	2019	bv3 mb1	12152	104.1	103.5	8.3	7.3	0.6	4.3	0.86
12	2020	bv3 mb1	47205	105.1	103.6	8.2	7.0	1.5	4.4	0.85
13	2021	bv3 mb1	61697	105.2	103.8	8.0	6.8	1.4	4.2	0.85
14	2022	bv3 mb1	58759	105.8	104.8	7.7	6.8	1.0	3.8	0.87
15	2023	bv3 mb1	1822	106.9	106.0	7.8	6.7	0.8	3.8	0.87
16	2019	bv4 fl1	12152	103.7	102.7	8.5	7.5	1.1	4.4	0.86
17	2020	bv4 fl1	47205	103.9	102.8	8.4	7.6	1.1	3.7	0.90
18	2021	bv4 fl1	61697	104.1	102.3	8.0	7.4	1.8	3.5	0.90
19	2022	bv4 fl1	58759	103.8	102.2	7.8	7.4	1.6	3.4	0.90
20	2023	bv4 fl1	1822	103.8	102.6	8.0	7.6	1.2	3.1	0.92
21	2019	bv5 ket1	12152	104.3	103.5	9.5	7.7	0.9	5.2	0.84
22	2020	bv5 ket1	47205	104.7	103.2	9.1	7.5	1.5	4.7	0.86
23	2021	bv5 ket1	61697	105.1	104.1	8.9	7.4	1.0	4.4	0.87
24	2022	bv5 ket1	58759	105.7	105.0	8.5	7.3	0.7	4.1	0.88
25	2023	bv5 ket1	1822	106.5	106.2	8.5	7.2	0.4	3.9	0.89
26	2019	bv6 bhb1	28317	101.0	100.3	10.3	8.5	0.8	5.2	0.87
27	2020	bv6 bhb1	36337	100.2	99.2	10.3	8.4	1.0	5.1	0.87
28	2021	bv6 bhb1	58721	101.3	99.9	10.2	8.2	1.4	5.0	0.87
29	2022	bv6 bhb1	58759	101.7	100.5	9.6	8.1	1.3	4.6	0.88
30	2023	bv6 bhb1	1822	101.7	100.8	9.5	8.0	0.9	4.4	0.89
31	2019	bv7 ace1	28317	101.4	100.7	10.8	8.6	0.6	5.6	0.86
32	2020	bv7 ace1	36337	101.7	100.2	10.7	8.5	1.5	5.9	0.84
33	2021	bv7 ace1	58721	102.2	100.9	10.7	8.3	1.4	5.7	0.85
34	2022	bv7 ace1	58759	102.6	101.8	10.1	8.2	0.9	5.2	0.86
35	2023	bv7 ace1	1822	103.0	102.5	10.0	8.0	0.5	5.0	0.87
36	2019	bv8 rpl2	26996	102.6	102.9	8.3	7.7	-0.2	3.5	0.90
37	2020	bv8 rpl2	58201	104.2	103.7	8.3	7.8	0.6	3.3	0.92

sum sta 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
38	2021	bv8 rpl2	61697	103.6	103.5	8.0	7.5	0.1	3.2	0.91
39	2022	bv8 rpl2	58759	104.0	103.8	7.7	7.2	0.2	3.0	0.92
40	2023	bv8 rpl2	1822	104.9	104.9	7.6	7.1	0.0	2.8	0.93
41	2019	bv9 rp2	42268	102.4	101.6	8.9	7.8	0.8	3.8	0.91
42	2020	bv9 rp2	58807	103.1	101.4	8.1	7.4	1.7	3.1	0.93
43	2021	bv9 rp2	61697	102.0	100.2	7.6	7.0	1.8	2.9	0.93
44	2022	bv9 rp2	58759	102.2	100.2	7.5	6.8	2.0	2.7	0.93
45	2023	bv9 rp2	1822	102.6	100.7	7.1	6.5	1.9	2.5	0.93
46	2019	bv10 mb2	42268	103.1	102.7	7.7	7.1	0.4	3.5	0.89
47	2020	bv10 mb2	58807	104.0	102.9	7.8	7.1	1.0	3.2	0.91
48	2021	bv10 mb2	61697	104.1	103.1	7.5	6.7	0.9	3.1	0.91
49	2022	bv10 mb2	58759	104.5	103.9	7.2	6.7	0.6	2.9	0.92
50	2023	bv10 mb2	1822	105.8	105.3	7.3	6.5	0.5	2.9	0.92
51	2019	bv11 fl2	42268	104.2	103.1	8.6	7.5	1.1	4.5	0.86
52	2020	bv11 fl2	58807	104.2	103.2	8.4	7.6	1.0	3.8	0.89
53	2021	bv11 fl2	61697	104.4	102.7	8.0	7.5	1.7	3.4	0.90
54	2022	bv11 fl2	58759	104.1	102.6	7.8	7.5	1.5	3.4	0.90
55	2023	bv11 fl2	1822	104.1	103.0	8.1	7.7	1.1	3.1	0.93
56	2019	bv12 ket2	42268	106.0	104.6	9.8	8.5	1.3	4.9	0.87
57	2020	bv12 ket2	58807	106.8	105.1	9.2	8.1	1.7	4.2	0.89
58	2021	bv12 ket2	61697	108.0	106.2	9.1	8.0	1.8	3.9	0.90
59	2022	bv12 ket2	58759	109.7	107.9	8.7	7.9	1.8	3.6	0.91
60	2023	bv12 ket2	1822	110.6	109.1	8.7	7.6	1.5	3.3	0.93
61	2019	bv13 bhb2	33778	101.4	100.3	10.9	9.3	1.1	5.0	0.89
62	2020	bv13 bhb2	56833	101.6	100.1	10.7	9.1	1.4	4.9	0.89
63	2021	bv13 bhb2	61697	103.1	101.3	10.6	9.1	1.9	4.5	0.91
64	2022	bv13 bhb2	58759	104.2	102.1	9.9	8.6	2.0	4.2	0.91
65	2023	bv13 bhb2	1822	103.9	102.2	9.8	8.4	1.7	4.0	0.91
66	2019	bv14 ace2	33778	102.1	101.0	10.7	8.8	1.1	5.2	0.87
67	2020	bv14 ace2	56833	103.1	101.4	10.5	8.6	1.7	5.1	0.88
68	2021	bv14 ace2	61697	104.5	102.4	10.3	8.5	2.1	4.5	0.90
69	2022	bv14 ace2	58759	105.8	103.8	9.6	8.2	2.0	4.2	0.90
70	2023	bv14 ace2	1822	106.2	104.4	9.5	8.0	1.8	4.0	0.91
71	2019	bv15 rpl3	48605	102.2	102.6	8.5	7.9	-0.4	3.5	0.91
72	2020	bv15 rpl3	58807	103.8	103.3	8.4	7.9	0.4	3.3	0.92
73	2021	bv15 rpl3	61697	103.0	102.9	8.0	7.6	0.1	3.2	0.92
74	2022	bv15 rpl3	58759	103.3	103.2	7.8	7.3	0.1	2.9	0.93

sum sta 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
75	2023	bv15 rpl3	1822	104.3	104.3	7.6	7.2	0.0	2.7	0.93
76	2019	bv16 rp3	49065	102.0	101.1	9.4	8.1	0.8	4.2	0.89
77	2020	bv16 rp3	58807	102.4	100.7	8.4	7.7	1.6	3.3	0.92
78	2021	bv16 rp3	61697	101.2	99.5	7.9	7.3	1.7	3.1	0.92
79	2022	bv16 rp3	58759	101.1	99.4	7.8	7.1	1.7	2.9	0.93
80	2023	bv16 rp3	1822	101.5	99.7	7.4	6.9	1.8	2.7	0.93
81	2019	bv17 mb3	49065	102.2	101.5	7.2	6.9	0.7	3.0	0.91
82	2020	bv17 mb3	58807	102.7	101.5	7.2	6.8	1.2	2.7	0.93
83	2021	bv17 mb3	61697	103.5	102.1	6.9	6.5	1.3	2.6	0.92
84	2022	bv17 mb3	58759	103.7	102.5	6.7	6.4	1.3	2.4	0.93
85	2023	bv17 mb3	1822	104.9	103.7	6.8	6.2	1.1	2.3	0.94
86	2019	bv18 fl3	49065	104.0	103.1	8.7	7.7	0.9	4.1	0.88
87	2020	bv18 fl3	58807	104.4	103.4	8.5	7.9	1.0	3.4	0.91
88	2021	bv18 fl3	61697	104.3	102.5	8.0	7.6	1.7	3.2	0.92
89	2022	bv18 fl3	58759	104.0	102.5	7.8	7.5	1.5	3.2	0.91
90	2023	bv18 fl3	1822	104.3	103.0	7.9	7.6	1.3	2.9	0.93
91	2019	bv19 ket3	49065	105.7	104.7	9.7	8.5	1.0	4.8	0.87
92	2020	bv19 ket3	58807	106.3	104.8	9.1	8.0	1.5	4.0	0.90
93	2021	bv19 ket3	61697	107.6	106.1	8.9	7.9	1.5	3.7	0.91
94	2022	bv19 ket3	58759	109.1	107.6	8.5	7.7	1.5	3.3	0.92
95	2023	bv19 ket3	1822	110.0	108.7	8.5	7.5	1.3	3.1	0.93
96	2019	bv20 bhb3	47904	102.3	101.0	10.8	9.3	1.3	4.9	0.90
97	2020	bv20 bhb3	58807	102.3	100.7	10.4	9.0	1.7	4.5	0.90
98	2021	bv20 bhb3	61697	104.0	102.1	10.4	8.9	2.0	4.2	0.92
99	2022	bv20 bhb3	58759	105.0	102.9	9.6	8.4	2.1	3.9	0.92
100	2023	bv20 bhb3	1822	104.9	103.2	9.6	8.3	1.7	3.8	0.92
101	2019	bv21 ace3	47904	103.3	101.9	10.4	8.8	1.4	4.9	0.88
102	2020	bv21 ace3	58807	104.1	102.1	10.0	8.4	2.0	4.6	0.89
103	2021	bv21 ace3	61697	105.8	103.5	9.8	8.4	2.3	4.1	0.91
104	2022	bv21 ace3	58759	107.0	104.8	9.1	8.0	2.3	3.7	0.91
105	2023	bv21 ace3	1822	107.7	105.7	9.2	7.8	2.0	3.6	0.93
106	2019	bv22 rpl	11669	102.6	102.6	7.8	7.4	0.0	3.3	0.91
107	2020	bv22 rpl	27563	104.5	103.7	7.9	7.4	0.8	3.2	0.91
108	2021	bv22 rpl	61239	103.8	103.3	7.6	7.1	0.5	3.1	0.91
109	2022	bv22 rpl	58759	104.4	103.7	7.3	6.9	0.6	2.9	0.92
110	2023	bv22 rpl	1822	105.4	104.9	7.2	6.7	0.4	2.7	0.93
111	2019	bv23 rp	12152	102.2	101.3	8.9	7.7	0.9	3.8	0.90

sum sta 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
112	2020	bv23 rp	47205	102.7	100.9	8.1	7.4	1.8	3.1	0.92
113	2021	bv23 rp	61697	101.7	100.0	7.6	7.0	1.7	3.0	0.92
114	2022	bv23 rp	58759	101.7	99.9	7.5	6.8	1.8	2.7	0.93
115	2023	bv23 rp	1822	102.1	100.3	7.1	6.5	1.8	2.6	0.93
116	2019	bv24 mb	12152	102.9	102.3	7.2	6.6	0.6	3.2	0.90
117	2020	bv24 mb	47205	103.7	102.4	7.2	6.5	1.2	3.0	0.91
118	2021	bv24 mb	61697	104.1	102.9	6.9	6.2	1.3	3.0	0.90
119	2022	bv24 mb	58759	104.6	103.5	6.7	6.2	1.0	2.7	0.92
120	2023	bv24 mb	1822	105.7	104.8	6.8	6.0	0.9	2.6	0.92
121	2019	bv25 fl	12152	104.0	103.0	8.5	7.5	1.0	4.2	0.87
122	2020	bv25 fl	47205	104.1	103.1	8.4	7.7	1.0	3.5	0.91
123	2021	bv25 fl	61697	104.2	102.5	8.0	7.5	1.7	3.3	0.91
124	2022	bv25 fl	58759	104.0	102.5	7.7	7.4	1.5	3.3	0.91
125	2023	bv25 fl	1822	104.1	102.9	7.9	7.6	1.2	3.0	0.93
126	2019	bv26 ket	12152	105.2	104.1	9.2	7.9	1.0	4.6	0.87
127	2020	bv26 ket	47205	105.8	104.4	8.7	7.6	1.5	3.9	0.89
128	2021	bv26 ket	61697	107.0	105.5	8.6	7.5	1.4	3.7	0.90
129	2022	bv26 ket	58759	108.2	106.9	8.2	7.3	1.4	3.4	0.91
130	2023	bv26 ket	1822	109.1	108.1	8.2	7.2	1.0	3.2	0.92
131	2019	bv27 bhb	28317	102.0	101.0	9.9	8.2	1.0	4.7	0.88
132	2020	bv27 bhb	36337	102.7	101.1	9.8	8.0	1.7	4.7	0.88
133	2021	bv27 bhb	58721	104.4	102.4	9.6	7.9	2.0	4.3	0.90
134	2022	bv27 bhb	58759	105.4	103.6	9.0	7.6	1.8	3.9	0.90
135	2023	bv27 bhb	1822	105.9	104.4	9.0	7.4	1.5	3.8	0.91
136	2019	bv29 GH	11669	101.6	100.5	10.2	8.7	1.1	4.6	0.89
137	2020	bv29 GH	27570	101.7	100.1	10.2	8.6	1.6	4.6	0.89
138	2021	bv29 GH	61258	103.0	101.2	10.1	8.5	1.8	4.3	0.91
139	2022	bv29 GH	58759	103.8	102.0	9.4	8.1	1.8	4.0	0.91
140	2023	bv29 GH	1822	103.7	102.2	9.3	8.0	1.5	3.8	0.91

RDC 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	bv1 rpl1	165	228	548	100.3	100.4	8.1	8.2	-0.1	1.5	0.98
2	2011	bv1 rpl1	167	275	591	101.8	101.8	6.2	6.1	0.0	1.4	0.97
3	2012	bv1 rpl1	169	261	476	102.0	102.5	7.3	7.0	-0.5	1.8	0.97
4	2013	bv1 rpl1	122	366	613	101.5	101.7	7.7	7.3	-0.2	1.8	0.97
5	2014	bv1 rpl1	85	562	819	101.3	101.4	6.6	6.4	-0.1	2.1	0.95
6	2015	bv1 rpl1	71	608	766	100.9	102.3	7.5	6.2	-1.4	5.2	0.72
7	2016	bv1 rpl1	70	588	850	101.5	101.7	7.1	5.3	-0.2	4.6	0.76
8	2017	bv1 rpl1	66	566	770	102.8	102.4	6.0	5.0	0.4	5.2	0.56
9	2018	bv1 rpl1	33	200	257	101.9	102.8	6.3	4.7	-0.8	4.0	0.78
10	2010	bv2 rp1	165	228	548	103.5	103.6	8.9	8.6	0.0	1.7	0.98
11	2011	bv2 rp1	167	274	590	102.7	102.8	8.3	8.3	-0.1	1.7	0.98
12	2012	bv2 rp1	169	260	474	102.4	102.7	9.4	9.3	-0.3	1.7	0.98
13	2013	bv2 rp1	122	364	609	103.4	103.9	9.1	9.3	-0.5	1.8	0.98
14	2014	bv2 rp1	85	561	817	100.4	101.0	8.2	8.0	-0.6	1.9	0.97
15	2015	bv2 rp1	71	605	760	102.9	103.7	10.2	8.5	-0.8	6.5	0.77
16	2016	bv2 rp1	70	568	826	100.0	100.8	8.9	6.7	-0.8	6.5	0.69
17	2017	bv2 rp1	64	352	484	102.5	101.2	8.1	6.9	1.3	6.6	0.62
18	2010	bv3 mb1	165	228	548	99.4	99.3	8.9	8.7	0.1	1.4	0.99
19	2011	bv3 mb1	167	274	590	101.6	101.7	7.1	7.2	-0.2	1.4	0.98
20	2012	bv3 mb1	169	260	474	98.9	99.2	8.0	7.6	-0.4	1.6	0.98
21	2013	bv3 mb1	122	364	609	102.4	102.8	7.9	7.8	-0.4	1.9	0.97
22	2014	bv3 mb1	85	561	817	102.3	102.1	8.1	8.0	0.2	2.0	0.97
23	2015	bv3 mb1	71	605	760	102.2	103.1	7.6	7.3	-0.9	5.3	0.75
24	2016	bv3 mb1	70	568	826	102.2	102.5	7.9	6.2	-0.3	4.7	0.81
25	2017	bv3 mb1	64	352	484	102.8	103.2	8.3	6.2	-0.4	5.3	0.77
26	2010	bv4 fl1	165	228	548	97.0	97.0	10.1	9.8	0.0	1.6	0.99
27	2011	bv4 fl1	167	274	590	97.1	97.2	9.4	9.5	-0.1	2.0	0.98
28	2012	bv4 fl1	169	260	474	98.8	99.2	12.4	11.7	-0.4	2.2	0.98
29	2013	bv4 fl1	122	364	609	99.8	100.2	11.5	11.4	-0.4	2.3	0.98
30	2014	bv4 fl1	85	561	817	97.4	97.4	11.5	11.0	0.0	2.6	0.97
31	2015	bv4 fl1	71	605	760	101.9	102.6	11.9	9.5	-0.8	8.0	0.74
32	2016	bv4 fl1	70	568	826	102.0	102.4	10.2	9.2	-0.4	6.7	0.77
33	2017	bv4 fl1	64	352	484	103.6	103.6	11.2	8.3	0.1	7.1	0.78
34	2010	bv5 ket1	165	228	548	99.0	98.8	9.6	9.5	0.2	1.4	0.99
35	2011	bv5 ket1	167	274	590	100.7	100.7	9.3	9.4	0.0	1.3	0.99
36	2012	bv5 ket1	169	260	474	96.7	96.7	9.8	9.6	0.1	1.6	0.99

RDC 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
37	2013	bv5 ket1	122	364	609	102.4	102.5	8.9	8.8	-0.1	2.0	0.97
38	2014	bv5 ket1	85	561	817	102.8	102.7	8.0	8.1	0.1	1.9	0.97
39	2015	bv5 ket1	71	605	760	101.1	101.3	8.0	7.7	-0.2	5.8	0.72
40	2016	bv5 ket1	70	568	826	100.9	101.3	8.3	5.9	-0.4	5.3	0.77
41	2017	bv5 ket1	64	352	484	101.7	102.2	7.6	6.4	-0.5	5.4	0.72
42	2010	bv6 bhb1	47	169	251	98.5	98.7	9.1	9.0	-0.2	1.0	0.99
43	2011	bv6 bhb1	100	120	202	101.1	101.3	10.0	10.0	-0.2	1.3	0.99
44	2012	bv6 bhb1	131	117	163	97.2	97.4	11.1	10.9	-0.2	1.3	0.99
45	2013	bv6 bhb1	74	123	187	104.0	104.0	11.2	10.9	0.0	1.8	0.99
46	2014	bv6 bhb1	35	227	244	105.3	105.3	9.7	9.8	0.0	1.5	0.99
47	2015	bv6 bhb1	40	188	204	102.2	104.0	10.1	7.5	-1.8	7.2	0.71
48	2016	bv6 bhb1	34	210	216	104.4	104.0	12.1	7.8	0.4	6.8	0.85
49	2017	bv6 bhb1	32	173	164	104.6	104.3	12.0	7.5	0.3	7.6	0.80
50	2010	bv7 ace1	47	169	251	97.9	98.1	8.4	8.3	-0.2	0.8	0.99
51	2011	bv7 ace1	100	120	202	101.5	101.7	10.6	10.7	-0.2	1.2	0.99
52	2012	bv7 ace1	131	117	163	96.4	96.7	11.1	10.9	-0.2	1.4	0.99
53	2013	bv7 ace1	74	123	187	103.0	103.0	10.9	10.4	0.0	1.8	0.99
54	2014	bv7 ace1	35	227	244	104.2	104.0	9.6	9.5	0.2	1.6	0.99
55	2015	bv7 ace1	40	188	204	101.6	103.2	9.9	7.5	-1.6	6.3	0.77
56	2016	bv7 ace1	34	210	216	103.6	103.3	11.5	7.2	0.4	6.0	0.89
57	2017	bv7 ace1	32	173	164	104.3	104.5	11.2	7.5	-0.2	7.5	0.75
58	2010	bv8 rpl2	165	160	394	100.3	100.4	9.0	8.9	-0.1	1.5	0.99
59	2011	bv8 rpl2	167	191	421	100.8	100.7	8.2	8.1	0.1	1.6	0.98
60	2012	bv8 rpl2	168	186	342	101.9	102.3	8.7	8.4	-0.4	1.8	0.98
61	2013	bv8 rpl2	121	262	440	102.4	102.5	8.3	8.2	-0.1	1.6	0.98
62	2014	bv8 rpl2	84	408	588	99.2	99.6	8.2	8.2	-0.4	1.9	0.97
63	2015	bv8 rpl2	71	444	558	101.7	102.7	9.0	7.8	-1.0	5.5	0.80
64	2016	bv8 rpl2	69	365	549	100.4	100.5	7.6	6.3	-0.1	4.2	0.84
65	2017	bv8 rpl2	43	155	199	103.5	102.1	7.9	6.1	1.4	6.4	0.61
66	2010	bv9 rp2	165	160	394	102.8	102.8	9.7	9.5	0.1	1.5	0.99
67	2011	bv9 rp2	167	188	411	101.9	102.0	9.7	9.5	-0.1	1.7	0.98
68	2012	bv9 rp2	168	185	337	101.0	101.3	10.4	10.4	-0.3	1.7	0.99
69	2013	bv9 rp2	121	261	438	102.7	103.0	9.9	10.0	-0.3	1.8	0.98
70	2014	bv9 rp2	84	405	582	99.4	99.9	10.0	10.0	-0.5	1.8	0.98
71	2015	bv9 rp2	71	421	520	101.3	102.0	11.4	9.1	-0.7	7.2	0.78
72	2016	bv9 rp2	61	248	397	98.3	98.3	10.0	8.3	0.0	6.6	0.76

RDC 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
73	2010	bv10 mb2	165	160	394	98.5	98.5	9.2	9.2	0.0	1.1	0.99
74	2011	bv10 mb2	167	188	411	102.5	102.5	7.1	7.2	0.0	1.0	0.99
75	2012	bv10 mb2	168	185	337	99.8	100.0	7.5	7.3	-0.2	1.1	0.99
76	2013	bv10 mb2	121	261	438	102.4	102.5	7.5	7.5	-0.1	1.4	0.98
77	2014	bv10 mb2	84	405	582	102.5	102.2	8.3	8.2	0.2	1.4	0.99
78	2015	bv10 mb2	71	421	520	101.8	102.4	7.1	6.9	-0.6	4.6	0.78
79	2016	bv10 mb2	61	248	397	102.7	102.1	7.6	6.9	0.5	3.2	0.90
80	2010	bv11 fl2	165	160	394	96.8	96.7	9.8	9.4	0.1	1.5	0.99
81	2011	bv11 fl2	167	188	411	97.5	97.6	9.9	9.8	-0.1	1.9	0.98
82	2012	bv11 fl2	168	185	337	99.4	99.7	11.4	11.0	-0.3	2.0	0.98
83	2013	bv11 fl2	121	261	438	100.4	100.8	11.5	11.4	-0.4	2.2	0.98
84	2014	bv11 fl2	84	405	582	97.8	97.8	11.1	10.7	0.0	2.4	0.98
85	2015	bv11 fl2	71	421	520	101.6	102.6	12.5	9.0	-1.1	8.4	0.74
86	2016	bv11 fl2	61	248	397	102.9	103.2	10.3	9.3	-0.3	6.5	0.79
87	2010	bv12 ket2	165	160	394	99.8	99.7	8.0	7.9	0.1	1.0	0.99
88	2011	bv12 ket2	167	188	411	102.4	102.4	7.9	8.0	0.0	0.9	0.99
89	2012	bv12 ket2	168	185	337	98.9	98.8	7.7	7.6	0.1	1.1	0.99
90	2013	bv12 ket2	121	261	438	102.1	102.1	7.3	7.3	0.0	1.3	0.98
91	2014	bv12 ket2	84	405	582	104.1	104.2	7.1	6.9	-0.1	1.2	0.99
92	2015	bv12 ket2	71	421	520	101.8	101.8	6.8	6.2	0.0	4.1	0.80
93	2016	bv12 ket2	61	248	397	103.2	103.7	6.3	4.9	-0.4	3.9	0.79
94	2010	bv13 bhb2	99	102	237	98.5	98.5	9.8	9.6	0.1	1.1	0.99
95	2011	bv13 bhb2	124	70	89	103.0	103.1	10.1	10.1	-0.2	1.1	0.99
96	2012	bv13 bhb2	75	80	116	98.8	99.0	11.0	10.8	-0.2	1.3	0.99
97	2013	bv13 bhb2	48	122	159	103.6	103.7	12.7	12.1	-0.1	1.6	0.99
98	2014	bv13 bhb2	32	190	188	106.6	107.1	10.5	10.6	-0.5	1.2	0.99
99	2015	bv13 bhb2	36	160	162	101.5	102.8	11.1	7.3	-1.3	7.2	0.77
100	2016	bv13 bhb2	27	143	136	106.4	105.4	12.4	8.8	1.0	7.2	0.82
101	2010	bv14 ace2	99	102	237	99.2	99.2	9.3	9.1	0.1	0.9	1.00
102	2011	bv14 ace2	124	70	89	104.3	104.5	10.3	10.3	-0.2	0.8	1.00
103	2012	bv14 ace2	75	80	116	98.8	98.8	10.4	10.4	0.0	1.0	1.00
104	2013	bv14 ace2	48	122	159	102.9	102.9	11.9	11.3	0.0	1.5	0.99
105	2014	bv14 ace2	32	190	188	105.7	105.9	9.8	9.6	-0.2	1.1	0.99
106	2015	bv14 ace2	36	160	162	101.1	102.1	9.4	6.9	-1.0	5.6	0.81
107	2016	bv14 ace2	27	143	136	106.0	105.0	10.3	7.7	1.0	5.7	0.84
108	2010	bv15 rpl3	158	110	276	100.2	100.4	9.0	8.9	-0.1	1.5	0.99

RDC 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	2011	bv15 rpl3	159	129	272	100.9	100.8	8.2	8.1	0.0	1.6	0.98
110	2012	bv15 rpl3	162	129	230	102.1	102.6	8.7	8.4	-0.4	1.7	0.98
111	2013	bv15 rpl3	115	190	312	102.2	102.0	8.3	8.2	0.1	1.6	0.98
112	2014	bv15 rpl3	84	269	382	99.8	100.1	8.4	8.4	-0.3	1.9	0.97
113	2015	bv15 rpl3	71	255	311	101.5	102.5	8.6	7.8	-1.0	5.5	0.78
114	2016	bv15 rpl3	41	116	178	101.1	101.0	8.6	6.9	0.1	5.1	0.80
115	2010	bv16 rp3	158	109	275	102.6	102.5	10.0	9.8	0.2	1.3	0.99
116	2011	bv16 rp3	159	125	261	102.8	102.9	9.3	9.0	-0.1	1.6	0.99
117	2012	bv16 rp3	162	128	226	101.2	101.5	9.9	9.9	-0.2	1.6	0.99
118	2013	bv16 rp3	115	188	308	102.9	103.0	9.7	9.7	-0.1	1.6	0.99
119	2014	bv16 rp3	83	251	354	100.0	100.6	9.6	9.6	-0.6	1.5	0.99
120	2015	bv16 rp3	62	165	186	100.8	101.7	10.3	8.2	-0.9	6.9	0.75
121	2010	bv17 mb3	158	109	275	98.9	98.9	9.5	9.5	0.0	0.9	1.00
122	2011	bv17 mb3	159	125	261	102.9	102.9	7.0	7.1	0.1	0.9	0.99
123	2012	bv17 mb3	162	128	226	100.7	100.8	7.4	7.3	0.0	0.9	0.99
124	2013	bv17 mb3	115	188	308	102.5	102.6	7.6	7.7	-0.1	1.2	0.99
125	2014	bv17 mb3	83	251	354	102.4	102.1	8.3	8.1	0.3	1.1	0.99
126	2015	bv17 mb3	62	165	186	101.6	102.3	7.5	7.3	-0.7	4.3	0.83
127	2010	bv18 fl3	158	109	275	96.9	96.8	10.1	9.9	0.1	1.5	0.99
128	2011	bv18 fl3	159	125	261	98.1	98.2	10.2	10.0	-0.1	1.8	0.98
129	2012	bv18 fl3	162	128	226	100.2	100.6	12.0	11.6	-0.4	2.1	0.98
130	2013	bv18 fl3	115	188	308	100.7	101.0	11.8	11.8	-0.2	2.0	0.99
131	2014	bv18 fl3	83	251	354	98.8	98.6	11.8	11.3	0.1	2.6	0.98
132	2015	bv18 fl3	62	165	186	101.6	102.6	12.3	9.0	-1.0	8.4	0.73
133	2010	bv19 ket3	158	109	275	100.2	100.0	7.9	7.8	0.1	0.9	0.99
134	2011	bv19 ket3	159	125	261	102.9	102.9	7.2	7.4	0.0	0.8	0.99
135	2012	bv19 ket3	162	128	226	100.0	100.0	7.2	7.1	0.0	1.0	0.99
136	2013	bv19 ket3	115	188	308	102.3	102.4	6.9	7.0	-0.1	1.3	0.98
137	2014	bv19 ket3	83	251	354	103.8	103.9	6.8	6.7	-0.1	1.0	0.99
138	2015	bv19 ket3	62	165	186	102.4	102.6	6.7	5.9	-0.2	4.4	0.75
139	2010	bv20 bhb3	108	54	113	99.4	99.4	9.3	9.2	0.0	0.9	1.00
140	2011	bv20 bhb3	52	45	47	102.3	102.4	9.7	9.6	-0.2	1.0	0.99
141	2012	bv20 bhb3	50	70	88	98.5	98.4	10.0	9.6	0.1	1.2	0.99
142	2013	bv20 bhb3	40	98	117	102.3	102.6	10.8	10.3	-0.3	1.4	0.99
143	2014	bv20 bhb3	29	130	117	105.9	105.9	9.8	9.8	0.0	1.0	0.99
144	2015	bv20 bhb3	27	98	78	99.5	101.0	10.4	6.9	-1.5	7.4	0.71

RDC 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
145	2010	bv21 ace3	108	54	113	99.9	99.8	9.0	9.0	0.2	0.7	1.00
146	2011	bv21 ace3	52	45	47	102.9	103.0	9.7	9.7	-0.1	0.9	1.00
147	2012	bv21 ace3	50	70	88	98.2	98.0	9.0	8.9	0.2	0.9	0.99
148	2013	bv21 ace3	40	98	117	101.8	101.8	10.0	9.7	0.0	1.3	0.99
149	2014	bv21 ace3	29	130	117	104.1	104.1	9.3	9.1	0.0	1.0	0.99
150	2015	bv21 ace3	27	98	78	99.9	100.3	8.9	7.0	-0.4	5.7	0.77
151	2010	bv22 rpl	165	228	548	100.2	100.3	8.5	8.5	-0.1	1.4	0.99
152	2011	bv22 rpl	167	275	591	101.2	101.2	7.3	7.2	0.1	1.5	0.98
153	2012	bv22 rpl	169	261	476	101.9	102.3	8.1	7.8	-0.4	1.7	0.98
154	2013	bv22 rpl	122	366	613	102.0	102.1	7.8	7.7	-0.1	1.6	0.98
155	2014	bv22 rpl	85	562	819	100.0	100.3	7.5	7.4	-0.3	1.8	0.97
156	2015	bv22 rpl	71	608	766	101.3	102.5	8.1	7.1	-1.1	5.2	0.77
157	2016	bv22 rpl	70	588	850	100.8	100.9	7.2	5.8	-0.1	4.1	0.82
158	2017	bv22 rpl	66	566	770	102.9	102.3	6.6	5.4	0.7	5.1	0.66
159	2018	bv22 rpl	33	200	257	101.4	102.2	6.0	5.3	-0.8	3.3	0.84
160	2010	bv23 rp	165	228	548	102.9	102.8	9.2	8.9	0.1	1.5	0.99
161	2011	bv23 rp	167	274	590	102.4	102.5	8.8	8.7	-0.1	1.6	0.98
162	2012	bv23 rp	169	260	474	101.4	101.7	9.6	9.6	-0.3	1.6	0.99
163	2013	bv23 rp	122	364	609	102.8	103.1	9.2	9.3	-0.3	1.6	0.99
164	2014	bv23 rp	85	561	817	100.0	100.5	8.9	8.9	-0.6	1.6	0.98
165	2015	bv23 rp	71	605	760	101.8	102.6	10.2	8.3	-0.8	6.4	0.78
166	2016	bv23 rp	70	568	826	99.1	99.4	9.0	7.2	-0.3	5.8	0.77
167	2017	bv23 rp	64	352	484	101.3	100.1	7.9	7.1	1.3	5.9	0.69
168	2010	bv24 mb	165	228	548	98.8	98.8	8.6	8.6	0.0	1.0	0.99
169	2011	bv24 mb	167	274	590	102.4	102.4	6.6	6.7	0.0	1.0	0.99
170	2012	bv24 mb	169	260	474	99.9	100.1	7.0	6.8	-0.2	1.0	0.99
171	2013	bv24 mb	122	364	609	102.5	102.7	7.1	7.1	-0.1	1.3	0.98
172	2014	bv24 mb	85	561	817	102.4	102.2	7.8	7.6	0.2	1.3	0.99
173	2015	bv24 mb	71	605	760	101.9	102.6	6.6	6.5	-0.7	4.2	0.79
174	2016	bv24 mb	70	568	826	102.2	102.0	6.9	6.4	0.2	2.9	0.91
175	2017	bv24 mb	64	352	484	102.6	102.6	6.6	5.4	0.0	3.6	0.84
176	2010	bv25 fl	165	228	548	96.7	96.6	9.7	9.4	0.1	1.5	0.99
177	2011	bv25 fl	167	274	590	97.7	97.8	9.7	9.7	-0.1	1.8	0.98
178	2012	bv25 fl	169	260	474	99.6	99.9	11.7	11.3	-0.3	2.0	0.99
179	2013	bv25 fl	122	364	609	100.1	100.5	11.4	11.3	-0.4	2.1	0.98
180	2014	bv25 fl	85	561	817	98.2	98.0	11.4	10.9	0.1	2.4	0.98

RDC 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
181	2015	bv25 fl	71	605	760	101.8	102.7	11.9	8.9	-1.0	8.2	0.73
182	2016	bv25 fl	70	568	826	102.7	103.0	9.9	9.1	-0.3	6.3	0.78
183	2017	bv25 fl	64	352	484	104.1	103.8	11.1	8.0	0.2	6.9	0.78
184	2010	bv26 ket	165	228	548	99.7	99.5	8.1	8.0	0.2	1.0	0.99
185	2011	bv26 ket	167	274	590	102.0	102.0	7.7	7.8	-0.1	1.0	0.99
186	2012	bv26 ket	169	260	474	98.6	98.6	7.8	7.6	0.0	1.1	0.99
187	2013	bv26 ket	122	364	609	102.2	102.4	7.3	7.3	-0.2	1.5	0.98
188	2014	bv26 ket	85	561	817	103.6	103.6	7.0	7.0	0.0	1.3	0.98
189	2015	bv26 ket	71	605	760	101.7	101.9	6.8	6.2	-0.2	4.5	0.77
190	2016	bv26 ket	70	568	826	102.0	102.4	6.3	5.0	-0.3	3.7	0.81
191	2017	bv26 ket	64	352	484	102.4	102.6	6.1	5.1	-0.2	4.0	0.76
192	2010	bv27 bhb	47	169	251	96.3	96.4	7.4	7.4	-0.1	0.6	1.00
193	2011	bv27 bhb	100	120	202	102.8	102.9	10.2	10.3	-0.1	0.9	1.00
194	2012	bv27 bhb	131	117	163	98.3	98.4	9.4	9.2	-0.1	1.0	0.99
195	2013	bv27 bhb	74	123	187	102.3	102.2	9.9	9.4	0.1	1.4	0.99
196	2014	bv27 bhb	35	227	244	104.8	104.8	8.6	8.5	0.0	1.1	0.99
197	2015	bv27 bhb	40	188	204	101.3	102.2	8.3	6.5	-0.9	5.1	0.78
198	2016	bv27 bhb	34	210	216	104.6	104.0	9.1	6.7	0.6	4.8	0.86
199	2017	bv27 bhb	32	173	164	104.3	104.5	8.7	6.6	-0.2	5.1	0.81
200	2010	bv29 GH	165	228	548	99.0	99.0	8.6	8.4	0.0	1.2	0.99
201	2011	bv29 GH	167	275	591	102.4	102.5	8.9	8.9	-0.1	1.1	0.99
202	2012	bv29 GH	169	261	476	97.6	97.7	10.2	10.1	-0.1	1.3	0.99
203	2013	bv29 GH	122	366	613	103.5	103.6	9.6	9.3	-0.1	1.6	0.99
204	2014	bv29 GH	85	562	819	105.0	105.1	8.5	8.2	0.0	1.7	0.98
205	2015	bv29 GH	71	608	766	101.7	102.4	9.4	8.1	-0.7	5.1	0.84
206	2016	bv29 GH	70	588	850	103.2	102.9	9.3	7.1	0.4	4.5	0.88
207	2017	bv29 GH	66	566	770	103.3	103.7	8.9	6.2	-0.4	5.1	0.83
208	2018	bv29 GH	33	200	257	103.8	103.8	9.4	6.3	0.1	5.0	0.87

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	74	.	.	102.0	102.1	4.7	4.6	-0.1	3.7	0.68
2	2020	bv1 rpl1	74	.	.	101.9	102.4	5.7	4.4	-0.5	3.4	0.80
3	2021	bv1 rpl1	72	.	.	102.9	102.8	4.6	3.7	0.0	3.3	0.69
4	2022	bv1 rpl1	57	.	.	104.4	104.2	5.1	5.0	0.2	3.1	0.82
5	2019	bv2 rp1	77	0	0	101.7	100.6	6.2	5.7	1.2	4.7	0.69
6	2020	bv2 rp1	74	.	.	102.7	102.4	7.0	6.1	0.3	3.7	0.85
7	2021	bv2 rp1	72	.	.	102.8	102.1	6.9	6.0	0.8	4.1	0.80
8	2022	bv2 rp1	57	.	.	104.1	102.2	6.4	6.0	1.9	2.8	0.90
9	2019	bv3 mb1	77	0	0	102.7	103.5	6.7	5.8	-0.8	4.0	0.81
10	2020	bv3 mb1	74	.	.	105.3	104.7	5.6	5.0	0.6	3.2	0.83
11	2021	bv3 mb1	72	.	.	104.9	105.3	6.5	6.1	-0.3	3.4	0.85
12	2022	bv3 mb1	57	.	.	105.8	105.8	5.2	5.1	0.1	3.2	0.80
13	2019	bv4 fl1	77	0	0	103.4	103.5	7.7	7.0	-0.1	4.7	0.80
14	2020	bv4 fl1	74	.	.	105.4	104.8	7.5	7.7	0.6	4.3	0.84
15	2021	bv4 fl1	72	.	.	105.3	104.9	7.0	7.0	0.4	4.5	0.79
16	2022	bv4 fl1	57	.	.	105.1	103.0	6.5	6.1	2.1	3.6	0.84
17	2019	bv5 ket1	77	0	0	102.3	103.2	6.3	5.4	-0.9	3.7	0.81
18	2020	bv5 ket1	74	.	.	103.7	104.0	6.8	5.6	-0.2	3.1	0.89
19	2021	bv5 ket1	72	.	.	103.9	104.2	6.1	5.9	-0.3	3.2	0.86
20	2022	bv5 ket1	57	.	.	104.5	105.3	5.9	5.3	-0.8	3.5	0.81
21	2019	bv6 bhb1	77	0	0	103.4	104.0	7.5	6.2	-0.6	4.5	0.81
22	2020	bv6 bhb1	74	.	.	104.8	104.2	7.5	5.5	0.6	3.7	0.88
23	2021	bv6 bhb1	72	.	.	106.2	106.0	7.5	6.2	0.2	3.5	0.88
24	2022	bv6 bhb1	57	.	.	104.7	104.9	7.0	5.8	-0.2	3.8	0.84
25	2019	bv7 ace1	77	0	0	102.6	103.6	6.9	5.7	-1.0	4.3	0.79
26	2020	bv7 ace1	74	.	.	104.8	104.0	6.8	5.1	0.8	3.3	0.88
27	2021	bv7 ace1	72	.	.	105.2	105.2	6.6	5.6	0.0	3.3	0.87
28	2022	bv7 ace1	57	.	.	104.7	105.3	6.1	5.2	-0.5	3.7	0.79
29	2019	bv8 rpl2	77	0	0	102.2	101.4	5.4	5.3	0.8	3.9	0.74
30	2020	bv8 rpl2	74	.	.	101.7	101.8	5.7	5.1	0.0	2.7	0.88
31	2021	bv8 rpl2	72	.	.	102.9	102.7	5.8	5.4	0.2	3.1	0.85
32	2022	bv8 rpl2	57	.	.	104.2	103.3	5.9	5.6	0.9	2.8	0.88
33	2019	bv9 rp2	77	0	0	99.4	97.9	6.7	5.7	1.5	4.3	0.77
34	2020	bv9 rp2	74	.	.	100.0	99.2	8.4	7.5	0.8	3.8	0.89
35	2021	bv9 rp2	72	.	.	100.5	99.2	7.7	6.8	1.3	3.9	0.86
36	2022	bv9 rp2	57	.	.	101.6	99.5	6.6	6.4	2.1	2.4	0.93

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	77	0	0	102.4	102.8	6.6	6.3	-0.4	3.0	0.89
38	2020	bv10 mb2	74	.	.	104.3	103.4	5.1	4.7	0.8	2.4	0.88
39	2021	bv10 mb2	72	.	.	104.5	104.5	6.1	5.9	0.0	2.6	0.91
40	2022	bv10 mb2	57	.	.	105.4	105.3	4.6	4.5	0.1	2.4	0.86
41	2019	bv11 fl2	77	0	0	104.9	104.5	7.8	6.6	0.4	4.5	0.81
42	2020	bv11 fl2	74	.	.	105.8	105.6	8.2	8.1	0.1	3.9	0.89
43	2021	bv11 fl2	72	.	.	106.6	105.7	6.7	6.4	0.9	4.0	0.82
44	2022	bv11 fl2	57	.	.	106.3	103.9	7.3	6.6	2.4	3.5	0.88
45	2019	bv12 ket2	77	0	0	103.1	103.6	5.4	4.6	-0.4	2.6	0.88
46	2020	bv12 ket2	74	.	.	104.8	104.9	5.5	5.1	-0.1	2.2	0.92
47	2021	bv12 ket2	72	.	.	105.1	105.1	5.1	4.8	0.0	2.2	0.90
48	2022	bv12 ket2	57	.	.	104.9	105.5	4.6	4.4	-0.6	2.2	0.88
49	2019	bv13 bhb2	77	0	0	104.3	104.5	7.7	6.2	-0.2	3.8	0.87
50	2020	bv13 bhb2	74	.	.	105.7	105.1	7.7	5.7	0.6	3.5	0.90
51	2021	bv13 bhb2	72	.	.	107.5	107.0	7.4	6.2	0.5	3.2	0.91
52	2022	bv13 bhb2	57	.	.	105.0	105.5	6.5	5.3	-0.5	3.1	0.88
53	2019	bv14 ace2	77	0	0	104.0	104.3	6.5	5.5	-0.4	2.9	0.89
54	2020	bv14 ace2	74	.	.	105.9	105.4	6.2	5.3	0.6	2.9	0.89
55	2021	bv14 ace2	72	.	.	106.8	106.5	6.2	5.3	0.3	2.7	0.90
56	2022	bv14 ace2	57	.	.	105.5	106.1	5.5	4.8	-0.7	2.5	0.89
57	2019	bv15 rpl3	77	0	0	101.7	101.1	5.3	5.4	0.6	3.8	0.75
58	2020	bv15 rpl3	74	.	.	101.4	101.4	5.7	5.1	0.0	2.6	0.88
59	2021	bv15 rpl3	72	.	.	102.5	102.4	5.8	5.4	0.1	3.2	0.84
60	2022	bv15 rpl3	57	.	.	103.9	103.4	5.6	5.5	0.4	2.7	0.88
61	2019	bv16 rp3	77	0	0	100.6	99.2	6.6	5.6	1.4	3.9	0.81
62	2020	bv16 rp3	74	.	.	100.9	100.5	7.8	7.2	0.4	3.2	0.91
63	2021	bv16 rp3	72	.	.	101.8	100.5	7.3	6.5	1.4	3.4	0.89
64	2022	bv16 rp3	57	.	.	102.8	100.8	6.5	6.5	2.0	2.3	0.94
65	2019	bv17 mb3	77	0	0	102.5	102.6	6.6	6.2	0.0	2.4	0.93
66	2020	bv17 mb3	74	.	.	103.9	103.3	5.0	4.7	0.6	2.2	0.90
67	2021	bv17 mb3	72	.	.	104.4	104.1	5.5	5.3	0.3	2.0	0.93
68	2022	bv17 mb3	57	.	.	105.2	104.8	4.7	4.2	0.4	1.9	0.91
69	2019	bv18 fl3	77	0	0	104.5	104.2	7.7	7.0	0.2	4.6	0.81
70	2020	bv18 fl3	74	.	.	105.7	105.2	7.9	8.0	0.4	3.7	0.89
71	2021	bv18 fl3	72	.	.	106.6	105.7	7.2	6.8	0.9	3.7	0.86
72	2022	bv18 fl3	57	.	.	106.1	103.7	6.9	6.3	2.4	3.4	0.87

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	77	0	0	103.0	103.2	4.8	4.3	-0.3	2.6	0.85
74	2020	bv19 ket3	74	.	.	104.5	104.6	5.4	5.0	-0.1	2.1	0.92
75	2021	bv19 ket3	72	.	.	105.0	104.9	4.7	4.5	0.1	2.2	0.88
76	2022	bv19 ket3	57	.	.	104.9	105.4	4.4	4.3	-0.5	1.9	0.90
77	2019	bv20 bhb3	77	0	0	103.9	104.1	6.7	5.7	-0.2	3.0	0.90
78	2020	bv20 bhb3	74	.	.	105.2	104.9	6.6	5.2	0.4	3.0	0.89
79	2021	bv20 bhb3	72	.	.	106.7	106.2	6.4	5.5	0.6	2.6	0.92
80	2022	bv20 bhb3	57	.	.	105.0	105.4	5.6	4.7	-0.4	2.7	0.88
81	2019	bv21 ace3	77	0	0	103.4	103.6	5.7	5.1	-0.2	2.2	0.92
82	2020	bv21 ace3	74	.	.	105.3	104.9	5.4	4.9	0.3	2.5	0.89
83	2021	bv21 ace3	72	.	.	105.8	105.4	5.3	4.8	0.4	2.0	0.93
84	2022	bv21 ace3	57	.	.	105.3	105.8	4.7	4.3	-0.5	2.1	0.89
85	2019	bv22 rpl	74	.	.	101.7	101.4	4.9	5.0	0.4	3.8	0.71
86	2020	bv22 rpl	74	.	.	101.6	101.8	5.5	4.7	-0.2	2.6	0.88
87	2021	bv22 rpl	72	.	.	102.7	102.6	5.3	4.8	0.1	3.1	0.81
88	2022	bv22 rpl	57	.	.	104.1	103.7	5.5	5.3	0.4	2.8	0.86
89	2019	bv23 rp	77	0	0	100.6	99.3	6.2	5.5	1.3	4.1	0.76
90	2020	bv23 rp	74	.	.	101.2	100.7	7.5	6.8	0.5	3.5	0.89
91	2021	bv23 rp	72	.	.	101.8	100.6	7.1	6.3	1.2	3.7	0.85
92	2022	bv23 rp	57	.	.	102.8	100.9	6.3	6.1	1.9	2.3	0.93
93	2019	bv24 mb	77	0	0	102.5	102.9	6.2	5.8	-0.4	2.8	0.89
94	2020	bv24 mb	74	.	.	104.4	103.7	4.8	4.4	0.7	2.3	0.88
95	2021	bv24 mb	72	.	.	104.5	104.5	5.6	5.4	0.0	2.3	0.91
96	2022	bv24 mb	57	.	.	105.4	105.2	4.3	4.2	0.2	2.2	0.87
97	2019	bv25 fl	77	0	0	104.2	104.1	7.6	6.7	0.1	4.5	0.81
98	2020	bv25 fl	74	.	.	105.6	105.3	7.7	7.7	0.3	3.9	0.87
99	2021	bv25 fl	72	.	.	106.2	105.4	6.8	6.6	0.8	4.0	0.82
100	2022	bv25 fl	57	.	.	105.9	103.6	6.7	6.2	2.3	3.4	0.86
101	2019	bv26 ket	77	0	0	102.8	103.3	5.2	4.5	-0.5	2.8	0.84
102	2020	bv26 ket	74	.	.	104.4	104.4	5.6	5.0	-0.1	2.2	0.92
103	2021	bv26 ket	72	.	.	104.8	104.7	5.0	4.8	0.1	2.4	0.88
104	2022	bv26 ket	57	.	.	104.8	105.4	4.7	4.5	-0.6	2.4	0.87
105	2019	bv27 bhb	77	0	0	103.3	103.9	6.1	5.2	-0.6	2.8	0.88
106	2020	bv27 bhb	74	.	.	105.3	104.8	5.8	4.7	0.5	2.7	0.89
107	2021	bv27 bhb	72	.	.	105.9	105.6	5.7	5.0	0.3	2.4	0.91
108	2022	bv27 bhb	57	.	.	105.2	105.7	5.1	4.5	-0.5	2.6	0.86

RDC summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	74	.	.	103.8	104.2	7.3	5.9	-0.4	3.7	0.86
110	2020	bv29 GH	74	.	.	105.2	104.8	7.0	5.2	0.4	3.3	0.90
111	2021	bv29 GH	72	.	.	106.7	106.3	6.8	5.7	0.4	2.9	0.91
112	2022	bv29 GH	57	.	.	104.9	105.2	6.1	5.0	-0.3	3.0	0.87

RDC 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	bv1 rpl1	55379	99.1	99.3	6.5	6.5	-0.2	1.0	0.99
2	2016	bv1 rpl1	47712	99.7	99.8	6.4	6.3	-0.1	1.1	0.98
3	2017	bv1 rpl1	41178	99.4	99.7	6.3	6.2	-0.3	2.2	0.94
4	2018	bv1 rpl1	35777	99.0	99.3	6.5	6.0	-0.3	2.6	0.92
5	2019	bv1 rpl1	31257	99.4	99.6	6.3	5.9	-0.2	2.9	0.89
6	2020	bv1 rpl1	20112	99.1	99.4	6.3	6.0	-0.3	2.6	0.91
7	2021	bv1 rpl1	295	97.4	97.5	6.7	6.7	-0.1	0.8	0.99
8	2015	bv2 rp1	55379	101.9	102.0	6.6	6.7	-0.1	1.0	0.99
9	2016	bv2 rp1	47712	102.1	102.3	6.5	6.5	-0.3	1.1	0.99
10	2017	bv2 rp1	41178	100.3	100.8	6.2	5.9	-0.5	2.6	0.91
11	2018	bv2 rp1	35777	101.6	102.2	6.1	5.5	-0.6	4.0	0.77
12	2019	bv2 rp1	29343	100.6	101.2	5.7	4.9	-0.6	3.9	0.74
13	2020	bv2 rp1	5385	101.8	100.6	5.3	4.8	1.2	4.3	0.64
14	2015	bv3 mb1	55379	99.6	99.7	5.9	5.8	-0.1	1.0	0.98
15	2016	bv3 mb1	47712	101.2	101.1	5.9	5.9	0.1	1.1	0.98
16	2017	bv3 mb1	41178	100.1	100.5	5.9	5.9	-0.4	2.3	0.93
17	2018	bv3 mb1	35777	100.5	100.6	5.8	5.7	-0.1	2.9	0.87
18	2019	bv3 mb1	29343	100.2	101.1	5.7	5.2	-0.9	3.3	0.83
19	2020	bv3 mb1	5385	100.6	101.4	5.6	4.9	-0.8	3.3	0.81
20	2015	bv4 fl1	55379	100.2	100.2	7.3	7.2	0.0	1.2	0.99
21	2016	bv4 fl1	47712	99.6	99.7	7.3	7.5	-0.1	1.4	0.98
22	2017	bv4 fl1	41178	99.3	99.9	8.0	7.3	-0.5	3.6	0.89
23	2018	bv4 fl1	35777	99.7	100.0	7.3	6.9	-0.3	5.2	0.74
24	2019	bv4 fl1	29343	100.6	101.0	7.6	6.1	-0.4	4.9	0.76
25	2020	bv4 fl1	5385	101.4	101.0	6.5	5.4	0.5	4.4	0.74
26	2015	bv5 ket1	55379	98.1	98.1	6.1	6.1	0.0	1.0	0.99
27	2016	bv5 ket1	47712	100.2	100.1	6.0	6.1	0.2	1.2	0.98
28	2017	bv5 ket1	41178	99.5	99.9	5.9	5.6	-0.3	2.7	0.89
29	2018	bv5 ket1	35777	99.4	99.9	5.5	5.1	-0.5	2.9	0.85
30	2019	bv5 ket1	29343	99.4	100.3	5.5	4.9	-0.9	3.2	0.81
31	2020	bv5 ket1	5385	99.6	100.7	5.3	4.9	-1.1	3.5	0.76
32	2015	bv6 bhb1	16514	99.6	99.8	7.5	7.4	-0.2	1.1	0.99
33	2016	bv6 bhb1	7114	103.0	103.1	8.3	8.2	-0.2	1.5	0.98
34	2017	bv6 bhb1	5516	100.9	102.0	7.8	6.4	-1.1	4.6	0.81
35	2018	bv6 bhb1	4729	100.8	101.7	8.6	5.9	-0.9	5.3	0.79
36	2019	bv6 bhb1	4009	102.9	103.2	8.5	5.6	-0.4	5.7	0.75

RDC 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	2020	bv6 bhb1	1330	102.6	103.4	7.4	4.5	-0.8	5.7	0.64
38	2015	bv7 ace1	16514	99.3	99.4	7.3	7.2	-0.1	1.1	0.99
39	2016	bv7 ace1	7114	102.8	102.8	7.4	7.3	0.0	1.3	0.98
40	2017	bv7 ace1	5516	100.4	101.0	7.3	6.3	-0.6	3.8	0.85
41	2018	bv7 ace1	4729	101.0	101.5	7.6	5.5	-0.5	4.6	0.80
42	2019	bv7 ace1	4009	101.4	102.3	7.8	5.3	-0.9	5.3	0.74
43	2020	bv7 ace1	1330	102.1	103.3	7.0	4.3	-1.2	5.5	0.62
44	2015	bv8 rpl2	39173	99.2	99.4	6.7	6.7	-0.2	1.0	0.99
45	2016	bv8 rpl2	34101	99.5	99.7	6.3	6.2	-0.1	1.0	0.99
46	2017	bv8 rpl2	29399	99.4	99.7	6.3	6.0	-0.4	2.1	0.94
47	2018	bv8 rpl2	25426	99.1	99.2	6.1	5.5	-0.2	2.9	0.88
48	2019	bv8 rpl2	13795	99.2	99.5	5.9	5.4	-0.3	3.1	0.85
49	2020	bv8 rpl2	318	100.2	100.2	5.4	4.8	0.0	3.1	0.82
50	2015	bv9 rp2	39173	101.4	101.7	8.4	8.4	-0.2	1.0	0.99
51	2016	bv9 rp2	34101	101.6	101.9	8.1	8.0	-0.2	1.1	0.99
52	2017	bv9 rp2	29285	99.5	99.8	8.2	7.7	-0.3	3.0	0.93
53	2018	bv9 rp2	22307	101.2	101.6	7.3	6.6	-0.4	4.2	0.82
54	2019	bv9 rp2	2914	99.2	99.4	6.9	6.4	-0.2	3.6	0.86
55	2015	bv10 mb2	39173	99.3	99.3	6.3	6.3	-0.1	0.8	0.99
56	2016	bv10 mb2	34101	100.8	100.7	6.2	6.2	0.1	0.8	0.99
57	2017	bv10 mb2	29285	99.7	99.8	6.0	6.0	-0.1	1.9	0.95
58	2018	bv10 mb2	22307	100.2	100.0	5.7	5.7	0.2	2.8	0.89
59	2019	bv10 mb2	2914	100.6	100.5	5.8	5.5	0.1	2.0	0.94
60	2015	bv11 fl2	39173	100.0	100.0	7.4	7.3	0.0	1.2	0.99
61	2016	bv11 fl2	34101	99.5	99.7	7.5	7.6	-0.2	1.2	0.99
62	2017	bv11 fl2	29285	99.1	99.5	8.5	7.2	-0.4	4.0	0.88
63	2018	bv11 fl2	22307	99.3	100.0	7.5	6.6	-0.7	4.9	0.77
64	2019	bv11 fl2	2914	100.4	100.5	7.5	6.3	-0.1	4.7	0.78
65	2015	bv12 ket2	39173	99.0	98.9	5.5	5.4	0.1	0.8	0.99
66	2016	bv12 ket2	34101	100.7	100.6	5.6	5.6	0.1	0.8	0.99
67	2017	bv12 ket2	29285	100.2	100.5	5.5	5.4	-0.3	2.0	0.94
68	2018	bv12 ket2	22307	100.3	100.5	5.3	5.0	-0.2	2.2	0.91
69	2019	bv12 ket2	2914	101.0	101.3	5.3	4.9	-0.3	2.2	0.91
70	2015	bv13 bhb2	6119	98.3	98.5	7.9	7.7	-0.3	1.3	0.99
71	2016	bv13 bhb2	5389	102.2	102.3	8.7	8.5	-0.1	1.3	0.99
72	2017	bv13 bhb2	4247	100.4	101.6	8.5	6.8	-1.2	4.7	0.83

RDC 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	2018	bv13 bhb2	3426	100.7	101.2	8.5	6.2	-0.5	5.5	0.76
74	2019	bv13 bhb2	760	103.9	103.1	8.6	6.4	0.8	5.3	0.79
75	2015	bv14 ace2	6119	97.5	97.7	7.0	6.8	-0.2	1.0	0.99
76	2016	bv14 ace2	5389	101.9	101.9	7.2	7.1	0.0	1.0	0.99
77	2017	bv14 ace2	4247	99.8	100.4	7.3	6.3	-0.6	3.4	0.89
78	2018	bv14 ace2	3426	101.1	101.3	7.1	5.5	-0.1	4.5	0.77
79	2019	bv14 ace2	760	102.7	102.1	7.3	5.8	0.6	4.0	0.84
80	2015	bv15 rpl3	26583	98.9	99.1	6.9	6.9	-0.2	1.0	0.99
81	2016	bv15 rpl3	23499	99.3	99.4	6.5	6.4	-0.1	1.0	0.99
82	2017	bv15 rpl3	19199	99.3	99.6	6.5	6.3	-0.3	2.2	0.94
83	2018	bv15 rpl3	9980	98.8	98.7	6.3	5.9	0.1	2.9	0.89
84	2019	bv15 rpl3	204	.	.	.	.	.	.	0.89
85	2015	bv16 rp3	26565	100.9	101.1	7.8	7.8	-0.2	1.0	0.99
86	2016	bv16 rp3	23265	101.4	101.6	7.5	7.5	-0.2	1.1	0.99
87	2017	bv16 rp3	15783	99.4	99.7	7.4	7.1	-0.2	2.6	0.94
88	2018	bv16 rp3	1899	101.7	101.5	6.5	6.5	0.2	3.7	0.84
89	2015	bv17 mb3	26565	99.5	99.5	6.4	6.5	0.0	0.7	0.99
90	2016	bv17 mb3	23265	100.7	100.7	6.4	6.3	0.0	0.7	0.99
91	2017	bv17 mb3	15783	99.7	99.6	6.1	6.0	0.0	1.7	0.96
92	2018	bv17 mb3	1899	99.4	99.8	5.6	5.7	-0.4	2.6	0.89
93	2015	bv18 fl3	26565	100.5	100.5	7.6	7.5	0.0	1.2	0.99
94	2016	bv18 fl3	23265	99.8	100.0	7.6	7.7	-0.2	1.2	0.99
95	2017	bv18 fl3	15783	99.4	99.7	8.7	7.9	-0.2	3.9	0.90
96	2018	bv18 fl3	1899	99.3	99.8	8.0	7.3	-0.6	5.0	0.79
97	2015	bv19 ket3	26565	99.1	99.1	5.5	5.4	0.0	0.7	0.99
98	2016	bv19 ket3	23265	100.6	100.5	5.7	5.7	0.1	0.7	0.99
99	2017	bv19 ket3	15783	100.2	100.5	5.6	5.4	-0.3	1.9	0.94
100	2018	bv19 ket3	1899	99.7	99.9	5.3	5.1	-0.3	2.4	0.90
101	2015	bv20 bhb3	4005	97.8	97.9	7.3	7.1	-0.1	1.1	0.99
102	2016	bv20 bhb3	3518	101.5	101.5	7.8	7.6	0.0	1.1	0.99
103	2017	bv20 bhb3	2539	99.9	100.7	7.8	6.2	-0.8	4.2	0.84
104	2018	bv20 bhb3	536	100.3	101.0	7.6	5.3	-0.7	5.2	0.74
105	2015	bv21 ace3	4005	96.9	96.8	6.4	6.3	0.1	0.9	0.99
106	2016	bv21 ace3	3518	100.8	100.6	6.5	6.4	0.2	0.9	0.99
107	2017	bv21 ace3	2539	99.1	99.3	6.7	5.9	-0.1	3.0	0.90
108	2018	bv21 ace3	536	100.2	100.5	6.1	4.8	-0.3	4.1	0.74

RDC 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	2015	bv22 rpl	55379	99.1	99.3	6.5	6.4	-0.2	0.9	0.99
110	2016	bv22 rpl	47710	99.5	99.6	6.1	6.1	-0.1	1.0	0.99
111	2017	bv22 rpl	41178	99.3	99.7	6.1	6.0	-0.4	2.0	0.94
112	2018	bv22 rpl	35764	98.9	99.1	6.1	5.6	-0.2	2.6	0.91
113	2019	bv22 rpl	30604	99.3	99.6	5.9	5.4	-0.2	2.9	0.87
114	2020	bv22 rpl	14651	99.6	99.8	5.9	5.3	-0.3	2.9	0.87
115	2021	bv22 rpl	18	101.0	101.7	3.8	3.1	-0.7	2.2	0.82
116	2015	bv23 rp	55379	101.2	101.4	7.3	7.4	-0.2	0.9	0.99
117	2016	bv23 rp	47712	101.6	101.8	7.1	7.0	-0.2	1.0	0.99
118	2017	bv23 rp	41178	99.6	100.0	7.0	6.6	-0.4	2.6	0.93
119	2018	bv23 rp	35777	101.0	101.6	6.3	5.8	-0.6	3.8	0.81
120	2019	bv23 rp	29343	99.9	100.2	5.8	5.3	-0.4	3.4	0.82
121	2020	bv23 rp	5385	101.3	100.0	5.4	5.2	1.3	3.8	0.74
122	2015	bv24 mb	55379	99.4	99.4	5.9	5.9	0.0	0.7	0.99
123	2016	bv24 mb	47712	100.8	100.7	5.8	5.8	0.0	0.8	0.99
124	2017	bv24 mb	41178	99.7	99.9	5.6	5.6	-0.1	1.7	0.95
125	2018	bv24 mb	35777	100.3	100.2	5.4	5.4	0.1	2.3	0.91
126	2019	bv24 mb	29343	100.2	100.5	5.2	5.0	-0.3	2.1	0.92
127	2020	bv24 mb	5385	100.4	100.9	5.0	4.8	-0.6	2.4	0.88
128	2015	bv25 fl	55379	100.1	100.2	7.2	7.1	0.0	1.1	0.99
129	2016	bv25 fl	47712	99.5	99.7	7.3	7.4	-0.2	1.2	0.99
130	2017	bv25 fl	41178	99.1	99.5	8.3	7.3	-0.4	3.9	0.88
131	2018	bv25 fl	35777	99.5	99.9	7.3	6.7	-0.5	4.8	0.77
132	2019	bv25 fl	29343	100.7	100.7	7.6	6.0	0.0	4.7	0.79
133	2020	bv25 fl	5385	101.4	100.7	6.6	5.5	0.7	4.4	0.75
134	2015	bv26 ket	55379	98.6	98.6	5.4	5.4	0.0	0.8	0.99
135	2016	bv26 ket	47712	100.4	100.3	5.5	5.6	0.1	0.8	0.99
136	2017	bv26 ket	41178	99.8	100.2	5.5	5.3	-0.4	2.1	0.93
137	2018	bv26 ket	35777	99.9	100.2	5.2	5.0	-0.3	2.2	0.91
138	2019	bv26 ket	29343	100.0	100.6	5.1	4.7	-0.6	2.4	0.89
139	2020	bv26 ket	5385	99.8	100.7	4.7	4.6	-0.9	2.6	0.85
140	2015	bv27 bhb	16514	98.7	98.7	6.5	6.4	0.0	0.8	0.99
141	2016	bv27 bhb	7114	101.7	101.6	6.6	6.5	0.1	1.0	0.99
142	2017	bv27 bhb	5516	99.6	100.0	6.7	5.8	-0.4	3.1	0.89
143	2018	bv27 bhb	4729	100.9	101.1	6.3	5.0	-0.2	3.9	0.79
144	2019	bv27 bhb	4009	101.4	101.7	6.3	4.8	-0.3	3.6	0.82

RDC 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
145	2020	bv27 bhb	1330	101.4	102.5	5.3	4.2	-1.1	3.8	0.71
146	2015	bv29 GH	55379	99.1	99.2	6.2	6.1	-0.1	0.8	0.99
147	2016	bv29 GH	47712	101.4	101.5	6.5	6.3	-0.1	1.0	0.99
148	2017	bv29 GH	41178	100.5	101.2	6.1	5.4	-0.7	2.7	0.90
149	2018	bv29 GH	35777	100.5	100.9	6.2	5.1	-0.4	3.1	0.87
150	2019	bv29 GH	31257	101.3	101.7	6.1	5.0	-0.3	2.9	0.89
151	2020	bv29 GH	20112	100.6	101.1	5.5	5.0	-0.6	2.6	0.88
152	2021	bv29 GH	295	99.3	99.4	5.2	5.3	0.0	0.6	0.99

sum sta 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	bv1 rpl1	8539	100.1	100.4	6.7	6.5	-0.3	2.0	0.96
2	2016	bv1 rpl1	11907	100.9	101.0	6.5	6.2	-0.1	2.0	0.95
3	2017	bv1 rpl1	13811	100.3	100.9	6.5	5.9	-0.6	3.0	0.89
4	2018	bv1 rpl1	15380	100.3	100.8	6.6	5.6	-0.5	3.3	0.87
5	2019	bv1 rpl1	15701	100.9	101.3	6.2	5.5	-0.3	3.6	0.82
6	2020	bv1 rpl1	13251	101.0	101.5	6.2	5.3	-0.5	3.5	0.82
7	2021	bv1 rpl1	281	101.1	101.2	6.6	5.7	-0.2	3.2	0.87
8	2015	bv2 rp1	8539	101.8	102.0	8.4	8.2	-0.2	2.0	0.97
9	2016	bv2 rp1	11907	101.6	101.9	8.2	7.9	-0.3	2.0	0.97
10	2017	bv2 rp1	13811	100.2	100.6	8.1	7.5	-0.4	3.4	0.91
11	2018	bv2 rp1	15380	101.8	102.1	7.8	7.1	-0.2	4.4	0.83
12	2019	bv2 rp1	15266	101.0	101.3	7.6	6.8	-0.3	4.4	0.82
13	2020	bv2 rp1	3948	102.7	100.7	7.0	6.6	2.1	4.7	0.77
14	2015	bv3 mb1	8539	100.1	100.2	7.0	6.8	-0.1	1.9	0.96
15	2016	bv3 mb1	11907	101.8	101.7	6.9	6.7	0.0	2.0	0.96
16	2017	bv3 mb1	13811	100.6	101.3	6.9	6.6	-0.7	2.9	0.91
17	2018	bv3 mb1	15380	101.6	101.7	6.6	6.5	-0.1	3.4	0.87
18	2019	bv3 mb1	15266	101.0	102.1	6.7	5.9	-1.1	3.8	0.83
19	2020	bv3 mb1	3948	101.8	102.8	6.7	5.8	-0.9	3.7	0.84
20	2015	bv4 fl1	8539	98.7	98.6	7.4	7.3	0.0	2.0	0.96
21	2016	bv4 fl1	11907	101.2	101.0	7.2	7.1	0.1	2.1	0.96
22	2017	bv4 fl1	13811	100.1	100.6	7.1	6.7	-0.5	3.4	0.88
23	2018	bv4 fl1	15380	100.4	101.1	6.8	6.3	-0.7	3.4	0.87
24	2019	bv4 fl1	15266	100.4	101.5	6.9	6.1	-1.1	3.8	0.83
25	2020	bv4 fl1	3948	100.6	102.3	6.9	6.2	-1.7	4.2	0.80
26	2015	bv5 ket1	8539	100.5	100.5	9.0	8.7	-0.1	2.3	0.97
27	2016	bv5 ket1	11907	99.4	99.6	9.1	9.2	-0.2	2.3	0.97
28	2017	bv5 ket1	13811	99.7	100.3	9.7	8.8	-0.6	4.5	0.89
29	2018	bv5 ket1	15380	100.3	100.3	8.8	8.4	0.0	5.7	0.78
30	2019	bv5 ket1	15266	101.3	101.5	9.3	7.7	-0.3	5.3	0.82
31	2020	bv5 ket1	3948	102.5	101.5	8.0	7.2	1.0	4.9	0.80
32	2015	bv6 bhb1	6515	100.0	100.3	7.9	7.6	-0.2	1.9	0.97
33	2016	bv6 bhb1	9080	100.2	100.4	7.5	7.2	-0.2	2.0	0.97
34	2017	bv6 bhb1	10565	100.0	100.5	7.5	7.0	-0.5	2.9	0.92
35	2018	bv6 bhb1	11856	100.1	100.2	7.1	6.3	-0.2	3.5	0.87
36	2019	bv6 bhb1	8591	100.5	100.7	7.1	6.3	-0.3	3.7	0.85
37	2020	bv6 bhb1	276	101.0	101.2	6.5	5.5	-0.2	3.7	0.82

sum sta 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
38	2015	bv7 ace1	6515	100.9	101.1	9.9	9.7	-0.2	2.0	0.98
39	2016	bv7 ace1	9080	100.5	100.8	9.6	9.4	-0.3	2.0	0.98
40	2017	bv7 ace1	10556	98.7	98.8	9.7	8.9	-0.2	3.9	0.92
41	2018	bv7 ace1	11118	100.6	100.6	9.0	8.1	-0.1	4.7	0.86
42	2019	bv7 ace1	2115	98.1	98.1	8.3	7.8	-0.1	3.8	0.89
43	2015	bv8 rpl2	6515	100.1	100.2	7.1	7.0	-0.1	1.4	0.98
44	2016	bv8 rpl2	9080	101.6	101.5	6.9	6.7	0.1	1.4	0.98
45	2017	bv8 rpl2	10556	100.4	100.7	6.8	6.7	-0.3	2.5	0.93
46	2018	bv8 rpl2	11118	101.4	101.2	6.4	6.3	0.2	3.0	0.89
47	2019	bv8 rpl2	2115	101.2	101.1	6.5	5.9	0.1	2.4	0.93
48	2015	bv9 rp2	6515	99.7	99.7	6.2	6.1	0.1	1.4	0.98
49	2016	bv9 rp2	9080	101.7	101.7	6.2	6.1	0.1	1.4	0.97
50	2017	bv9 rp2	10556	100.9	101.3	6.1	5.8	-0.4	2.3	0.92
51	2018	bv9 rp2	11118	101.7	102.0	5.8	5.5	-0.2	2.4	0.91
52	2019	bv9 rp2	2115	101.9	102.3	5.9	5.3	-0.4	2.5	0.91
53	2015	bv10 mb2	6515	100.7	100.9	9.1	8.8	-0.1	2.2	0.97
54	2016	bv10 mb2	9080	99.7	100.0	9.4	9.3	-0.3	2.2	0.97
55	2017	bv10 mb2	10556	99.9	100.3	10.2	8.7	-0.5	5.0	0.87
56	2018	bv10 mb2	11118	100.4	100.8	9.1	8.2	-0.5	5.4	0.81
57	2019	bv10 mb2	2115	101.0	101.2	9.5	8.2	-0.2	5.3	0.83
58	2015	bv11 fl2	4655	99.8	100.1	7.8	7.6	-0.3	1.9	0.97
59	2016	bv11 fl2	6456	100.2	100.3	7.6	7.3	-0.1	1.9	0.97
60	2017	bv11 fl2	7448	100.0	100.5	7.5	7.1	-0.4	3.0	0.92
61	2018	bv11 fl2	5854	100.2	100.0	7.2	6.6	0.1	3.4	0.88
62	2019	bv11 fl2	154	.	.	.	.	.	.	0.90
63	2015	bv12 ket2	4655	101.0	101.2	9.4	9.2	-0.2	1.8	0.98
64	2016	bv12 ket2	6434	101.0	101.2	9.0	8.8	-0.2	1.8	0.98
65	2017	bv12 ket2	6648	99.3	99.4	9.0	8.4	0.0	3.5	0.92
66	2018	bv12 ket2	1396	102.9	102.5	7.9	7.7	0.5	4.4	0.84
67	2015	bv13 bhb2	4655	100.4	100.5	7.1	7.1	-0.1	1.1	0.99
68	2016	bv13 bhb2	6434	101.6	101.6	6.8	6.7	0.0	1.1	0.99
69	2017	bv13 bhb2	6648	100.5	100.6	6.7	6.5	-0.1	2.2	0.95
70	2018	bv13 bhb2	1396	100.8	101.1	6.0	6.3	-0.4	2.9	0.89
71	2015	bv14 ace2	4655	99.9	99.9	6.0	5.9	0.0	1.3	0.98
72	2016	bv14 ace2	6434	101.7	101.7	6.0	5.9	0.0	1.3	0.98
73	2017	bv14 ace2	6648	101.0	101.4	5.9	5.6	-0.4	2.3	0.92
74	2018	bv14 ace2	1396	101.0	101.3	5.5	5.4	-0.3	2.5	0.89

sum sta 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
75	2015	bv15 rpl3	4655	101.2	101.4	9.1	8.9	-0.2	2.2	0.97
76	2016	bv15 rpl3	6434	100.1	100.4	9.4	9.4	-0.3	2.2	0.97
77	2017	bv15 rpl3	6648	100.4	100.7	10.4	9.2	-0.3	4.8	0.89
78	2018	bv15 rpl3	1396	101.0	101.1	9.1	8.5	-0.1	5.5	0.80
79	2015	bv16 rp3	3158	99.5	99.7	8.6	8.3	-0.2	2.1	0.97
80	2016	bv16 rp3	2238	102.6	102.7	8.9	8.6	-0.1	2.1	0.97
81	2017	bv16 rp3	3018	100.7	101.9	8.6	7.2	-1.2	4.3	0.87
82	2018	bv16 rp3	3166	101.1	101.9	9.2	7.3	-0.9	4.7	0.86
83	2019	bv16 rp3	3096	102.7	103.4	9.4	6.9	-0.7	5.5	0.81
84	2020	bv16 rp3	1133	102.3	103.2	8.5	6.4	-0.9	5.0	0.81
85	2015	bv17 mb3	3158	99.1	99.2	8.3	8.0	-0.2	1.9	0.97
86	2016	bv17 mb3	2238	102.2	102.2	8.2	7.9	0.1	2.0	0.97
87	2017	bv17 mb3	3018	100.1	100.9	8.1	7.1	-0.8	3.8	0.88
88	2018	bv17 mb3	3166	101.3	101.8	8.2	6.8	-0.5	4.2	0.86
89	2019	bv17 mb3	3096	101.4	102.6	8.5	6.3	-1.2	5.2	0.79
90	2020	bv17 mb3	1133	102.1	103.5	8.0	6.1	-1.4	5.2	0.76
91	2015	bv18 fl3	1408	98.2	98.5	8.4	8.0	-0.3	1.8	0.98
92	2016	bv18 fl3	1780	102.4	102.5	9.3	9.0	-0.1	1.8	0.98
93	2017	bv18 fl3	2414	100.4	101.7	9.2	7.6	-1.3	4.4	0.88
94	2018	bv18 fl3	2486	101.2	101.8	9.2	7.5	-0.5	4.9	0.85
95	2019	bv18 fl3	676	104.5	103.7	9.8	7.4	0.9	4.8	0.88
96	2015	bv19 ket3	1408	97.6	97.8	7.5	7.2	-0.2	1.5	0.98
97	2016	bv19 ket3	1780	101.9	101.9	7.9	7.7	0.0	1.4	0.98
98	2017	bv19 ket3	2414	100.0	100.8	7.8	6.8	-0.8	3.3	0.91
99	2018	bv19 ket3	2486	101.8	101.9	7.6	6.5	-0.1	4.0	0.85
100	2019	bv19 ket3	676	103.1	102.5	8.0	6.4	0.6	3.6	0.90
101	2015	bv20 bhb3	979	98.2	98.4	7.8	7.5	-0.2	1.6	0.98
102	2016	bv20 bhb3	1225	101.7	101.7	8.2	7.9	0.0	1.5	0.98
103	2017	bv20 bhb3	1587	100.2	101.0	8.3	6.8	-0.9	3.9	0.88
104	2018	bv20 bhb3	499	100.1	101.1	7.8	6.3	-0.9	4.5	0.82
105	2015	bv21 ace3	979	97.6	97.5	6.8	6.7	0.1	1.3	0.98
106	2016	bv21 ace3	1225	101.1	100.9	6.9	6.8	0.2	1.2	0.99
107	2017	bv21 ace3	1587	99.6	99.9	7.0	6.3	-0.3	2.9	0.91
108	2018	bv21 ace3	499	100.4	100.9	6.3	5.6	-0.5	3.6	0.82
109	2015	bv22 rpl	8539	99.9	100.1	7.3	7.0	-0.3	1.9	0.97
110	2016	bv22 rpl	11907	100.4	100.5	7.0	6.7	-0.1	1.9	0.96
111	2017	bv22 rpl	13811	100.0	100.6	7.0	6.5	-0.6	2.8	0.92

sum sta 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
112	2018	bv22 rpl	15380	100.1	100.3	6.7	6.1	-0.2	3.2	0.88
113	2019	bv22 rpl	15701	100.7	101.0	6.5	5.9	-0.3	3.4	0.85
114	2020	bv22 rpl	13248	101.0	101.3	6.3	5.6	-0.3	3.3	0.86
115	2021	bv22 rpl	281	100.2	100.5	6.7	6.0	-0.3	2.6	0.92
116	2015	bv23 rp	8539	101.0	101.2	9.0	8.9	-0.2	1.8	0.98
117	2016	bv23 rp	11907	100.9	101.2	8.7	8.5	-0.3	1.9	0.98
118	2017	bv23 rp	13811	99.2	99.4	8.7	8.1	-0.2	3.4	0.92
119	2018	bv23 rp	15380	101.0	101.2	8.1	7.5	-0.2	4.2	0.86
120	2019	bv23 rp	15266	100.0	99.9	7.7	7.1	0.0	3.8	0.87
121	2020	bv23 rp	3948	102.0	99.8	7.1	6.8	2.2	4.0	0.83
122	2015	bv24 mb	8539	100.1	100.2	6.7	6.6	-0.1	1.3	0.98
123	2016	bv24 mb	11907	101.5	101.5	6.5	6.3	0.0	1.3	0.98
124	2017	bv24 mb	13811	100.4	100.8	6.3	6.2	-0.4	2.3	0.94
125	2018	bv24 mb	15380	101.5	101.4	6.0	5.9	0.1	2.6	0.90
126	2019	bv24 mb	15266	101.3	101.7	5.8	5.5	-0.4	2.5	0.90
127	2020	bv24 mb	3948	101.8	102.5	5.6	5.3	-0.7	2.6	0.88
128	2015	bv25 fl	8539	99.4	99.3	6.2	6.1	0.0	1.4	0.97
129	2016	bv25 fl	11907	101.4	101.4	6.2	6.1	0.1	1.5	0.97
130	2017	bv25 fl	13811	100.6	101.0	6.0	5.7	-0.5	2.5	0.91
131	2018	bv25 fl	15380	101.3	101.6	5.7	5.5	-0.3	2.5	0.90
132	2019	bv25 fl	15266	101.2	102.0	5.8	5.2	-0.7	2.8	0.87
133	2020	bv25 fl	3948	101.1	102.3	5.5	5.2	-1.2	3.0	0.84
134	2015	bv26 ket	8539	100.7	100.9	8.9	8.6	-0.1	2.2	0.97
135	2016	bv26 ket	11907	99.6	99.9	9.2	9.1	-0.3	2.2	0.97
136	2017	bv26 ket	13811	99.7	100.2	10.1	8.9	-0.5	4.8	0.88
137	2018	bv26 ket	15380	100.4	100.6	8.9	8.3	-0.2	5.4	0.81
138	2019	bv26 ket	15266	101.8	101.5	9.3	7.8	0.2	5.1	0.84
139	2020	bv26 ket	3948	102.9	101.6	8.2	7.2	1.2	5.0	0.79
140	2015	bv27 bhb	6515	99.6	99.8	7.7	7.4	-0.2	1.7	0.98
141	2016	bv27 bhb	9080	102.1	102.2	7.8	7.4	-0.1	1.8	0.97
142	2017	bv27 bhb	10565	100.8	101.6	7.6	6.7	-0.9	3.2	0.91
143	2018	bv27 bhb	11856	101.3	101.8	7.6	6.5	-0.5	3.5	0.89
144	2019	bv27 bhb	8591	102.3	102.7	7.7	6.3	-0.3	3.5	0.89
145	2020	bv27 bhb	276	100.3	102.2	7.3	6.5	-1.9	3.5	0.88
146	2015	bv29 GH	8539	98.9	98.9	6.2	6.2	0.0	0.0	1.00
147	2016	bv29 GH	11907	101.4	101.4	6.3	6.3	0.0	0.0	1.00
148	2017	bv29 GH	13811	99.7	99.7	6.2	6.2	0.0	0.0	1.00

sum sta 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
149	2018	bv29 GH	15380	100.3	100.3	6.2	6.2	0.0	0.0	1.00
150	2019	bv29 GH	15701	100.4	100.4	6.0	6.0	0.0	0.0	1.00
151	2020	bv29 GH	13251	100.1	100.1	4.9	4.9	0.0	0.0	1.00
152	2021	bv29 GH	281	99.8	99.8	4.9	4.9	0.0	0.0	1.00

sum sta 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	bv1 rpl1	5634	100.9	101.3	6.2	5.5	-0.4	3.5	0.83
2	2020	bv1 rpl1	10414	101.4	101.8	6.1	5.2	-0.4	3.5	0.82
3	2021	bv1 rpl1	23494	101.4	101.6	6.0	5.2	-0.2	3.1	0.85
4	2022	bv1 rpl1	22038	102.2	102.1	5.6	5.0	0.1	3.0	0.85
5	2023	bv1 rpl1	679	102.1	102.0	5.7	5.2	0.0	3.1	0.84
6	2019	bv2 rp1	6069	100.7	101.1	7.5	6.8	-0.4	4.3	0.83
7	2020	bv2 rp1	19717	102.7	101.2	7.1	6.5	1.4	4.3	0.80
8	2021	bv2 rp1	23775	101.9	101.8	6.8	6.2	0.1	3.3	0.88
9	2022	bv2 rp1	22038	102.7	101.4	6.5	6.0	1.3	3.1	0.88
10	2023	bv2 rp1	679	103.4	102.0	6.4	5.8	1.4	3.0	0.89
11	2019	bv3 mb1	6069	101.0	102.1	6.7	5.8	-1.1	3.6	0.84
12	2020	bv3 mb1	19717	103.0	102.8	6.5	5.6	0.2	3.5	0.84
13	2021	bv3 mb1	23775	102.9	103.2	6.4	5.5	-0.2	3.1	0.88
14	2022	bv3 mb1	22038	103.6	103.4	5.9	5.2	0.2	2.9	0.87
15	2023	bv3 mb1	679	104.8	103.9	5.5	5.0	0.9	3.0	0.84
16	2019	bv4 fl1	6069	101.3	101.6	9.2	7.7	-0.3	5.1	0.83
17	2020	bv4 fl1	19717	102.2	101.4	7.7	7.3	0.8	4.6	0.81
18	2021	bv4 fl1	23775	102.3	102.4	7.5	7.1	-0.1	3.8	0.87
19	2022	bv4 fl1	22038	102.6	101.7	7.2	6.7	0.9	3.5	0.88
20	2023	bv4 fl1	679	102.7	101.6	7.1	6.7	1.2	3.5	0.88
21	2019	bv5 ket1	6069	100.5	101.5	6.8	6.1	-1.0	3.7	0.84
22	2020	bv5 ket1	19717	101.6	102.3	6.8	6.1	-0.8	3.9	0.82
23	2021	bv5 ket1	23775	102.3	102.6	6.6	5.8	-0.3	3.2	0.87
24	2022	bv5 ket1	22038	102.4	102.8	6.3	5.6	-0.4	3.1	0.87
25	2023	bv5 ket1	679	103.4	103.6	6.3	5.6	-0.2	3.2	0.86
26	2019	bv6 bhb1	18239	101.6	102.3	8.0	6.6	-0.7	3.9	0.87
27	2020	bv6 bhb1	22532	101.9	102.4	7.5	6.3	-0.5	3.9	0.85
28	2021	bv6 bhb1	23775	103.2	103.2	7.7	6.5	0.0	3.3	0.91
29	2022	bv6 bhb1	22038	103.5	103.5	7.1	6.1	-0.1	3.3	0.89
30	2023	bv6 bhb1	679	103.3	103.2	7.4	6.3	0.1	3.2	0.90
31	2019	bv7 ace1	18239	101.1	102.1	7.4	6.2	-0.9	3.7	0.86
32	2020	bv7 ace1	22532	102.3	102.8	7.1	6.0	-0.5	4.0	0.83
33	2021	bv7 ace1	23775	103.0	103.0	6.9	5.9	0.0	3.1	0.90
34	2022	bv7 ace1	22038	103.4	103.4	6.5	5.6	-0.1	3.2	0.87
35	2023	bv7 ace1	679	103.8	103.4	6.5	5.6	0.4	3.1	0.88
36	2019	bv8 rpl2	12744	101.1	101.3	7.0	6.3	-0.2	3.7	0.85
37	2020	bv8 rpl2	23389	101.3	101.4	6.6	5.8	-0.1	3.3	0.87

sum sta 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
38	2021	bv8 rpl2	23775	101.1	101.2	6.5	6.0	-0.2	2.8	0.90
39	2022	bv8 rpl2	22038	102.0	101.4	6.1	5.7	0.6	2.9	0.88
40	2023	bv8 rpl2	679	101.7	101.3	6.0	5.7	0.4	2.6	0.90
41	2019	bv9 rp2	19220	99.0	99.0	8.3	7.7	0.0	3.9	0.88
42	2020	bv9 rp2	23665	101.1	99.3	7.8	7.3	1.8	4.3	0.84
43	2021	bv9 rp2	23775	100.2	99.7	7.5	6.9	0.5	3.3	0.90
44	2022	bv9 rp2	22038	100.8	99.3	7.2	6.7	1.5	3.1	0.90
45	2023	bv9 rp2	679	101.1	99.5	7.1	6.5	1.6	3.0	0.90
46	2019	bv10 mb2	19220	101.1	101.5	6.2	5.9	-0.4	2.6	0.91
47	2020	bv10 mb2	23665	102.4	102.5	5.9	5.4	-0.1	2.9	0.88
48	2021	bv10 mb2	23775	102.5	102.4	6.0	5.3	0.1	2.4	0.91
49	2022	bv10 mb2	22038	103.3	103.0	5.6	5.1	0.2	2.3	0.91
50	2023	bv10 mb2	679	104.1	103.4	5.2	4.9	0.7	2.3	0.90
51	2019	bv11 fl2	19220	102.2	101.9	9.6	7.8	0.4	5.2	0.84
52	2020	bv11 fl2	23665	102.5	101.7	8.3	7.4	0.7	4.9	0.81
53	2021	bv11 fl2	23775	103.0	102.8	7.9	7.3	0.2	3.6	0.89
54	2022	bv11 fl2	22038	103.2	102.3	7.6	6.9	0.8	3.5	0.89
55	2023	bv11 fl2	679	102.6	101.8	7.5	7.0	0.7	3.4	0.90
56	2019	bv12 ket2	19220	101.6	102.2	5.7	5.2	-0.6	2.6	0.89
57	2020	bv12 ket2	23665	102.1	102.9	5.4	5.2	-0.7	2.7	0.87
58	2021	bv12 ket2	23775	103.1	103.3	5.4	5.0	-0.2	2.2	0.91
59	2022	bv12 ket2	22038	102.9	103.3	5.1	4.6	-0.4	2.1	0.91
60	2023	bv12 ket2	679	104.1	104.4	5.0	4.6	-0.4	2.1	0.90
61	2019	bv13 bhb2	20659	102.7	103.0	8.2	6.7	-0.3	3.7	0.89
62	2020	bv13 bhb2	23665	102.1	103.0	7.4	6.3	-0.9	3.8	0.86
63	2021	bv13 bhb2	23775	103.9	103.9	7.6	6.4	0.0	3.2	0.91
64	2022	bv13 bhb2	22038	103.6	104.0	6.9	5.9	-0.4	3.0	0.90
65	2023	bv13 bhb2	679	103.8	104.2	7.3	6.1	-0.4	2.9	0.92
66	2019	bv14 ace2	20659	102.6	103.0	7.0	6.0	-0.4	3.0	0.90
67	2020	bv14 ace2	23665	102.8	103.7	6.3	5.8	-0.8	3.2	0.87
68	2021	bv14 ace2	23775	104.0	104.0	6.3	5.6	0.0	2.6	0.91
69	2022	bv14 ace2	22038	103.9	104.3	5.8	5.2	-0.3	2.4	0.91
70	2023	bv14 ace2	679	104.6	104.8	5.8	5.1	-0.2	2.4	0.91
71	2019	bv15 rpl3	21181	100.5	100.8	6.9	6.4	-0.3	3.5	0.86
72	2020	bv15 rpl3	23665	101.0	101.3	6.6	5.9	-0.4	3.2	0.87
73	2021	bv15 rpl3	23775	100.8	101.0	6.5	6.1	-0.2	2.8	0.90
74	2022	bv15 rpl3	22038	101.7	101.3	6.1	5.8	0.4	2.9	0.89

sum sta 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
75	2023	bv15 rpl3	679	101.6	101.3	6.0	5.7	0.3	2.7	0.90
76	2019	bv16 rp3	21335	99.7	99.5	7.8	7.2	0.2	3.5	0.89
77	2020	bv16 rp3	23665	101.4	100.0	7.3	6.9	1.3	3.6	0.87
78	2021	bv16 rp3	23775	100.9	100.4	7.1	6.6	0.5	2.8	0.92
79	2022	bv16 rp3	22038	101.4	100.1	6.8	6.3	1.2	2.7	0.92
80	2023	bv16 rp3	679	101.5	100.4	6.7	6.3	1.1	2.6	0.92
81	2019	bv17 mb3	21335	101.5	101.4	5.9	5.7	0.1	2.0	0.94
82	2020	bv17 mb3	23665	102.3	102.2	5.4	5.2	0.1	2.2	0.91
83	2021	bv17 mb3	23775	102.5	102.3	5.6	5.2	0.3	2.0	0.94
84	2022	bv17 mb3	22038	103.2	102.9	5.3	5.0	0.3	1.8	0.94
85	2023	bv17 mb3	679	103.9	103.3	5.0	4.8	0.6	1.8	0.93
86	2019	bv18 fl3	21335	101.8	101.4	9.5	8.1	0.5	5.0	0.85
87	2020	bv18 fl3	23665	102.5	101.6	8.2	7.6	0.9	4.8	0.82
88	2021	bv18 fl3	23775	102.9	102.6	7.9	7.4	0.3	3.6	0.89
89	2022	bv18 fl3	22038	103.0	102.2	7.6	7.0	0.8	3.4	0.90
90	2023	bv18 fl3	679	102.8	101.8	7.4	7.0	1.0	3.3	0.89
91	2019	bv19 ket3	21335	101.5	102.1	5.5	5.0	-0.5	2.5	0.89
92	2020	bv19 ket3	23665	102.1	102.7	5.2	5.0	-0.7	2.4	0.89
93	2021	bv19 ket3	23775	103.0	103.2	5.2	4.9	-0.2	2.1	0.92
94	2022	bv19 ket3	22038	102.9	103.2	4.8	4.5	-0.3	2.0	0.91
95	2023	bv19 ket3	679	104.1	104.3	4.8	4.5	-0.2	2.0	0.91
96	2019	bv20 bhb3	21335	102.4	102.6	7.1	6.1	-0.2	3.1	0.90
97	2020	bv20 bhb3	23665	102.1	102.8	6.4	5.7	-0.8	3.1	0.87
98	2021	bv20 bhb3	23775	103.6	103.5	6.6	5.7	0.1	2.7	0.91
99	2022	bv20 bhb3	22038	103.5	103.7	6.0	5.3	-0.3	2.5	0.91
100	2023	bv20 bhb3	679	103.8	104.1	6.3	5.4	-0.3	2.5	0.92
101	2019	bv21 ace3	21335	102.1	102.2	6.1	5.6	-0.1	2.4	0.92
102	2020	bv21 ace3	23665	102.5	103.1	5.5	5.4	-0.6	2.6	0.89
103	2021	bv21 ace3	23775	103.5	103.4	5.5	5.1	0.1	2.1	0.92
104	2022	bv21 ace3	22038	103.4	103.6	5.1	4.8	-0.2	2.0	0.92
105	2023	bv21 ace3	679	104.4	104.5	5.0	4.6	-0.1	2.0	0.92
106	2019	bv22 rpl	5634	100.8	101.1	6.5	6.0	-0.3	3.3	0.86
107	2020	bv22 rpl	10414	101.2	101.6	6.2	5.5	-0.3	3.1	0.87
108	2021	bv22 rpl	23494	101.1	101.3	6.1	5.6	-0.2	2.8	0.89
109	2022	bv22 rpl	22038	101.9	101.6	5.8	5.4	0.3	2.8	0.88
110	2023	bv22 rpl	679	101.8	101.5	5.8	5.4	0.3	2.7	0.89
111	2019	bv23 rp	6069	99.7	99.7	7.6	7.1	0.0	3.7	0.87

sum sta 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
112	2020	bv23 rp	19717	101.6	100.2	7.2	6.7	1.4	3.9	0.85
113	2021	bv23 rp	23775	101.0	100.6	6.9	6.4	0.4	3.0	0.90
114	2022	bv23 rp	22038	101.6	100.3	6.6	6.2	1.3	2.8	0.90
115	2023	bv23 rp	679	101.9	100.6	6.6	6.1	1.3	2.7	0.91
116	2019	bv24 mb	6069	101.2	101.6	5.8	5.5	-0.4	2.4	0.91
117	2020	bv24 mb	19717	102.6	102.5	5.5	5.1	0.2	2.5	0.89
118	2021	bv24 mb	23775	102.7	102.6	5.6	5.0	0.1	2.2	0.92
119	2022	bv24 mb	22038	103.3	103.1	5.2	4.8	0.3	2.1	0.92
120	2023	bv24 mb	679	104.2	103.5	4.9	4.6	0.7	2.1	0.90
121	2019	bv25 fl	6069	101.7	101.5	9.2	7.7	0.2	4.9	0.85
122	2020	bv25 fl	19717	102.3	101.6	7.9	7.3	0.8	4.6	0.82
123	2021	bv25 fl	23775	102.8	102.6	7.6	7.2	0.2	3.6	0.89
124	2022	bv25 fl	22038	102.9	102.1	7.4	6.8	0.8	3.4	0.89
125	2023	bv25 fl	679	102.7	101.8	7.2	6.8	0.9	3.3	0.89
126	2019	bv26 ket	6069	101.2	101.9	5.7	5.2	-0.7	2.7	0.88
127	2020	bv26 ket	19717	102.0	102.7	5.5	5.2	-0.7	2.8	0.87
128	2021	bv26 ket	23775	102.8	103.0	5.5	5.0	-0.2	2.3	0.91
129	2022	bv26 ket	22038	102.8	103.1	5.2	4.7	-0.3	2.2	0.90
130	2023	bv26 ket	679	103.8	104.1	5.1	4.7	-0.3	2.3	0.89
131	2019	bv27 bhb	18239	102.0	102.4	6.4	5.6	-0.4	2.7	0.91
132	2020	bv27 bhb	22532	102.6	103.2	5.9	5.4	-0.6	2.9	0.87
133	2021	bv27 bhb	23775	103.5	103.4	5.9	5.2	0.1	2.4	0.91
134	2022	bv27 bhb	22038	103.5	103.7	5.5	4.8	-0.2	2.3	0.91
135	2023	bv27 bhb	679	104.2	104.2	5.4	4.8	0.0	2.3	0.91
136	2019	bv29 GH	5634	102.6	102.8	7.6	6.2	-0.2	3.5	0.89
137	2020	bv29 GH	10414	102.2	102.7	6.9	5.9	-0.5	3.4	0.87
138	2021	bv29 GH	23494	103.6	103.5	7.0	6.0	0.1	2.9	0.91
139	2022	bv29 GH	22038	103.5	103.7	6.4	5.6	-0.2	2.7	0.91
140	2023	bv29 GH	679	103.7	103.9	6.7	5.7	-0.2	2.7	0.92

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	bv1 rpl1	55	157	164	97.5	97.5	10.1	10.2	-0.1	2.4	0.97
2	2011	bv1 rpl1	47	128	120	98.3	98.3	10.0	9.4	0.0	2.2	0.98
3	2012	bv1 rpl1	47	262	457	95.4	94.9	10.8	10.4	0.5	2.4	0.97
4	2013	bv1 rpl1	50	206	377	99.9	99.7	10.2	10.3	0.2	3.3	0.95
5	2014	bv1 rpl1	36	356	440	96.1	94.8	14.0	13.8	1.3	2.9	0.98
6	2015	bv1 rpl1	30	821	795	99.1	101.1	11.7	5.6	-2.0	9.2	0.64
7	2016	bv1 rpl1	26	590	613	102.4	100.3	7.9	7.0	2.1	5.5	0.74
8	2017	bv1 rpl1	29	761	617	100.0	101.1	7.9	5.7	-1.1	7.8	0.39
9	2018	bv1 rpl1	11	258	282	100.8	102.2	10.6	7.3	-1.4	7.7	0.69
10	2010	bv2 rp1	55	157	164	105.8	106.1	10.9	10.3	-0.3	2.4	0.98
11	2011	bv2 rp1	47	128	121	104.9	104.6	10.7	10.6	0.3	2.4	0.97
12	2012	bv2 rp1	47	260	450	101.2	101.8	10.0	9.8	-0.6	3.5	0.94
13	2013	bv2 rp1	50	205	376	105.4	105.4	13.0	11.7	0.0	3.5	0.96
14	2014	bv2 rp1	36	356	440	105.9	104.8	11.2	11.1	1.1	2.7	0.97
15	2015	bv2 rp1	30	812	777	99.3	102.6	12.8	9.6	-3.3	9.2	0.69
16	2016	bv2 rp1	26	583	603	104.8	104.4	10.5	9.8	0.4	8.5	0.65
17	2017	bv2 rp1	29	584	475	99.6	101.8	9.9	7.5	-2.2	9.2	0.46
18	2010	bv3 mb1	55	157	164	97.9	97.5	9.5	9.9	0.4	1.7	0.98
19	2011	bv3 mb1	47	128	121	98.2	98.5	11.3	10.4	-0.3	1.8	0.99
20	2012	bv3 mb1	47	260	450	99.5	98.9	9.7	10.4	0.6	2.2	0.98
21	2013	bv3 mb1	50	205	376	99.0	98.7	7.5	7.6	0.3	3.0	0.92
22	2014	bv3 mb1	36	356	440	98.0	97.0	10.6	11.1	1.0	2.9	0.97
23	2015	bv3 mb1	30	812	777	100.0	99.4	12.2	7.6	0.6	9.6	0.62
24	2016	bv3 mb1	26	583	603	103.3	100.2	9.5	6.6	3.2	6.4	0.75
25	2017	bv3 mb1	29	584	475	101.5	101.2	8.2	6.6	0.3	5.8	0.71
26	2010	bv4 fl1	55	157	164	97.3	97.2	10.7	10.6	0.0	1.8	0.99
27	2011	bv4 fl1	47	128	121	97.7	97.9	10.0	10.2	-0.2	1.9	0.98
28	2012	bv4 fl1	47	260	450	100.2	99.5	9.8	9.6	0.7	2.3	0.97
29	2013	bv4 fl1	50	205	376	100.2	100.4	10.3	10.0	-0.2	2.5	0.97
30	2014	bv4 fl1	36	356	440	96.9	96.8	11.8	11.9	0.1	2.0	0.99
31	2015	bv4 fl1	30	812	777	99.4	97.5	11.6	7.8	2.0	7.2	0.79
32	2016	bv4 fl1	26	583	603	98.3	98.7	12.6	9.7	-0.4	5.6	0.90
33	2017	bv4 fl1	29	584	475	100.6	100.0	10.5	5.7	0.7	8.6	0.58
34	2010	bv5 ket1	55	157	164	100.2	100.2	11.2	11.6	0.1	2.4	0.98
35	2011	bv5 ket1	47	128	121	101.7	101.6	13.7	12.8	0.1	2.5	0.99
36	2012	bv5 ket1	47	260	450	100.7	99.9	11.3	11.4	0.9	2.3	0.98

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
37	2013	bv5 ket1	50	205	376	101.0	101.0	11.6	11.5	0.0	2.8	0.97
38	2014	bv5 ket1	36	356	440	97.2	96.5	15.0	15.3	0.7	2.6	0.99
39	2015	bv5 ket1	30	812	777	103.9	100.9	14.3	8.3	2.9	10.0	0.73
40	2016	bv5 ket1	26	583	603	101.2	98.7	13.7	9.6	2.5	8.3	0.80
41	2017	bv5 ket1	29	584	475	102.8	101.3	12.6	7.4	1.5	8.5	0.76
42	2010	bv6 bhb1	55	156	162	103.7	103.5	8.4	8.4	0.2	1.7	0.98
43	2011	bv6 bhb1	47	129	122	102.8	102.9	11.7	11.5	-0.1	1.6	0.99
44	2012	bv6 bhb1	47	258	447	101.2	101.0	10.9	11.2	0.2	1.5	0.99
45	2013	bv6 bhb1	50	201	364	102.6	102.8	10.0	9.6	-0.2	2.0	0.98
46	2014	bv6 bhb1	36	353	434	101.4	101.4	14.7	14.3	-0.1	1.9	0.99
47	2015	bv6 bhb1	30	805	773	102.7	101.0	14.0	9.5	1.7	8.3	0.82
48	2016	bv6 bhb1	26	583	611	100.7	99.6	12.2	8.5	1.1	7.4	0.80
49	2017	bv6 bhb1	29	853	677	101.6	99.4	12.6	9.3	2.2	7.3	0.82
50	2018	bv6 bhb1	19	475	664	98.1	100.2	10.2	7.3	-2.2	4.8	0.90
51	2010	bv7 ace1	55	156	162	101.5	101.4	8.7	8.9	0.1	1.9	0.98
52	2011	bv7 ace1	47	129	122	101.6	101.7	11.4	10.9	-0.1	2.0	0.98
53	2012	bv7 ace1	47	258	447	101.2	100.8	10.7	10.8	0.4	1.5	0.99
54	2013	bv7 ace1	50	201	364	102.2	101.9	9.6	9.5	0.2	1.9	0.98
55	2014	bv7 ace1	36	353	434	100.0	100.3	15.1	14.7	-0.4	2.0	0.99
56	2015	bv7 ace1	30	805	773	103.7	100.7	14.0	8.7	3.0	8.8	0.79
57	2016	bv7 ace1	26	583	611	101.2	99.7	12.8	8.5	1.5	7.4	0.83
58	2017	bv7 ace1	29	853	677	102.1	99.7	12.5	8.4	2.5	8.4	0.74
59	2018	bv7 ace1	19	475	664	97.7	99.1	11.0	7.1	-1.4	5.9	0.87
60	2010	bv8 rpl2	55	113	124	97.7	97.7	9.0	9.3	-0.1	2.1	0.97
61	2011	bv8 rpl2	47	94	90	98.6	98.8	9.0	8.7	-0.1	2.3	0.97
62	2012	bv8 rpl2	47	196	337	96.9	96.6	8.9	8.7	0.3	2.3	0.97
63	2013	bv8 rpl2	50	156	278	101.3	100.7	9.7	9.7	0.6	2.9	0.96
64	2014	bv8 rpl2	36	276	341	98.5	97.8	11.9	12.0	0.8	2.5	0.98
65	2015	bv8 rpl2	30	603	556	97.9	100.8	9.7	5.5	-2.9	8.3	0.53
66	2016	bv8 rpl2	26	422	429	103.0	101.8	8.0	7.1	1.2	5.7	0.72
67	2017	bv8 rpl2	25	255	214	100.3	100.8	6.1	4.8	-0.6	6.7	0.26
68	2010	bv9 rp2	55	113	124	104.1	104.1	8.4	8.4	0.0	1.9	0.97
69	2011	bv9 rp2	47	94	90	103.5	103.3	9.5	9.3	0.2	2.1	0.98
70	2012	bv9 rp2	47	189	316	100.8	101.3	7.9	8.2	-0.5	2.9	0.94
71	2013	bv9 rp2	50	156	277	103.7	103.4	11.0	10.6	0.4	2.8	0.97
72	2014	bv9 rp2	36	276	339	103.4	102.1	9.8	9.8	1.3	2.4	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
73	2015	bv9 rp2	30	581	518	99.5	101.5	9.8	7.1	-2.1	8.2	0.57
74	2016	bv9 rp2	26	347	354	105.4	103.7	8.9	7.8	1.7	6.9	0.67
75	2017	bv9 rp2	15	103	90	95.9	99.7	9.0	6.2	-3.7	9.2	0.31
76	2010	bv10 mb2	55	113	124	101.2	101.0	7.5	7.8	0.2	1.5	0.98
77	2011	bv10 mb2	47	94	90	99.8	99.9	7.9	7.4	-0.1	1.4	0.99
78	2012	bv10 mb2	47	189	316	99.8	99.5	9.2	9.2	0.2	1.7	0.98
79	2013	bv10 mb2	50	156	277	101.2	101.0	6.9	7.1	0.3	1.8	0.97
80	2014	bv10 mb2	36	276	339	101.0	100.5	9.6	9.2	0.4	1.7	0.98
81	2015	bv10 mb2	30	581	518	101.1	100.6	8.7	7.0	0.4	5.5	0.77
82	2016	bv10 mb2	26	347	354	103.9	102.8	8.1	7.1	1.2	3.9	0.87
83	2017	bv10 mb2	15	103	90	98.7	99.5	5.1	4.4	-0.8	4.2	0.61
84	2010	bv11 fl2	55	113	124	99.5	99.5	10.3	10.1	-0.1	1.9	0.98
85	2011	bv11 fl2	47	94	90	98.7	98.9	9.2	9.4	-0.2	1.7	0.98
86	2012	bv11 fl2	47	189	316	100.7	100.8	11.7	10.9	0.0	2.3	0.98
87	2013	bv11 fl2	50	156	277	101.1	101.0	11.0	10.8	0.1	2.5	0.97
88	2014	bv11 fl2	36	276	339	99.5	99.2	13.0	12.8	0.3	2.1	0.99
89	2015	bv11 fl2	30	581	518	98.0	96.8	12.8	7.6	1.2	8.5	0.76
90	2016	bv11 fl2	26	347	354	100.2	100.2	13.6	10.3	0.0	6.2	0.90
91	2017	bv11 fl2	15	103	90	99.1	100.3	13.0	7.0	-1.2	9.2	0.73
92	2010	bv12 ket2	55	113	124	100.7	100.6	7.8	8.0	0.1	1.6	0.98
93	2011	bv12 ket2	47	94	90	101.0	100.9	12.0	11.9	0.0	1.6	0.99
94	2012	bv12 ket2	47	189	316	102.0	101.8	9.5	10.0	0.1	1.7	0.99
95	2013	bv12 ket2	50	156	277	103.1	102.7	8.0	8.4	0.4	2.1	0.97
96	2014	bv12 ket2	36	276	339	100.6	100.5	9.1	9.5	0.1	1.9	0.98
97	2015	bv12 ket2	30	581	518	100.8	99.9	11.0	7.7	0.9	5.9	0.86
98	2016	bv12 ket2	26	347	354	103.0	101.9	8.1	7.1	1.2	5.8	0.71
99	2017	bv12 ket2	15	103	90	99.3	99.5	7.7	4.4	-0.3	5.7	0.69
100	2010	bv13 bhb2	55	122	131	100.6	100.5	8.5	8.5	0.1	1.2	0.99
101	2011	bv13 bhb2	47	102	98	99.4	99.8	12.5	12.1	-0.4	1.5	0.99
102	2012	bv13 bhb2	47	213	366	99.8	99.2	12.2	12.1	0.6	1.5	0.99
103	2013	bv13 bhb2	50	166	295	101.9	101.9	9.6	9.5	-0.1	1.8	0.98
104	2014	bv13 bhb2	36	294	360	100.1	100.9	15.0	15.0	-0.8	2.0	0.99
105	2015	bv13 bhb2	30	649	605	102.8	100.2	16.2	9.8	2.6	10.9	0.76
106	2016	bv13 bhb2	26	471	483	100.2	98.6	12.5	10.0	1.6	7.0	0.83
107	2017	bv13 bhb2	28	351	288	100.8	97.8	14.1	10.3	3.0	9.5	0.74
108	2010	bv14 ace2	55	122	131	95.7	95.8	9.8	9.7	-0.1	1.8	0.98

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2011	bv14 ace2	47	102	98	96.4	97.0	11.2	11.3	-0.6	2.3	0.98
110	2012	bv14 ace2	47	213	366	99.2	98.5	12.1	11.5	0.7	2.1	0.99
111	2013	bv14 ace2	50	166	295	100.6	100.1	9.1	8.9	0.5	2.8	0.95
112	2014	bv14 ace2	36	294	360	97.4	98.4	16.5	16.2	-0.9	2.1	0.99
113	2015	bv14 ace2	30	649	605	104.0	99.4	16.8	8.6	4.6	12.0	0.74
114	2016	bv14 ace2	26	471	483	101.0	98.8	13.7	11.0	2.2	7.6	0.83
115	2017	bv14 ace2	28	351	288	100.4	97.6	16.9	7.8	2.8	13.9	0.58
116	2010	bv15 rpl3	54	79	88	97.8	98.1	8.6	8.6	-0.3	1.7	0.98
117	2011	bv15 rpl3	46	66	61	98.6	98.8	8.7	8.6	-0.2	2.1	0.97
118	2012	bv15 rpl3	47	123	193	97.2	96.8	8.8	8.0	0.4	2.2	0.97
119	2013	bv15 rpl3	49	109	189	102.2	101.9	9.0	8.6	0.3	2.6	0.96
120	2014	bv15 rpl3	36	194	246	98.3	97.9	10.5	10.4	0.4	2.0	0.98
121	2015	bv15 rpl3	30	359	305	99.1	100.7	10.0	5.7	-1.6	6.9	0.74
122	2016	bv15 rpl3	22	154	164	101.8	101.9	8.1	6.2	0.0	6.0	0.68
123	2010	bv16 rp3	54	79	88	105.2	105.5	9.8	9.5	-0.3	1.8	0.98
124	2011	bv16 rp3	46	66	61	104.8	104.4	11.1	11.1	0.3	2.6	0.97
125	2012	bv16 rp3	47	109	166	101.4	102.0	9.8	9.7	-0.7	3.8	0.93
126	2013	bv16 rp3	49	108	186	104.4	104.0	11.8	11.5	0.5	3.2	0.96
127	2014	bv16 rp3	36	191	241	105.1	103.7	10.5	10.8	1.4	2.5	0.97
128	2015	bv16 rp3	30	281	234	98.3	101.9	12.7	9.2	-3.6	8.5	0.74
129	2016	bv16 rp3	11	70	65	108.3	107.4	6.1	8.2	0.9	5.5	0.74
130	2010	bv17 mb3	54	79	88	100.5	100.5	7.8	7.9	0.1	1.2	0.99
131	2011	bv17 mb3	46	66	61	98.0	98.2	7.7	7.4	-0.3	1.2	0.99
132	2012	bv17 mb3	47	109	166	99.4	99.0	9.3	9.3	0.4	1.7	0.98
133	2013	bv17 mb3	49	108	186	100.3	100.2	7.1	6.7	0.1	1.9	0.96
134	2014	bv17 mb3	36	191	241	101.4	101.1	9.2	8.9	0.3	1.3	0.99
135	2015	bv17 mb3	30	281	234	100.3	100.1	8.4	7.0	0.1	5.5	0.76
136	2016	bv17 mb3	11	70	65	105.6	106.8	9.6	7.2	-1.2	4.2	0.92
137	2010	bv18 fl3	54	79	88	97.9	98.0	10.4	10.5	-0.1	1.8	0.99
138	2011	bv18 fl3	46	66	61	97.9	98.3	8.7	8.7	-0.4	1.8	0.98
139	2012	bv18 fl3	47	109	166	100.9	100.4	9.8	9.1	0.5	2.1	0.98
140	2013	bv18 fl3	49	108	186	101.1	101.0	9.5	9.4	0.1	2.2	0.97
141	2014	bv18 fl3	36	191	241	98.9	99.0	11.5	11.2	-0.1	1.7	0.99
142	2015	bv18 fl3	30	281	234	98.6	97.3	11.5	7.0	1.3	7.4	0.78
143	2016	bv18 fl3	11	70	65	100.8	102.6	13.2	11.4	-1.8	6.3	0.88
144	2010	bv19 ket3	54	79	88	101.6	101.5	7.5	7.4	0.1	1.4	0.98

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Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
145	2011	bv19 ket3	46	66	61	101.1	101.1	9.3	9.1	0.0	1.4	0.99
146	2012	bv19 ket3	47	109	166	101.0	100.4	8.0	8.4	0.6	1.5	0.98
147	2013	bv19 ket3	49	108	186	102.3	102.4	7.8	7.7	-0.1	1.9	0.97
148	2014	bv19 ket3	36	191	241	100.9	100.6	8.4	9.1	0.3	1.6	0.99
149	2015	bv19 ket3	30	281	234	101.6	101.0	8.7	6.4	0.6	4.4	0.87
150	2016	bv19 ket3	11	70	65	104.8	106.4	6.2	4.8	-1.5	4.3	0.72
151	2010	bv20 bhb3	54	87	96	100.2	99.9	8.8	8.8	0.3	1.2	0.99
152	2011	bv20 bhb3	47	72	68	98.4	98.8	12.0	11.6	-0.4	1.4	0.99
153	2012	bv20 bhb3	47	143	232	99.2	98.4	12.9	12.5	0.7	1.5	0.99
154	2013	bv20 bhb3	49	120	204	100.9	101.1	9.4	9.4	-0.2	1.6	0.99
155	2014	bv20 bhb3	36	212	264	100.0	100.8	14.8	14.8	-0.8	1.9	0.99
156	2015	bv20 bhb3	30	420	365	102.9	100.2	16.1	10.2	2.7	10.2	0.79
157	2016	bv20 bhb3	22	240	227	99.4	98.4	13.8	11.1	1.0	6.4	0.89
158	2010	bv21 ace3	54	87	96	95.0	94.8	10.0	9.7	0.2	1.7	0.99
159	2011	bv21 ace3	47	72	68	95.2	95.5	11.4	11.1	-0.3	1.7	0.99
160	2012	bv21 ace3	47	143	232	98.3	96.9	12.6	11.6	1.4	2.3	0.99
161	2013	bv21 ace3	49	120	204	99.6	99.5	9.4	9.4	0.1	2.1	0.97
162	2014	bv21 ace3	36	212	264	97.3	98.3	15.6	15.3	-0.9	2.0	0.99
163	2015	bv21 ace3	30	420	365	103.7	99.5	16.3	8.2	4.1	11.4	0.76
164	2016	bv21 ace3	22	240	227	99.8	97.7	14.0	11.3	2.1	7.6	0.84
165	2010	bv22 rpl	55	157	164	97.6	97.7	8.9	9.0	-0.1	2.0	0.98
166	2011	bv22 rpl	47	128	120	98.5	98.7	8.8	8.5	-0.2	2.1	0.97
167	2012	bv22 rpl	47	262	457	96.5	96.1	9.1	8.7	0.4	2.2	0.97
168	2013	bv22 rpl	50	206	377	101.2	100.9	9.3	9.2	0.3	2.8	0.95
169	2014	bv22 rpl	36	356	440	97.8	97.0	11.5	11.6	0.8	2.3	0.98
170	2015	bv22 rpl	30	821	795	98.8	100.8	9.9	5.2	-2.0	7.7	0.64
171	2016	bv22 rpl	26	590	613	102.3	101.2	7.1	6.1	1.1	5.2	0.70
172	2017	bv22 rpl	29	761	617	100.2	100.9	7.4	4.9	-0.7	7.0	0.43
173	2018	bv22 rpl	11	258	282	102.0	102.0	7.7	6.2	0.0	5.1	0.75
174	2010	bv23 rp	55	157	164	105.0	105.2	9.3	9.1	-0.2	1.9	0.98
175	2011	bv23 rp	47	128	121	104.4	104.0	10.1	10.0	0.4	2.3	0.97
176	2012	bv23 rp	47	260	450	101.2	101.8	8.7	8.8	-0.6	3.4	0.92
177	2013	bv23 rp	50	205	376	104.6	104.2	11.7	11.0	0.4	3.1	0.96
178	2014	bv23 rp	36	356	440	104.9	103.6	10.1	10.2	1.3	2.3	0.97
179	2015	bv23 rp	30	812	777	98.8	102.0	11.3	8.4	-3.2	8.2	0.69
180	2016	bv23 rp	26	583	603	105.6	104.4	8.4	8.9	1.2	7.0	0.67

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
181	2017	bv23 rp	29	584	475	100.1	102.2	9.0	7.0	-2.1	8.1	0.51
182	2010	bv24 mb	55	157	164	99.9	99.7	7.5	7.7	0.2	1.2	0.99
183	2011	bv24 mb	47	128	121	98.5	98.7	7.8	7.3	-0.1	1.3	0.99
184	2012	bv24 mb	47	260	450	99.5	99.1	8.7	8.9	0.4	1.6	0.98
185	2013	bv24 mb	50	205	376	100.3	99.9	6.3	6.3	0.3	2.0	0.95
186	2014	bv24 mb	36	356	440	100.3	99.9	9.0	8.8	0.4	1.6	0.98
187	2015	bv24 mb	30	812	777	100.4	100.0	8.9	6.7	0.4	6.1	0.73
188	2016	bv24 mb	26	583	603	103.5	102.0	8.0	6.4	1.5	4.1	0.86
189	2017	bv24 mb	29	584	475	101.3	100.8	6.7	5.9	0.6	4.7	0.73
190	2010	bv25 fl	55	157	164	98.2	98.2	10.2	10.2	0.0	1.6	0.99
191	2011	bv25 fl	47	128	121	97.9	98.2	8.9	9.0	-0.3	1.8	0.98
192	2012	bv25 fl	47	260	450	100.7	100.1	10.1	9.5	0.6	2.1	0.98
193	2013	bv25 fl	50	205	376	100.9	100.9	9.9	9.7	0.0	2.3	0.97
194	2014	bv25 fl	36	356	440	98.5	98.4	11.8	11.6	0.2	1.9	0.99
195	2015	bv25 fl	30	812	777	98.8	97.3	11.4	7.2	1.5	7.3	0.78
196	2016	bv25 fl	26	583	603	99.1	99.7	12.6	9.7	-0.6	5.6	0.90
197	2017	bv25 fl	29	584	475	99.8	99.9	10.5	5.8	0.0	7.8	0.67
198	2010	bv26 ket	55	157	164	100.9	100.8	7.7	7.8	0.1	1.4	0.98
199	2011	bv26 ket	47	128	121	101.1	101.1	10.5	10.2	0.0	1.5	0.99
200	2012	bv26 ket	47	260	450	101.1	100.6	8.2	8.7	0.6	1.5	0.99
201	2013	bv26 ket	50	205	376	102.2	102.2	8.0	8.3	0.0	1.8	0.98
202	2014	bv26 ket	36	356	440	99.8	99.3	9.3	10.0	0.4	1.8	0.99
203	2015	bv26 ket	30	812	777	102.0	100.6	9.9	6.7	1.4	5.6	0.84
204	2016	bv26 ket	26	583	603	102.0	100.9	8.6	6.9	1.2	5.6	0.76
205	2017	bv26 ket	29	584	475	102.9	101.5	8.7	5.8	1.4	5.2	0.82
206	2010	bv27 bhb	55	156	162	97.2	97.2	8.5	8.6	0.0	1.4	0.99
207	2011	bv27 bhb	47	129	122	97.3	97.8	10.5	10.4	-0.5	1.6	0.99
208	2012	bv27 bhb	47	258	447	99.4	98.4	11.2	10.7	0.9	1.7	0.99
209	2013	bv27 bhb	50	201	364	100.8	100.6	8.5	8.5	0.2	1.7	0.98
210	2014	bv27 bhb	36	353	434	98.1	99.0	14.6	14.5	-0.9	1.7	0.99
211	2015	bv27 bhb	30	805	773	103.8	99.8	15.0	7.9	4.0	10.1	0.77
212	2016	bv27 bhb	26	583	611	100.4	98.4	12.5	9.9	2.0	6.3	0.87
213	2017	bv27 bhb	29	853	677	101.2	98.0	12.8	7.8	3.2	9.4	0.69
214	2018	bv27 bhb	19	475	664	98.4	97.8	10.7	7.3	0.5	6.7	0.78
215	2010	bv29 GH	55	157	164	101.5	101.1	8.1	8.2	0.4	1.2	0.99
216	2011	bv29 GH	47	128	120	100.0	100.4	11.7	11.3	-0.4	1.2	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
217	2012	bv29 GH	47	262	457	100.0	99.5	11.8	11.6	0.5	1.2	0.99
218	2013	bv29 GH	50	206	377	101.8	101.9	9.3	9.1	-0.2	1.5	0.99
219	2014	bv29 GH	36	356	440	100.5	101.0	14.4	14.3	-0.5	1.8	0.99
220	2015	bv29 GH	30	821	795	102.9	100.5	15.0	9.8	2.4	9.4	0.80
221	2016	bv29 GH	26	590	613	100.1	98.8	11.9	9.4	1.3	6.5	0.84
222	2017	bv29 GH	29	761	617	101.0	98.0	12.6	9.6	3.0	7.6	0.80
223	2018	bv29 GH	11	258	282	99.3	99.5	8.0	6.9	-0.3	4.5	0.83

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
1	2019	bv1 rpl1	51	0	0	102.5	101.7	6.2	4.6	0.8	5.2	0.57
2	2020	bv1 rpl1	32	.	.	101.9	103.5	7.1	4.0	-1.6	5.7	0.60
3	2021	bv1 rpl1	40	.	.	102.2	102.5	6.0	4.6	-0.3	4.4	0.69
4	2022	bv1 rpl1	23	.	.	104.6	104.2	6.8	5.0	0.4	4.7	0.72
5	2019	bv2 rp1	51	0	0	98.9	101.8	8.6	5.6	-2.9	6.0	0.73
6	2020	bv2 rp1	32	.	.	105.5	106.9	7.7	5.7	-1.4	4.4	0.82
7	2021	bv2 rp1	40	.	.	100.4	103.2	5.1	4.2	-2.8	3.9	0.66
8	2022	bv2 rp1	23	.	.	106.0	107.1	7.3	4.9	-1.1	4.4	0.82
9	2019	bv3 mb1	51	0	0	103.2	101.8	7.0	5.3	1.4	4.2	0.80
10	2020	bv3 mb1	32	.	.	107.3	103.1	5.9	4.9	4.2	4.3	0.70
11	2021	bv3 mb1	40	.	.	105.0	103.2	6.4	4.9	1.8	3.2	0.87
12	2022	bv3 mb1	23	.	.	107.0	103.4	6.9	6.1	3.6	3.3	0.88
13	2019	bv4 fl1	51	0	0	98.8	98.9	8.5	5.8	-0.1	6.0	0.71
14	2020	bv4 fl1	32	.	.	100.2	100.2	6.2	5.6	0.1	3.2	0.86
15	2021	bv4 fl1	40	.	.	101.6	100.3	6.2	4.2	1.3	3.4	0.85
16	2022	bv4 fl1	23	.	.	101.3	100.6	8.0	7.5	0.7	3.3	0.91
17	2019	bv5 ket1	51	0	0	102.4	101.1	10.7	8.0	1.4	6.1	0.82
18	2020	bv5 ket1	32	.	.	109.4	104.4	8.5	6.8	5.0	4.8	0.82
19	2021	bv5 ket1	40	.	.	105.4	102.8	7.2	5.4	2.6	4.1	0.82
20	2022	bv5 ket1	23	.	.	108.6	104.3	9.1	7.7	4.3	4.2	0.89
21	2019	bv6 bhb1	39	.	.	99.5	98.8	8.9	7.9	0.7	4.0	0.89
22	2020	bv6 bhb1	32	.	.	107.8	104.3	8.3	6.4	3.4	3.8	0.90
23	2021	bv6 bhb1	40	.	.	104.8	102.4	6.2	4.7	2.4	3.2	0.86
24	2022	bv6 bhb1	23	.	.	107.0	104.3	9.4	7.6	2.6	3.8	0.92
25	2019	bv7 ace1	39	.	.	100.3	99.6	9.2	7.8	0.7	4.6	0.87
26	2020	bv7 ace1	32	.	.	108.9	103.9	8.4	6.4	5.0	4.1	0.88
27	2021	bv7 ace1	40	.	.	105.8	102.8	5.9	4.3	3.0	3.3	0.84
28	2022	bv7 ace1	23	.	.	107.0	103.6	9.0	7.6	3.5	3.7	0.92
29	2019	bv8 rpl2	51	0	0	102.1	102.3	5.9	4.0	-0.2	4.8	0.59
30	2020	bv8 rpl2	32	.	.	101.9	103.6	6.7	4.4	-1.7	5.0	0.67
31	2021	bv8 rpl2	40	.	.	101.6	102.7	5.7	4.3	-1.0	4.0	0.71
32	2022	bv8 rpl2	23	.	.	103.9	103.7	5.4	3.9	0.2	4.1	0.66
33	2019	bv9 rp2	51	0	0	100.5	102.7	7.2	4.9	-2.3	5.1	0.72
34	2020	bv9 rp2	32	.	.	106.4	105.8	5.7	4.8	0.7	3.4	0.80
35	2021	bv9 rp2	40	.	.	101.8	103.6	5.1	4.4	-1.8	3.6	0.73
36	2022	bv9 rp2	23	.	.	106.6	106.0	6.2	5.1	0.6	3.2	0.86

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
37	2019	bv10 mb2	51	0	0	103.0	102.7	5.6	4.6	0.3	3.3	0.80
38	2020	bv10 mb2	32	.	.	107.3	104.6	5.6	4.9	2.6	2.5	0.89
39	2021	bv10 mb2	40	.	.	105.3	104.3	5.0	4.2	0.9	2.8	0.83
40	2022	bv10 mb2	23	.	.	106.7	104.3	5.1	4.9	2.3	1.7	0.94
41	2019	bv11 fl2	51	0	0	97.5	99.1	9.5	6.7	-1.6	5.4	0.83
42	2020	bv11 fl2	32	.	.	99.6	99.9	6.5	6.3	-0.3	3.7	0.83
43	2021	bv11 fl2	40	.	.	100.6	100.4	6.0	4.7	0.3	3.2	0.85
44	2022	bv11 fl2	23	.	.	100.3	100.5	8.3	7.7	-0.2	3.6	0.90
45	2019	bv12 ket2	51	0	0	102.1	101.7	7.2	5.2	0.5	4.1	0.82
46	2020	bv12 ket2	32	.	.	107.3	104.7	5.8	4.9	2.7	2.2	0.93
47	2021	bv12 ket2	40	.	.	103.7	103.0	5.8	4.3	0.8	3.2	0.84
48	2022	bv12 ket2	23	.	.	106.9	104.7	6.3	6.1	2.2	1.8	0.96
49	2019	bv13 bhb2	51	0	0	101.5	98.3	9.5	7.6	3.2	6.4	0.75
50	2020	bv13 bhb2	32	.	.	107.7	103.5	8.3	6.7	4.2	4.2	0.86
51	2021	bv13 bhb2	40	.	.	106.8	102.7	7.7	5.7	4.2	4.2	0.84
52	2022	bv13 bhb2	23	.	.	106.5	104.0	10.0	8.7	2.5	3.9	0.92
53	2019	bv14 ace2	51	0	0	102.4	99.3	11.7	7.1	3.1	9.1	0.63
54	2020	bv14 ace2	32	.	.	107.9	101.8	9.1	6.7	6.1	5.8	0.78
55	2021	bv14 ace2	40	.	.	107.7	102.7	7.4	5.1	5.0	4.9	0.75
56	2022	bv14 ace2	23	.	.	104.7	101.3	9.7	8.3	3.3	4.2	0.90
57	2019	bv15 rpl3	51	0	0	101.4	101.7	6.5	4.1	-0.4	4.9	0.65
58	2020	bv15 rpl3	32	.	.	101.7	103.6	4.8	4.0	-1.9	3.8	0.64
59	2021	bv15 rpl3	40	.	.	102.0	102.7	5.2	3.8	-0.7	3.9	0.68
60	2022	bv15 rpl3	23	.	.	103.6	103.5	5.2	4.0	0.1	3.7	0.72
61	2019	bv16 rp3	51	0	0	100.4	102.4	7.3	5.0	-2.0	5.7	0.64
62	2020	bv16 rp3	32	.	.	107.0	107.3	7.7	5.7	-0.3	3.8	0.88
63	2021	bv16 rp3	40	.	.	100.2	103.0	5.2	4.4	-2.8	3.7	0.71
64	2022	bv16 rp3	23	.	.	107.1	107.3	6.0	4.8	-0.2	3.6	0.81
65	2019	bv17 mb3	51	0	0	103.0	102.0	5.3	4.3	1.1	3.1	0.81
66	2020	bv17 mb3	32	.	.	105.9	104.0	6.0	5.3	1.9	2.2	0.93
67	2021	bv17 mb3	40	.	.	105.4	103.9	5.3	4.3	1.5	2.6	0.87
68	2022	bv17 mb3	23	.	.	105.5	103.9	4.7	4.5	1.7	1.6	0.94
69	2019	bv18 fl3	51	0	0	98.4	99.8	8.6	5.5	-1.5	6.0	0.72
70	2020	bv18 fl3	32	.	.	100.2	100.6	6.6	6.2	-0.4	3.1	0.88
71	2021	bv18 fl3	40	.	.	101.2	100.9	5.2	3.9	0.3	2.9	0.84
72	2022	bv18 fl3	23	.	.	100.3	100.2	6.8	6.4	0.2	3.1	0.89

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
73	2019	bv19 ket3	51	0	0	102.1	101.1	6.3	4.7	1.0	3.9	0.79
74	2020	bv19 ket3	32	.	.	107.4	105.3	5.3	4.2	2.1	2.2	0.92
75	2021	bv19 ket3	40	.	.	104.7	103.4	5.0	3.7	1.3	3.0	0.80
76	2022	bv19 ket3	23	.	.	107.8	105.8	6.3	5.7	2.0	2.6	0.91
77	2019	bv20 bhb3	51	0	0	102.4	98.6	9.0	7.5	3.8	5.7	0.77
78	2020	bv20 bhb3	32	.	.	107.7	103.3	7.5	6.1	4.4	4.1	0.84
79	2021	bv20 bhb3	40	.	.	107.7	103.1	8.2	5.9	4.6	4.4	0.85
80	2022	bv20 bhb3	23	.	.	106.4	104.0	10.1	8.4	2.4	3.8	0.93
81	2019	bv21 ace3	51	0	0	103.6	98.7	9.8	6.9	4.8	6.5	0.75
82	2020	bv21 ace3	32	.	.	107.0	101.7	8.2	6.3	5.3	4.7	0.82
83	2021	bv21 ace3	40	.	.	108.2	102.9	8.0	5.7	5.4	4.9	0.79
84	2022	bv21 ace3	23	.	.	105.0	102.0	10.2	8.0	3.0	4.2	0.92
85	2019	bv22 rpl	51	0	0	101.9	101.8	5.9	4.0	0.1	4.8	0.60
86	2020	bv22 rpl	32	.	.	101.9	103.6	5.6	3.9	-1.7	4.4	0.61
87	2021	bv22 rpl	40	.	.	102.0	102.7	5.4	4.1	-0.7	4.1	0.66
88	2022	bv22 rpl	23	.	.	104.1	103.7	5.5	4.2	0.4	3.9	0.71
89	2019	bv23 rp	51	0	0	100.0	102.3	7.4	4.8	-2.3	5.5	0.68
90	2020	bv23 rp	32	.	.	106.4	106.8	6.8	5.2	-0.4	3.7	0.85
91	2021	bv23 rp	40	.	.	100.7	103.2	4.9	4.1	-2.5	3.6	0.69
92	2022	bv23 rp	23	.	.	106.7	106.9	6.4	4.8	-0.3	3.5	0.84
93	2019	bv24 mb	51	0	0	103.0	102.1	5.4	4.4	0.9	3.1	0.82
94	2020	bv24 mb	32	.	.	106.7	103.8	5.6	4.6	2.8	2.8	0.87
95	2021	bv24 mb	40	.	.	105.2	103.8	5.2	4.1	1.4	2.7	0.85
96	2022	bv24 mb	23	.	.	106.3	103.9	5.2	5.0	2.5	1.8	0.94
97	2019	bv25 fl	51	0	0	98.2	99.5	8.7	5.8	-1.3	5.7	0.76
98	2020	bv25 fl	32	.	.	100.1	100.3	6.3	5.9	-0.2	3.1	0.87
99	2021	bv25 fl	40	.	.	101.2	100.5	5.6	4.0	0.7	3.1	0.85
100	2022	bv25 fl	23	.	.	100.7	100.3	7.4	6.9	0.4	3.2	0.90
101	2019	bv26 ket	51	0	0	102.2	101.3	7.4	5.5	0.9	4.3	0.81
102	2020	bv26 ket	32	.	.	108.1	104.9	5.8	4.7	3.2	2.6	0.90
103	2021	bv26 ket	40	.	.	104.6	103.0	5.5	4.1	1.6	3.2	0.81
104	2022	bv26 ket	23	.	.	107.7	105.1	6.8	6.3	2.7	2.5	0.93
105	2019	bv27 bhb	39	.	.	102.0	99.2	9.3	7.3	2.8	4.6	0.87
106	2020	bv27 bhb	32	.	.	107.8	102.3	7.9	6.1	5.5	4.4	0.83
107	2021	bv27 bhb	40	.	.	107.5	102.8	6.7	4.9	4.7	4.2	0.79
108	2022	bv27 bhb	23	.	.	105.6	102.3	9.1	7.7	3.3	3.7	0.91

JER summery stastistics for SS and prev SS breeding value for nordic AI bulls with no offspring, by birth year

Obs	BYR	name	no	mean_noff	std_noff	mean_ss	mean_oss	std_ss	std_oss	mean_dif	std_dif	corr_SS
109	2019	bv29 GH	51	0	0	101.8	98.8	8.9	7.3	3.0	5.3	0.80
110	2020	bv29 GH	32	.	.	107.7	103.6	7.6	6.2	4.1	3.7	0.87
111	2021	bv29 GH	40	.	.	106.6	102.8	7.3	5.3	3.8	3.9	0.85
112	2022	bv29 GH	23	.	.	106.7	104.0	9.6	8.1	2.6	3.5	0.94

JER 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	bv1 rpl1	15994	99.7	99.2	6.4	6.0	0.5	1.9	0.96
2	2016	bv1 rpl1	14943	99.9	99.3	7.1	6.9	0.5	2.0	0.96
3	2017	bv1 rpl1	13867	99.8	100.2	6.9	5.4	-0.4	4.1	0.80
4	2018	bv1 rpl1	14703	98.8	99.2	7.5	5.2	-0.5	5.0	0.75
5	2019	bv1 rpl1	14136	100.3	99.8	6.0	4.5	0.4	4.5	0.67
6	2020	bv1 rpl1	10275	100.8	100.4	5.6	4.3	0.5	4.1	0.68
7	2021	bv1 rpl1	1	.	.	.	.	.	.	.
8	2015	bv2 rp1	15994	103.3	103.6	8.0	8.1	-0.2	1.9	0.97
9	2016	bv2 rp1	14943	104.4	103.9	8.1	7.8	0.5	2.0	0.97
10	2017	bv2 rp1	13867	101.1	102.8	7.9	6.9	-1.7	4.6	0.82
11	2018	bv2 rp1	14703	102.3	103.7	7.0	5.5	-1.4	4.5	0.77
12	2019	bv2 rp1	14003	100.1	102.5	7.0	5.6	-2.4	5.5	0.64
13	2020	bv2 rp1	4967	101.0	103.3	7.4	5.5	-2.3	5.7	0.64
14	2015	bv3 mb1	15994	97.0	97.0	5.5	5.5	0.1	1.6	0.96
15	2016	bv3 mb1	14943	98.3	97.5	5.7	5.8	0.8	1.8	0.95
16	2017	bv3 mb1	13867	98.9	98.6	5.5	5.2	0.3	3.3	0.81
17	2018	bv3 mb1	14703	100.7	98.9	8.0	6.0	1.8	5.6	0.71
18	2019	bv3 mb1	14003	100.8	99.5	5.8	4.6	1.4	4.0	0.73
19	2020	bv3 mb1	4967	100.8	99.6	5.7	4.2	1.2	4.0	0.72
20	2015	bv4 fl1	15994	98.8	98.3	6.8	6.8	0.5	1.5	0.98
21	2016	bv4 fl1	14943	98.7	98.3	7.4	7.5	0.4	1.4	0.98
22	2017	bv4 fl1	13867	99.2	98.1	7.1	5.8	1.0	3.4	0.88
23	2018	bv4 fl1	14703	100.1	99.1	7.0	5.8	1.0	3.9	0.83
24	2019	bv4 fl1	14003	98.8	98.8	7.4	5.1	0.1	4.6	0.78
25	2020	bv4 fl1	4967	100.6	99.4	7.1	4.4	1.2	4.7	0.77
26	2015	bv5 ket1	15994	98.9	98.4	7.6	7.3	0.4	1.7	0.98
27	2016	bv5 ket1	14943	98.2	97.8	9.4	9.4	0.4	1.8	0.98
28	2017	bv5 ket1	13867	101.0	99.2	8.3	7.4	1.8	3.9	0.88
29	2018	bv5 ket1	14703	101.7	100.3	9.4	6.6	1.4	5.7	0.80
30	2019	bv5 ket1	14003	99.9	99.0	7.8	5.5	0.9	5.1	0.76
31	2020	bv5 ket1	4967	101.0	99.6	7.8	5.2	1.4	5.0	0.78
32	2015	bv6 bhb1	15825	99.7	99.8	8.5	8.3	-0.1	1.4	0.99
33	2016	bv6 bhb1	14779	99.7	99.8	9.4	9.2	0.0	1.6	0.99
34	2017	bv6 bhb1	13640	101.3	100.2	8.9	7.8	1.1	3.5	0.92
35	2018	bv6 bhb1	14363	101.0	100.9	8.3	6.5	0.1	4.6	0.84
36	2019	bv6 bhb1	13942	100.1	99.6	7.3	5.9	0.5	4.3	0.81

JER 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	2020	bv6 bhb1	14207	101.2	100.5	7.0	5.9	0.7	3.6	0.86
38	2021	bv6 bhb1	2551	101.2	101.1	7.3	7.2	0.1	0.9	0.99
39	2015	bv7 ace1	15825	99.0	98.9	7.9	7.7	0.1	1.4	0.98
40	2016	bv7 ace1	14779	98.7	98.7	9.2	9.1	0.0	1.5	0.99
41	2017	bv7 ace1	13640	100.9	99.4	8.7	7.6	1.5	3.6	0.91
42	2018	bv7 ace1	14363	101.5	100.6	8.9	6.5	0.9	5.1	0.83
43	2019	bv7 ace1	13942	100.2	99.3	7.5	5.7	0.9	4.5	0.79
44	2020	bv7 ace1	14207	101.5	100.4	7.0	5.6	1.1	3.7	0.85
45	2021	bv7 ace1	2551	101.8	101.7	7.2	7.1	0.1	1.0	0.99
46	2015	bv8 rpl2	11985	100.2	100.0	5.7	5.4	0.2	1.7	0.96
47	2016	bv8 rpl2	11444	100.7	100.3	6.7	6.6	0.3	1.8	0.96
48	2017	bv8 rpl2	10338	99.5	100.8	6.5	5.0	-1.3	4.0	0.78
49	2018	bv8 rpl2	11013	99.0	99.7	6.8	5.1	-0.7	4.8	0.70
50	2019	bv8 rpl2	8295	100.8	100.7	5.5	4.5	0.0	4.0	0.69
51	2020	bv8 rpl2	275	100.8	100.6	4.9	4.4	0.2	3.4	0.73
52	2015	bv9 rp2	11985	101.4	101.6	6.1	6.3	-0.2	1.7	0.96
53	2016	bv9 rp2	11444	103.3	102.6	6.6	6.6	0.7	1.7	0.97
54	2017	bv9 rp2	10336	100.9	102.0	6.4	5.4	-1.1	3.9	0.79
55	2018	bv9 rp2	10708	102.5	102.5	5.5	4.7	0.0	3.8	0.73
56	2019	bv9 rp2	3561	101.2	101.9	5.9	4.7	-0.7	4.5	0.67
57	2015	bv10 mb2	11985	98.6	98.6	6.0	6.1	0.0	1.2	0.98
58	2016	bv10 mb2	11444	101.1	100.8	5.8	5.7	0.3	1.1	0.98
59	2017	bv10 mb2	10336	100.3	100.1	4.9	4.6	0.2	2.4	0.88
60	2018	bv10 mb2	10708	102.2	101.3	6.1	5.1	0.9	3.0	0.88
61	2019	bv10 mb2	3561	101.8	101.3	5.2	4.5	0.5	2.7	0.86
62	2015	bv11 fl2	11985	98.9	98.8	8.8	8.5	0.1	1.6	0.98
63	2016	bv11 fl2	11444	100.3	99.7	8.8	8.6	0.6	1.6	0.98
64	2017	bv11 fl2	10336	99.1	98.7	8.4	6.7	0.3	4.1	0.88
65	2018	bv11 fl2	10708	101.2	99.9	7.5	6.3	1.2	4.3	0.82
66	2019	bv11 fl2	3561	98.4	99.4	8.1	6.0	-1.0	4.3	0.86
67	2015	bv12 ket2	11985	99.9	99.9	6.2	6.1	0.0	1.1	0.98
68	2016	bv12 ket2	11444	100.5	100.3	6.3	6.3	0.2	1.4	0.97
69	2017	bv12 ket2	10336	100.6	100.3	6.4	5.1	0.3	3.3	0.86
70	2018	bv12 ket2	10708	101.0	100.5	6.5	5.2	0.5	4.0	0.79
71	2019	bv12 ket2	3561	100.8	100.4	5.6	4.5	0.4	3.6	0.77
72	2015	bv13 bhb2	12976	98.0	98.0	9.2	9.1	0.0	1.5	0.99

JER 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	2016	bv13 bhb2	12276	97.9	97.9	9.6	9.6	0.0	1.6	0.99
74	2017	bv13 bhb2	11098	100.0	98.5	9.7	8.2	1.5	4.6	0.88
75	2018	bv13 bhb2	11748	100.5	99.7	9.4	7.2	0.8	5.2	0.84
76	2019	bv13 bhb2	10291	100.5	98.6	8.1	6.7	1.9	4.8	0.80
77	2020	bv13 bhb2	1486	102.3	99.3	7.9	6.4	3.0	4.2	0.85
78	2015	bv14 ace2	12976	96.6	96.4	8.2	8.0	0.2	1.7	0.98
79	2016	bv14 ace2	12276	96.2	96.2	9.5	9.4	0.0	1.7	0.98
80	2017	bv14 ace2	11098	98.8	96.9	9.9	8.0	1.9	5.1	0.86
81	2018	bv14 ace2	11748	101.5	99.2	10.4	7.1	2.3	6.3	0.80
82	2019	bv14 ace2	10291	100.6	98.1	9.6	6.3	2.5	6.7	0.72
83	2020	bv14 ace2	1486	101.8	98.8	9.6	6.2	3.0	6.1	0.79
84	2015	bv15 rpl3	8194	101.0	100.5	6.0	5.8	0.5	1.5	0.97
85	2016	bv15 rpl3	7804	100.9	100.8	6.3	5.9	0.1	1.6	0.97
86	2017	bv15 rpl3	6863	100.1	100.7	6.2	4.8	-0.6	3.5	0.83
87	2018	bv15 rpl3	5640	99.5	100.4	6.8	4.8	-0.8	4.3	0.79
88	2019	bv15 rpl3	262	100.8	101.0	5.8	4.5	-0.2	3.9	0.74
89	2015	bv16 rp3	8194	102.9	103.2	6.9	6.9	-0.3	1.9	0.96
90	2016	bv16 rp3	7787	104.0	103.4	7.2	7.3	0.7	1.8	0.97
91	2017	bv16 rp3	6509	101.1	102.8	7.5	6.1	-1.7	4.3	0.81
92	2018	bv16 rp3	2183	100.8	102.2	6.6	5.5	-1.4	4.3	0.76
93	2015	bv17 mb3	8194	98.5	98.5	6.9	6.8	0.0	1.2	0.98
94	2016	bv17 mb3	7787	101.3	101.0	6.5	6.2	0.3	1.2	0.98
95	2017	bv17 mb3	6509	99.9	99.7	5.4	4.9	0.2	2.7	0.86
96	2018	bv17 mb3	2183	101.3	100.5	6.1	5.3	0.8	2.8	0.88
97	2015	bv18 fl3	8194	99.5	99.2	7.5	7.3	0.3	1.5	0.98
98	2016	bv18 fl3	7787	100.0	99.7	8.1	8.0	0.3	1.3	0.99
99	2017	bv18 fl3	6509	99.3	98.9	7.5	5.8	0.5	3.9	0.86
100	2018	bv18 fl3	2183	100.8	99.5	7.0	5.8	1.3	4.1	0.81
101	2015	bv19 ket3	8194	100.4	100.2	5.6	5.6	0.2	1.1	0.98
102	2016	bv19 ket3	7787	101.0	100.8	5.6	5.8	0.2	1.2	0.98
103	2017	bv19 ket3	6509	100.9	100.3	5.4	4.8	0.6	2.3	0.90
104	2018	bv19 ket3	2183	101.4	100.8	5.5	4.8	0.6	2.6	0.88
105	2015	bv20 bhb3	9142	97.2	97.2	9.4	9.3	0.1	1.4	0.99
106	2016	bv20 bhb3	8626	97.7	97.7	9.8	9.8	0.0	1.5	0.99
107	2017	bv20 bhb3	7723	99.8	98.2	9.9	8.3	1.6	4.7	0.88
108	2018	bv20 bhb3	7381	100.9	99.9	9.7	7.1	0.9	5.5	0.83

JER 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	2019	bv20 bhb3	1141	101.0	99.2	8.6	7.1	1.8	4.2	0.87
110	2015	bv21 ace3	9142	95.8	95.4	9.3	9.2	0.4	1.4	0.99
111	2016	bv21 ace3	8626	96.1	96.1	10.1	10.0	0.0	1.5	0.99
112	2017	bv21 ace3	7723	98.5	96.3	10.3	8.0	2.2	5.4	0.86
113	2018	bv21 ace3	7381	101.4	99.3	10.7	7.1	2.1	6.3	0.83
114	2019	bv21 ace3	1141	101.0	98.1	9.6	6.7	2.9	5.2	0.85
115	2015	bv22 rpl	15993	100.2	99.8	5.6	5.3	0.4	1.5	0.96
116	2016	bv22 rpl	14940	100.3	100.0	6.3	6.1	0.3	1.7	0.96
117	2017	bv22 rpl	13865	99.7	100.5	6.1	4.8	-0.8	3.6	0.81
118	2018	bv22 rpl	14691	99.1	99.8	6.7	4.8	-0.7	4.4	0.75
119	2019	bv22 rpl	14073	100.2	100.3	5.2	4.0	-0.1	4.0	0.66
120	2020	bv22 rpl	9804	101.0	100.7	4.9	3.8	0.2	3.6	0.68
121	2015	bv23 rp	15994	102.5	102.8	6.6	6.7	-0.3	1.7	0.97
122	2016	bv23 rp	14943	103.7	103.1	7.0	6.9	0.6	1.7	0.97
123	2017	bv23 rp	13867	100.9	102.5	7.1	5.9	-1.6	4.1	0.81
124	2018	bv23 rp	14703	101.8	102.8	5.9	5.1	-1.0	3.8	0.77
125	2019	bv23 rp	14003	100.5	102.3	6.2	4.9	-1.8	4.8	0.65
126	2020	bv23 rp	4967	100.7	102.7	6.6	5.0	-2.0	4.9	0.66
127	2015	bv24 mb	15994	97.8	97.8	5.7	5.7	0.0	1.2	0.98
128	2016	bv24 mb	14943	100.1	99.6	5.5	5.4	0.4	1.2	0.98
129	2017	bv24 mb	13867	99.5	99.4	4.8	4.5	0.1	2.5	0.86
130	2018	bv24 mb	14703	101.4	100.3	6.2	5.1	1.1	3.3	0.85
131	2019	bv24 mb	14003	101.0	100.2	4.9	4.2	0.8	2.7	0.83
132	2020	bv24 mb	4967	101.3	100.5	4.7	3.8	0.8	2.8	0.80
133	2015	bv25 fl	15994	98.9	98.6	7.4	7.2	0.3	1.4	0.98
134	2016	bv25 fl	14943	99.4	99.0	7.8	7.8	0.4	1.3	0.99
135	2017	bv25 fl	13867	99.1	98.5	7.3	5.8	0.6	3.6	0.87
136	2018	bv25 fl	14703	100.6	99.7	7.0	5.8	0.9	3.8	0.84
137	2019	bv25 fl	14003	98.9	99.3	7.3	4.9	-0.4	4.5	0.80
138	2020	bv25 fl	4967	100.5	99.9	6.9	4.5	0.6	4.3	0.79
139	2015	bv26 ket	15994	99.6	99.4	5.5	5.5	0.2	1.1	0.98
140	2016	bv26 ket	14943	99.8	99.5	6.1	6.2	0.3	1.2	0.98
141	2017	bv26 ket	13867	100.7	99.9	5.7	5.0	0.8	2.5	0.90
142	2018	bv26 ket	14703	101.2	100.6	6.2	4.8	0.6	3.4	0.83
143	2019	bv26 ket	14003	100.3	99.8	5.4	4.0	0.5	3.3	0.78
144	2020	bv26 ket	4967	101.3	100.3	5.5	3.7	1.0	3.4	0.79

JER 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
145	2015	bv27 bhb	15825	96.8	96.6	8.1	7.9	0.2	1.3	0.99
146	2016	bv27 bhb	14779	96.8	96.8	9.1	9.0	0.0	1.3	0.99
147	2017	bv27 bhb	13640	99.1	97.3	9.2	7.5	1.8	4.3	0.89
148	2018	bv27 bhb	14363	101.3	99.5	9.5	6.5	1.8	5.4	0.83
149	2019	bv27 bhb	13942	100.2	97.9	8.0	5.6	2.3	5.0	0.79
150	2020	bv27 bhb	14207	101.1	99.3	6.7	4.9	1.9	4.0	0.81
151	2021	bv27 bhb	2551	100.5	100.3	4.2	4.1	0.2	1.1	0.97
152	2015	bv29 GH	15994	98.1	98.1	8.8	8.7	0.0	1.3	0.99
153	2016	bv29 GH	14943	98.1	98.1	9.3	9.3	0.0	1.4	0.99
154	2017	bv29 GH	13867	100.2	98.7	9.3	8.0	1.4	4.0	0.90
155	2018	bv29 GH	14703	100.7	100.1	8.8	6.7	0.6	4.8	0.84
156	2019	bv29 GH	14136	100.4	98.7	7.6	6.2	1.7	4.3	0.82
157	2020	bv29 GH	10275	101.3	99.4	7.0	5.6	1.9	3.9	0.83
158	2021	bv29 GH	1	.	.	.	.	.	.	.

sum sta 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	bv1 rpl1	3418	100.3	99.7	7.9	7.2	0.6	2.8	0.93
2	2016	bv1 rpl1	3739	100.2	99.8	8.3	7.8	0.4	2.9	0.94
3	2017	bv1 rpl1	5065	99.3	100.1	8.2	6.5	-0.8	4.9	0.80
4	2018	bv1 rpl1	6344	99.0	99.5	9.1	6.7	-0.4	5.5	0.79
5	2019	bv1 rpl1	7072	100.7	100.2	7.5	6.0	0.5	4.9	0.75
6	2020	bv1 rpl1	6091	101.2	100.8	7.3	5.8	0.4	4.7	0.76
7	2021	bv1 rpl1	1	.	.	.	.	.	.	.
8	2015	bv2 rp1	3418	102.9	103.0	9.4	9.1	-0.1	2.9	0.95
9	2016	bv2 rp1	3739	103.9	103.3	9.4	8.8	0.7	3.0	0.95
10	2017	bv2 rp1	5065	100.2	102.3	9.0	8.0	-2.1	5.1	0.82
11	2018	bv2 rp1	6344	101.9	103.6	8.3	6.7	-1.7	4.9	0.81
12	2019	bv2 rp1	7014	99.9	102.3	8.3	6.9	-2.4	6.0	0.70
13	2020	bv2 rp1	2856	101.4	103.6	8.7	6.8	-2.2	6.4	0.69
14	2015	bv3 mb1	3418	97.2	97.1	7.2	7.1	0.1	2.5	0.94
15	2016	bv3 mb1	3739	99.0	98.2	7.2	7.2	0.8	2.6	0.94
16	2017	bv3 mb1	5065	99.2	98.8	7.1	6.5	0.4	4.0	0.83
17	2018	bv3 mb1	6344	101.6	99.3	9.2	7.5	2.3	6.0	0.77
18	2019	bv3 mb1	7014	101.2	100.0	7.4	6.3	1.2	4.5	0.80
19	2020	bv3 mb1	2856	101.2	100.0	7.7	6.3	1.2	4.7	0.80
20	2015	bv4 fl1	3418	99.2	98.6	9.8	9.1	0.6	3.0	0.95
21	2016	bv4 fl1	3739	98.7	98.2	11.7	11.4	0.5	3.0	0.97
22	2017	bv4 fl1	5065	101.6	99.4	10.5	9.3	2.2	4.8	0.89
23	2018	bv4 fl1	6344	102.7	100.7	11.2	8.6	2.0	6.1	0.84
24	2019	bv4 fl1	7014	100.6	99.5	9.9	7.8	1.1	5.5	0.83
25	2020	bv4 fl1	2856	101.9	100.3	10.2	7.7	1.6	5.7	0.83
26	2015	bv5 ket1	3418	98.9	98.3	8.3	8.0	0.6	2.5	0.95
27	2016	bv5 ket1	3739	99.2	98.8	8.7	8.5	0.4	2.4	0.96
28	2017	bv5 ket1	5065	99.4	98.2	8.7	7.3	1.2	4.1	0.88
29	2018	bv5 ket1	6344	100.4	99.4	8.4	7.1	1.1	4.2	0.86
30	2019	bv5 ket1	7014	99.0	98.9	8.9	6.6	0.1	5.2	0.82
31	2020	bv5 ket1	2856	100.6	99.7	8.8	6.3	0.9	5.2	0.81
32	2015	bv6 bhb1	2731	100.4	100.2	7.1	6.7	0.1	2.5	0.94
33	2016	bv6 bhb1	3122	100.9	100.7	8.0	7.6	0.3	2.5	0.95
34	2017	bv6 bhb1	4084	98.9	100.6	7.6	6.0	-1.8	4.7	0.79
35	2018	bv6 bhb1	4905	99.2	99.9	8.1	6.4	-0.7	5.3	0.75
36	2019	bv6 bhb1	4634	100.9	101.0	6.8	5.7	-0.1	4.5	0.75
37	2020	bv6 bhb1	133	.	.	.	.	.	.	0.80

sum sta 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
38	2015	bv7 ace1	2731	101.2	101.3	7.3	7.3	-0.1	2.6	0.94
39	2016	bv7 ace1	3122	103.3	102.4	7.8	7.5	0.9	2.6	0.94
40	2017	bv7 ace1	4084	100.5	101.9	7.6	6.6	-1.4	4.5	0.81
41	2018	bv7 ace1	4764	102.6	102.7	6.8	6.1	-0.1	4.1	0.80
42	2019	bv7 ace1	1832	101.6	102.4	7.2	5.9	-0.8	5.2	0.70
43	2015	bv8 rpl2	2731	98.6	98.6	7.2	7.2	0.1	1.9	0.97
44	2016	bv8 rpl2	3122	101.7	101.4	6.8	6.5	0.4	1.8	0.96
45	2017	bv8 rpl2	4084	100.8	100.5	5.9	5.5	0.3	2.9	0.87
46	2018	bv8 rpl2	4764	102.9	101.8	7.1	6.3	1.2	3.2	0.89
47	2019	bv8 rpl2	1832	102.3	101.8	6.2	5.5	0.6	3.1	0.87
48	2015	bv9 rp2	2731	99.9	99.8	7.6	7.3	0.1	1.8	0.97
49	2016	bv9 rp2	3122	100.9	100.5	7.5	7.2	0.4	2.0	0.96
50	2017	bv9 rp2	4084	101.0	100.3	7.9	6.4	0.7	4.0	0.87
51	2018	bv9 rp2	4764	101.6	100.9	7.4	6.4	0.8	4.3	0.82
52	2019	bv9 rp2	1832	101.1	100.6	6.9	5.9	0.6	3.8	0.83
53	2015	bv10 mb2	2731	98.6	98.4	10.0	9.5	0.2	2.5	0.97
54	2016	bv10 mb2	3122	100.7	99.9	10.1	9.6	0.7	2.5	0.97
55	2017	bv10 mb2	4084	99.1	98.6	10.1	8.2	0.5	4.8	0.89
56	2018	bv10 mb2	4764	101.4	100.2	9.1	7.5	1.2	4.7	0.86
57	2019	bv10 mb2	1832	98.2	99.5	9.5	7.2	-1.3	4.8	0.87
58	2015	bv11 fl2	2071	101.1	100.6	7.3	6.8	0.5	2.2	0.95
59	2016	bv11 fl2	2336	101.4	101.4	7.2	6.7	0.1	2.2	0.95
60	2017	bv11 fl2	2958	99.7	100.7	7.5	5.8	-0.9	4.1	0.84
61	2018	bv11 fl2	2671	99.7	100.6	8.0	6.1	-0.9	4.6	0.82
62	2019	bv11 fl2	145	.	.	.	.	.	.	0.73
63	2015	bv12 ket2	2071	102.8	103.1	8.4	8.2	-0.3	2.7	0.95
64	2016	bv12 ket2	2327	103.9	103.1	8.4	8.1	0.9	2.7	0.95
65	2017	bv12 ket2	2793	100.6	102.6	8.6	7.4	-1.9	4.8	0.83
66	2018	bv12 ket2	956	100.5	102.2	7.6	6.7	-1.8	4.5	0.81
67	2015	bv13 bhb2	2071	98.5	98.5	8.0	7.9	0.0	1.7	0.98
68	2016	bv13 bhb2	2327	102.0	101.7	7.3	7.0	0.4	1.7	0.97
69	2017	bv13 bhb2	2793	100.4	100.1	6.2	5.6	0.3	3.0	0.87
70	2018	bv13 bhb2	956	102.0	101.1	7.0	6.3	0.9	3.2	0.89
71	2015	bv14 ace2	2071	100.6	100.2	6.9	6.7	0.4	1.7	0.97
72	2016	bv14 ace2	2327	101.4	101.0	6.8	6.8	0.4	1.8	0.97
73	2017	bv14 ace2	2793	101.3	100.4	6.8	6.0	0.8	2.7	0.92
74	2018	bv14 ace2	956	101.8	101.2	6.8	6.0	0.6	2.9	0.91

sum sta 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
75	2015	bv15 rpl3	2071	99.1	98.7	8.7	8.3	0.3	2.3	0.97
76	2016	bv15 rpl3	2327	100.3	100.1	9.2	9.0	0.3	2.1	0.97
77	2017	bv15 rpl3	2793	99.5	98.8	8.8	6.9	0.7	4.5	0.87
78	2018	bv15 rpl3	956	100.9	99.4	8.4	6.8	1.5	4.4	0.85
79	2015	bv16 rp3	3328	99.6	99.6	10.9	10.2	0.0	2.6	0.97
80	2016	bv16 rp3	3680	99.9	99.8	11.9	11.3	0.1	2.7	0.97
81	2017	bv16 rp3	4926	101.7	100.3	11.3	9.7	1.4	4.3	0.93
82	2018	bv16 rp3	6204	101.5	101.2	10.8	8.8	0.3	5.0	0.89
83	2019	bv16 rp3	7183	100.4	99.7	9.9	8.4	0.6	4.7	0.88
84	2020	bv16 rp3	8299	102.0	101.0	10.0	8.0	1.0	4.7	0.89
85	2021	bv16 rp3	1381	103.7	101.7	9.3	7.7	2.0	4.4	0.88
86	2015	bv17 mb3	3328	99.0	98.8	10.3	9.6	0.2	2.6	0.97
87	2016	bv17 mb3	3680	98.9	98.9	11.6	11.0	0.0	2.8	0.97
88	2017	bv17 mb3	4926	101.7	99.7	11.0	9.3	2.0	4.5	0.92
89	2018	bv17 mb3	6204	102.3	101.0	11.1	8.6	1.4	5.6	0.87
90	2019	bv17 mb3	7183	100.7	99.7	9.9	7.9	1.0	5.2	0.85
91	2020	bv17 mb3	8299	102.7	100.7	9.8	7.6	2.1	5.0	0.87
92	2021	bv17 mb3	1381	104.5	101.4	9.4	7.4	3.1	4.8	0.87
93	2015	bv18 fl3	2890	98.0	97.9	11.9	11.2	0.1	2.5	0.98
94	2016	bv18 fl3	3262	97.9	97.9	12.2	11.7	0.0	2.7	0.98
95	2017	bv18 fl3	4243	100.6	98.7	12.4	10.4	1.9	5.3	0.91
96	2018	bv18 fl3	5283	101.3	100.2	12.0	9.8	1.1	5.4	0.90
97	2019	bv18 fl3	5727	100.8	98.8	11.2	9.3	2.0	5.5	0.87
98	2020	bv18 fl3	839	101.6	98.7	11.0	8.9	2.9	5.2	0.89
99	2015	bv19 ket3	2890	96.8	96.5	10.4	9.5	0.3	2.9	0.96
100	2016	bv19 ket3	3262	96.5	96.5	11.6	11.0	0.0	2.9	0.97
101	2017	bv19 ket3	4243	100.4	97.6	11.7	9.1	2.8	6.1	0.85
102	2018	bv19 ket3	5283	102.8	99.8	12.0	8.6	3.0	6.9	0.83
103	2019	bv19 ket3	5727	101.3	98.6	11.8	7.9	2.7	7.8	0.76
104	2020	bv19 ket3	839	101.6	98.4	12.0	7.7	3.2	7.4	0.80
105	2015	bv20 bhb3	2231	97.2	97.1	12.1	11.4	0.1	2.3	0.98
106	2016	bv20 bhb3	2505	98.0	97.9	12.1	11.7	0.1	2.4	0.98
107	2017	bv20 bhb3	3182	100.6	98.6	12.4	10.4	2.1	5.2	0.91
108	2018	bv20 bhb3	3408	101.9	100.6	12.0	9.6	1.3	5.6	0.89
109	2019	bv20 bhb3	563	100.7	98.9	11.1	9.6	1.9	4.4	0.92
110	2015	bv21 ace3	2231	96.0	95.5	11.2	10.6	0.5	2.3	0.98
111	2016	bv21 ace3	2505	96.7	96.6	11.8	11.4	0.2	2.3	0.98

sum sta 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
112	2017	bv21 ace3	3182	100.2	97.1	11.7	9.1	3.1	6.1	0.86
113	2018	bv21 ace3	3408	102.9	100.1	11.8	8.3	2.8	6.5	0.85
114	2019	bv21 ace3	563	101.3	97.9	11.1	8.3	3.4	5.7	0.86
115	2015	bv22 rpl	3418	100.4	100.0	7.0	6.5	0.4	2.3	0.94
116	2016	bv22 rpl	3739	100.6	100.4	7.4	7.0	0.2	2.4	0.95
117	2017	bv22 rpl	5065	99.3	100.4	7.3	5.8	-1.1	4.2	0.82
118	2018	bv22 rpl	6344	99.2	99.9	8.0	6.1	-0.7	4.9	0.79
119	2019	bv22 rpl	7072	100.5	100.5	6.6	5.4	-0.1	4.3	0.76
120	2020	bv22 rpl	6090	101.3	101.1	6.6	5.3	0.2	4.1	0.78
121	2021	bv22 rpl	1	.	.	.	.	.	.	.
122	2015	bv23 rp	3418	102.2	102.4	7.9	7.8	-0.2	2.6	0.94
123	2016	bv23 rp	3739	103.5	102.7	8.2	7.9	0.8	2.6	0.95
124	2017	bv23 rp	5065	100.2	102.1	8.1	7.0	-1.9	4.7	0.82
125	2018	bv23 rp	6344	101.6	102.8	7.1	6.3	-1.2	4.1	0.82
126	2019	bv23 rp	7014	100.4	102.1	7.5	6.4	-1.8	5.3	0.72
127	2020	bv23 rp	2856	101.1	103.0	7.9	6.3	-1.8	5.5	0.72
128	2015	bv24 mb	3418	97.9	97.8	7.0	6.9	0.0	1.8	0.97
129	2016	bv24 mb	3739	100.8	100.3	6.4	6.2	0.5	1.8	0.96
130	2017	bv24 mb	5065	99.8	99.6	5.8	5.4	0.2	3.0	0.86
131	2018	bv24 mb	6344	102.1	100.7	7.3	6.3	1.4	3.5	0.87
132	2019	bv24 mb	7014	101.4	100.7	6.2	5.4	0.7	3.2	0.86
133	2020	bv24 mb	2856	101.6	100.8	6.3	5.4	0.9	3.3	0.86
134	2015	bv25 fl	3418	99.8	99.5	7.1	6.8	0.4	1.9	0.97
135	2016	bv25 fl	3739	100.3	99.9	7.7	7.5	0.4	1.9	0.97
136	2017	bv25 fl	5065	101.1	99.9	7.2	6.4	1.1	3.1	0.91
137	2018	bv25 fl	6344	101.9	100.9	7.5	6.3	1.0	3.7	0.87
138	2019	bv25 fl	7014	100.8	100.1	7.0	5.7	0.7	3.6	0.86
139	2020	bv25 fl	2856	101.9	100.8	7.2	5.6	1.1	3.9	0.85
140	2015	bv26 ket	3418	98.7	98.3	8.8	8.3	0.4	2.3	0.97
141	2016	bv26 ket	3739	99.8	99.4	9.0	8.7	0.4	2.2	0.97
142	2017	bv26 ket	5065	99.2	98.5	8.8	7.1	0.7	4.2	0.88
143	2018	bv26 ket	6344	100.8	99.9	8.3	6.9	1.0	4.2	0.87
144	2019	bv26 ket	7014	98.9	99.4	8.8	6.4	-0.5	5.0	0.83
145	2020	bv26 ket	2856	100.5	100.2	8.5	6.1	0.4	4.9	0.83
146	2015	bv27 bhb	2731	98.1	98.0	11.3	10.7	0.1	2.3	0.98
147	2016	bv27 bhb	3122	98.4	98.4	11.8	11.3	0.0	2.4	0.98
148	2017	bv27 bhb	4084	100.8	99.0	11.9	10.0	1.8	4.7	0.92

sum sta 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
149	2018	bv27 bhb	4905	101.7	100.7	11.2	9.2	1.0	5.0	0.90
150	2019	bv27 bhb	4634	100.9	99.1	10.5	8.8	1.8	4.7	0.89
151	2020	bv27 bhb	133	.	.	.	.	.	.	0.91
152	2015	bv29 GH	3418	97.5	97.5	9.1	9.1	0.0	0.0	1.00
153	2016	bv29 GH	3739	97.4	97.4	9.9	9.9	0.0	0.0	1.00
154	2017	bv29 GH	5065	100.0	100.0	9.8	9.8	0.0	0.0	1.00
155	2018	bv29 GH	6344	100.6	100.6	9.2	9.2	0.0	0.0	1.00
156	2019	bv29 GH	7072	99.6	99.6	8.0	8.0	0.0	0.0	1.00
157	2020	bv29 GH	6091	100.6	100.6	7.5	7.5	0.0	0.0	1.00
158	2021	bv29 GH	1	.	.	.	.	.	.	.

sum sta 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	bv1 rpl1	5991	100.7	100.0	7.6	6.0	0.7	4.9	0.77
2	2020	bv1 rpl1	9637	101.0	101.1	7.4	5.8	-0.1	4.8	0.76
3	2021	bv1 rpl1	14988	102.3	102.1	6.7	5.4	0.1	4.4	0.76
4	2022	bv1 rpl1	13835	102.0	102.2	6.6	5.3	-0.3	3.9	0.80
5	2023	bv1 rpl1	300	102.0	103.0	6.2	5.2	-1.1	3.7	0.80
6	2019	bv2 rp1	6049	99.4	102.0	8.2	6.8	-2.6	5.8	0.71
7	2020	bv2 rp1	12872	101.9	104.4	8.0	6.7	-2.5	5.4	0.74
8	2021	bv2 rp1	14989	100.2	103.3	7.1	6.1	-3.0	4.5	0.78
9	2022	bv2 rp1	13835	102.3	104.5	7.3	5.8	-2.2	4.3	0.81
10	2023	bv2 rp1	300	104.0	106.2	6.8	5.6	-2.3	4.1	0.80
11	2019	bv3 mb1	6049	100.9	99.6	7.4	6.4	1.3	4.3	0.82
12	2020	bv3 mb1	12872	102.0	99.9	7.5	6.2	2.0	4.8	0.77
13	2021	bv3 mb1	14989	103.9	101.6	6.9	5.9	2.2	4.1	0.81
14	2022	bv3 mb1	13835	104.1	101.9	6.8	5.7	2.3	3.7	0.83
15	2023	bv3 mb1	300	104.9	102.2	6.8	6.0	2.7	3.7	0.84
16	2019	bv4 fl1	6049	98.5	98.6	8.6	6.5	-0.1	4.9	0.83
17	2020	bv4 fl1	12872	99.5	99.0	8.4	6.4	0.5	4.6	0.84
18	2021	bv4 fl1	14989	100.4	99.3	7.2	5.7	1.0	4.0	0.83
19	2022	bv4 fl1	13835	101.1	100.2	6.7	5.7	1.0	3.5	0.85
20	2023	bv4 fl1	300	100.5	100.3	6.2	5.8	0.3	3.2	0.86
21	2019	bv5 ket1	6049	100.5	99.2	10.0	8.0	1.3	5.3	0.85
22	2020	bv5 ket1	12872	102.6	100.5	9.8	7.7	2.0	5.5	0.83
23	2021	bv5 ket1	14989	104.6	101.8	9.4	7.4	2.7	4.9	0.85
24	2022	bv5 ket1	13835	104.9	102.2	8.8	7.2	2.7	4.6	0.86
25	2023	bv5 ket1	300	105.6	102.5	8.8	7.4	3.1	4.2	0.88
26	2019	bv6 bhb1	5880	100.3	99.6	9.9	8.5	0.7	4.5	0.89
27	2020	bv6 bhb1	7429	101.5	100.7	9.8	8.1	0.8	4.5	0.89
28	2021	bv6 bhb1	13608	102.7	101.1	9.3	7.7	1.6	4.4	0.88
29	2022	bv6 bhb1	13835	102.4	101.1	9.1	7.6	1.3	3.8	0.91
30	2023	bv6 bhb1	300	103.8	101.7	8.2	7.0	2.1	3.5	0.91
31	2019	bv7 ace1	5880	100.7	99.5	10.0	8.1	1.2	5.0	0.87
32	2020	bv7 ace1	7429	102.1	100.4	9.6	7.6	1.7	4.9	0.86
33	2021	bv7 ace1	13608	103.6	101.2	9.4	7.3	2.4	5.0	0.85
34	2022	bv7 ace1	13835	103.5	101.4	9.0	7.2	2.2	4.2	0.89
35	2023	bv7 ace1	300	104.9	101.7	8.3	7.1	3.1	3.7	0.90
36	2019	bv8 rpl2	8429	100.5	100.6	6.7	5.7	-0.1	4.5	0.75
37	2020	bv8 rpl2	15595	101.2	101.3	6.7	5.6	-0.1	4.2	0.79

sum sta 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
38	2021	bv8 rpl2	14989	101.6	102.4	6.3	5.0	-0.7	4.0	0.76
39	2022	bv8 rpl2	13835	101.8	102.6	6.0	4.9	-0.8	3.6	0.80
40	2023	bv8 rpl2	300	101.9	103.1	5.6	4.7	-1.2	3.2	0.82
41	2019	bv9 rp2	11231	100.1	101.8	7.1	6.0	-1.7	4.7	0.75
42	2020	bv9 rp2	15728	102.0	103.1	7.2	6.0	-1.1	4.8	0.75
43	2021	bv9 rp2	14989	101.9	103.5	6.1	5.5	-1.5	3.7	0.80
44	2022	bv9 rp2	13835	103.5	104.4	6.0	5.2	-0.9	3.5	0.82
45	2023	bv9 rp2	300	104.8	105.5	5.8	5.2	-0.7	3.3	0.83
46	2019	bv10 mb2	11231	101.1	100.9	6.1	5.5	0.2	3.1	0.87
47	2020	bv10 mb2	15728	102.5	101.4	6.2	5.4	1.1	3.3	0.85
48	2021	bv10 mb2	14989	103.8	102.9	5.6	5.1	1.0	2.8	0.86
49	2022	bv10 mb2	13835	104.5	103.3	5.5	4.9	1.2	2.6	0.89
50	2023	bv10 mb2	300	105.7	104.0	5.6	5.1	1.7	2.3	0.91
51	2019	bv11 fl2	11231	98.6	99.4	9.3	7.1	-0.8	4.9	0.86
52	2020	bv11 fl2	15728	99.5	99.8	8.8	7.0	-0.3	4.6	0.86
53	2021	bv11 fl2	14989	99.5	99.6	7.6	6.6	-0.1	3.8	0.87
54	2022	bv11 fl2	13835	100.7	100.7	7.2	6.2	0.1	3.4	0.89
55	2023	bv11 fl2	300	100.4	100.8	6.7	6.2	-0.4	3.3	0.88
56	2019	bv12 ket2	11231	100.7	100.1	6.8	5.7	0.5	3.6	0.85
57	2020	bv12 ket2	15728	101.5	100.6	6.7	5.6	0.9	3.4	0.87
58	2021	bv12 ket2	14989	102.9	101.9	6.1	5.2	1.1	3.0	0.87
59	2022	bv12 ket2	13835	104.3	103.0	5.8	5.0	1.3	2.7	0.89
60	2023	bv12 ket2	300	104.4	103.0	5.9	5.3	1.3	2.3	0.92
61	2019	bv13 bhb2	7336	100.7	98.5	11.3	9.5	2.2	5.4	0.88
62	2020	bv13 bhb2	14889	101.7	99.9	10.6	8.8	1.8	4.9	0.89
63	2021	bv13 bhb2	14989	102.6	99.7	10.1	8.4	3.0	5.0	0.87
64	2022	bv13 bhb2	13835	102.5	100.1	9.6	8.2	2.3	4.1	0.91
65	2023	bv13 bhb2	300	103.4	100.4	8.8	7.7	2.9	3.6	0.91
66	2019	bv14 ace2	7336	100.9	98.2	12.1	8.1	2.7	7.9	0.76
67	2020	bv14 ace2	14889	102.7	99.1	11.2	7.5	3.6	7.1	0.78
68	2021	bv14 ace2	14989	103.4	99.3	10.0	7.0	4.2	7.0	0.72
69	2022	bv14 ace2	13835	103.7	100.3	9.2	6.9	3.5	5.4	0.81
70	2023	bv14 ace2	300	104.6	100.1	9.0	7.2	4.5	4.7	0.86
71	2019	bv15 rpl3	12918	100.1	100.5	6.7	5.2	-0.3	4.4	0.76
72	2020	bv15 rpl3	15728	101.3	101.4	6.5	5.2	-0.1	4.0	0.79
73	2021	bv15 rpl3	14989	101.5	102.2	6.1	4.8	-0.6	3.7	0.80
74	2022	bv15 rpl3	13835	101.9	102.6	5.8	4.6	-0.7	3.4	0.81

sum sta 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
75	2023	bv15 rpl3	300	101.9	103.2	5.3	4.6	-1.3	3.1	0.82
76	2019	bv16 rp3	13063	100.4	101.9	8.0	6.7	-1.5	5.3	0.75
77	2020	bv16 rp3	15728	101.6	103.3	8.1	6.8	-1.7	4.9	0.79
78	2021	bv16 rp3	14989	101.0	103.4	6.6	5.9	-2.3	4.2	0.79
79	2022	bv16 rp3	13835	102.9	104.6	6.7	5.6	-1.7	3.8	0.82
80	2023	bv16 rp3	300	104.2	105.8	6.4	5.6	-1.6	3.6	0.83
81	2019	bv17 mb3	13063	101.3	100.7	6.4	5.6	0.6	3.1	0.87
82	2020	bv17 mb3	15728	102.0	101.0	6.1	5.4	1.1	2.9	0.88
83	2021	bv17 mb3	14989	103.0	102.0	5.4	4.9	1.1	2.7	0.86
84	2022	bv17 mb3	13835	103.6	102.4	5.5	5.0	1.2	2.3	0.91
85	2023	bv17 mb3	300	104.8	103.2	5.2	4.9	1.6	2.0	0.92
86	2019	bv18 fl3	13063	98.8	99.5	8.7	6.2	-0.8	5.2	0.81
87	2020	bv18 fl3	15728	100.0	99.7	8.0	6.1	0.3	4.4	0.84
88	2021	bv18 fl3	14989	100.1	100.0	6.9	5.5	0.1	4.1	0.80
89	2022	bv18 fl3	13835	101.2	100.8	6.4	5.3	0.3	3.3	0.86
90	2023	bv18 fl3	300	100.9	101.0	6.0	5.5	0.0	3.0	0.87
91	2019	bv19 ket3	13063	100.7	100.2	6.6	5.5	0.6	3.3	0.87
92	2020	bv19 ket3	15728	101.8	101.2	6.7	5.3	0.6	3.6	0.85
93	2021	bv19 ket3	14989	102.9	101.8	5.8	5.0	1.1	2.9	0.87
94	2022	bv19 ket3	13835	104.0	102.7	5.7	5.0	1.3	2.6	0.89
95	2023	bv19 ket3	300	104.7	103.5	5.6	5.0	1.2	2.4	0.91
96	2019	bv20 bhb3	12500	101.0	98.4	11.1	9.2	2.6	5.0	0.90
97	2020	bv20 bhb3	15728	101.6	99.6	10.4	8.7	2.0	4.5	0.90
98	2021	bv20 bhb3	14989	103.0	99.6	9.7	8.2	3.4	4.6	0.88
99	2022	bv20 bhb3	13835	103.0	100.2	9.2	8.0	2.8	3.8	0.91
100	2023	bv20 bhb3	300	103.4	100.2	8.8	7.5	3.2	3.6	0.92
101	2019	bv21 ace3	12500	101.1	97.5	10.8	7.8	3.6	5.9	0.84
102	2020	bv21 ace3	15728	102.1	98.7	9.9	7.4	3.4	5.2	0.86
103	2021	bv21 ace3	14989	103.3	98.6	8.8	6.8	4.7	5.3	0.80
104	2022	bv21 ace3	13835	104.2	99.9	8.2	6.6	4.3	4.2	0.86
105	2023	bv21 ace3	300	103.8	99.3	8.6	6.7	4.5	4.0	0.89
106	2019	bv22 rpl	5990	100.4	100.3	6.6	5.4	0.1	4.3	0.77
107	2020	bv22 rpl	9631	101.1	101.4	6.5	5.3	-0.3	4.0	0.79
108	2021	bv22 rpl	14979	101.8	102.2	6.1	4.8	-0.4	3.8	0.78
109	2022	bv22 rpl	13835	101.9	102.5	5.8	4.7	-0.6	3.4	0.81
110	2023	bv22 rpl	300	101.9	103.2	5.5	4.6	-1.2	3.1	0.82
111	2019	bv23 rp	6049	99.9	101.8	7.4	6.2	-1.9	5.0	0.74

sum sta 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
112	2020	bv23 rp	12872	101.9	103.7	7.5	6.3	-1.8	4.8	0.77
113	2021	bv23 rp	14989	101.0	103.4	6.3	5.6	-2.3	3.9	0.79
114	2022	bv23 rp	13835	102.9	104.5	6.4	5.3	-1.6	3.7	0.81
115	2023	bv23 rp	300	104.3	105.9	6.1	5.2	-1.6	3.5	0.82
116	2019	bv24 mb	6049	101.1	100.3	6.1	5.5	0.7	3.0	0.87
117	2020	bv24 mb	12872	102.2	100.8	6.1	5.2	1.4	3.2	0.85
118	2021	bv24 mb	14989	103.5	102.1	5.5	4.9	1.4	2.9	0.85
119	2022	bv24 mb	13835	104.0	102.4	5.5	4.9	1.5	2.6	0.89
120	2023	bv24 mb	300	105.0	103.1	5.5	4.9	1.9	2.3	0.90
121	2019	bv25 fl	6049	98.4	99.1	8.5	6.3	-0.7	4.8	0.83
122	2020	bv25 fl	12872	99.6	99.4	8.1	6.3	0.2	4.2	0.85
123	2021	bv25 fl	14989	100.0	99.7	7.0	5.7	0.3	3.8	0.83
124	2022	bv25 fl	13835	101.0	100.6	6.5	5.5	0.5	3.2	0.87
125	2023	bv25 fl	300	100.7	100.7	6.1	5.6	0.0	3.0	0.87
126	2019	bv26 ket	6049	100.5	99.7	6.9	5.7	0.8	3.5	0.87
127	2020	bv26 ket	12872	102.0	100.9	7.0	5.5	1.1	3.6	0.86
128	2021	bv26 ket	14989	103.4	101.8	6.4	5.3	1.6	3.2	0.87
129	2022	bv26 ket	13835	104.3	102.6	6.1	5.2	1.7	2.9	0.88
130	2023	bv26 ket	300	104.9	103.1	6.2	5.5	1.8	2.6	0.91
131	2019	bv27 bhb	5880	101.0	98.3	10.3	7.7	2.7	5.6	0.85
132	2020	bv27 bhb	7429	101.8	99.1	9.5	7.1	2.7	5.1	0.85
133	2021	bv27 bhb	13608	103.4	99.5	8.7	6.6	3.9	5.2	0.80
134	2022	bv27 bhb	13835	103.9	100.4	8.2	6.5	3.4	4.1	0.87
135	2023	bv27 bhb	300	104.3	100.3	8.1	6.7	4.0	3.6	0.90
136	2019	bv29 GH	5991	100.7	98.7	10.4	8.9	2.0	4.5	0.90
137	2020	bv29 GH	9637	101.5	100.0	9.9	8.4	1.4	4.2	0.91
138	2021	bv29 GH	14988	102.8	100.1	9.4	7.9	2.7	4.4	0.88
139	2022	bv29 GH	13835	102.7	100.5	9.0	7.7	2.2	3.7	0.92
140	2023	bv29 GH	300	103.5	100.7	8.3	7.2	2.8	3.3	0.92

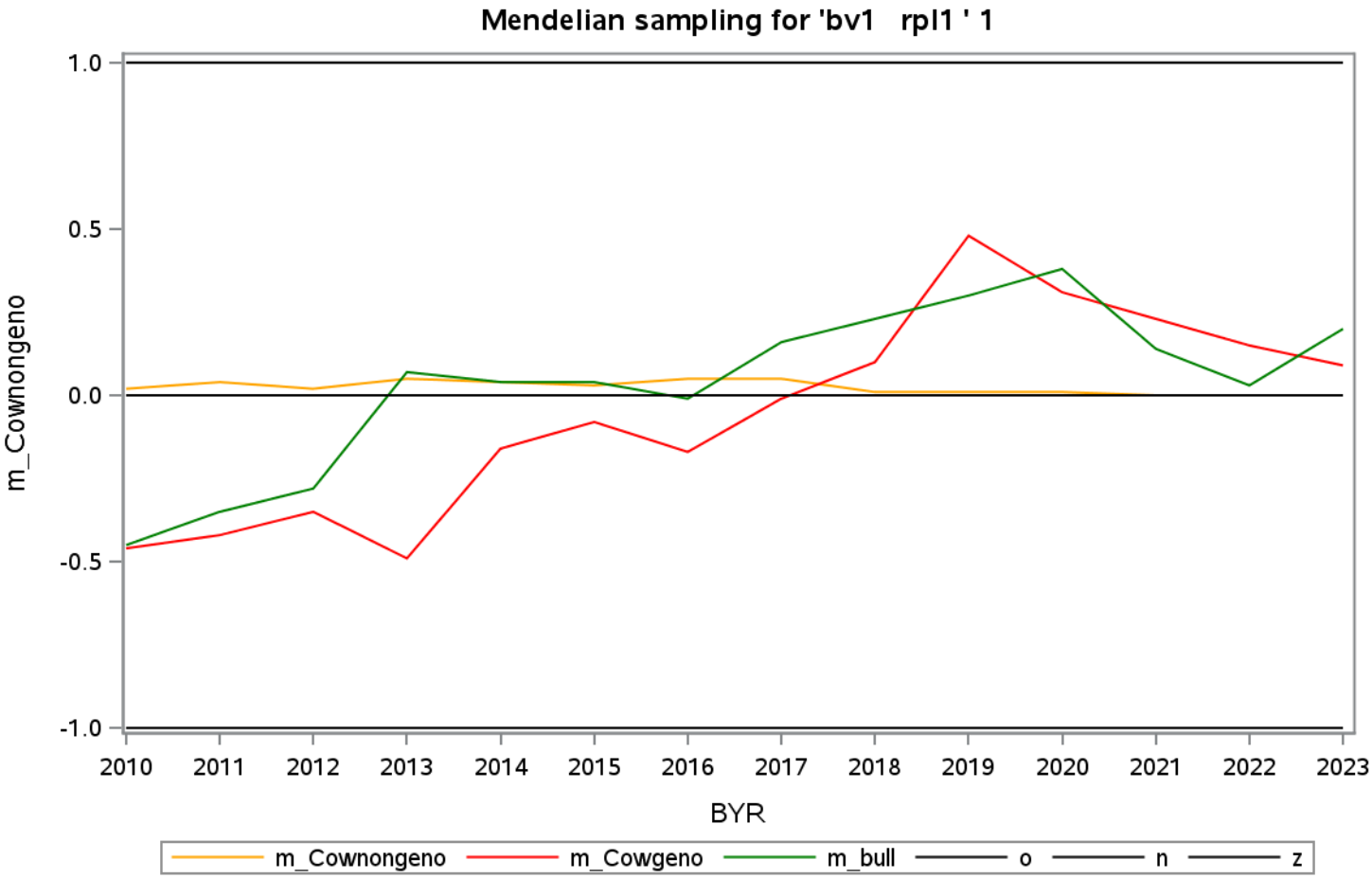
General health

SS mendelian sampling term

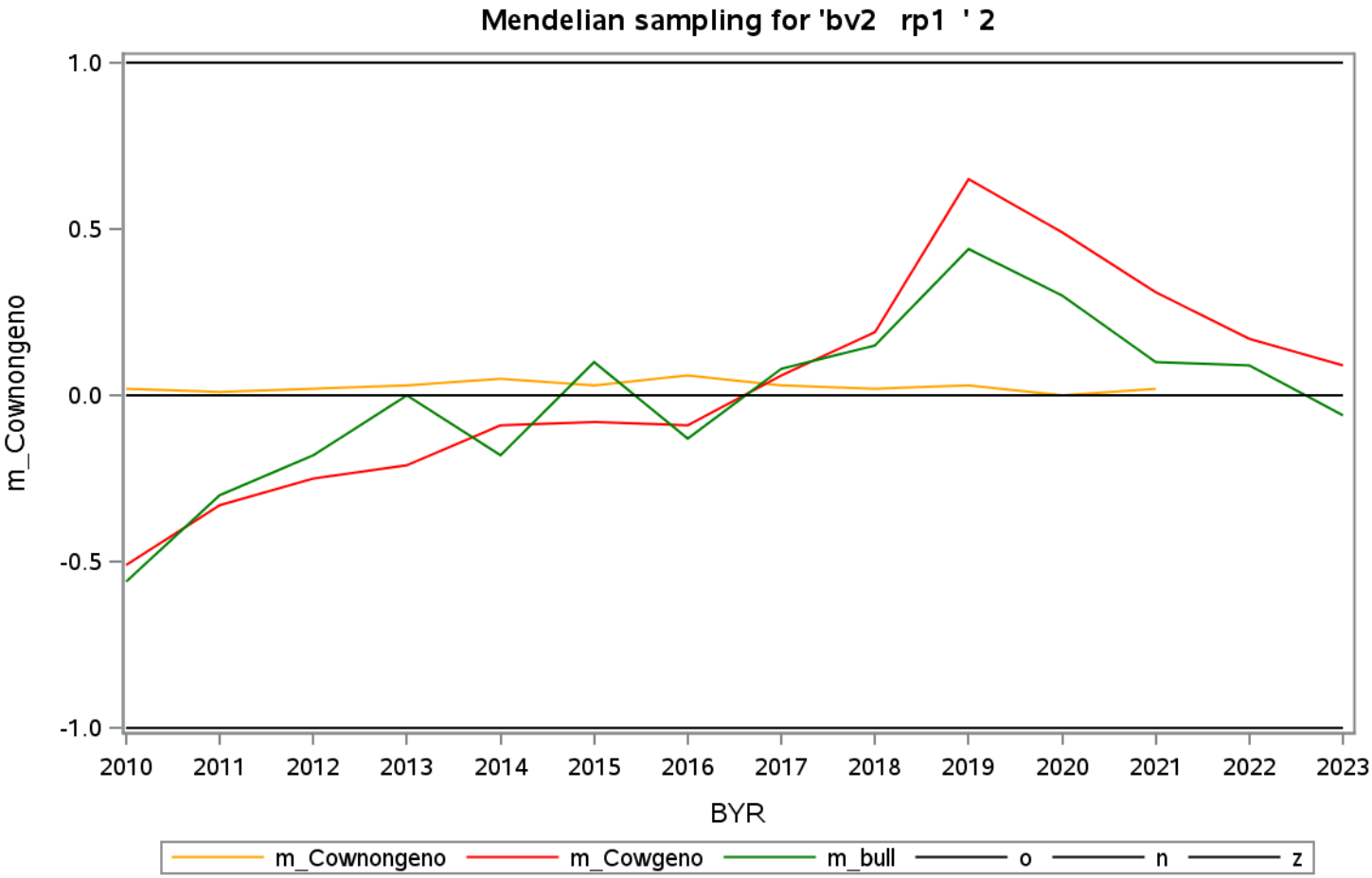
Mendelian sampling is calculated as difference between of own singlestep GEBV for May23 and parent averages based on singlestep GEBV for May23. Standardized to base, which is 3-5 years old cows.
Calculated for animals born >= 2010

Column description:
BYR = birth year
m_Cownongeno = Mean mendelian sampling for cows without genotype
m_Cowgeno = Mean mendelian sampling for cows with genotype
m_bull = Mean mendelian sampling for bulls with genotype
N_Cownongeno = number of cows without genotype
N_Cowgeno = number of cows with genotype
N_bull = number of bulls with genotype

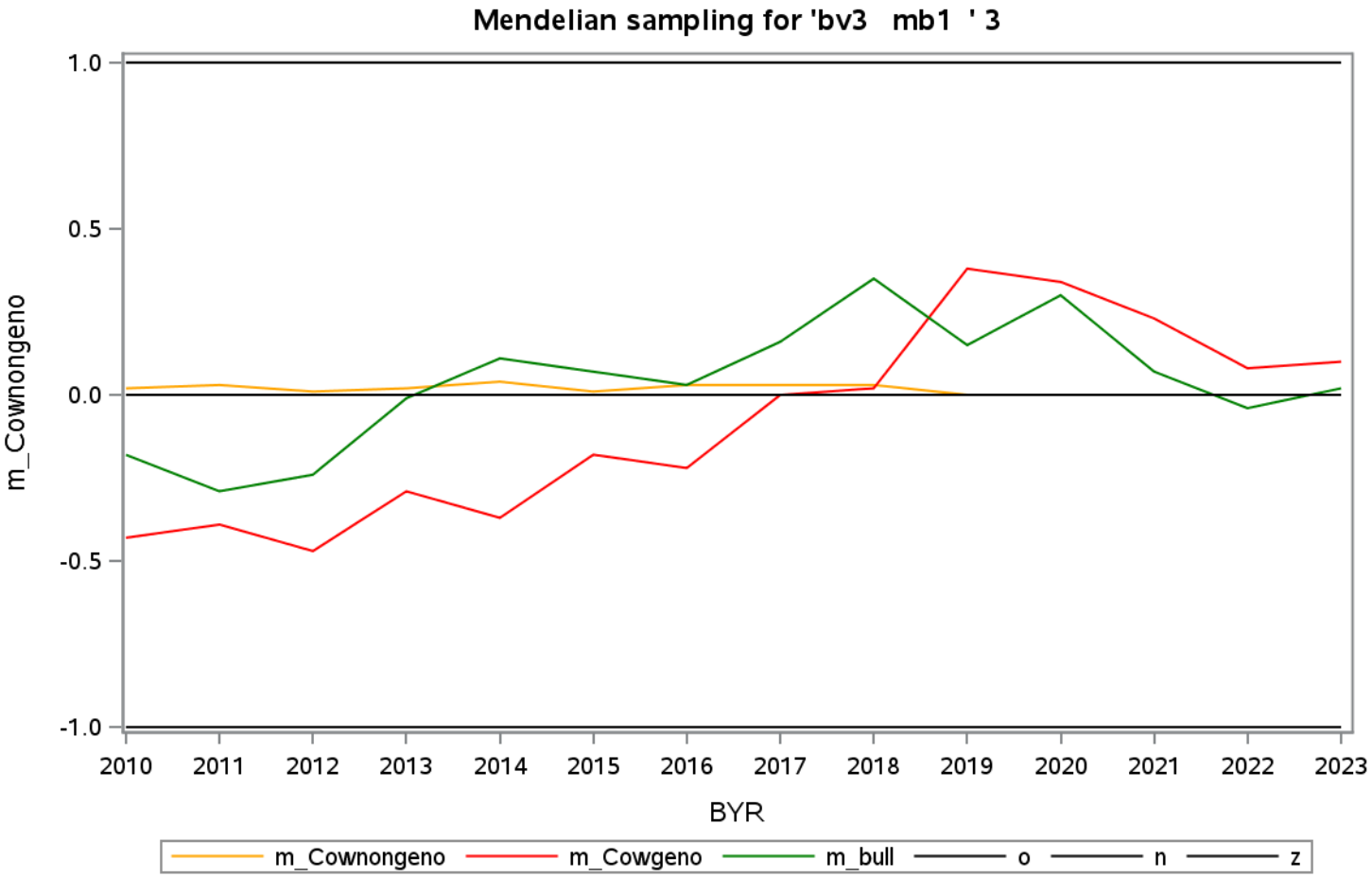
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.46	-0.45	211445	408	1112
2	2011	0.04	-0.42	-0.35	213626	513	1684
3	2012	0.02	-0.35	-0.28	215555	845	2136
4	2013	0.05	-0.49	0.07	209386	1556	2357
5	2014	0.04	-0.16	0.04	206456	1969	3132
6	2015	0.03	-0.08	0.04	198492	2707	2729
7	2016	0.05	-0.17	-0.01	190560	4320	2913
8	2017	0.05	-0.01	0.16	168668	7061	3178
9	2018	0.01	0.10	0.23	158922	9639	3021
10	2019	0.01	0.48	0.30	148506	11264	3231
11	2020	0.01	0.31	0.38	121325	26701	3170
12	2021	0.00	0.23	0.14	9697	59100	3121
13	2022	.	0.15	0.03	.	57862	3084
14	2023	.	0.09	0.20	.	5071	517



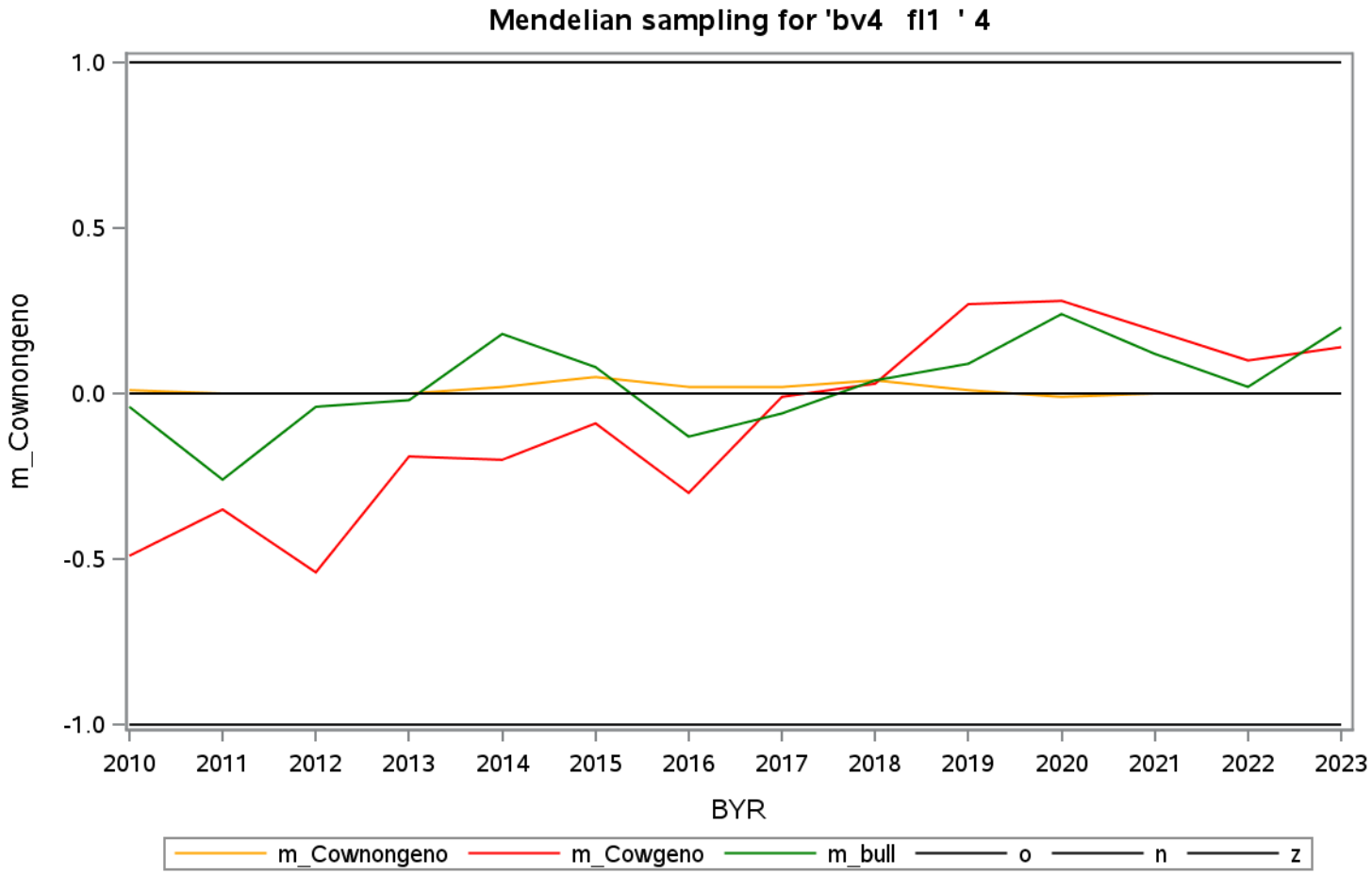
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.51	-0.56	211445	408	1112
2	2011	0.01	-0.33	-0.30	213626	513	1684
3	2012	0.02	-0.25	-0.18	215555	845	2136
4	2013	0.03	-0.21	0.00	209386	1556	2357
5	2014	0.05	-0.09	-0.18	206456	1969	3132
6	2015	0.03	-0.08	0.10	198492	2707	2729
7	2016	0.06	-0.09	-0.13	190560	4320	2913
8	2017	0.03	0.06	0.08	168668	7061	3178
9	2018	0.02	0.19	0.15	158922	9639	3021
10	2019	0.03	0.65	0.44	148506	11747	3231
11	2020	0.00	0.49	0.30	121325	46335	3170
12	2021	0.02	0.31	0.10	9697	59539	3121
13	2022	.	0.17	0.09	.	57862	3084
14	2023	.	0.09	-0.06	.	5071	517



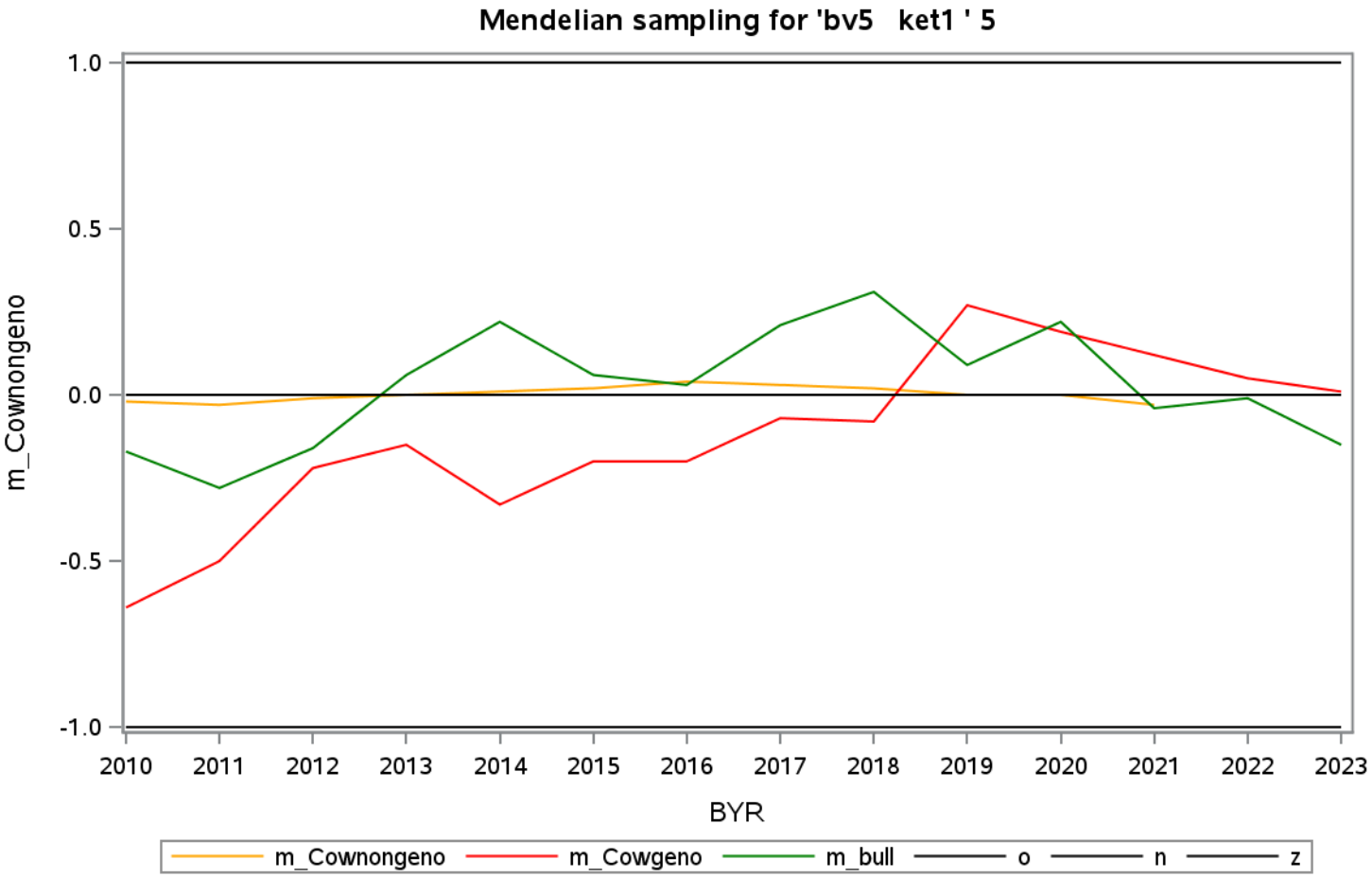
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.43	-0.18	211445	408	1112
2	2011	0.03	-0.39	-0.29	213626	513	1684
3	2012	0.01	-0.47	-0.24	215555	845	2136
4	2013	0.02	-0.29	-0.01	209386	1556	2357
5	2014	0.04	-0.37	0.11	206456	1969	3132
6	2015	0.01	-0.18	0.07	198492	2707	2729
7	2016	0.03	-0.22	0.03	190560	4320	2913
8	2017	0.03	0.00	0.16	168668	7061	3178
9	2018	0.03	0.02	0.35	158922	9639	3021
10	2019	0.00	0.38	0.15	148506	11747	3231
11	2020	0.00	0.34	0.30	121325	46335	3170
12	2021	0.00	0.23	0.07	9697	59539	3121
13	2022	.	0.08	-0.04	.	57862	3084
14	2023	.	0.10	0.02	.	5071	517



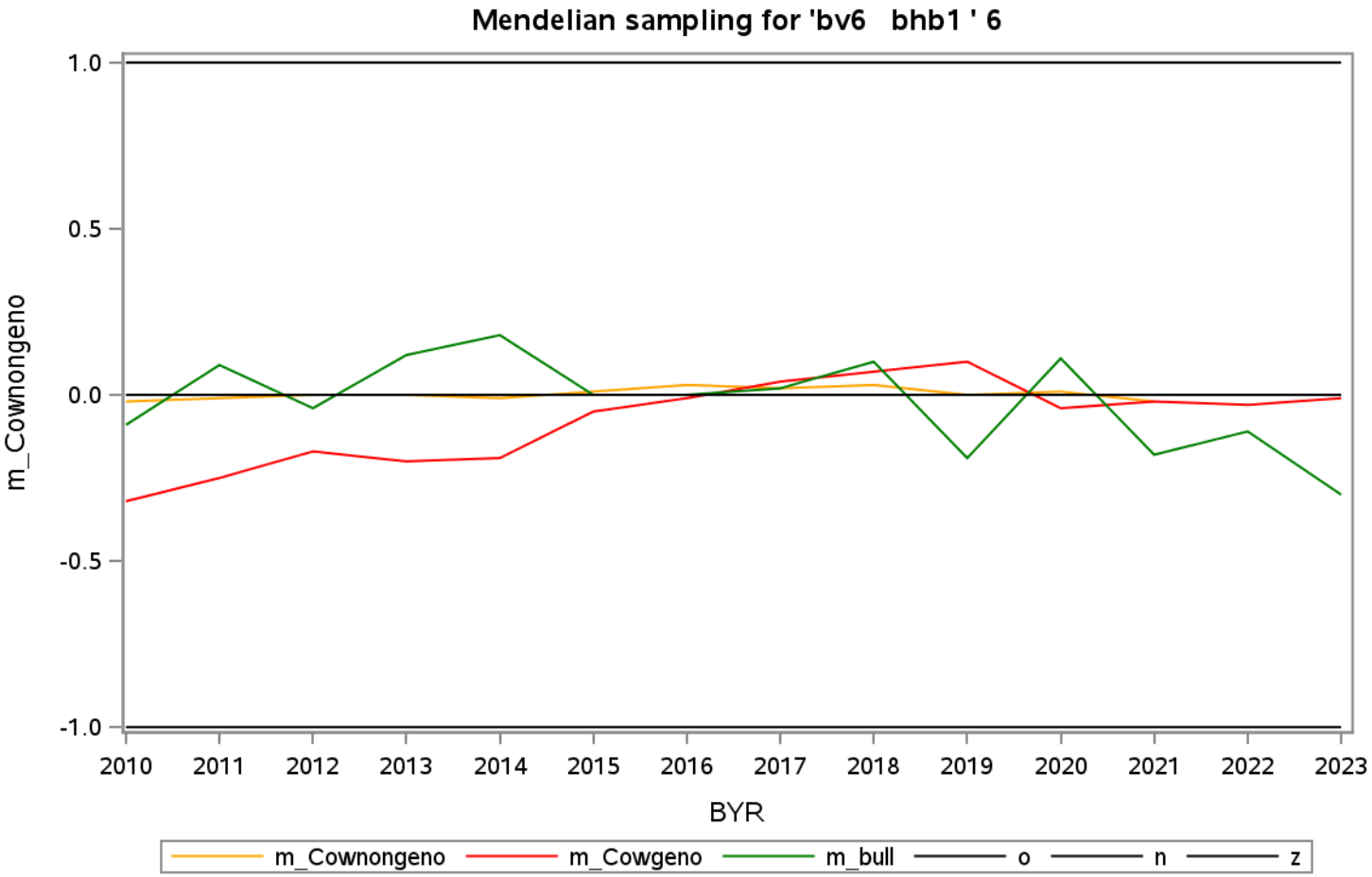
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.49	-0.04	211445	408	1112
2	2011	0.00	-0.35	-0.26	213626	513	1684
3	2012	0.00	-0.54	-0.04	215555	845	2136
4	2013	0.00	-0.19	-0.02	209386	1556	2357
5	2014	0.02	-0.20	0.18	206456	1969	3132
6	2015	0.05	-0.09	0.08	198492	2707	2729
7	2016	0.02	-0.30	-0.13	190560	4320	2913
8	2017	0.02	-0.01	-0.06	168668	7061	3178
9	2018	0.04	0.03	0.04	158922	9639	3021
10	2019	0.01	0.27	0.09	148506	11747	3231
11	2020	-0.01	0.28	0.24	121325	46335	3170
12	2021	0.00	0.19	0.12	9697	59539	3121
13	2022	.	0.10	0.02	.	57862	3084
14	2023	.	0.14	0.20	.	5071	517



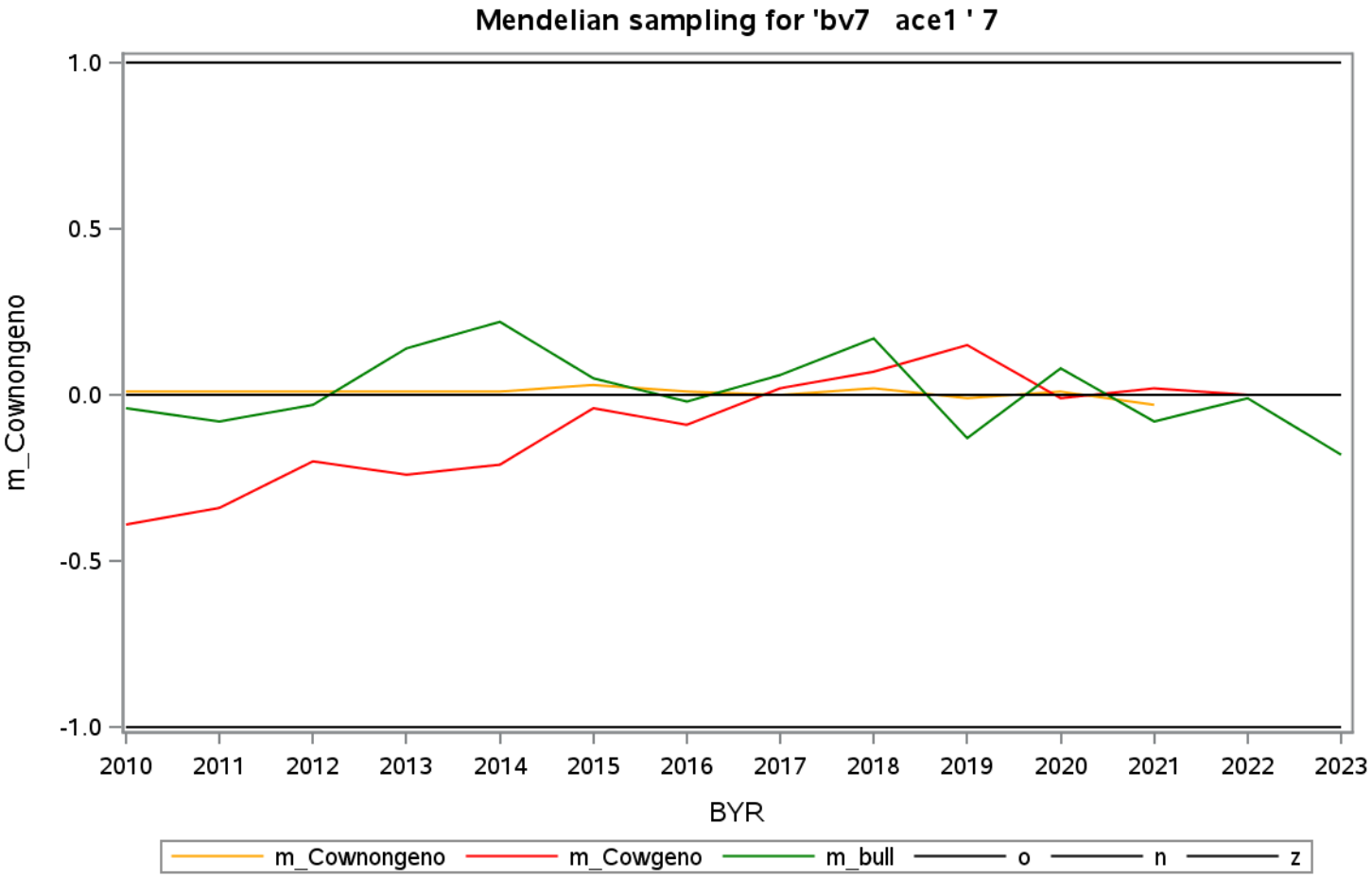
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.02	-0.64	-0.17	211445	408	1112
2	2011	-0.03	-0.50	-0.28	213626	513	1684
3	2012	-0.01	-0.22	-0.16	215555	845	2136
4	2013	0.00	-0.15	0.06	209386	1556	2357
5	2014	0.01	-0.33	0.22	206456	1969	3132
6	2015	0.02	-0.20	0.06	198492	2707	2729
7	2016	0.04	-0.20	0.03	190560	4320	2913
8	2017	0.03	-0.07	0.21	168668	7061	3178
9	2018	0.02	-0.08	0.31	158922	9639	3021
10	2019	0.00	0.27	0.09	148506	11747	3231
11	2020	0.00	0.19	0.22	121325	46335	3170
12	2021	-0.03	0.12	-0.04	9697	59539	3121
13	2022	.	0.05	-0.01	.	57862	3084
14	2023	.	0.01	-0.15	.	5071	517



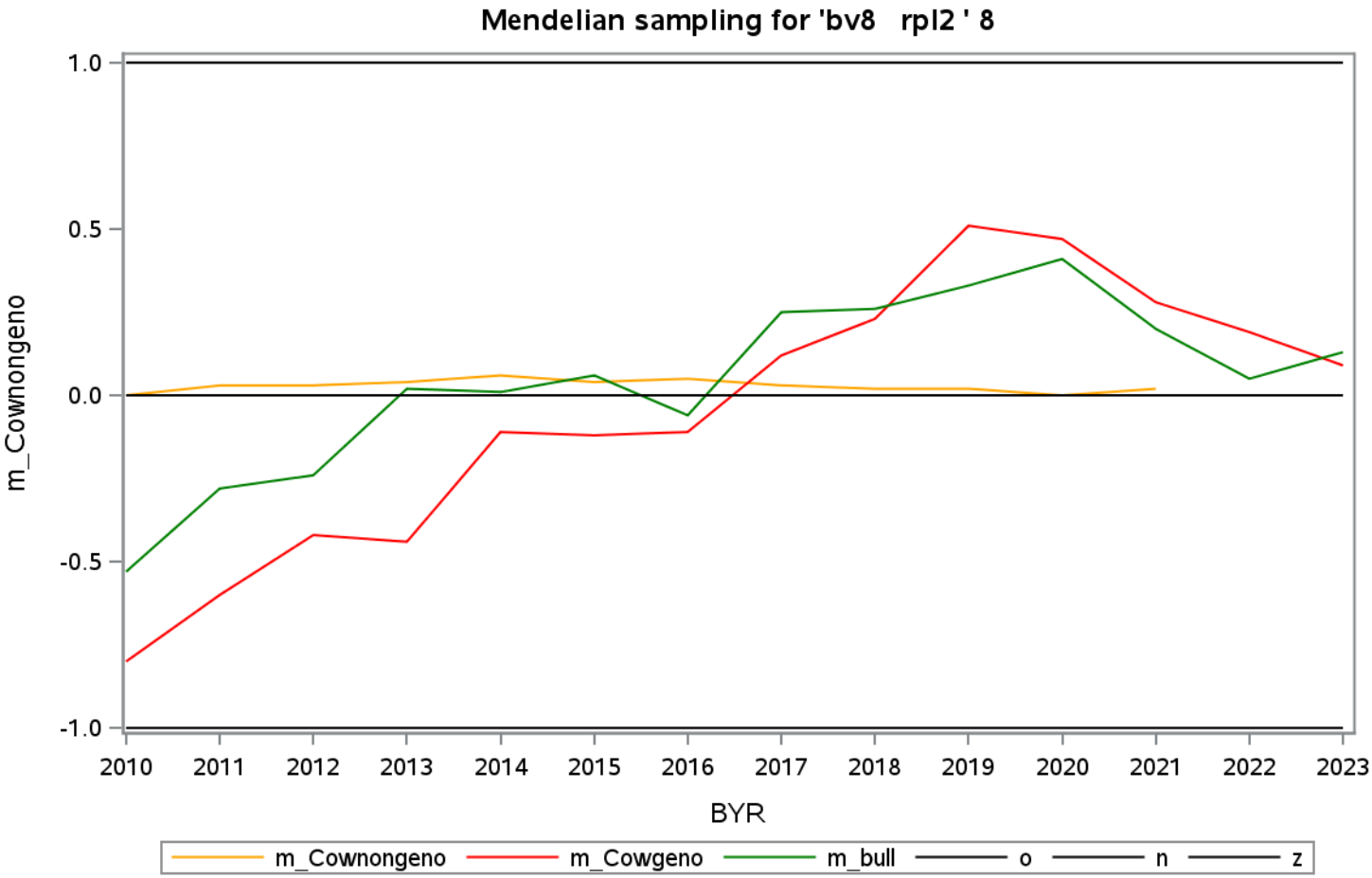
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.02	-0.32	-0.09	211445	1691	1112
2	2011	-0.01	-0.25	0.09	213626	2407	1684
3	2012	0.00	-0.17	-0.04	215555	2784	2136
4	2013	0.00	-0.20	0.12	209386	4511	2357
5	2014	-0.01	-0.19	0.18	206456	4355	3132
6	2015	0.01	-0.05	0.00	198492	6437	2729
7	2016	0.03	-0.01	0.00	190560	11797	2913
8	2017	0.02	0.04	0.02	168668	18019	3178
9	2018	0.03	0.07	0.10	158922	24498	3021
10	2019	0.00	0.10	-0.19	148506	27909	3231
11	2020	0.01	-0.04	0.11	121325	35469	3170
12	2021	-0.02	-0.02	-0.18	9697	56564	3121
13	2022	.	-0.03	-0.11	.	57862	3084
14	2023	.	-0.01	-0.30	.	5071	517



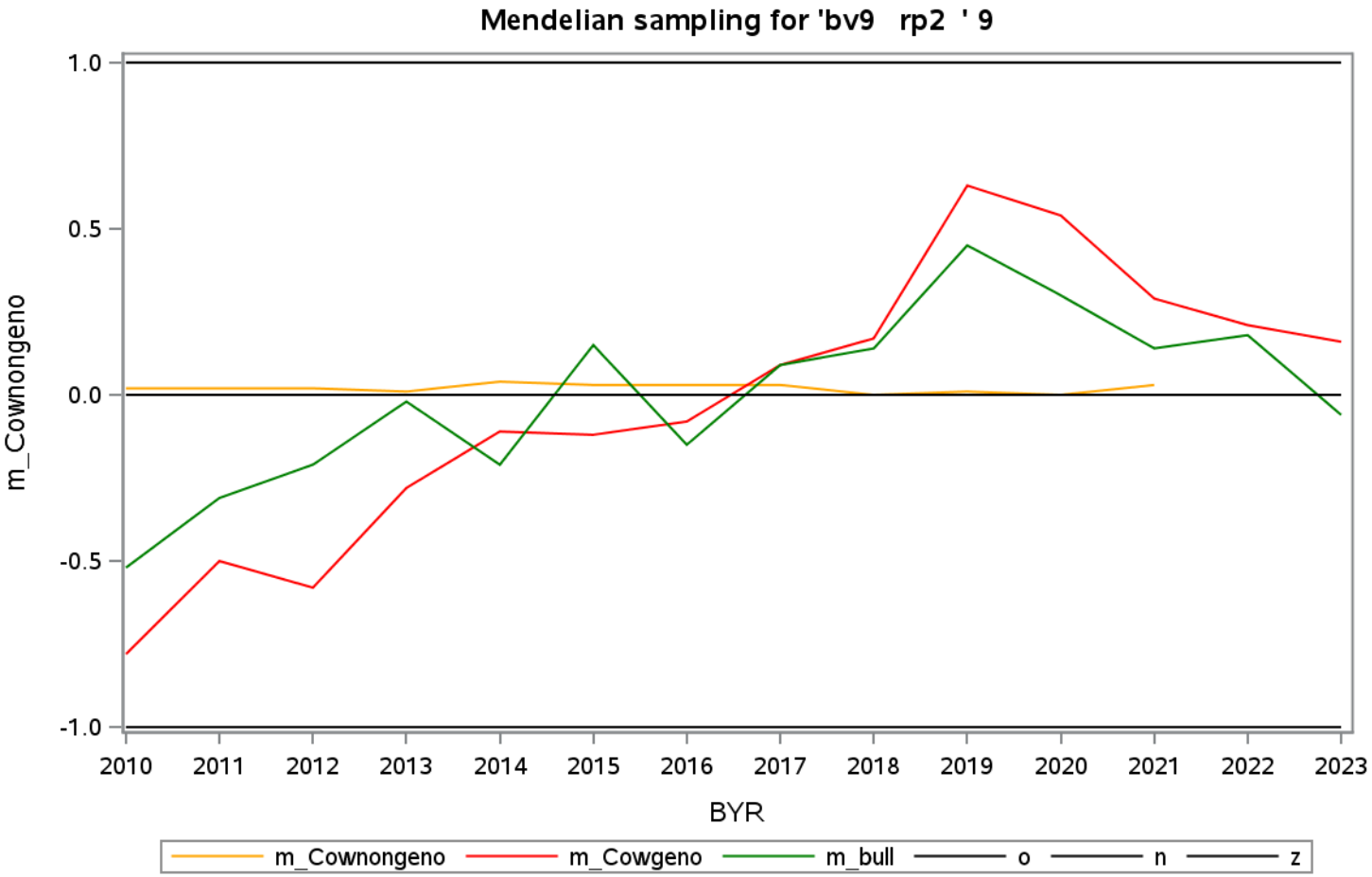
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.39	-0.04	211445	1691	1112
2	2011	0.01	-0.34	-0.08	213626	2407	1684
3	2012	0.01	-0.20	-0.03	215555	2784	2136
4	2013	0.01	-0.24	0.14	209386	4511	2357
5	2014	0.01	-0.21	0.22	206456	4355	3132
6	2015	0.03	-0.04	0.05	198492	6437	2729
7	2016	0.01	-0.09	-0.02	190560	11797	2913
8	2017	0.00	0.02	0.06	168668	18019	3178
9	2018	0.02	0.07	0.17	158922	24498	3021
10	2019	-0.01	0.15	-0.13	148506	27909	3231
11	2020	0.01	-0.01	0.08	121325	35469	3170
12	2021	-0.03	0.02	-0.08	9697	56564	3121
13	2022	.	0.00	-0.01	.	57862	3084
14	2023	.	0.00	-0.18	.	5071	517



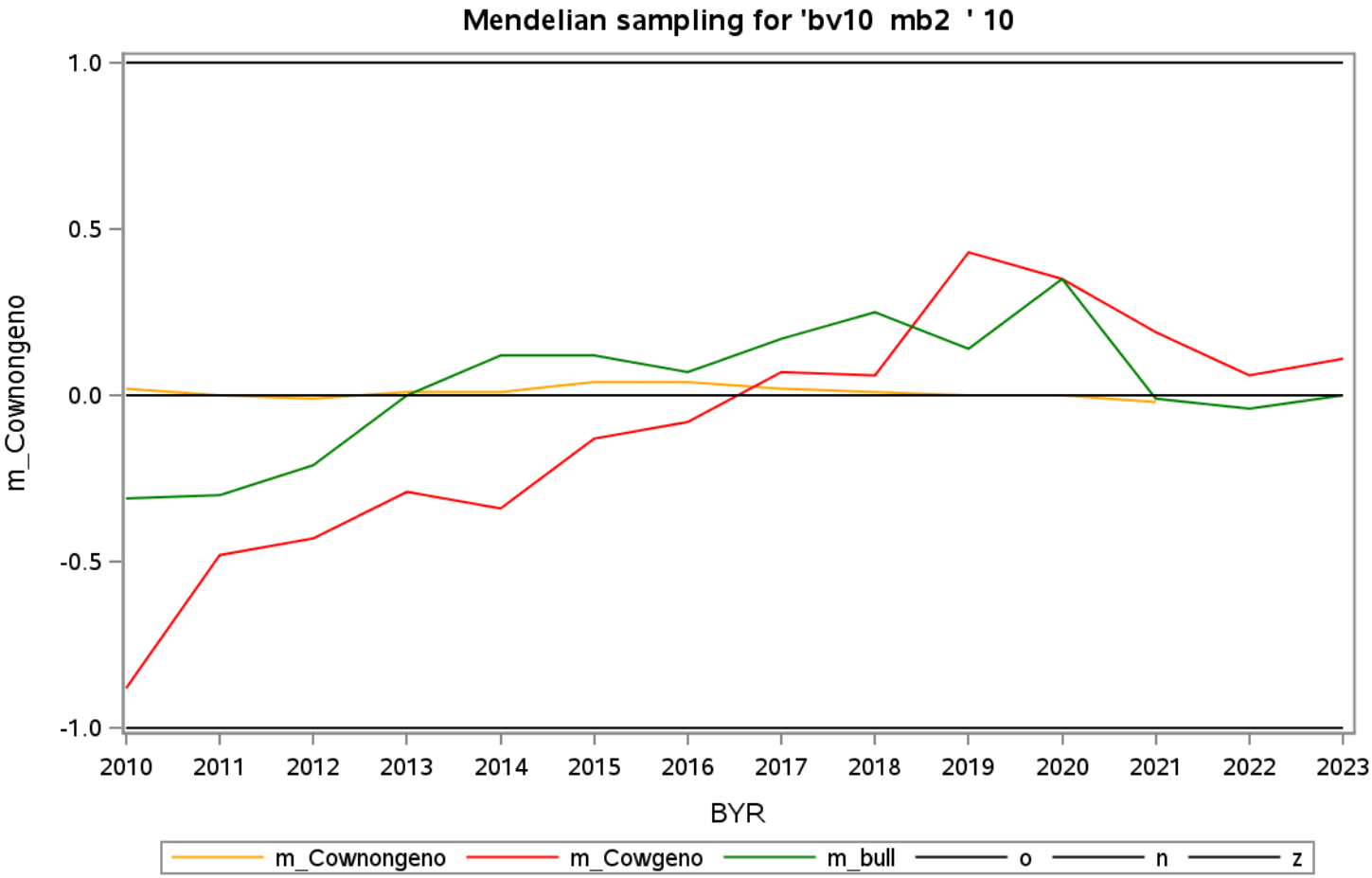
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.80	-0.53	211445	629	1112
2	2011	0.03	-0.60	-0.28	213626	1021	1684
3	2012	0.03	-0.42	-0.24	215555	1698	2136
4	2013	0.04	-0.44	0.02	209386	3143	2357
5	2014	0.06	-0.11	0.01	206456	3826	3132
6	2015	0.04	-0.12	0.06	198492	4980	2729
7	2016	0.05	-0.11	-0.06	190560	7806	2913
8	2017	0.03	0.12	0.25	168668	11938	3178
9	2018	0.02	0.23	0.26	158922	16798	3021
10	2019	0.02	0.51	0.33	148506	26591	3231
11	2020	0.00	0.47	0.41	121325	57331	3170
12	2021	0.02	0.28	0.20	9697	59539	3121
13	2022	.	0.19	0.05	.	57862	3084
14	2023	.	0.09	0.13	.	5071	517



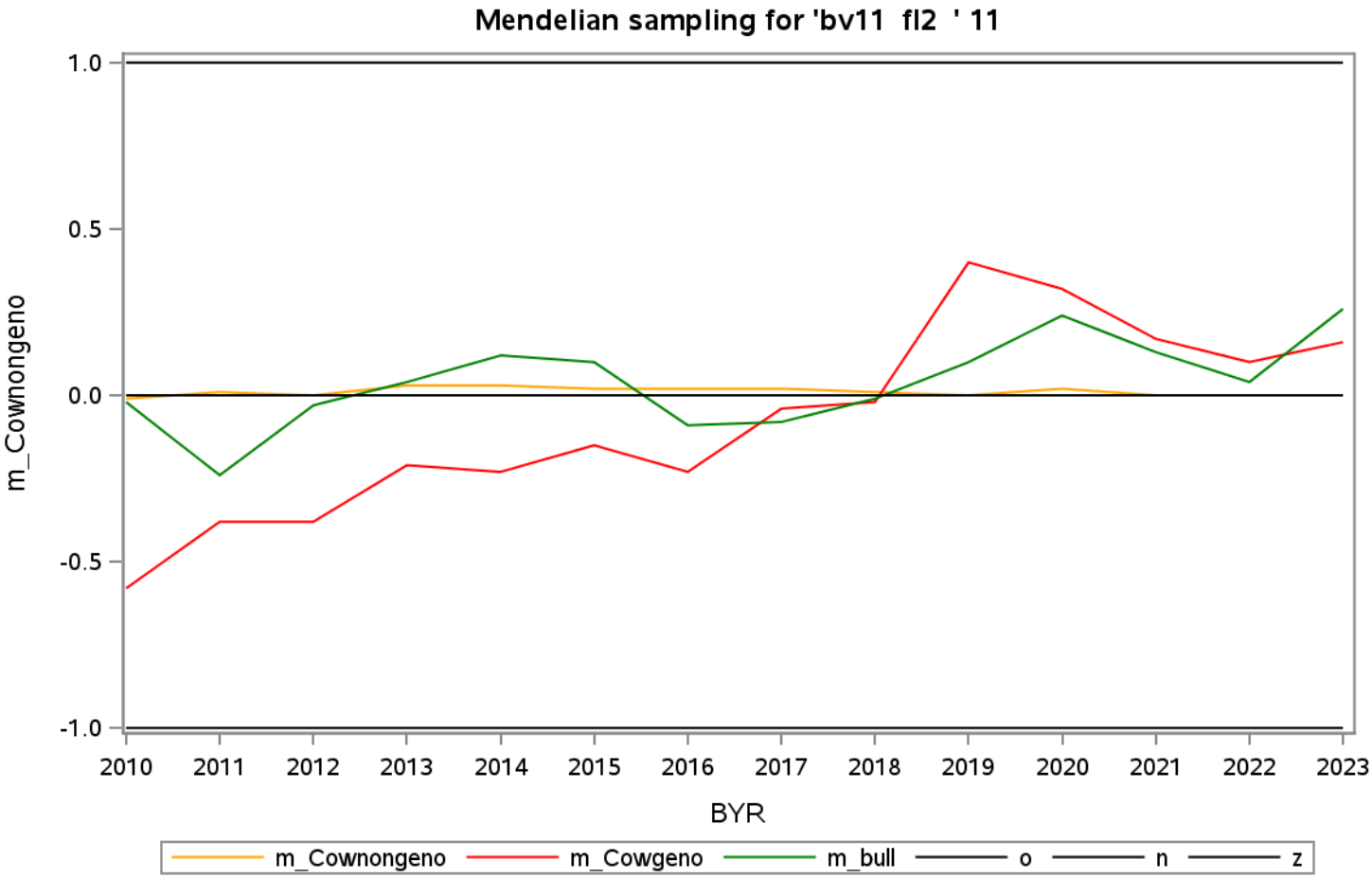
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.78	-0.52	211445	629	1112
2	2011	0.02	-0.50	-0.31	213626	1021	1684
3	2012	0.02	-0.58	-0.21	215555	1698	2136
4	2013	0.01	-0.28	-0.02	209386	3143	2357
5	2014	0.04	-0.11	-0.21	206456	3826	3132
6	2015	0.03	-0.12	0.15	198492	4980	2729
7	2016	0.03	-0.08	-0.15	190560	7806	2913
8	2017	0.03	0.09	0.09	168668	11947	3178
9	2018	0.00	0.17	0.14	158922	17781	3021
10	2019	0.01	0.63	0.45	148506	41861	3231
11	2020	0.00	0.54	0.30	121325	57937	3170
12	2021	0.03	0.29	0.14	9697	59539	3121
13	2022	.	0.21	0.18	.	57862	3084
14	2023	.	0.16	-0.06	.	5071	517



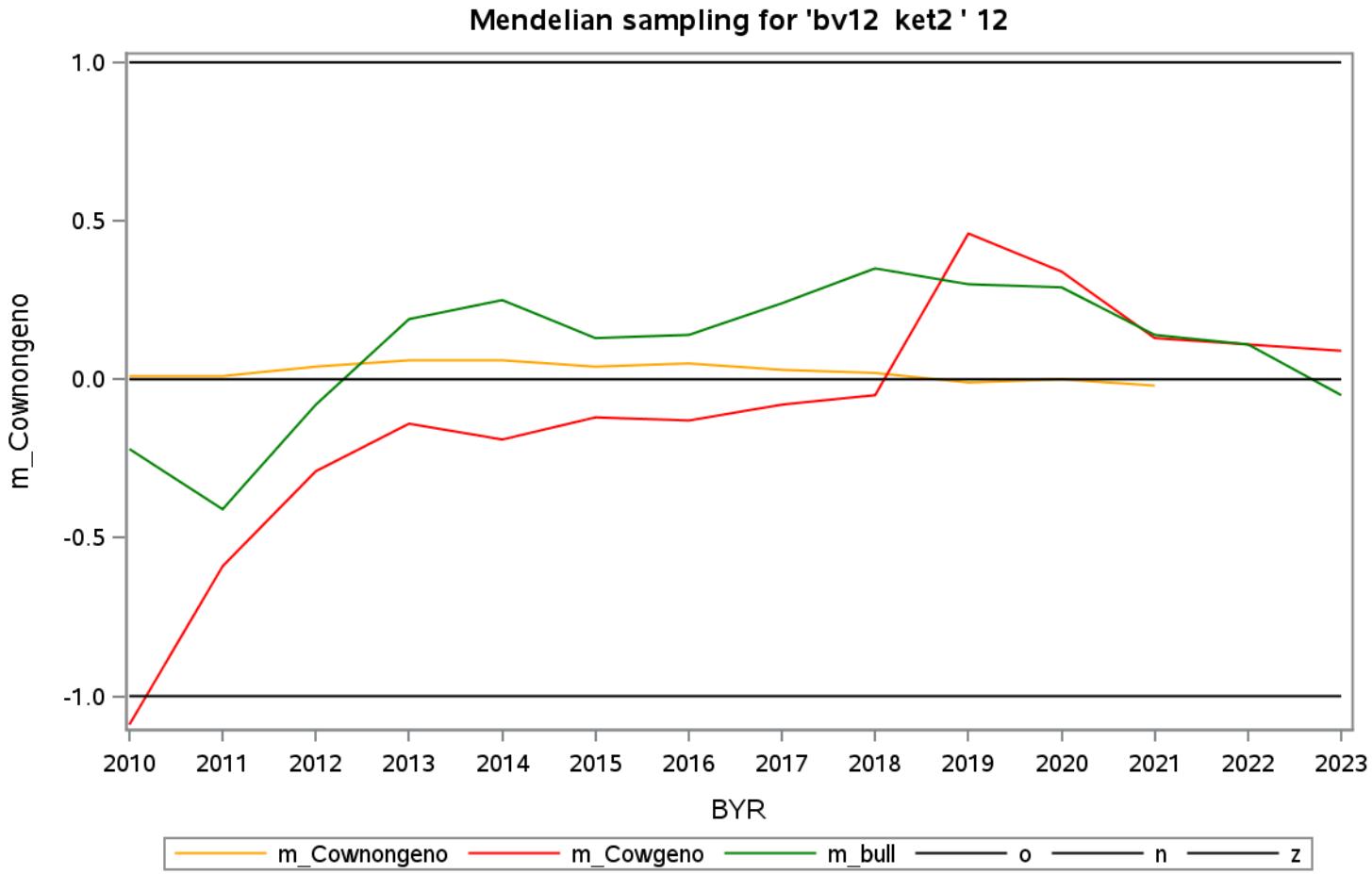
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.88	-0.31	211445	629	1112
2	2011	0.00	-0.48	-0.30	213626	1021	1684
3	2012	-0.01	-0.43	-0.21	215555	1698	2136
4	2013	0.01	-0.29	0.00	209386	3143	2357
5	2014	0.01	-0.34	0.12	206456	3826	3132
6	2015	0.04	-0.13	0.12	198492	4980	2729
7	2016	0.04	-0.08	0.07	190560	7806	2913
8	2017	0.02	0.07	0.17	168668	11947	3178
9	2018	0.01	0.06	0.25	158922	17781	3021
10	2019	0.00	0.43	0.14	148506	41861	3231
11	2020	0.00	0.35	0.35	121325	57937	3170
12	2021	-0.02	0.19	-0.01	9697	59539	3121
13	2022	.	0.06	-0.04	.	57862	3084
14	2023	.	0.11	0.00	.	5071	517



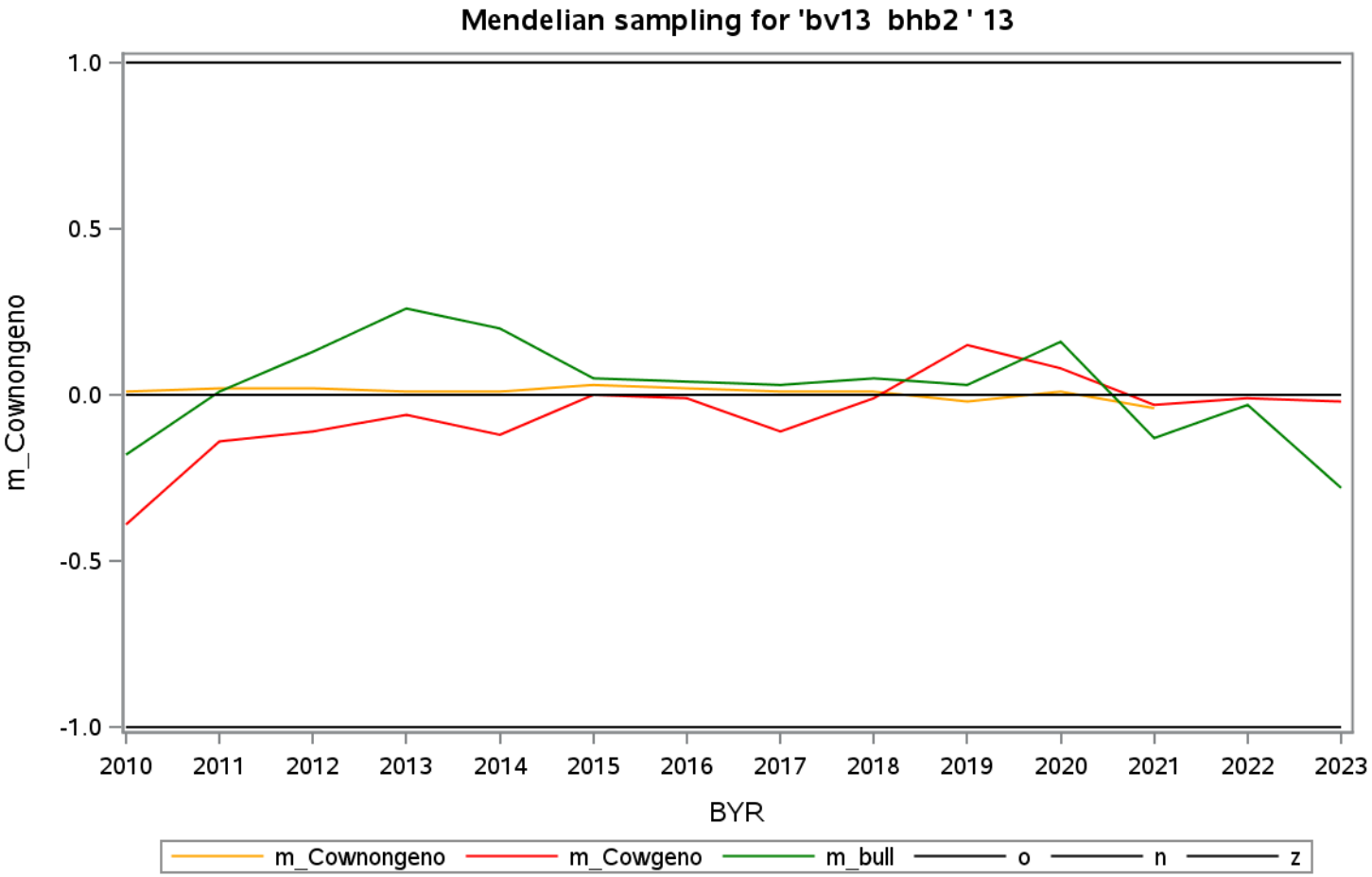
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.58	-0.02	211445	629	1112
2	2011	0.01	-0.38	-0.24	213626	1021	1684
3	2012	0.00	-0.38	-0.03	215555	1698	2136
4	2013	0.03	-0.21	0.04	209386	3143	2357
5	2014	0.03	-0.23	0.12	206456	3826	3132
6	2015	0.02	-0.15	0.10	198492	4980	2729
7	2016	0.02	-0.23	-0.09	190560	7806	2913
8	2017	0.02	-0.04	-0.08	168668	11947	3178
9	2018	0.01	-0.02	-0.01	158922	17781	3021
10	2019	0.00	0.40	0.10	148506	41861	3231
11	2020	0.02	0.32	0.24	121325	57937	3170
12	2021	0.00	0.17	0.13	9697	59539	3121
13	2022	.	0.10	0.04	.	57862	3084
14	2023	.	0.16	0.26	.	5071	517



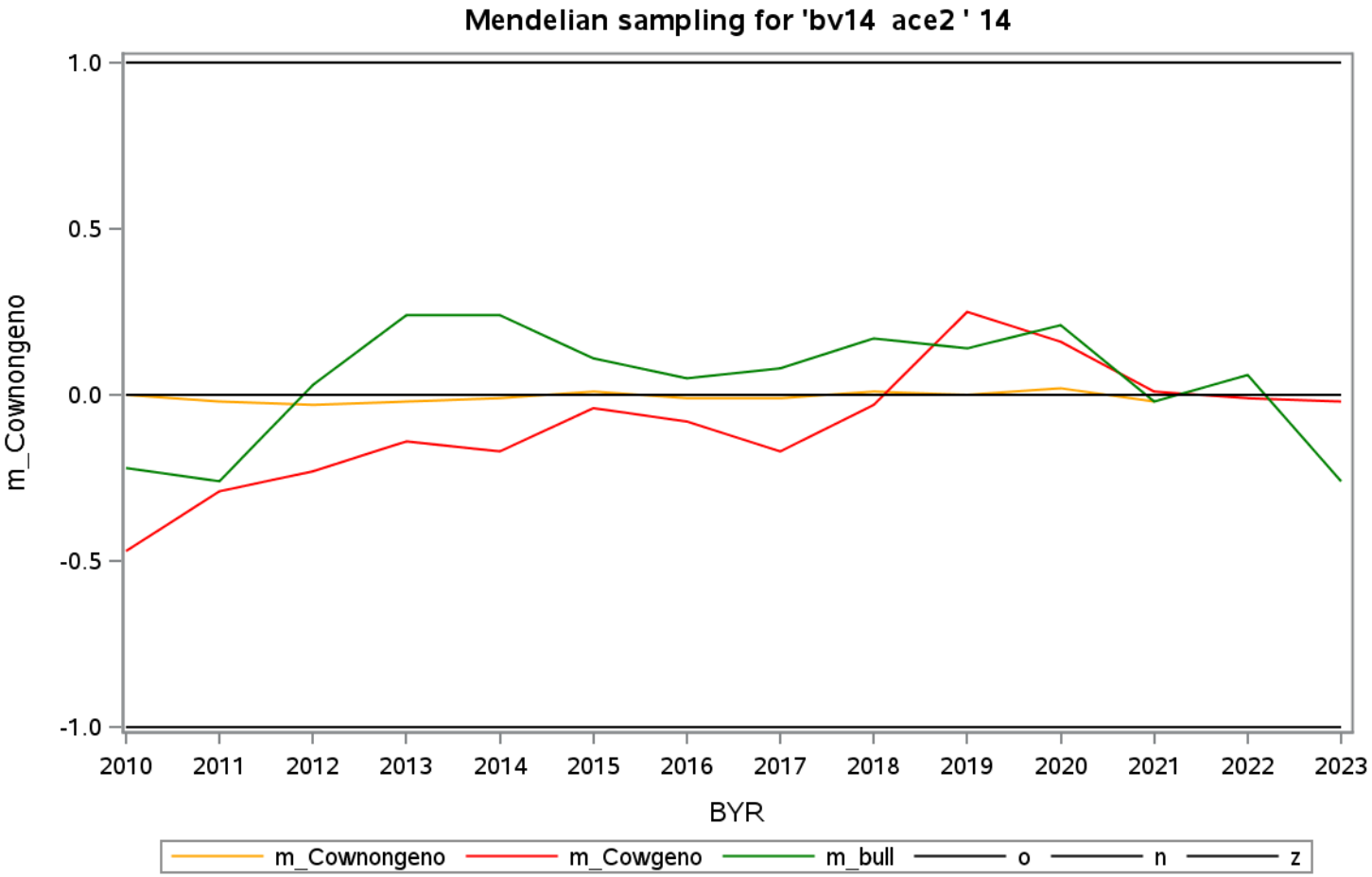
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-1.09	-0.22	211445	629	1112
2	2011	0.01	-0.59	-0.41	213626	1021	1684
3	2012	0.04	-0.29	-0.08	215555	1698	2136
4	2013	0.06	-0.14	0.19	209386	3143	2357
5	2014	0.06	-0.19	0.25	206456	3826	3132
6	2015	0.04	-0.12	0.13	198492	4980	2729
7	2016	0.05	-0.13	0.14	190560	7806	2913
8	2017	0.03	-0.08	0.24	168668	11947	3178
9	2018	0.02	-0.05	0.35	158922	17781	3021
10	2019	-0.01	0.46	0.30	148506	41861	3231
11	2020	0.00	0.34	0.29	121325	57937	3170
12	2021	-0.02	0.13	0.14	9697	59539	3121
13	2022	.	0.11	0.11	.	57862	3084
14	2023	.	0.09	-0.05	.	5071	517



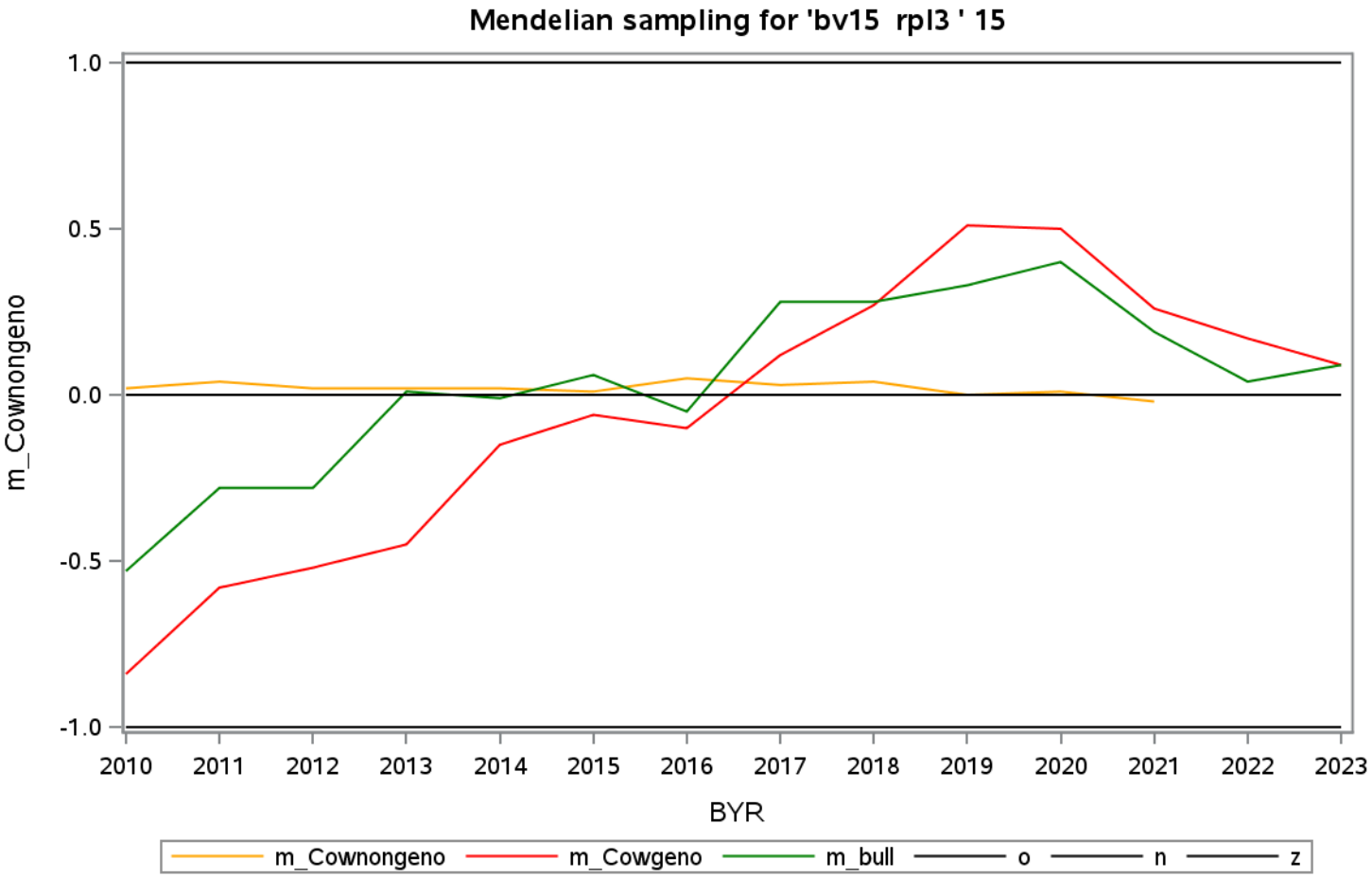
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.39	-0.18	211445	1080	1112
2	2011	0.02	-0.14	0.01	213626	1971	1684
3	2012	0.02	-0.11	0.13	215555	2733	2136
4	2013	0.01	-0.06	0.26	209386	4342	2357
5	2014	0.01	-0.12	0.20	206456	6095	3132
6	2015	0.03	0.00	0.05	198492	8697	2729
7	2016	0.02	-0.01	0.04	190560	13381	2913
8	2017	0.01	-0.11	0.03	168668	20265	3178
9	2018	0.01	-0.01	0.05	158922	27937	3021
10	2019	-0.02	0.15	0.03	148506	33370	3231
11	2020	0.01	0.08	0.16	121325	55963	3170
12	2021	-0.04	-0.03	-0.13	9697	59539	3121
13	2022	.	-0.01	-0.03	.	57862	3084
14	2023	.	-0.02	-0.28	.	5071	517



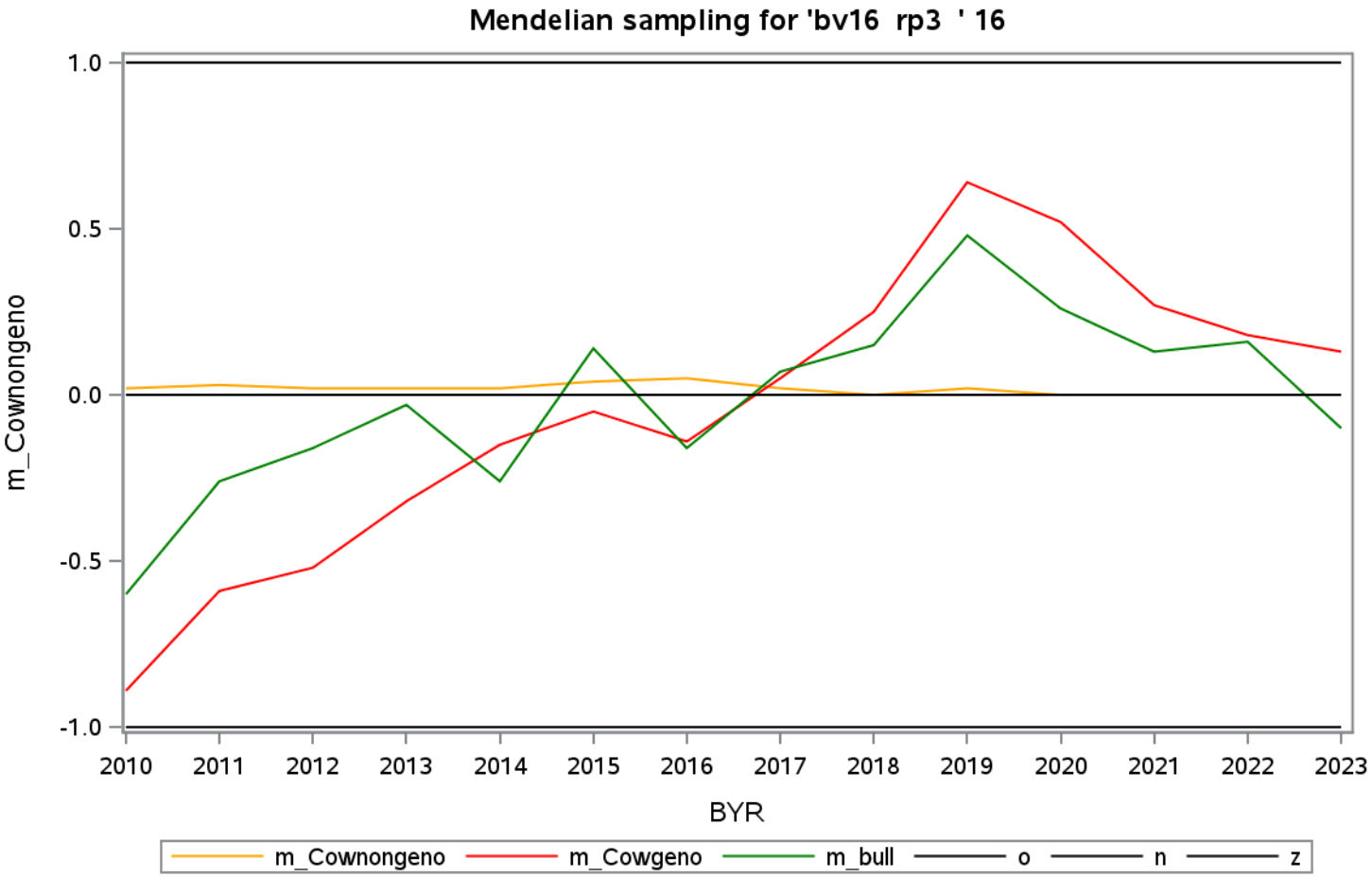
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.47	-0.22	211445	1080	1112
2	2011	-0.02	-0.29	-0.26	213626	1971	1684
3	2012	-0.03	-0.23	0.03	215555	2733	2136
4	2013	-0.02	-0.14	0.24	209386	4342	2357
5	2014	-0.01	-0.17	0.24	206456	6095	3132
6	2015	0.01	-0.04	0.11	198492	8697	2729
7	2016	-0.01	-0.08	0.05	190560	13381	2913
8	2017	-0.01	-0.17	0.08	168668	20265	3178
9	2018	0.01	-0.03	0.17	158922	27937	3021
10	2019	0.00	0.25	0.14	148506	33370	3231
11	2020	0.02	0.16	0.21	121325	55963	3170
12	2021	-0.02	0.01	-0.02	9697	59539	3121
13	2022	.	-0.01	0.06	.	57862	3084
14	2023	.	-0.02	-0.26	.	5071	517



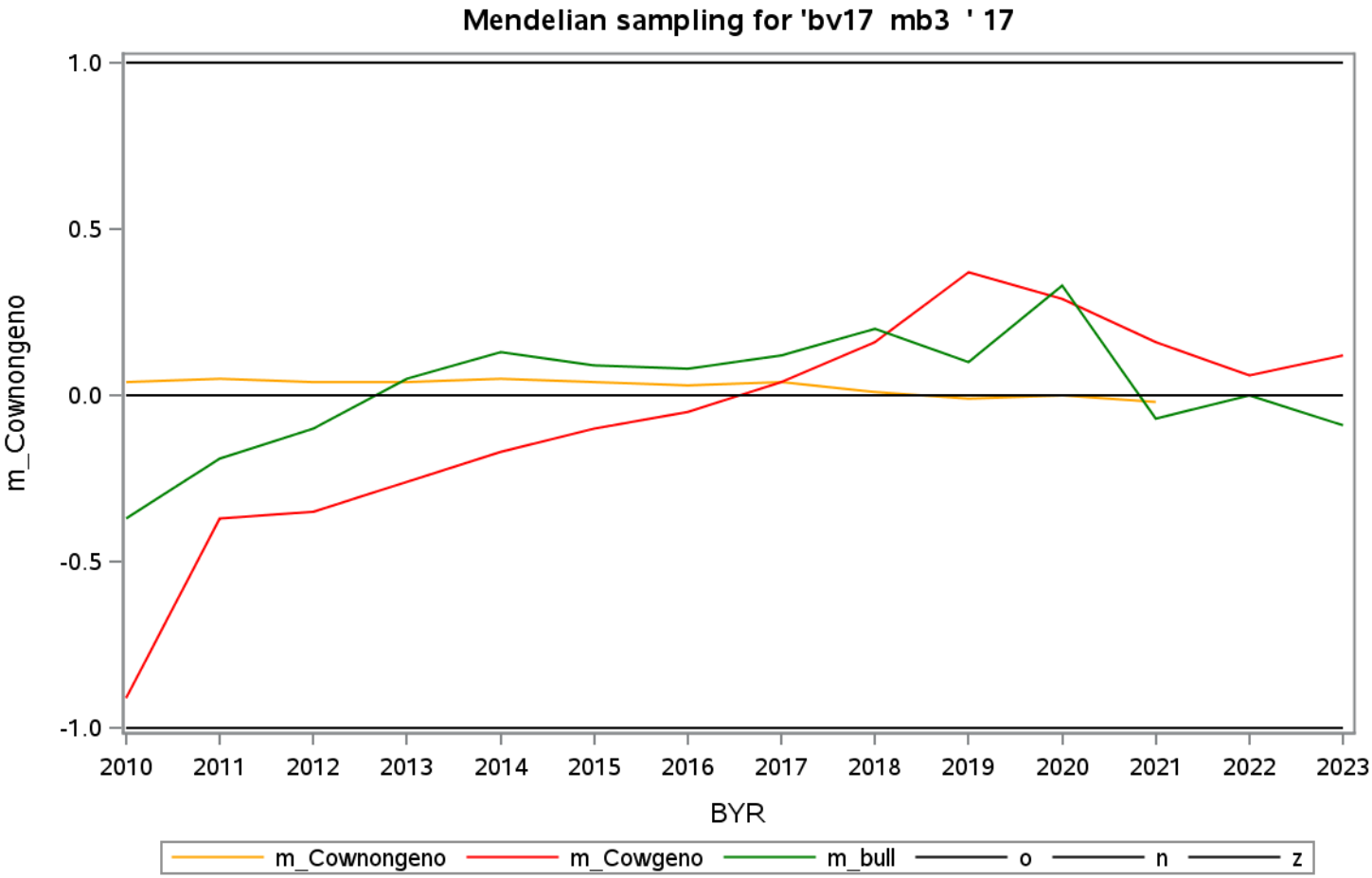
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.84	-0.53	211445	908	1112
2	2011	0.04	-0.58	-0.28	213626	1644	1684
3	2012	0.02	-0.52	-0.28	215555	2597	2136
4	2013	0.02	-0.45	0.01	209386	4628	2357
5	2014	0.02	-0.15	-0.01	206456	5577	3132
6	2015	0.01	-0.06	0.06	198492	7088	2729
7	2016	0.05	-0.10	-0.05	190560	10817	2913
8	2017	0.03	0.12	0.28	168668	16522	3178
9	2018	0.04	0.27	0.28	158922	29036	3021
10	2019	0.00	0.51	0.33	148506	48197	3231
11	2020	0.01	0.50	0.40	121325	57937	3170
12	2021	-0.02	0.26	0.19	9697	59539	3121
13	2022	.	0.17	0.04	.	57862	3084
14	2023	.	0.09	0.09	.	5071	517



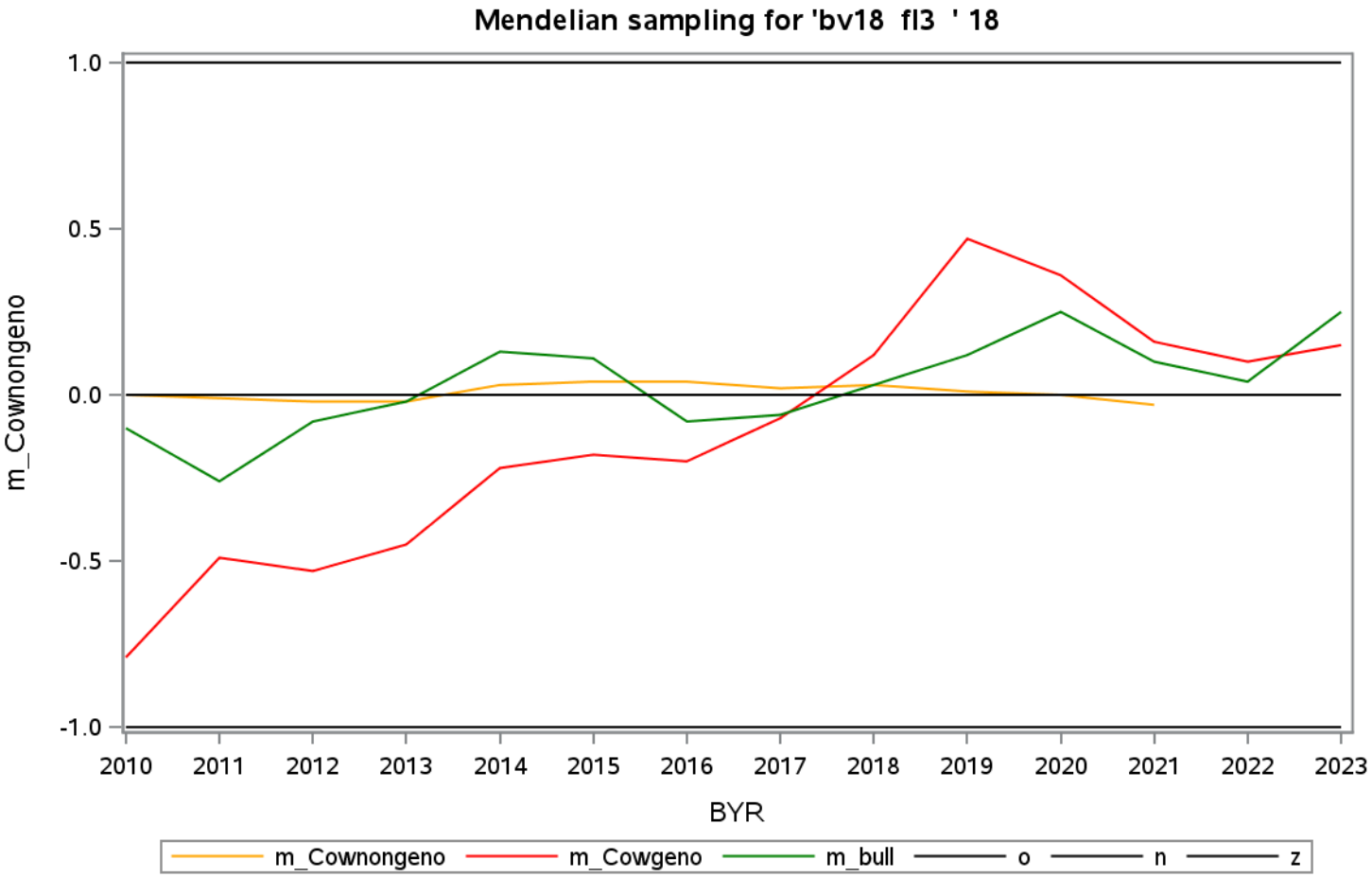
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.89	-0.60	211445	908	1112
2	2011	0.03	-0.59	-0.26	213626	1644	1684
3	2012	0.02	-0.52	-0.16	215555	2597	2136
4	2013	0.02	-0.32	-0.03	209386	4628	2357
5	2014	0.02	-0.15	-0.26	206456	5577	3132
6	2015	0.04	-0.05	0.14	198492	7088	2729
7	2016	0.05	-0.14	-0.16	190560	10848	2913
8	2017	0.02	0.05	0.07	168668	17884	3178
9	2018	0.00	0.25	0.15	158922	39352	3021
10	2019	0.02	0.64	0.48	148506	48657	3231
11	2020	0.00	0.52	0.26	121325	57937	3170
12	2021	0.00	0.27	0.13	9697	59539	3121
13	2022	.	0.18	0.16	.	57862	3084
14	2023	.	0.13	-0.10	.	5071	517



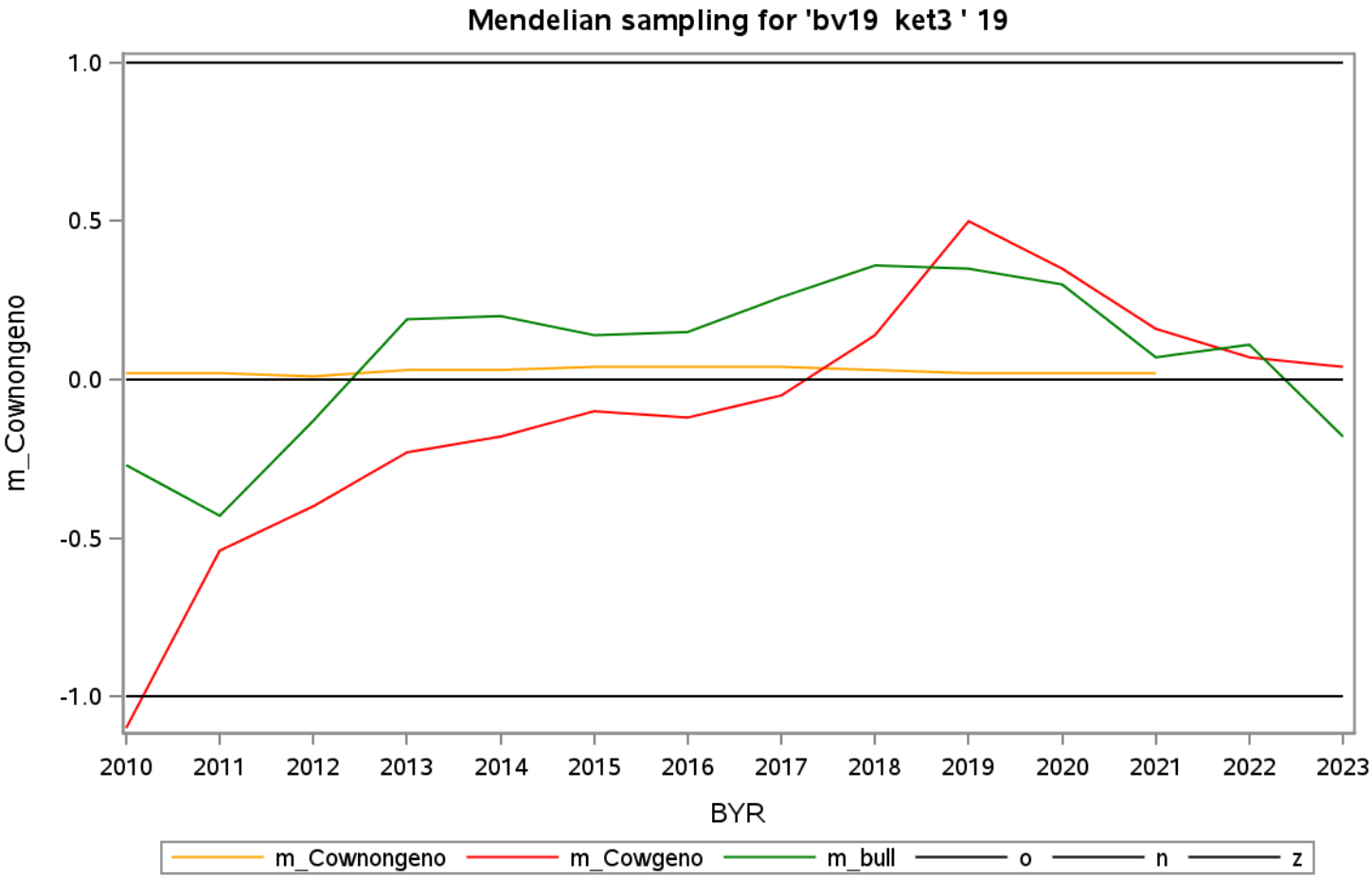
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.91	-0.37	211445	908	1112
2	2011	0.05	-0.37	-0.19	213626	1644	1684
3	2012	0.04	-0.35	-0.10	215555	2597	2136
4	2013	0.04	-0.26	0.05	209386	4628	2357
5	2014	0.05	-0.17	0.13	206456	5577	3132
6	2015	0.04	-0.10	0.09	198492	7088	2729
7	2016	0.03	-0.05	0.08	190560	10848	2913
8	2017	0.04	0.04	0.12	168668	17884	3178
9	2018	0.01	0.16	0.20	158922	39352	3021
10	2019	-0.01	0.37	0.10	148506	48657	3231
11	2020	0.00	0.29	0.33	121325	57937	3170
12	2021	-0.02	0.16	-0.07	9697	59539	3121
13	2022	.	0.06	0.00	.	57862	3084
14	2023	.	0.12	-0.09	.	5071	517



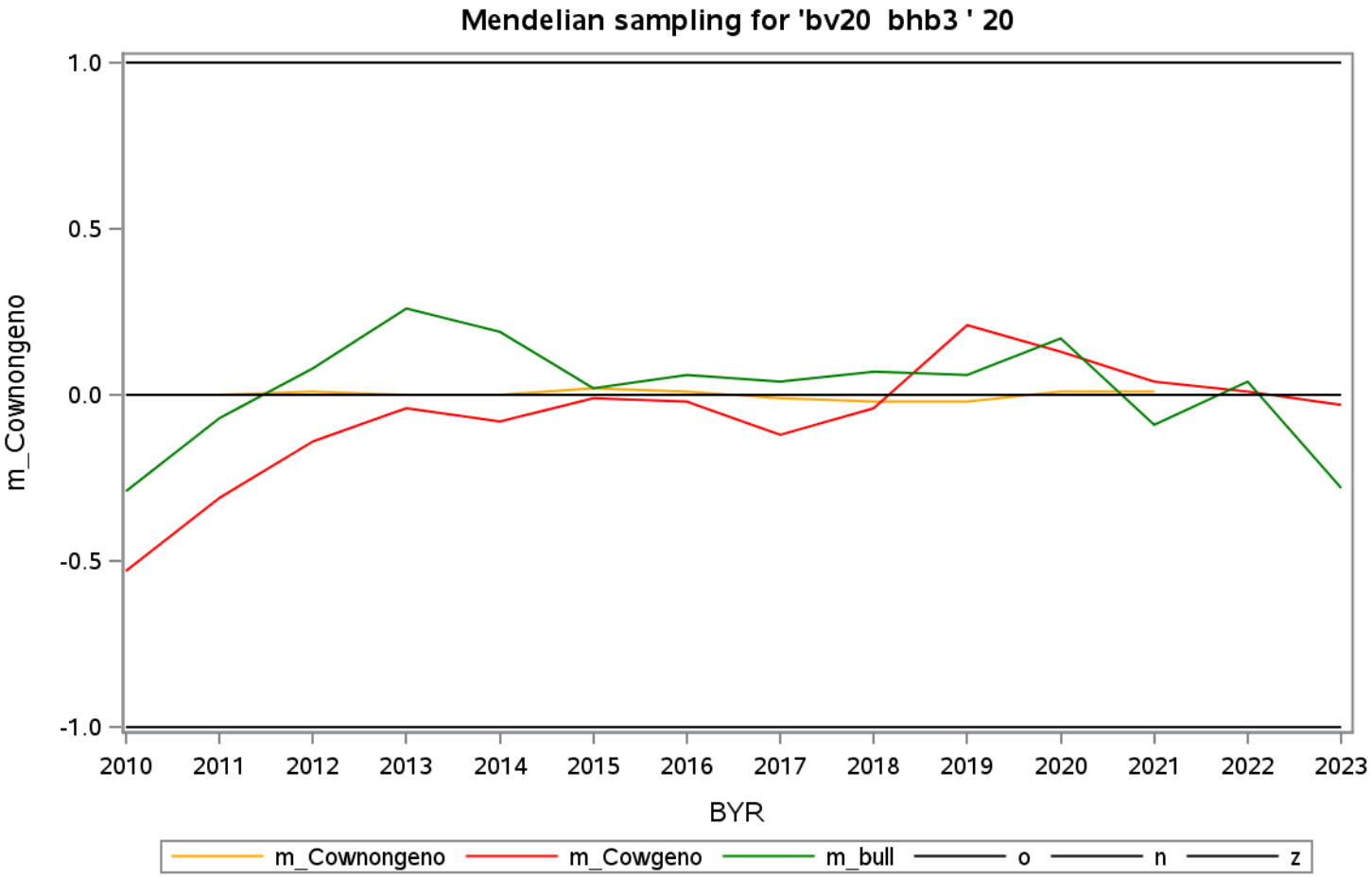
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.79	-0.10	211445	908	1112
2	2011	-0.01	-0.49	-0.26	213626	1644	1684
3	2012	-0.02	-0.53	-0.08	215555	2597	2136
4	2013	-0.02	-0.45	-0.02	209386	4628	2357
5	2014	0.03	-0.22	0.13	206456	5577	3132
6	2015	0.04	-0.18	0.11	198492	7088	2729
7	2016	0.04	-0.20	-0.08	190560	10848	2913
8	2017	0.02	-0.07	-0.06	168668	17884	3178
9	2018	0.03	0.12	0.03	158922	39352	3021
10	2019	0.01	0.47	0.12	148506	48657	3231
11	2020	0.00	0.36	0.25	121325	57937	3170
12	2021	-0.03	0.16	0.10	9697	59539	3121
13	2022	.	0.10	0.04	.	57862	3084
14	2023	.	0.15	0.25	.	5071	517



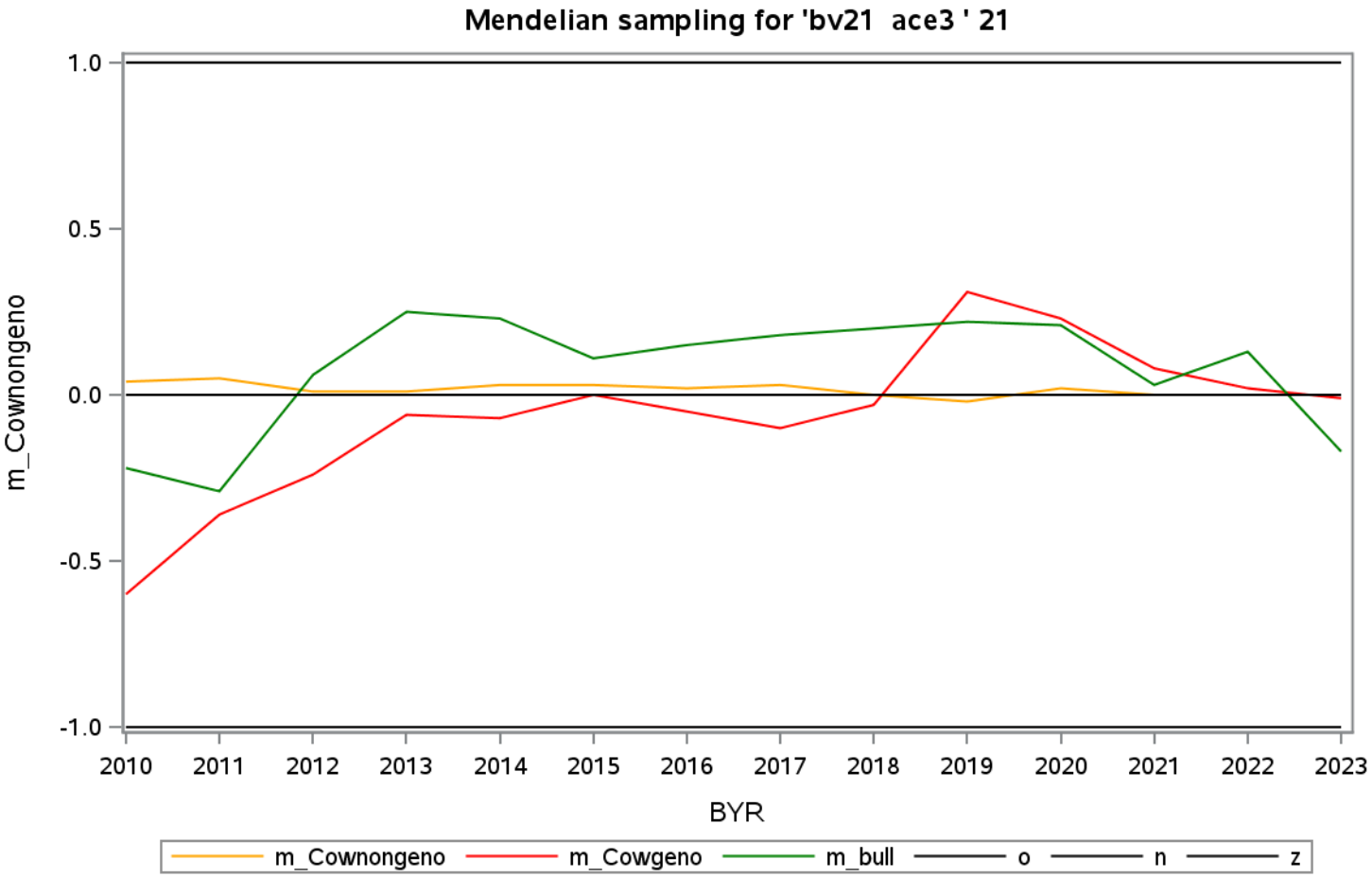
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-1.10	-0.27	211445	908	1112
2	2011	0.02	-0.54	-0.43	213626	1644	1684
3	2012	0.01	-0.40	-0.13	215555	2597	2136
4	2013	0.03	-0.23	0.19	209386	4628	2357
5	2014	0.03	-0.18	0.20	206456	5577	3132
6	2015	0.04	-0.10	0.14	198492	7088	2729
7	2016	0.04	-0.12	0.15	190560	10848	2913
8	2017	0.04	-0.05	0.26	168668	17884	3178
9	2018	0.03	0.14	0.36	158922	39352	3021
10	2019	0.02	0.50	0.35	148506	48657	3231
11	2020	0.02	0.35	0.30	121325	57937	3170
12	2021	0.02	0.16	0.07	9697	59539	3121
13	2022	.	0.07	0.11	.	57862	3084
14	2023	.	0.04	-0.18	.	5071	517



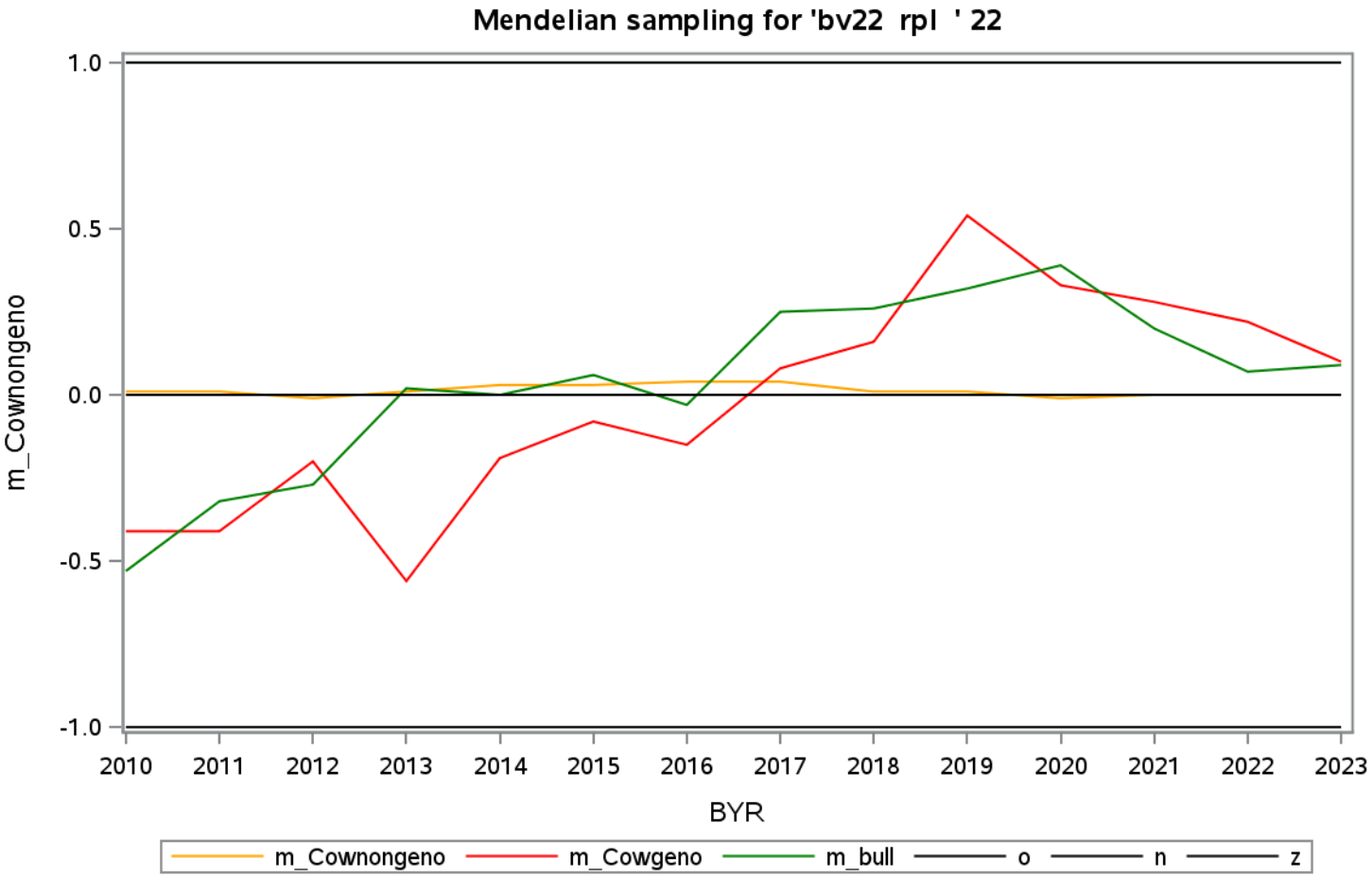
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.53	-0.29	211445	1042	1112
2	2011	0.00	-0.31	-0.07	213626	2101	1684
3	2012	0.01	-0.14	0.08	215555	2998	2136
4	2013	0.00	-0.04	0.26	209386	6034	2357
5	2014	0.00	-0.08	0.19	206456	7746	3132
6	2015	0.02	-0.01	0.02	198492	9788	2729
7	2016	0.01	-0.02	0.06	190560	15008	2913
8	2017	-0.01	-0.12	0.04	168668	22802	3178
9	2018	-0.02	-0.04	0.07	158922	33167	3021
10	2019	-0.02	0.21	0.06	148506	47496	3231
11	2020	0.01	0.13	0.17	121325	57937	3170
12	2021	0.01	0.04	-0.09	9697	59539	3121
13	2022	.	0.01	0.04	.	57862	3084
14	2023	.	-0.03	-0.28	.	5071	517



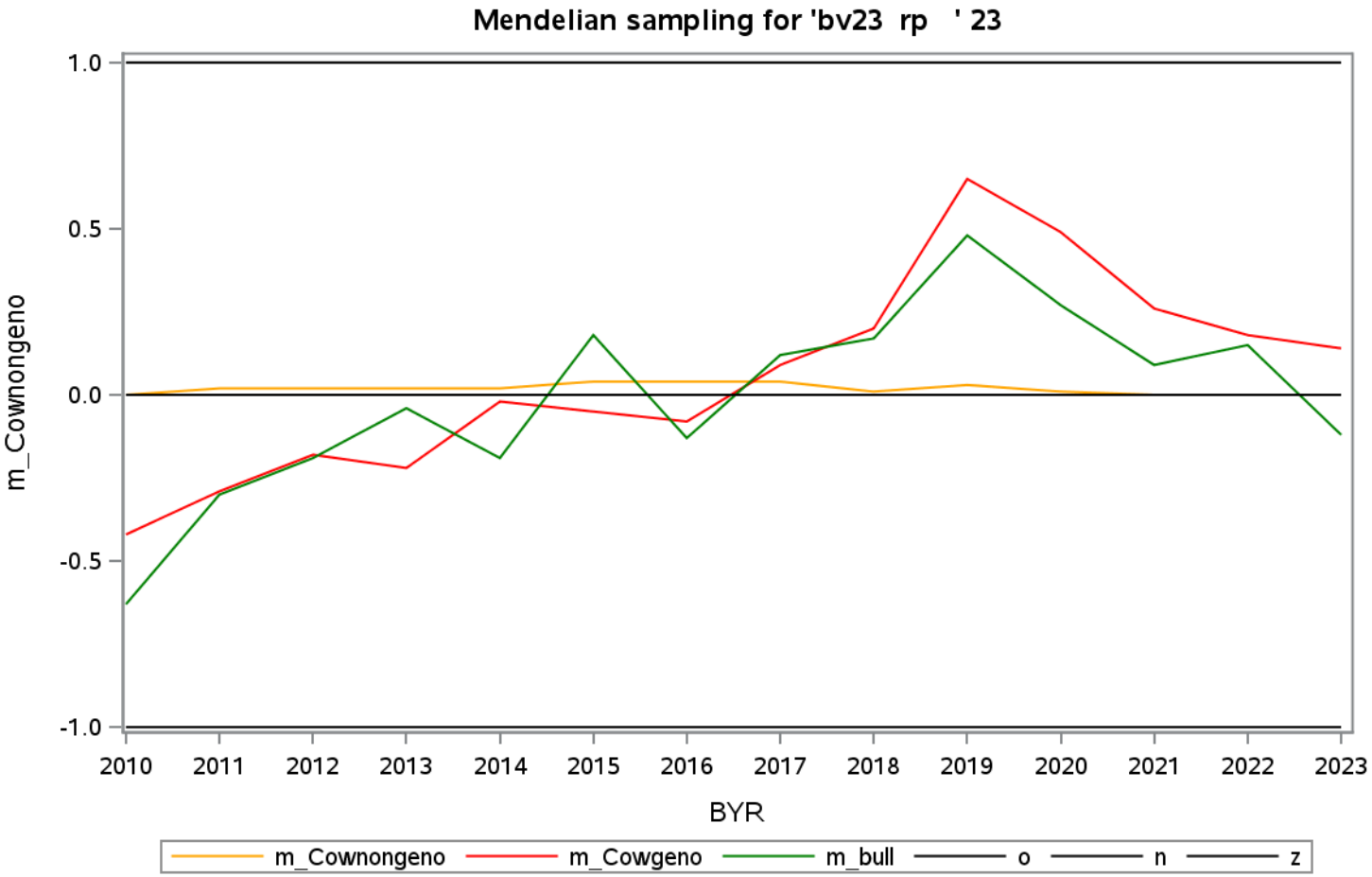
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.60	-0.22	211445	1042	1112
2	2011	0.05	-0.36	-0.29	213626	2101	1684
3	2012	0.01	-0.24	0.06	215555	2998	2136
4	2013	0.01	-0.06	0.25	209386	6034	2357
5	2014	0.03	-0.07	0.23	206456	7746	3132
6	2015	0.03	0.00	0.11	198492	9788	2729
7	2016	0.02	-0.05	0.15	190560	15008	2913
8	2017	0.03	-0.10	0.18	168668	22802	3178
9	2018	0.00	-0.03	0.20	158922	33167	3021
10	2019	-0.02	0.31	0.22	148506	47496	3231
11	2020	0.02	0.23	0.21	121325	57937	3170
12	2021	0.00	0.08	0.03	9697	59539	3121
13	2022	.	0.02	0.13	.	57862	3084
14	2023	.	-0.01	-0.17	.	5071	517



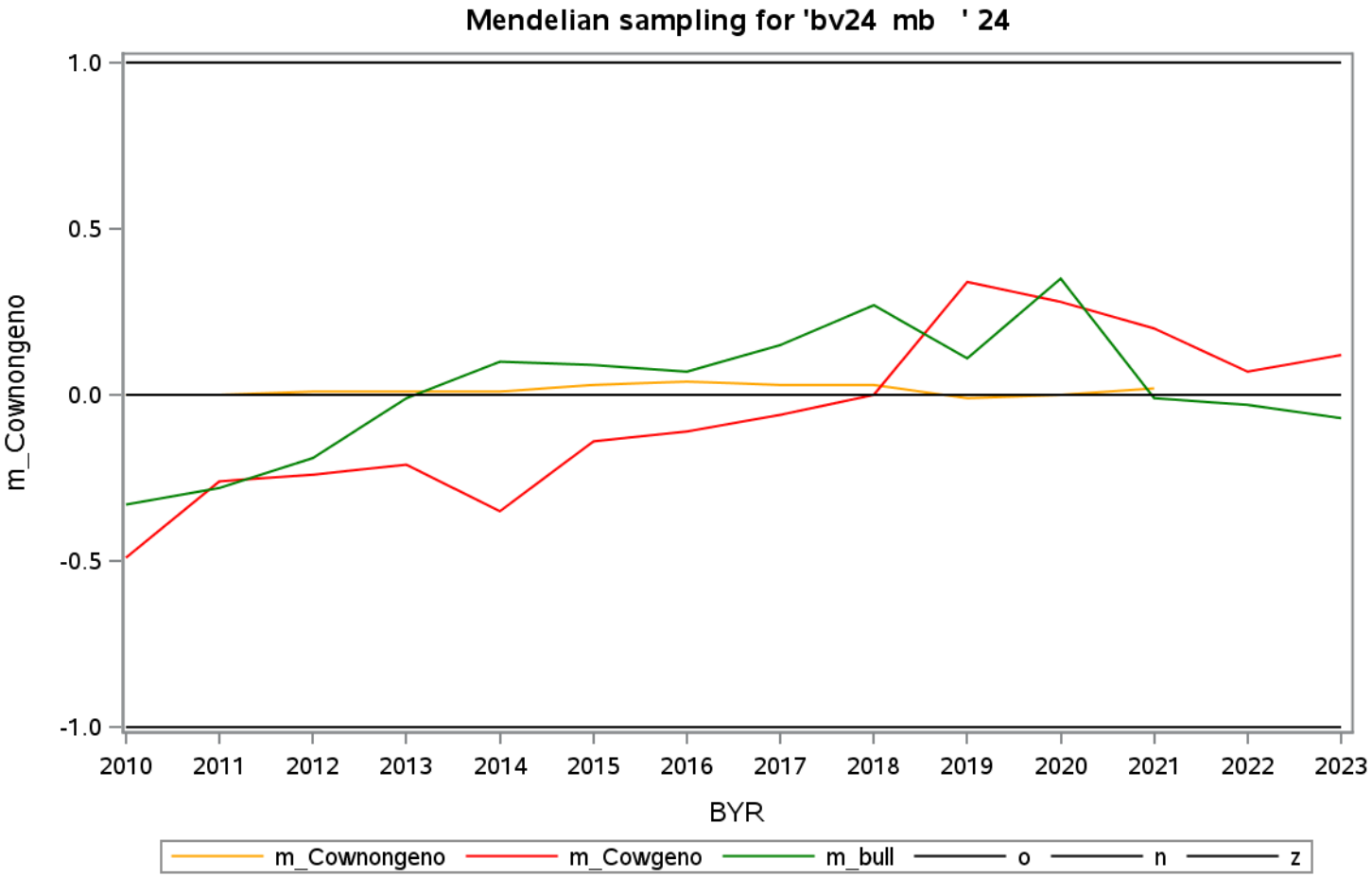
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.41	-0.53	210920	408	1112
2	2011	0.01	-0.41	-0.32	213178	513	1684
3	2012	-0.01	-0.20	-0.27	215187	845	2136
4	2013	0.01	-0.56	0.02	209140	1556	2357
5	2014	0.03	-0.19	0.00	206253	1969	3132
6	2015	0.03	-0.08	0.06	198394	2707	2729
7	2016	0.04	-0.15	-0.03	190536	4320	2913
8	2017	0.04	0.08	0.25	168663	7061	3178
9	2018	0.01	0.16	0.26	158922	9639	3021
10	2019	0.01	0.54	0.32	148506	11264	3231
11	2020	-0.01	0.33	0.39	121325	26701	3170
12	2021	0.00	0.28	0.20	9697	59100	3121
13	2022	.	0.22	0.07	.	57862	3084
14	2023	.	0.10	0.09	.	5071	517



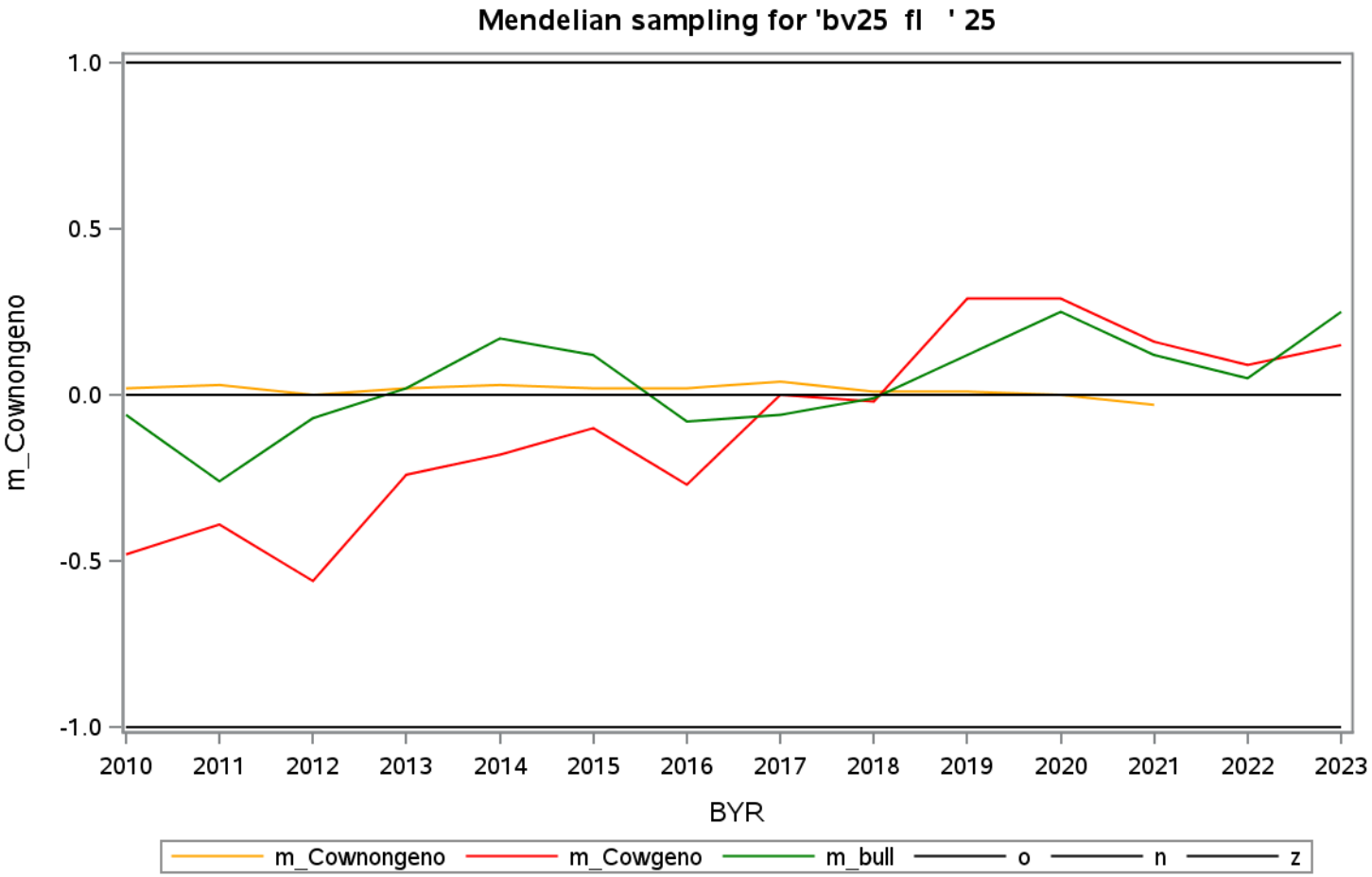
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.42	-0.63	211445	408	1112
2	2011	0.02	-0.29	-0.30	213626	513	1684
3	2012	0.02	-0.18	-0.19	215555	845	2136
4	2013	0.02	-0.22	-0.04	209386	1556	2357
5	2014	0.02	-0.02	-0.19	206456	1969	3132
6	2015	0.04	-0.05	0.18	198492	2707	2729
7	2016	0.04	-0.08	-0.13	190560	4320	2913
8	2017	0.04	0.09	0.12	168668	7061	3178
9	2018	0.01	0.20	0.17	158922	9639	3021
10	2019	0.03	0.65	0.48	148506	11747	3231
11	2020	0.01	0.49	0.27	121325	46335	3170
12	2021	0.00	0.26	0.09	9697	59539	3121
13	2022	.	0.18	0.15	.	57862	3084
14	2023	.	0.14	-0.12	.	5071	517



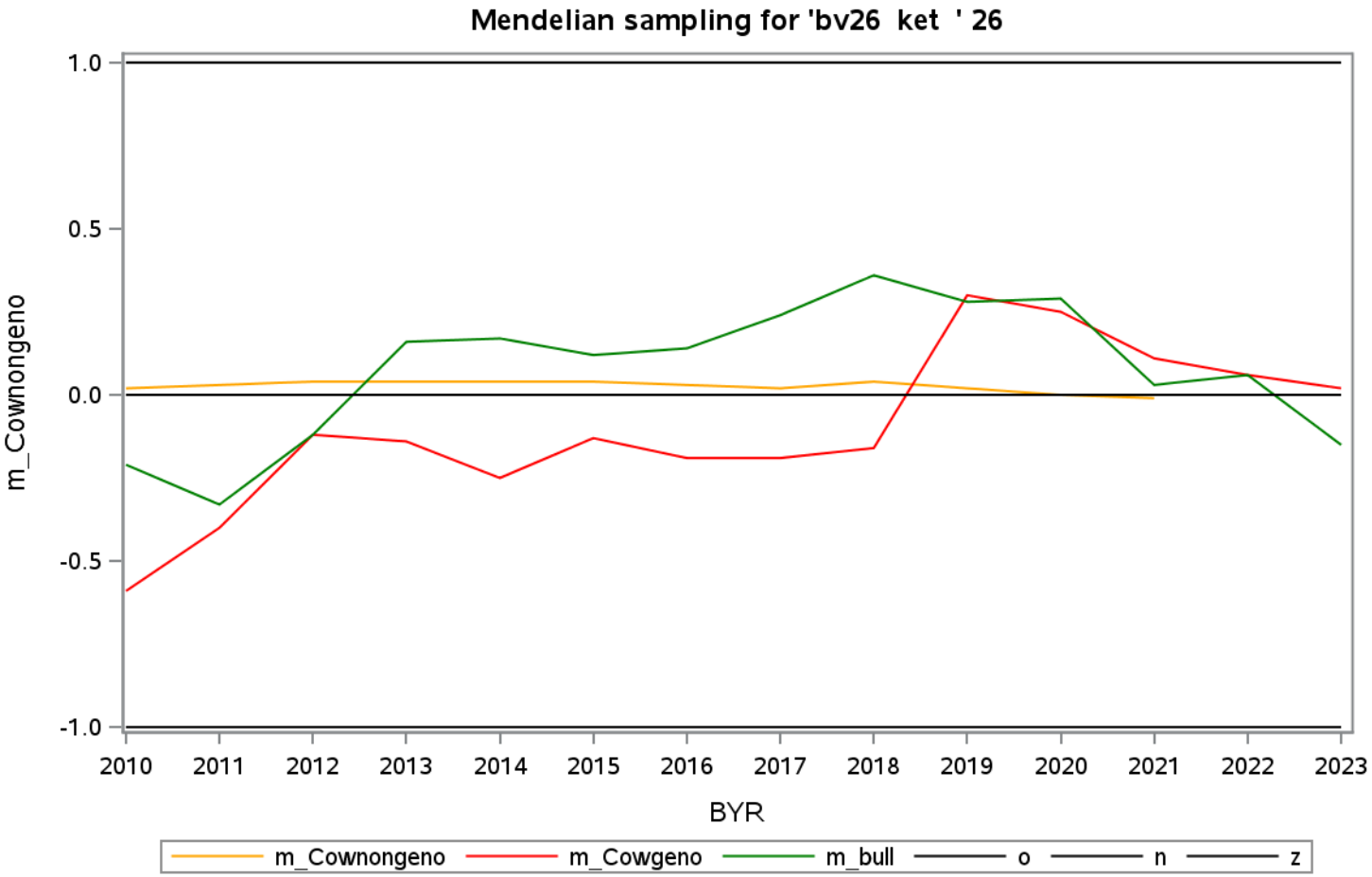
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.49	-0.33	211445	408	1112
2	2011	0.00	-0.26	-0.28	213626	513	1684
3	2012	0.01	-0.24	-0.19	215555	845	2136
4	2013	0.01	-0.21	-0.01	209386	1556	2357
5	2014	0.01	-0.35	0.10	206456	1969	3132
6	2015	0.03	-0.14	0.09	198492	2707	2729
7	2016	0.04	-0.11	0.07	190560	4320	2913
8	2017	0.03	-0.06	0.15	168668	7061	3178
9	2018	0.03	0.00	0.27	158922	9639	3021
10	2019	-0.01	0.34	0.11	148506	11747	3231
11	2020	0.00	0.28	0.35	121325	46335	3170
12	2021	0.02	0.20	-0.01	9697	59539	3121
13	2022	.	0.07	-0.03	.	57862	3084
14	2023	.	0.12	-0.07	.	5071	517



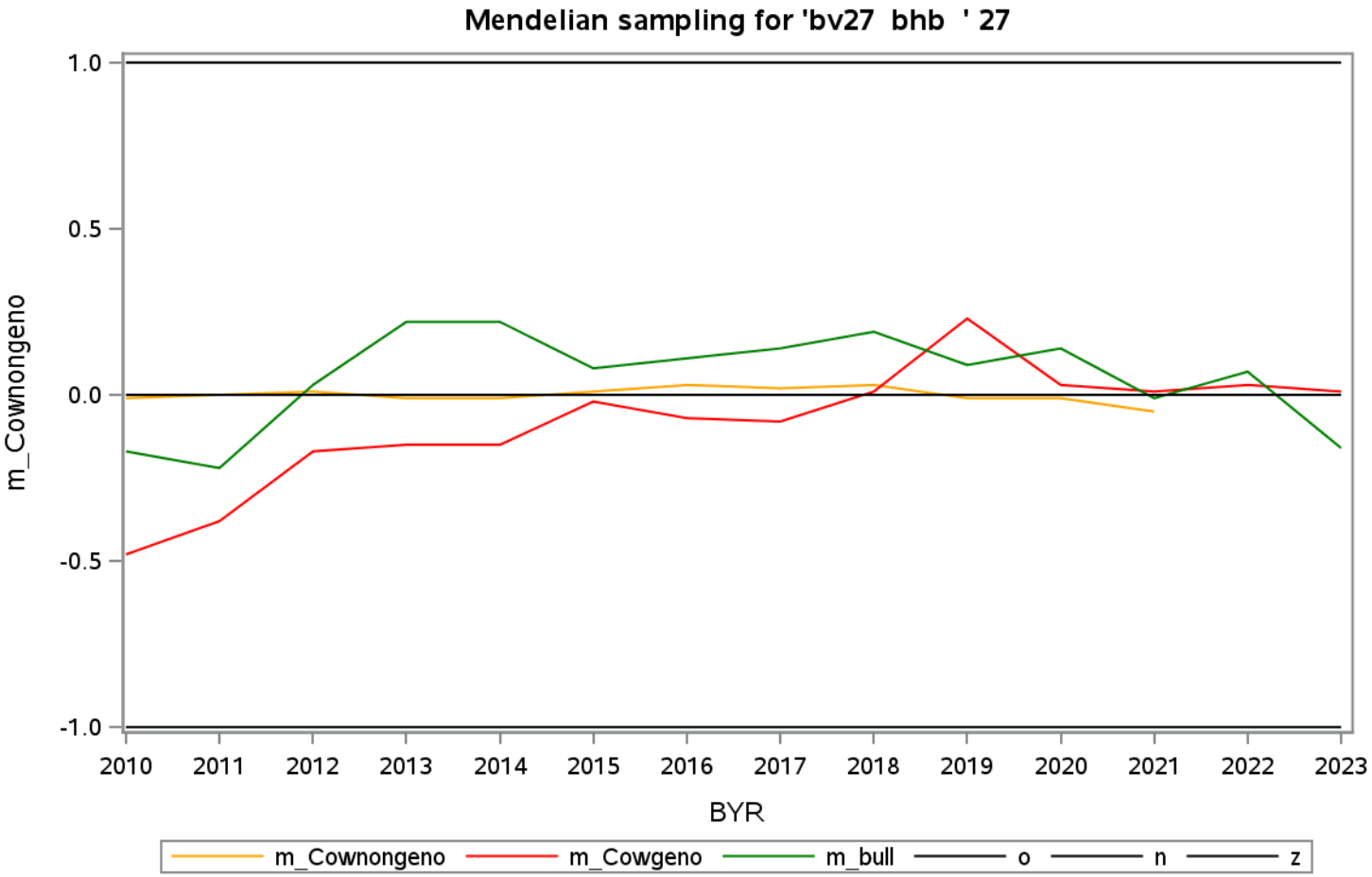
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.48	-0.06	211445	408	1112
2	2011	0.03	-0.39	-0.26	213626	513	1684
3	2012	0.00	-0.56	-0.07	215555	845	2136
4	2013	0.02	-0.24	0.02	209386	1556	2357
5	2014	0.03	-0.18	0.17	206456	1969	3132
6	2015	0.02	-0.10	0.12	198492	2707	2729
7	2016	0.02	-0.27	-0.08	190560	4320	2913
8	2017	0.04	0.00	-0.06	168668	7061	3178
9	2018	0.01	-0.02	-0.01	158922	9639	3021
10	2019	0.01	0.29	0.12	148506	11747	3231
11	2020	0.00	0.29	0.25	121325	46335	3170
12	2021	-0.03	0.16	0.12	9697	59539	3121
13	2022	.	0.09	0.05	.	57862	3084
14	2023	.	0.15	0.25	.	5071	517



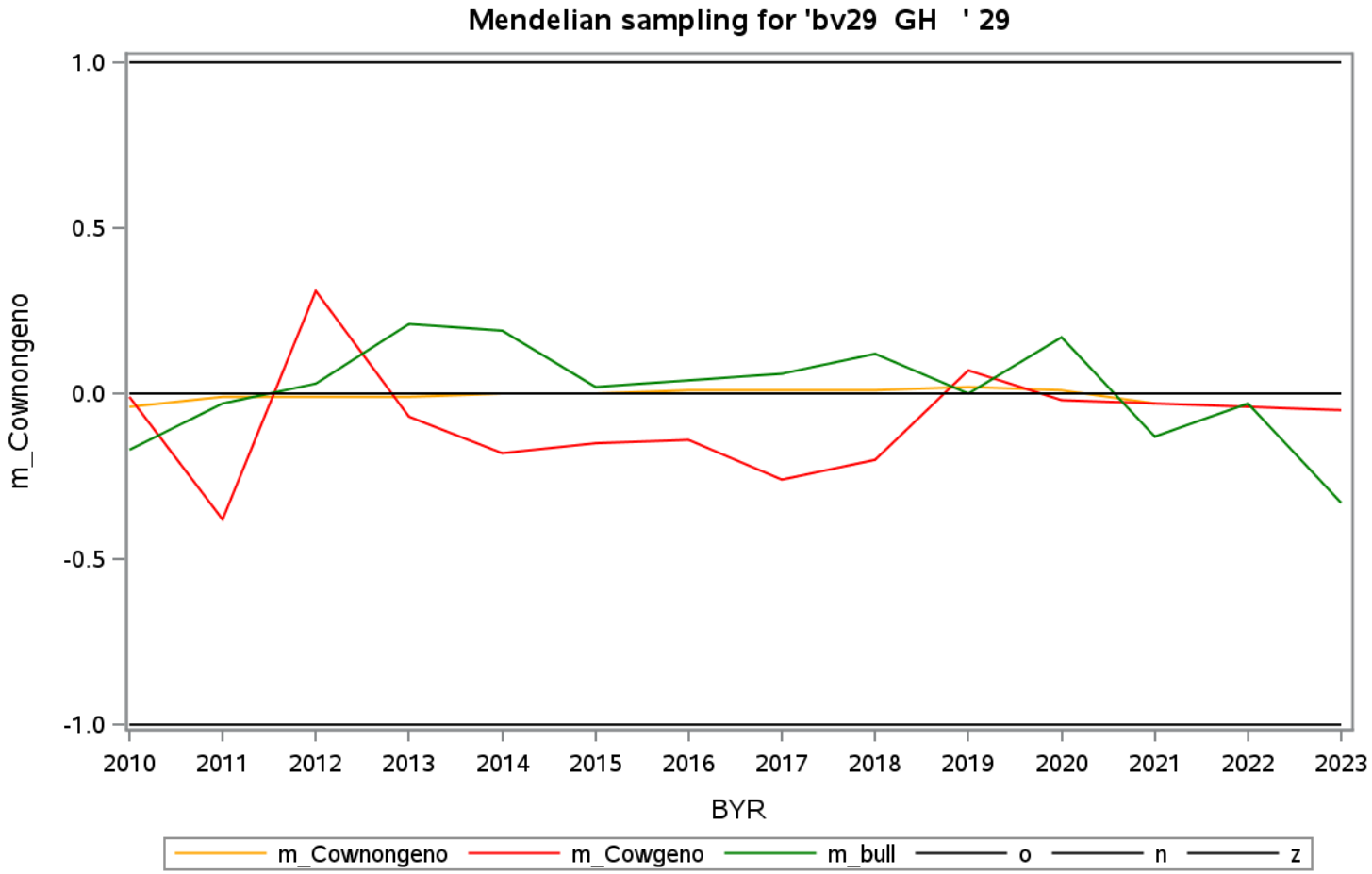
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.59	-0.21	211445	408	1112
2	2011	0.03	-0.40	-0.33	213626	513	1684
3	2012	0.04	-0.12	-0.12	215555	845	2136
4	2013	0.04	-0.14	0.16	209386	1556	2357
5	2014	0.04	-0.25	0.17	206456	1969	3132
6	2015	0.04	-0.13	0.12	198492	2707	2729
7	2016	0.03	-0.19	0.14	190560	4320	2913
8	2017	0.02	-0.19	0.24	168668	7061	3178
9	2018	0.04	-0.16	0.36	158922	9639	3021
10	2019	0.02	0.30	0.28	148506	11747	3231
11	2020	0.00	0.25	0.29	121325	46335	3170
12	2021	-0.01	0.11	0.03	9697	59539	3121
13	2022	.	0.06	0.06	.	57862	3084
14	2023	.	0.02	-0.15	.	5071	517



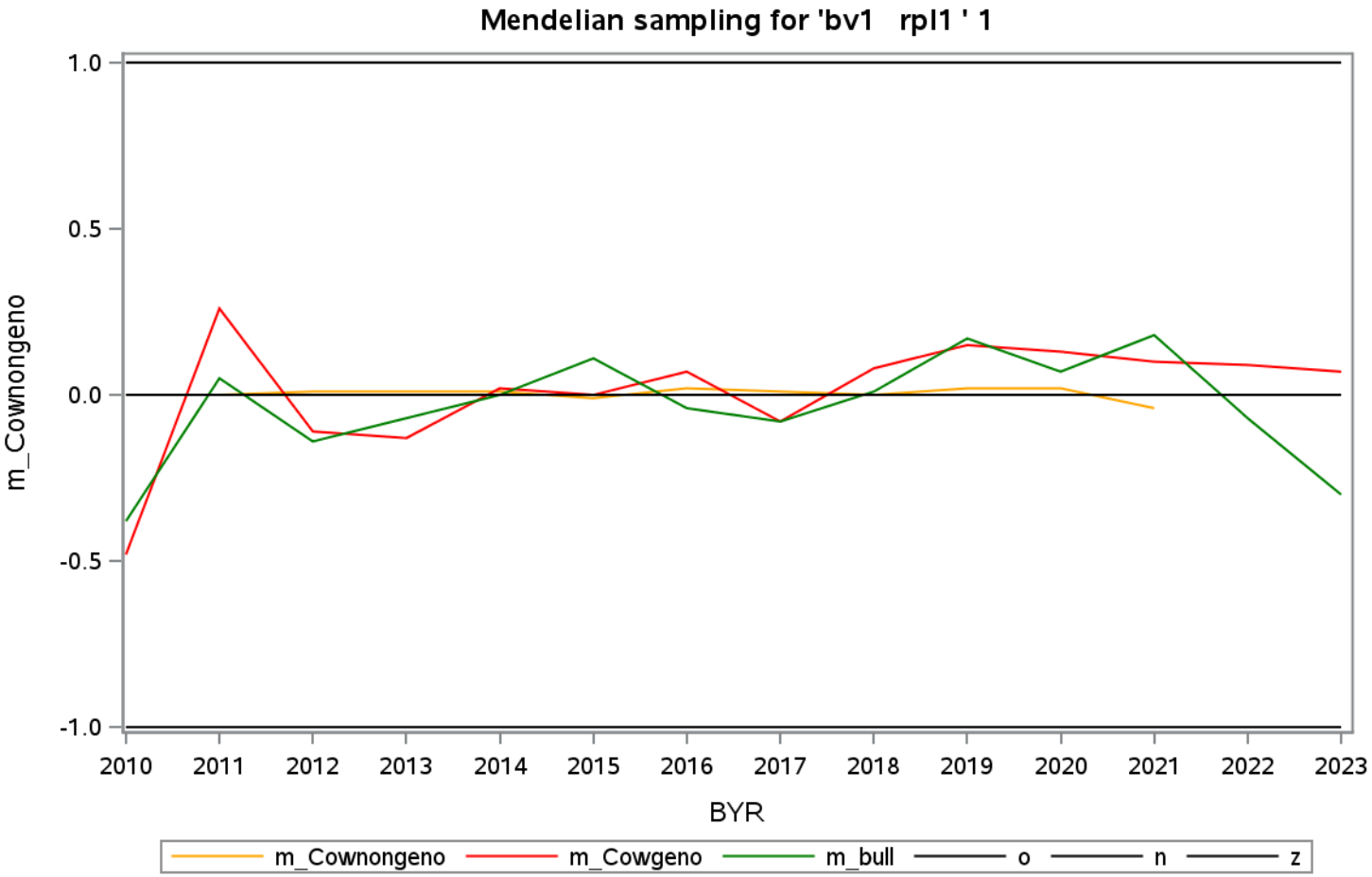
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.48	-0.17	211445	1691	1112
2	2011	0.00	-0.38	-0.22	213626	2407	1684
3	2012	0.01	-0.17	0.03	215555	2784	2136
4	2013	-0.01	-0.15	0.22	209386	4511	2357
5	2014	-0.01	-0.15	0.22	206456	4355	3132
6	2015	0.01	-0.02	0.08	198492	6437	2729
7	2016	0.03	-0.07	0.11	190560	11797	2913
8	2017	0.02	-0.08	0.14	168668	18019	3178
9	2018	0.03	0.01	0.19	158922	24498	3021
10	2019	-0.01	0.23	0.09	148506	27909	3231
11	2020	-0.01	0.03	0.14	121325	35469	3170
12	2021	-0.05	0.01	-0.01	9697	56564	3121
13	2022	.	0.03	0.07	.	57862	3084
14	2023	.	0.01	-0.16	.	5071	517



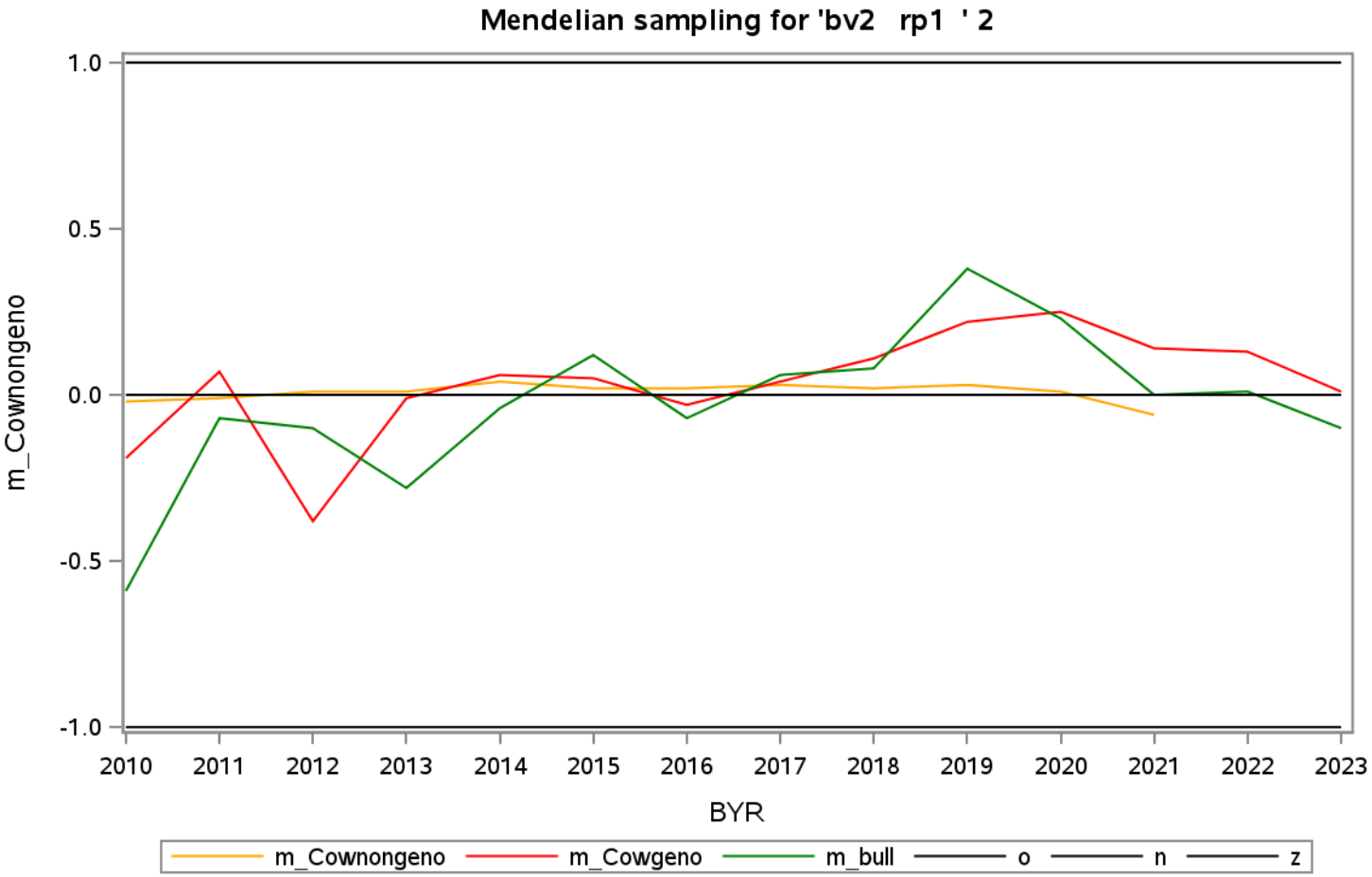
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.04	-0.01	-0.17	211445	408	1112
2	2011	-0.01	-0.38	-0.03	213626	513	1684
3	2012	-0.01	0.31	0.03	215555	845	2136
4	2013	-0.01	-0.07	0.21	209386	1556	2357
5	2014	0.00	-0.18	0.19	206456	1969	3132
6	2015	0.00	-0.15	0.02	198492	2707	2729
7	2016	0.01	-0.14	0.04	190560	4320	2913
8	2017	0.01	-0.26	0.06	168668	7061	3178
9	2018	0.01	-0.20	0.12	158922	9639	3021
10	2019	0.02	0.07	0.00	148506	11264	3231
11	2020	0.01	-0.02	0.17	121325	26701	3170
12	2021	-0.03	-0.03	-0.13	9697	59100	3121
13	2022	.	-0.04	-0.03	.	57862	3084
14	2023	.	-0.05	-0.33	.	5071	517



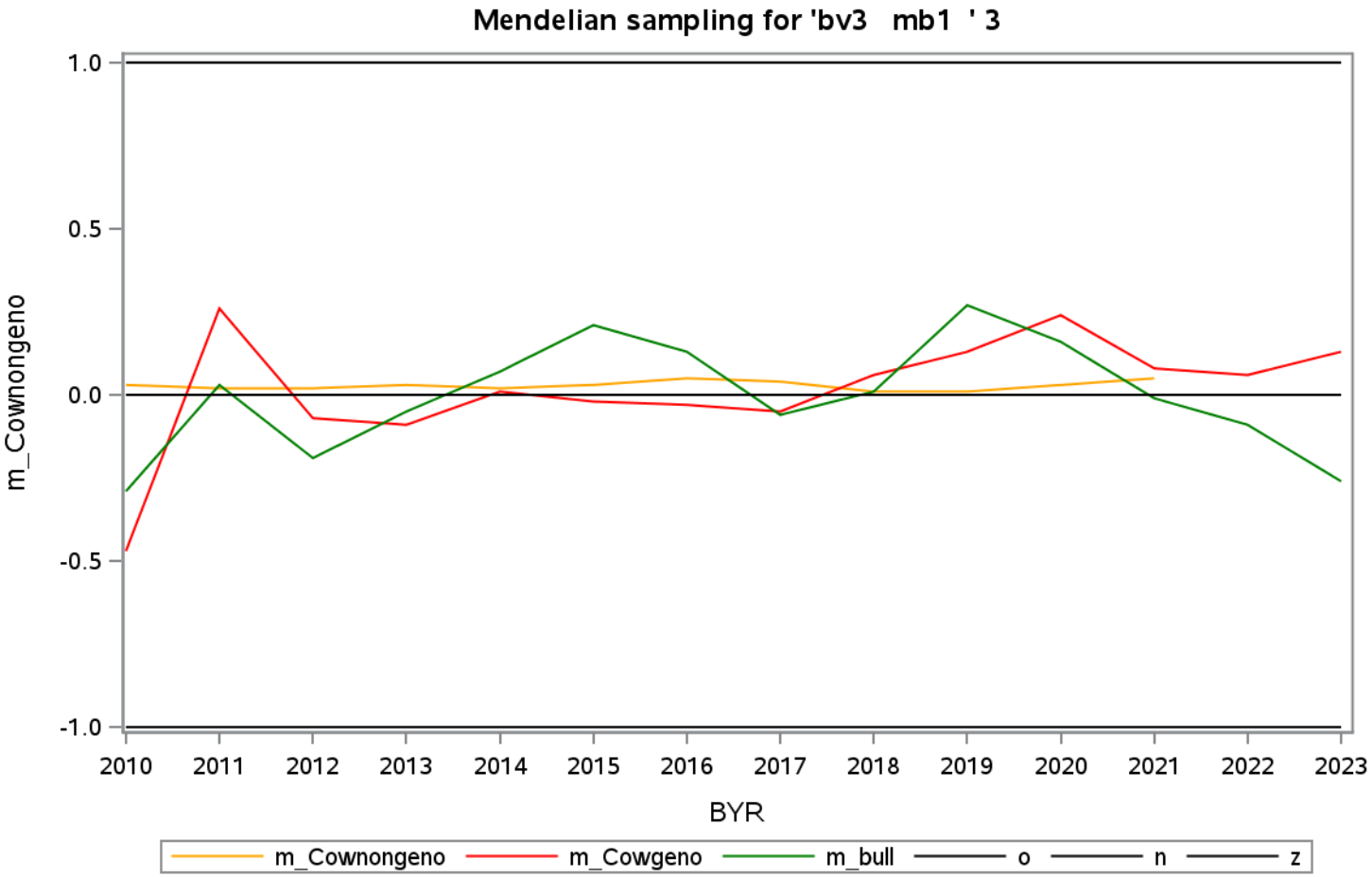
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.48	-0.38	89623	266	982
2	2011	0.00	0.26	0.05	87360	556	1778
3	2012	0.01	-0.11	-0.14	80612	900	2271
4	2013	0.01	-0.13	-0.07	75860	1284	2292
5	2014	0.01	0.02	0.00	69175	1755	2276
6	2015	-0.01	0.00	0.11	59937	2581	2341
7	2016	0.02	0.07	-0.04	51346	3477	2309
8	2017	0.01	-0.08	-0.08	43856	4593	2565
9	2018	0.00	0.08	0.01	37459	5336	2503
10	2019	0.02	0.15	0.17	32022	5373	2421
11	2020	0.02	0.13	0.07	20222	9816	2765
12	2021	-0.04	0.10	0.18	295	22756	2730
13	2022	.	0.09	-0.07	.	21989	2447
14	2023	.	0.07	-0.30	.	1917	310



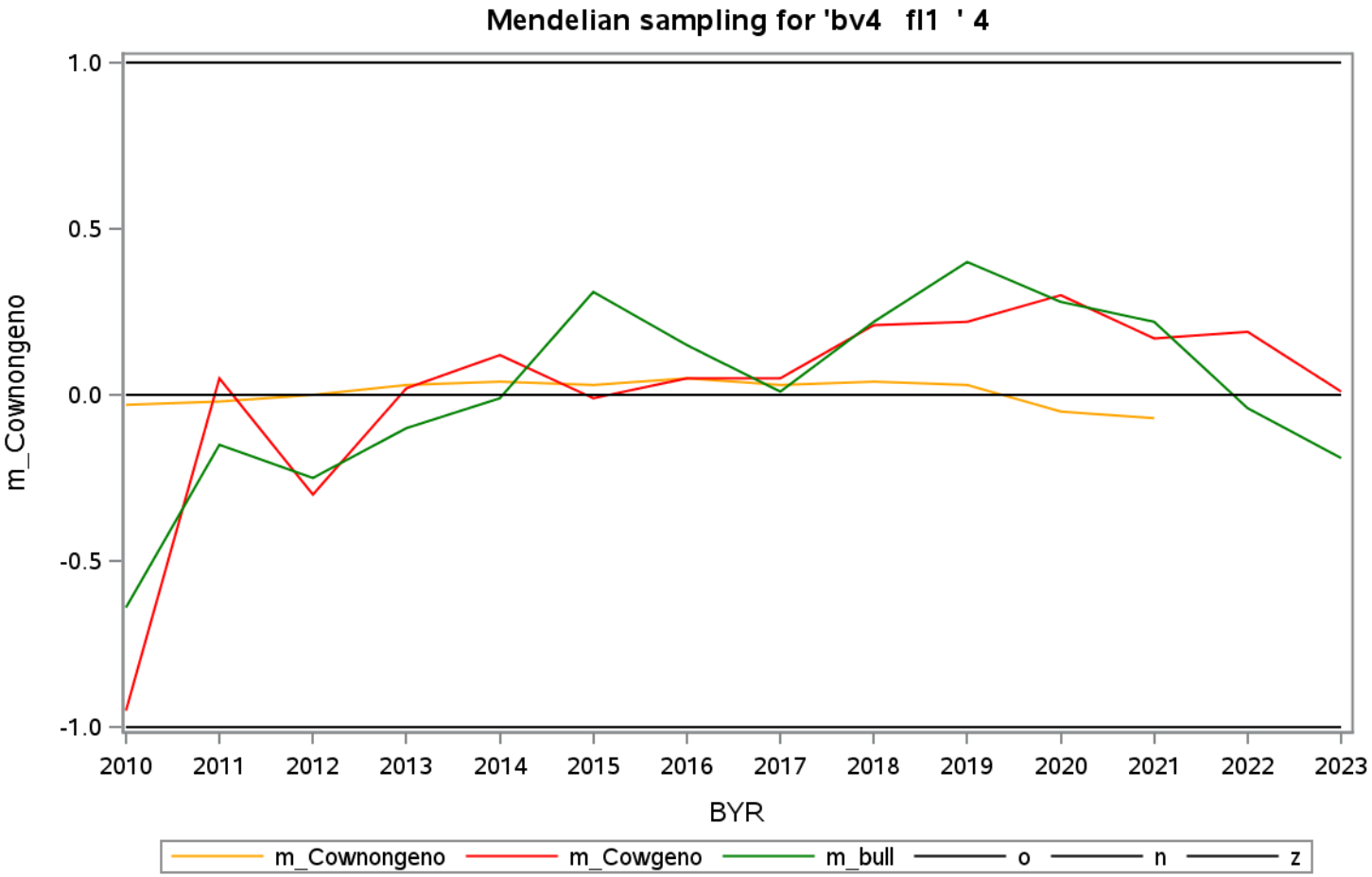
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.02	-0.19	-0.59	89623	266	982
2	2011	-0.01	0.07	-0.07	87360	556	1778
3	2012	0.01	-0.38	-0.10	80612	900	2271
4	2013	0.01	-0.01	-0.28	75860	1284	2292
5	2014	0.04	0.06	-0.04	69175	1755	2276
6	2015	0.02	0.05	0.12	59937	2581	2341
7	2016	0.02	-0.03	-0.07	51346	3477	2309
8	2017	0.03	0.04	0.06	43856	4593	2565
9	2018	0.02	0.11	0.08	37459	5336	2503
10	2019	0.03	0.22	0.38	32022	5808	2421
11	2020	0.01	0.25	0.23	20222	19119	2765
12	2021	-0.06	0.14	0.00	295	23037	2730
13	2022	.	0.13	0.01	.	21989	2447
14	2023	.	0.01	-0.10	.	1917	310



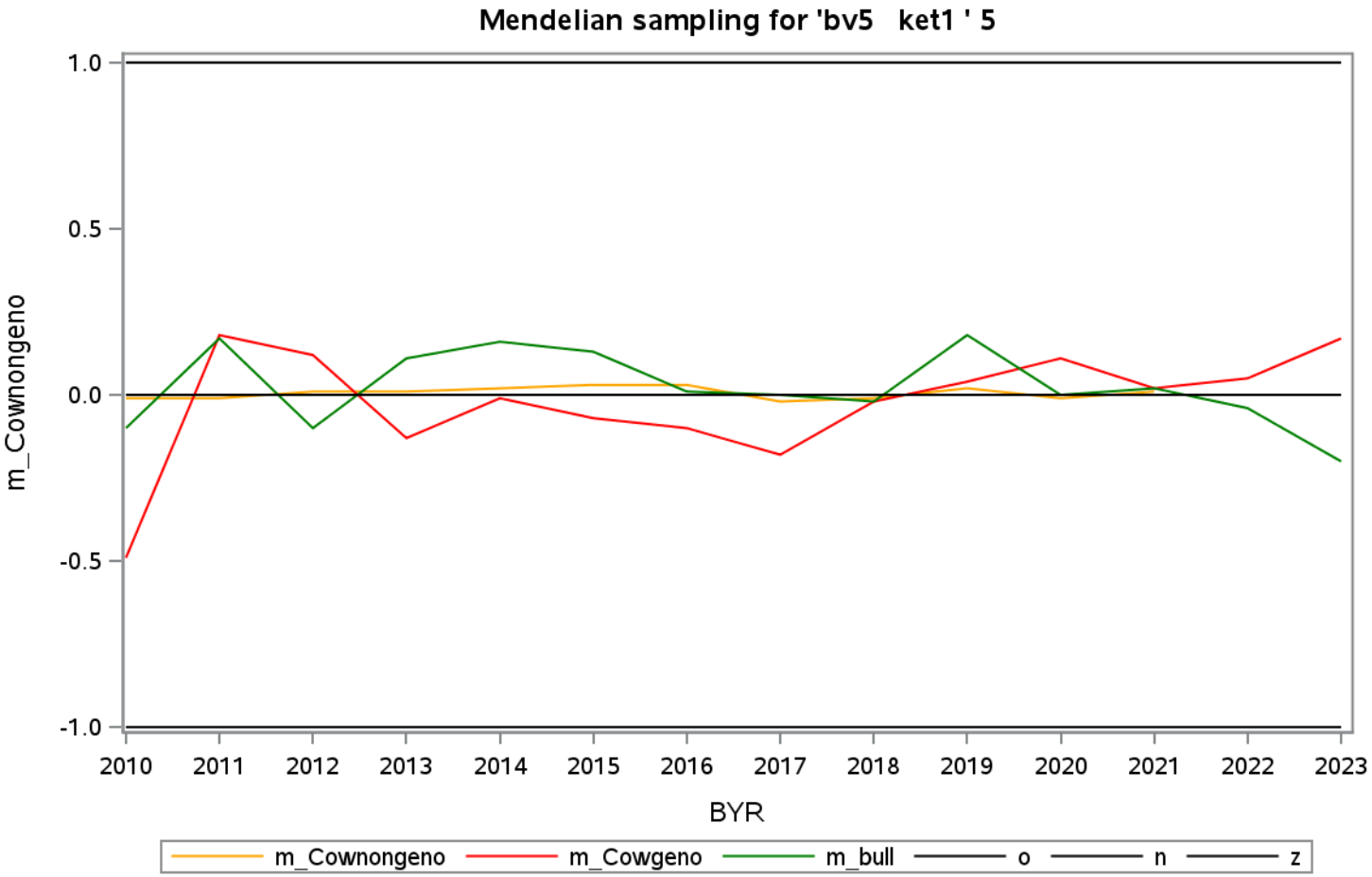
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.03	-0.47	-0.29	89623	266	982
2	2011	0.02	0.26	0.03	87360	556	1778
3	2012	0.02	-0.07	-0.19	80612	900	2271
4	2013	0.03	-0.09	-0.05	75860	1284	2292
5	2014	0.02	0.01	0.07	69175	1755	2276
6	2015	0.03	-0.02	0.21	59937	2581	2341
7	2016	0.05	-0.03	0.13	51346	3477	2309
8	2017	0.04	-0.05	-0.06	43856	4593	2565
9	2018	0.01	0.06	0.01	37459	5336	2503
10	2019	0.01	0.13	0.27	32022	5808	2421
11	2020	0.03	0.24	0.16	20222	19119	2765
12	2021	0.05	0.08	-0.01	295	23037	2730
13	2022	.	0.06	-0.09	.	21989	2447
14	2023	.	0.13	-0.26	.	1917	310



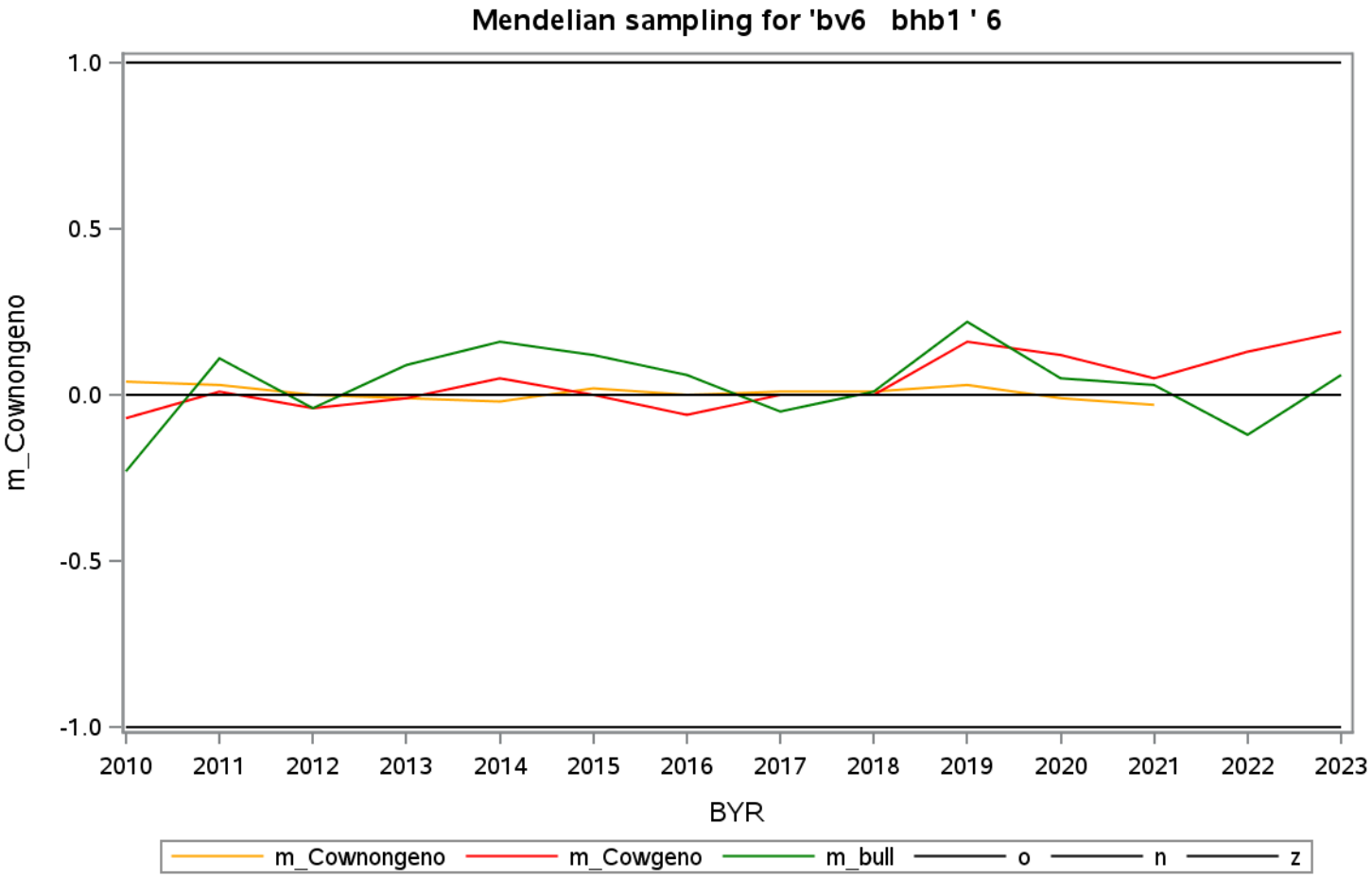
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.03	-0.95	-0.64	89623	266	982
2	2011	-0.02	0.05	-0.15	87360	556	1778
3	2012	0.00	-0.30	-0.25	80612	900	2271
4	2013	0.03	0.02	-0.10	75860	1284	2292
5	2014	0.04	0.12	-0.01	69175	1755	2276
6	2015	0.03	-0.01	0.31	59937	2581	2341
7	2016	0.05	0.05	0.15	51346	3477	2309
8	2017	0.03	0.05	0.01	43856	4593	2565
9	2018	0.04	0.21	0.22	37459	5336	2503
10	2019	0.03	0.22	0.40	32022	5808	2421
11	2020	-0.05	0.30	0.28	20222	19119	2765
12	2021	-0.07	0.17	0.22	295	23037	2730
13	2022	.	0.19	-0.04	.	21989	2447
14	2023	.	0.01	-0.19	.	1917	310



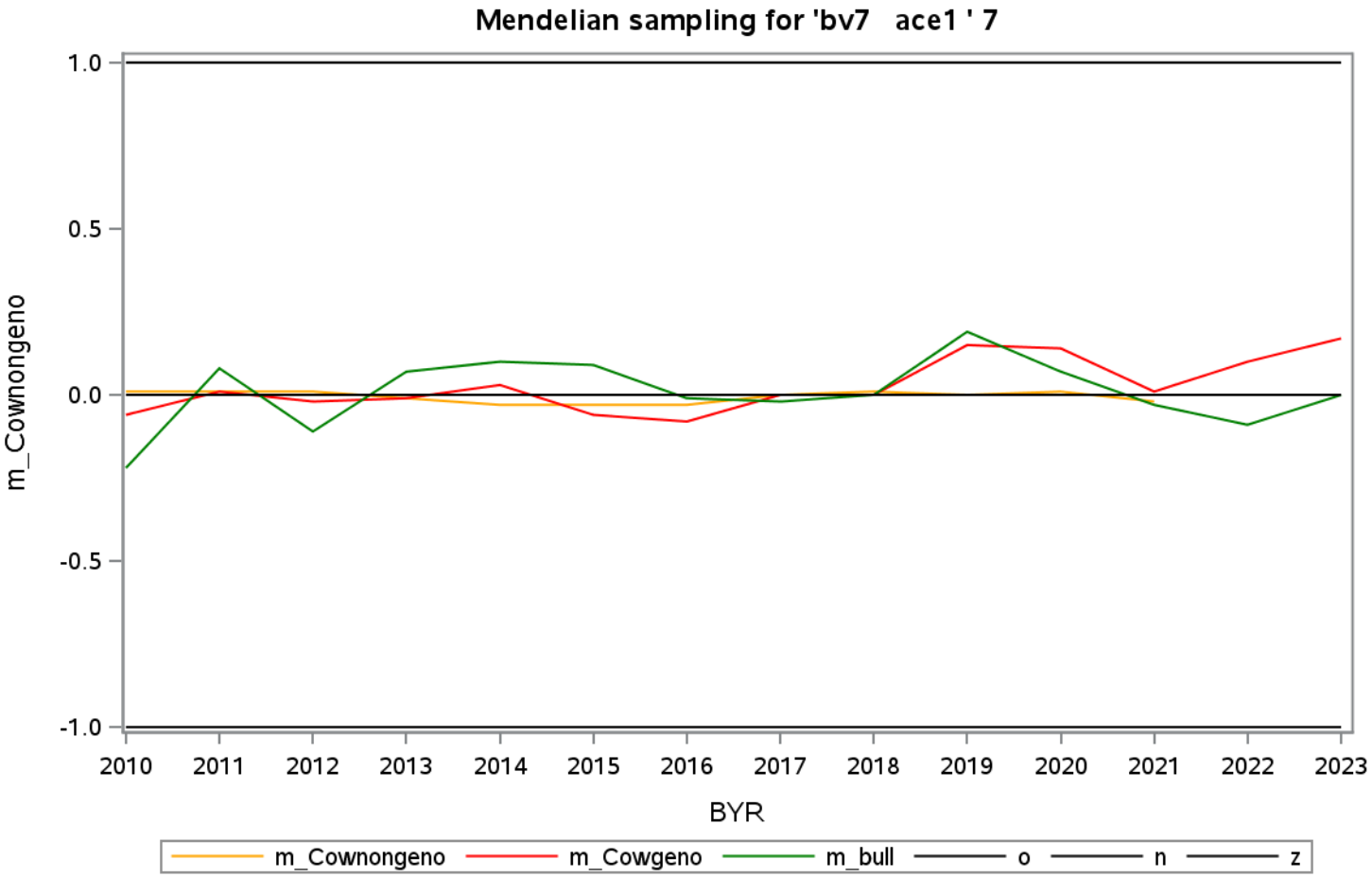
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.49	-0.10	89623	266	982
2	2011	-0.01	0.18	0.17	87360	556	1778
3	2012	0.01	0.12	-0.10	80612	900	2271
4	2013	0.01	-0.13	0.11	75860	1284	2292
5	2014	0.02	-0.01	0.16	69175	1755	2276
6	2015	0.03	-0.07	0.13	59937	2581	2341
7	2016	0.03	-0.10	0.01	51346	3477	2309
8	2017	-0.02	-0.18	0.00	43856	4593	2565
9	2018	-0.01	-0.02	-0.02	37459	5336	2503
10	2019	0.02	0.04	0.18	32022	5808	2421
11	2020	-0.01	0.11	0.00	20222	19119	2765
12	2021	0.01	0.02	0.02	295	23037	2730
13	2022	.	0.05	-0.04	.	21989	2447
14	2023	.	0.17	-0.20	.	1917	310



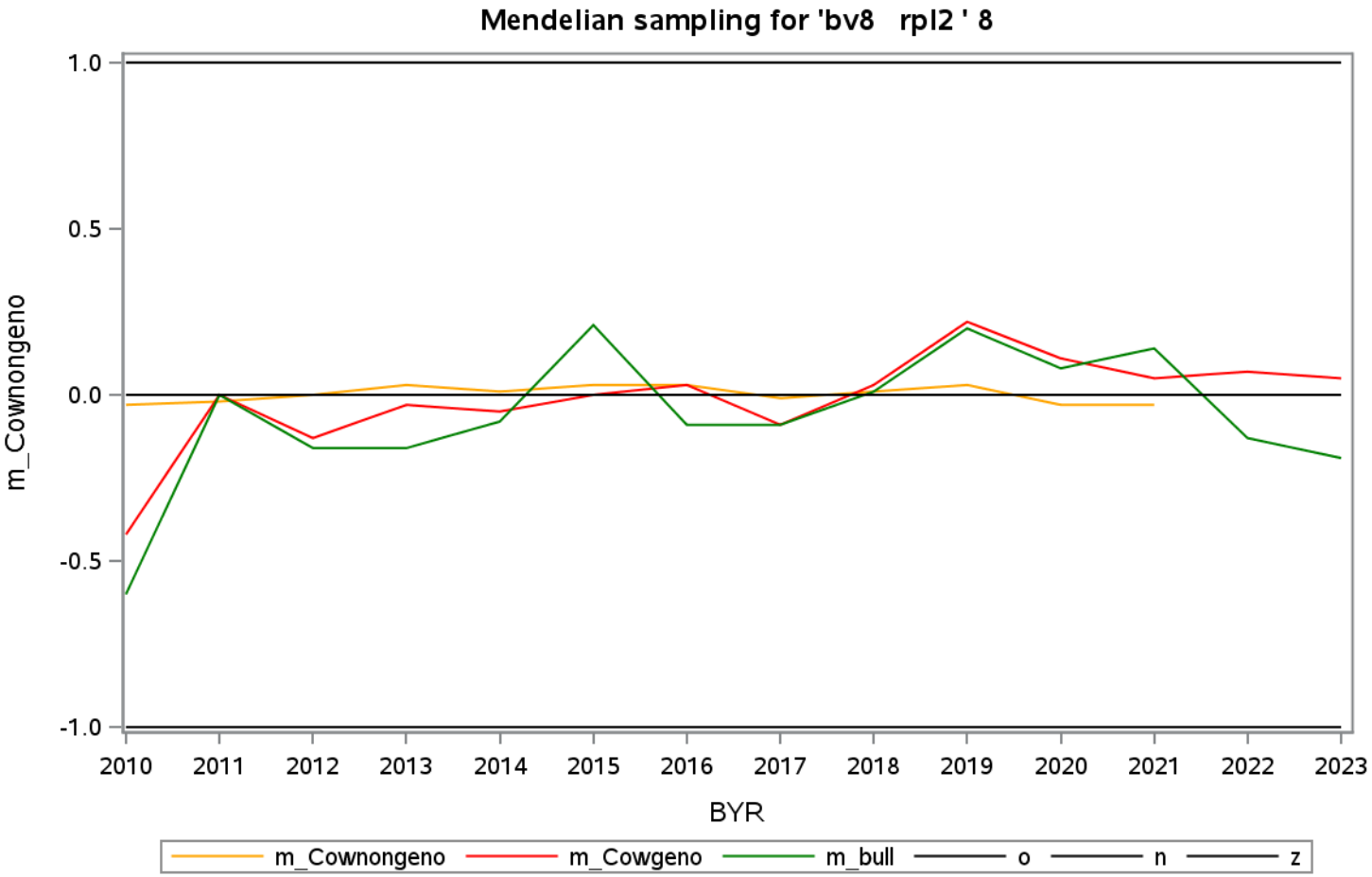
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.07	-0.23	89623	3661	982
2	2011	0.03	0.01	0.11	87360	5888	1778
3	2012	0.00	-0.04	-0.04	80612	6097	2271
4	2013	-0.01	-0.01	0.09	75860	5783	2292
5	2014	-0.02	0.05	0.16	69175	5267	2276
6	2015	0.02	0.00	0.12	59937	7962	2341
7	2016	0.00	-0.06	0.06	51346	13146	2309
8	2017	0.01	0.00	-0.05	43856	15386	2565
9	2018	0.01	0.00	0.01	37459	17550	2503
10	2019	0.03	0.16	0.22	32022	17978	2421
11	2020	-0.01	0.12	0.05	20222	21934	2765
12	2021	-0.03	0.05	0.03	295	23037	2730
13	2022	.	0.13	-0.12	.	21989	2447
14	2023	.	0.19	0.06	.	1917	310



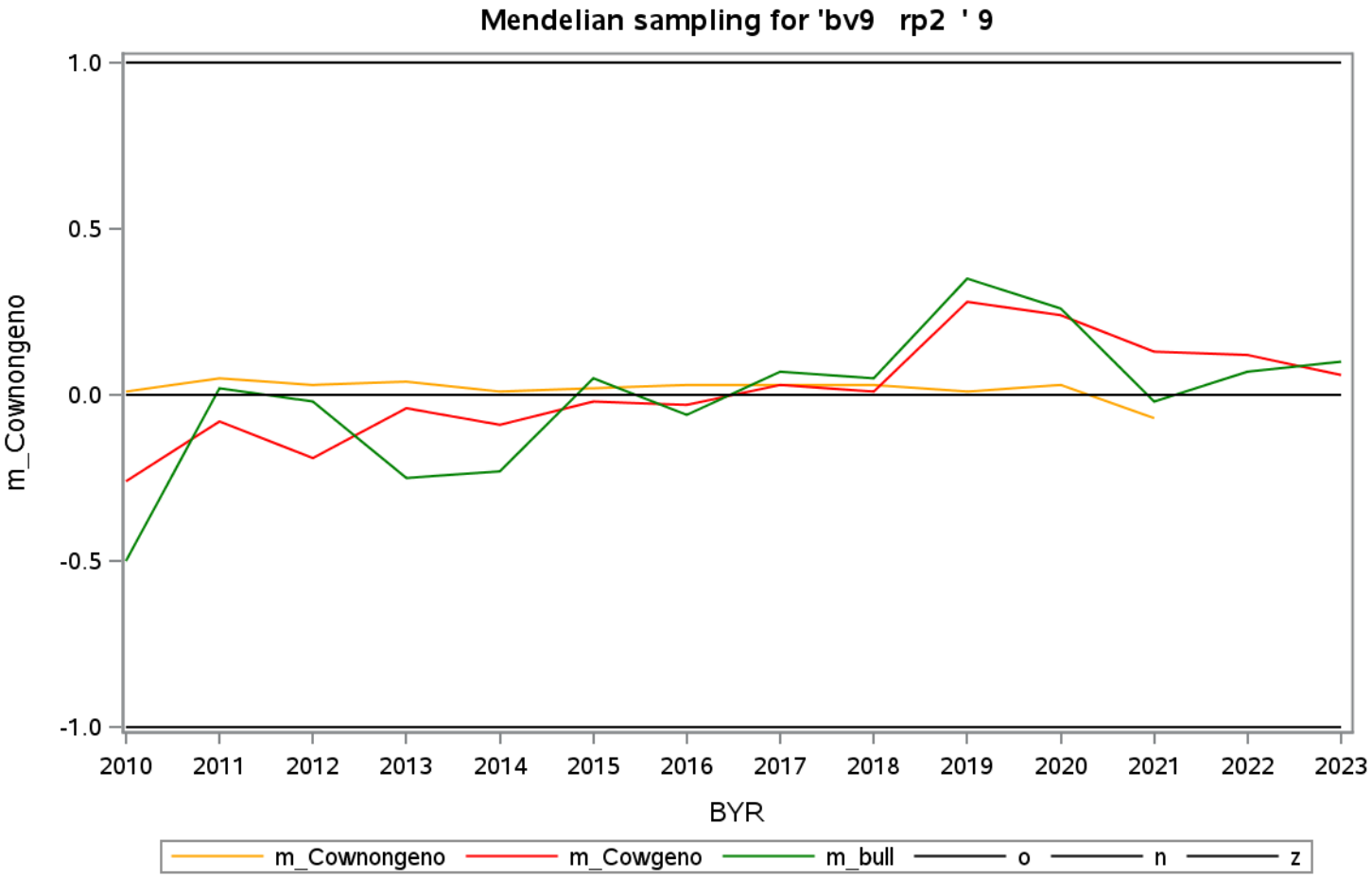
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.06	-0.22	89623	3661	982
2	2011	0.01	0.01	0.08	87360	5888	1778
3	2012	0.01	-0.02	-0.11	80612	6097	2271
4	2013	-0.01	-0.01	0.07	75860	5783	2292
5	2014	-0.03	0.03	0.10	69175	5267	2276
6	2015	-0.03	-0.06	0.09	59937	7962	2341
7	2016	-0.03	-0.08	-0.01	51346	13146	2309
8	2017	0.00	0.00	-0.02	43856	15386	2565
9	2018	0.01	0.00	0.00	37459	17550	2503
10	2019	0.00	0.15	0.19	32022	17978	2421
11	2020	0.01	0.14	0.07	20222	21934	2765
12	2021	-0.02	0.01	-0.03	295	23037	2730
13	2022	.	0.10	-0.09	.	21989	2447
14	2023	.	0.17	0.00	.	1917	310



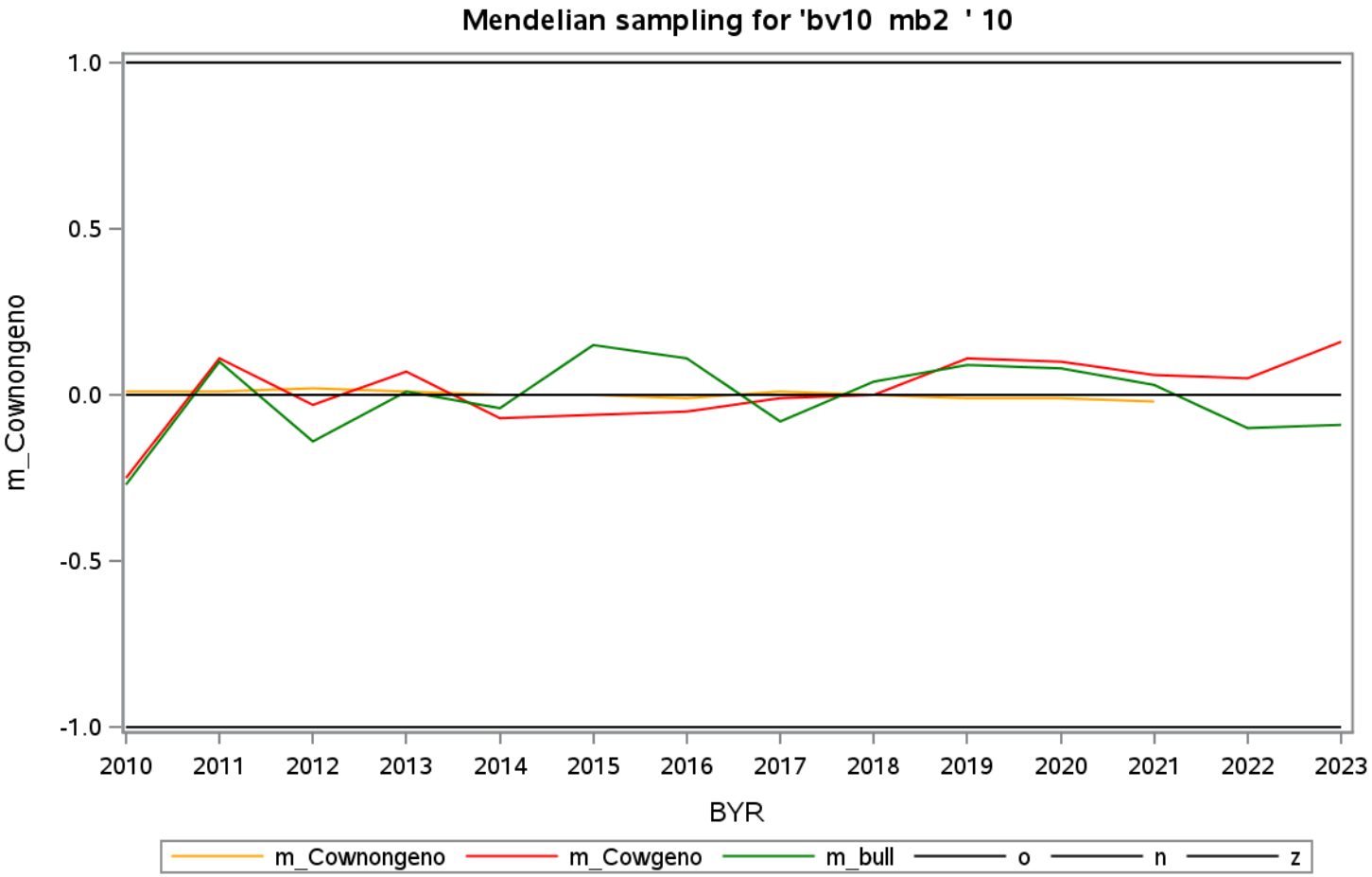
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.03	-0.42	-0.60	89623	685	982
2	2011	-0.02	0.00	0.00	87360	1696	1778
3	2012	0.00	-0.13	-0.16	80612	2282	2271
4	2013	0.03	-0.03	-0.16	75860	2778	2292
5	2014	0.01	-0.05	-0.08	69175	3338	2276
6	2015	0.03	0.00	0.21	59937	4605	2341
7	2016	0.03	0.03	-0.09	51346	6304	2309
8	2017	-0.01	-0.09	-0.09	43856	7839	2565
9	2018	0.01	0.03	0.01	37459	8860	2503
10	2019	0.03	0.22	0.20	32022	12483	2421
11	2020	-0.03	0.11	0.08	20222	22791	2765
12	2021	-0.03	0.05	0.14	295	23037	2730
13	2022	.	0.07	-0.13	.	21989	2447
14	2023	.	0.05	-0.19	.	1917	310



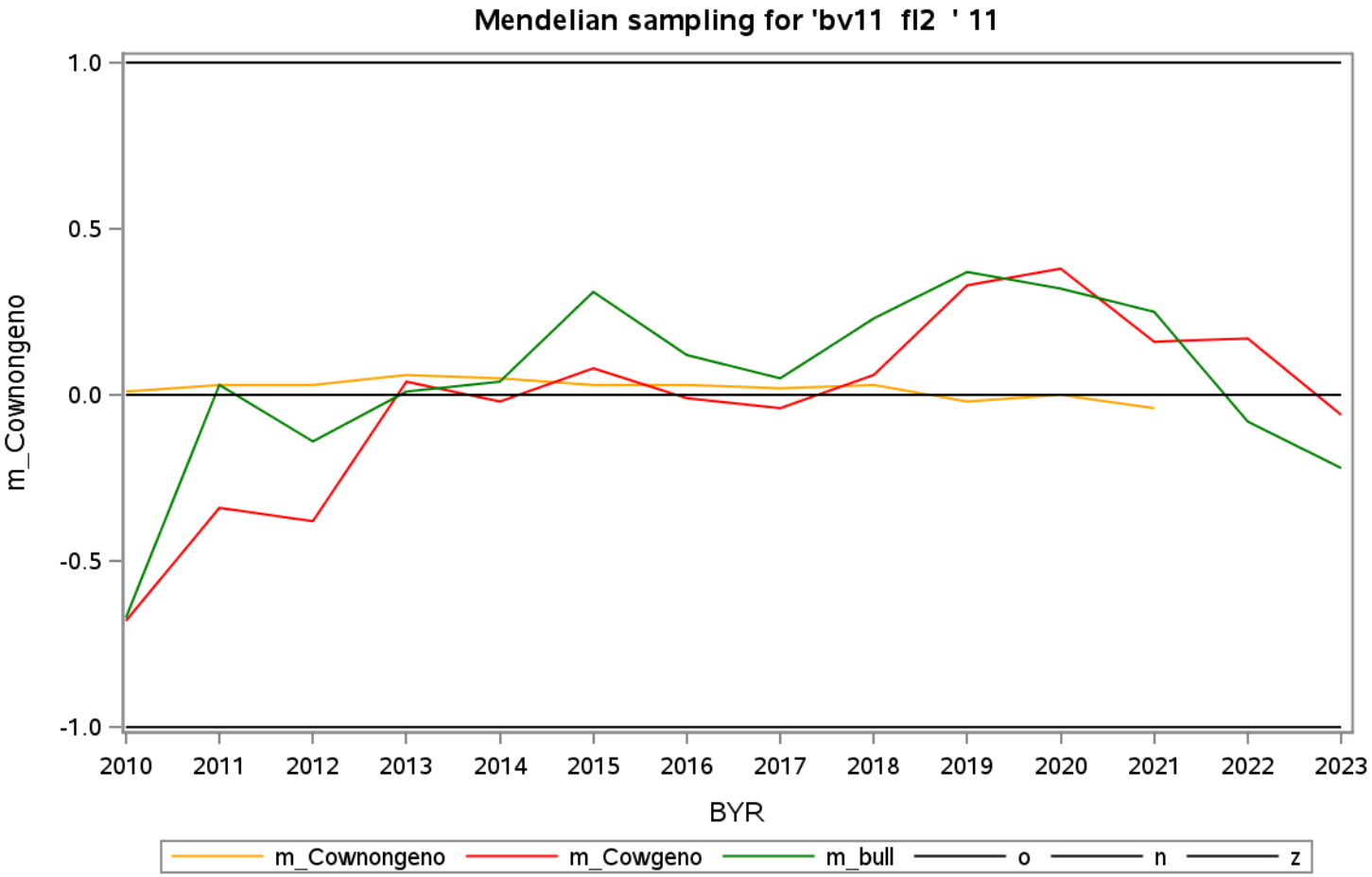
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.26	-0.50	89623	685	982
2	2011	0.05	-0.08	0.02	87360	1696	1778
3	2012	0.03	-0.19	-0.02	80612	2282	2271
4	2013	0.04	-0.04	-0.25	75860	2778	2292
5	2014	0.01	-0.09	-0.23	69175	3338	2276
6	2015	0.02	-0.02	0.05	59937	4605	2341
7	2016	0.03	-0.03	-0.06	51346	6304	2309
8	2017	0.03	0.03	0.07	43856	7848	2565
9	2018	0.03	0.01	0.05	37459	9598	2503
10	2019	0.01	0.28	0.35	32022	18959	2421
11	2020	0.03	0.24	0.26	20222	23067	2765
12	2021	-0.07	0.13	-0.02	295	23037	2730
13	2022	.	0.12	0.07	.	21989	2447
14	2023	.	0.06	0.10	.	1917	310



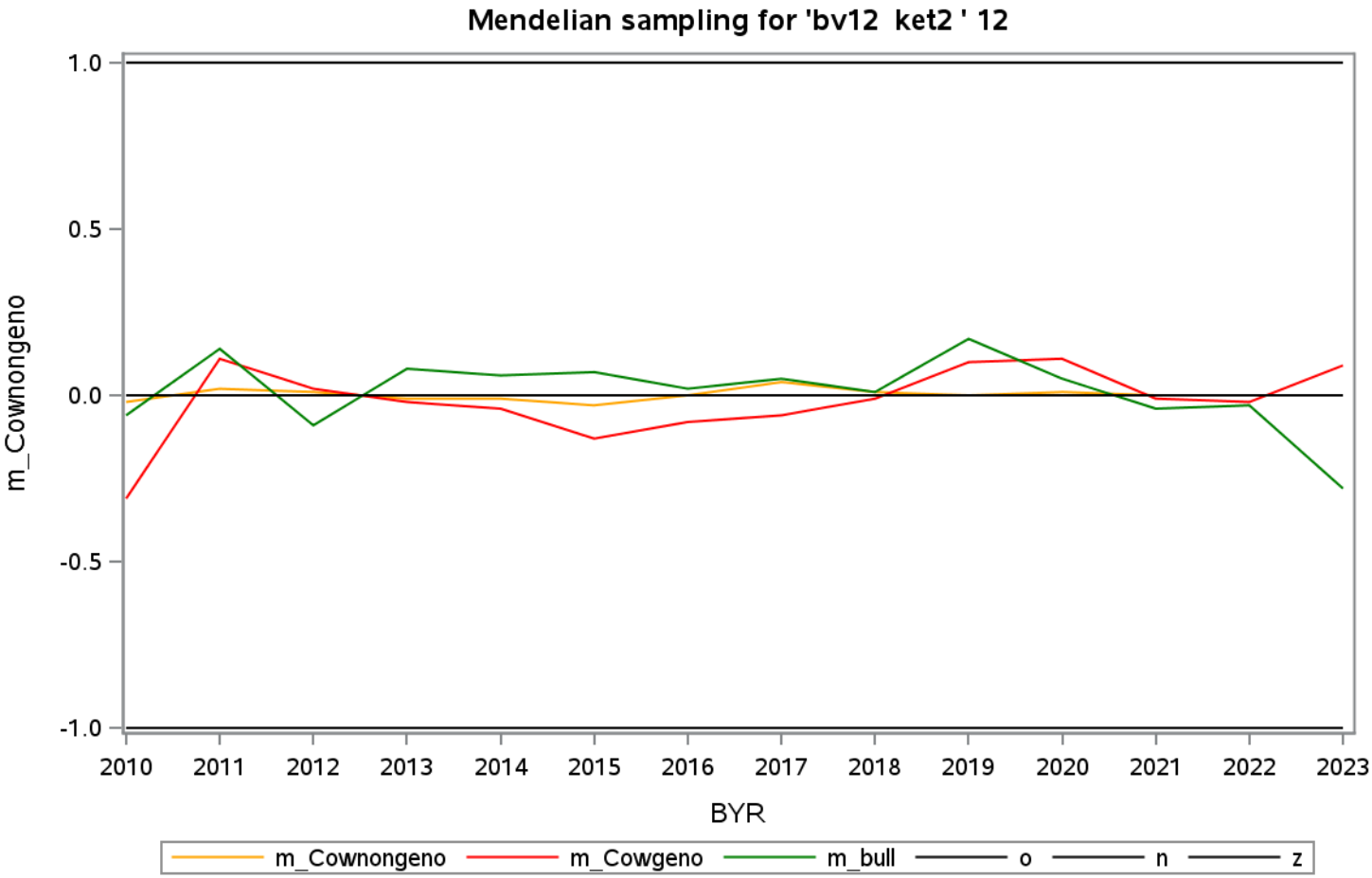
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.25	-0.27	89623	685	982
2	2011	0.01	0.11	0.10	87360	1696	1778
3	2012	0.02	-0.03	-0.14	80612	2282	2271
4	2013	0.01	0.07	0.01	75860	2778	2292
5	2014	0.00	-0.07	-0.04	69175	3338	2276
6	2015	0.00	-0.06	0.15	59937	4605	2341
7	2016	-0.01	-0.05	0.11	51346	6304	2309
8	2017	0.01	-0.01	-0.08	43856	7848	2565
9	2018	0.00	0.00	0.04	37459	9598	2503
10	2019	-0.01	0.11	0.09	32022	18959	2421
11	2020	-0.01	0.10	0.08	20222	23067	2765
12	2021	-0.02	0.06	0.03	295	23037	2730
13	2022	.	0.05	-0.10	.	21989	2447
14	2023	.	0.16	-0.09	.	1917	310



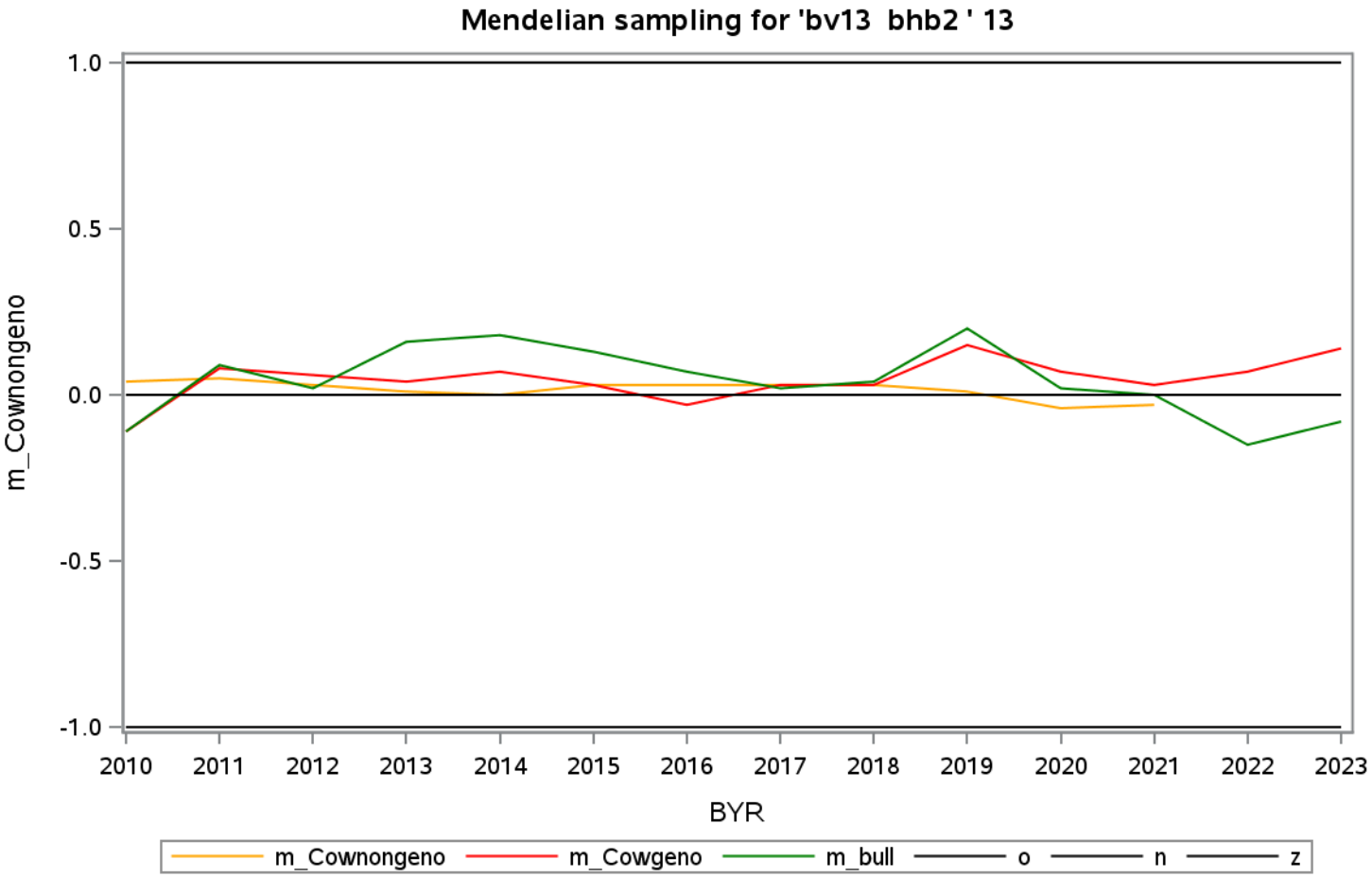
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.68	-0.67	89623	685	982
2	2011	0.03	-0.34	0.03	87360	1696	1778
3	2012	0.03	-0.38	-0.14	80612	2282	2271
4	2013	0.06	0.04	0.01	75860	2778	2292
5	2014	0.05	-0.02	0.04	69175	3338	2276
6	2015	0.03	0.08	0.31	59937	4605	2341
7	2016	0.03	-0.01	0.12	51346	6304	2309
8	2017	0.02	-0.04	0.05	43856	7848	2565
9	2018	0.03	0.06	0.23	37459	9598	2503
10	2019	-0.02	0.33	0.37	32022	18959	2421
11	2020	0.00	0.38	0.32	20222	23067	2765
12	2021	-0.04	0.16	0.25	295	23037	2730
13	2022	.	0.17	-0.08	.	21989	2447
14	2023	.	-0.06	-0.22	.	1917	310



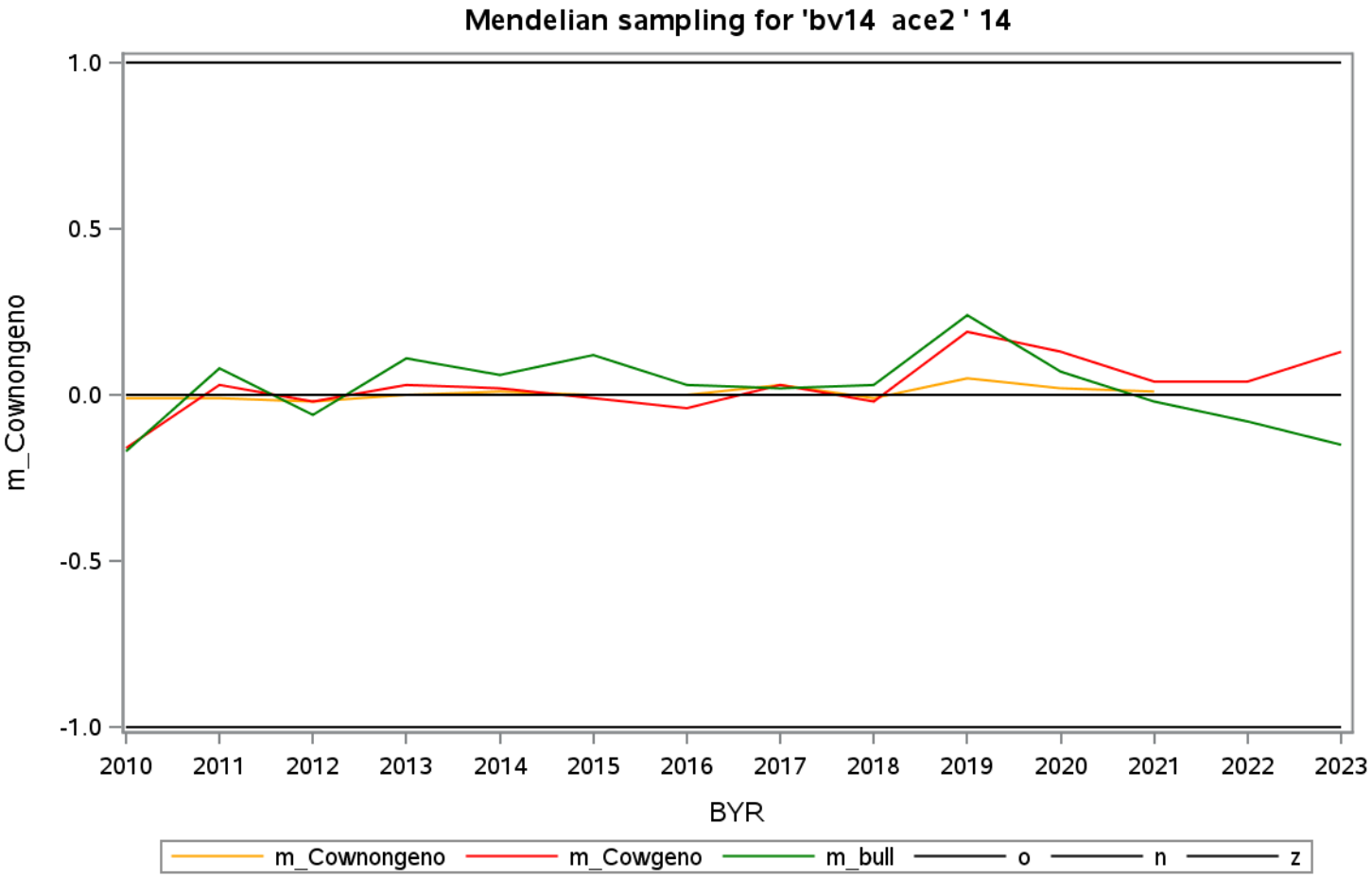
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.02	-0.31	-0.06	89623	685	982
2	2011	0.02	0.11	0.14	87360	1696	1778
3	2012	0.01	0.02	-0.09	80612	2282	2271
4	2013	-0.01	-0.02	0.08	75860	2778	2292
5	2014	-0.01	-0.04	0.06	69175	3338	2276
6	2015	-0.03	-0.13	0.07	59937	4605	2341
7	2016	0.00	-0.08	0.02	51346	6304	2309
8	2017	0.04	-0.06	0.05	43856	7848	2565
9	2018	0.01	-0.01	0.01	37459	9598	2503
10	2019	0.00	0.10	0.17	32022	18959	2421
11	2020	0.01	0.11	0.05	20222	23067	2765
12	2021	0.00	-0.01	-0.04	295	23037	2730
13	2022	.	-0.02	-0.03	.	21989	2447
14	2023	.	0.09	-0.28	.	1917	310



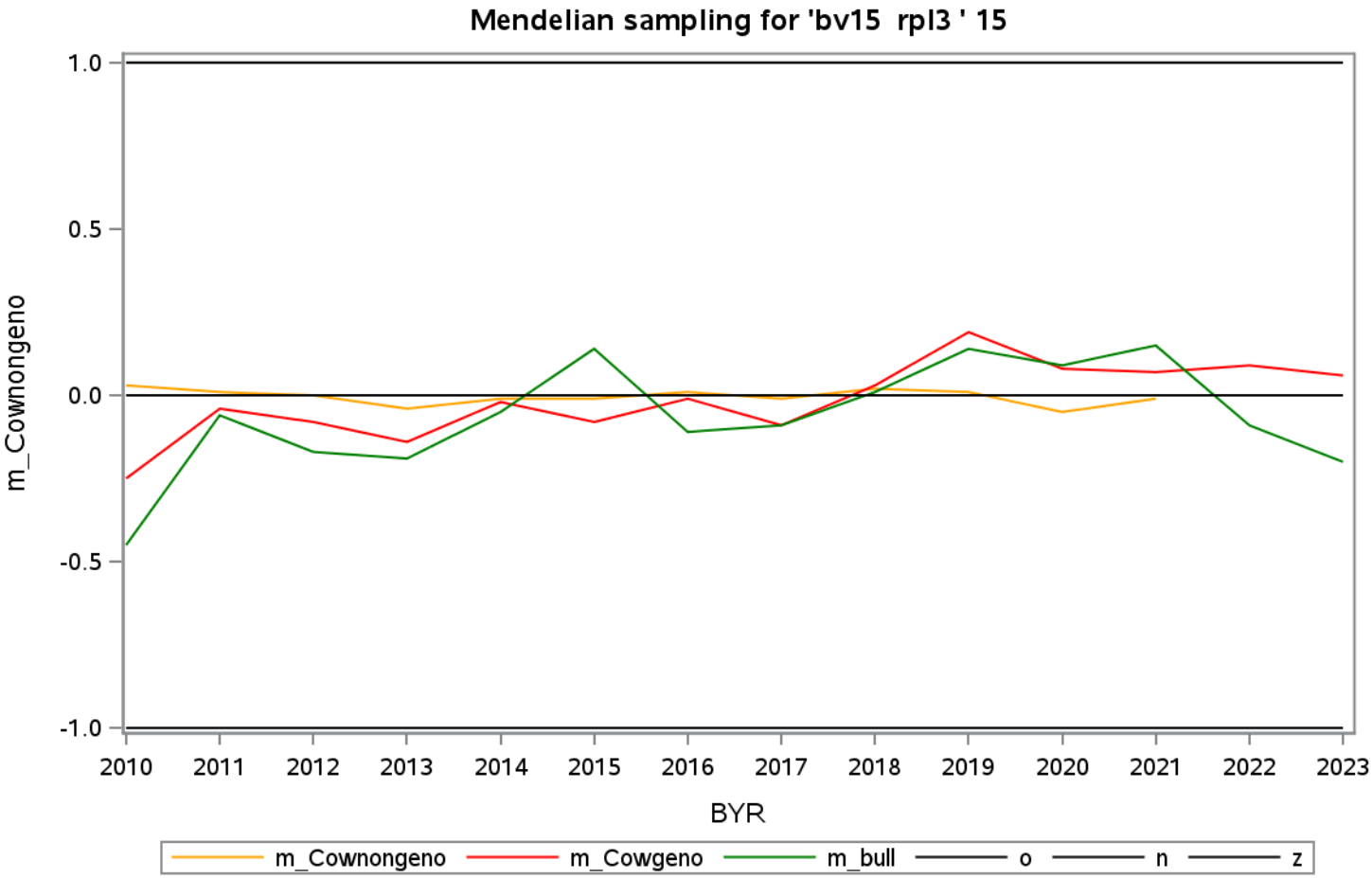
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.11	-0.11	89623	3352	982
2	2011	0.05	0.08	0.09	87360	5760	1778
3	2012	0.03	0.06	0.02	80612	5688	2271
4	2013	0.01	0.04	0.16	75860	5090	2292
5	2014	0.00	0.07	0.18	69175	6658	2276
6	2015	0.03	0.03	0.13	59937	9712	2341
7	2016	0.03	-0.03	0.07	51346	13604	2309
8	2017	0.03	0.03	0.02	43856	15990	2565
9	2018	0.03	0.03	0.04	37459	18230	2503
10	2019	0.01	0.15	0.20	32022	20398	2421
11	2020	-0.04	0.07	0.02	20222	23067	2765
12	2021	-0.03	0.03	0.00	295	23037	2730
13	2022	.	0.07	-0.15	.	21989	2447
14	2023	.	0.14	-0.08	.	1917	310



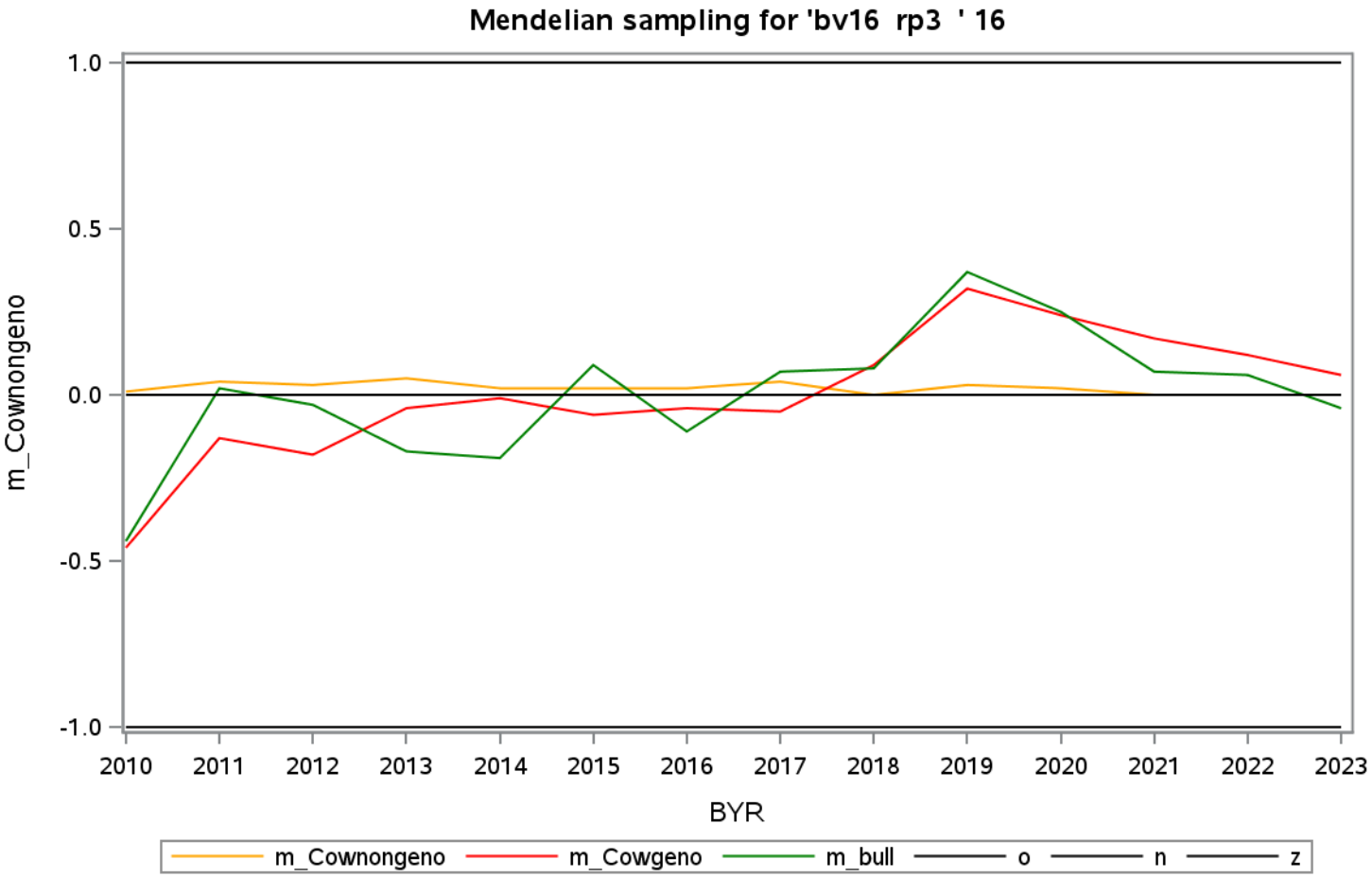
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.16	-0.17	89623	3352	982
2	2011	-0.01	0.03	0.08	87360	5760	1778
3	2012	-0.02	-0.02	-0.06	80612	5688	2271
4	2013	0.00	0.03	0.11	75860	5090	2292
5	2014	0.01	0.02	0.06	69175	6658	2276
6	2015	0.00	-0.01	0.12	59937	9712	2341
7	2016	0.00	-0.04	0.03	51346	13604	2309
8	2017	0.03	0.03	0.02	43856	15990	2565
9	2018	-0.01	-0.02	0.03	37459	18230	2503
10	2019	0.05	0.19	0.24	32022	20398	2421
11	2020	0.02	0.13	0.07	20222	23067	2765
12	2021	0.01	0.04	-0.02	295	23037	2730
13	2022	.	0.04	-0.08	.	21989	2447
14	2023	.	0.13	-0.15	.	1917	310



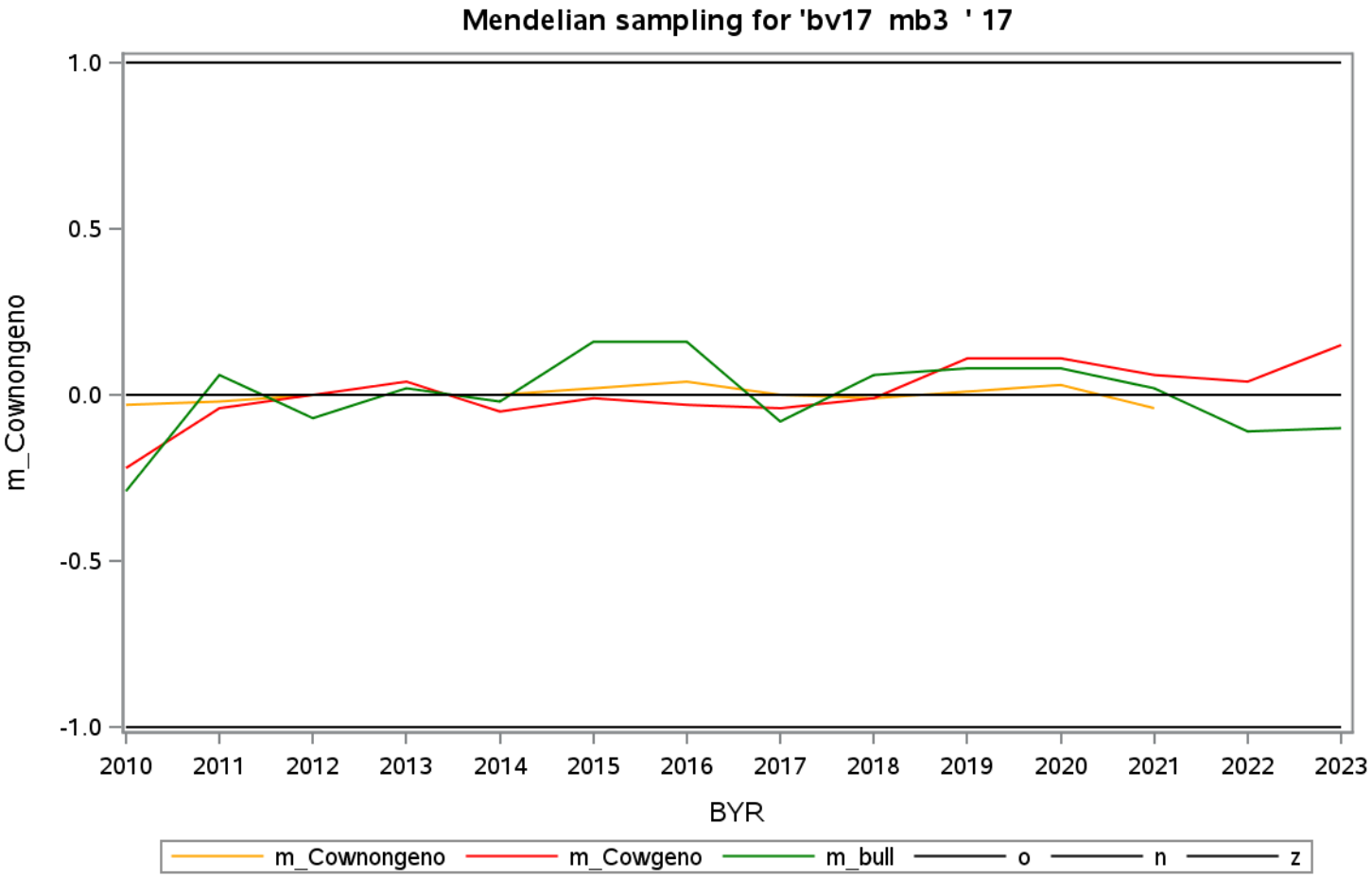
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.03	-0.25	-0.45	89623	1641	982
2	2011	0.01	-0.04	-0.06	87360	3027	1778
3	2012	0.00	-0.08	-0.17	80612	3765	2271
4	2013	-0.04	-0.14	-0.19	75860	4169	2292
5	2014	-0.01	-0.02	-0.05	69175	4922	2276
6	2015	-0.01	-0.08	0.14	59937	6465	2341
7	2016	0.01	-0.01	-0.11	51346	8928	2309
8	2017	-0.01	-0.09	-0.09	43856	10956	2565
9	2018	0.02	0.03	0.01	37459	14862	2503
10	2019	0.01	0.19	0.14	32022	20920	2421
11	2020	-0.05	0.08	0.09	20222	23067	2765
12	2021	-0.01	0.07	0.15	295	23037	2730
13	2022	.	0.09	-0.09	.	21989	2447
14	2023	.	0.06	-0.20	.	1917	310



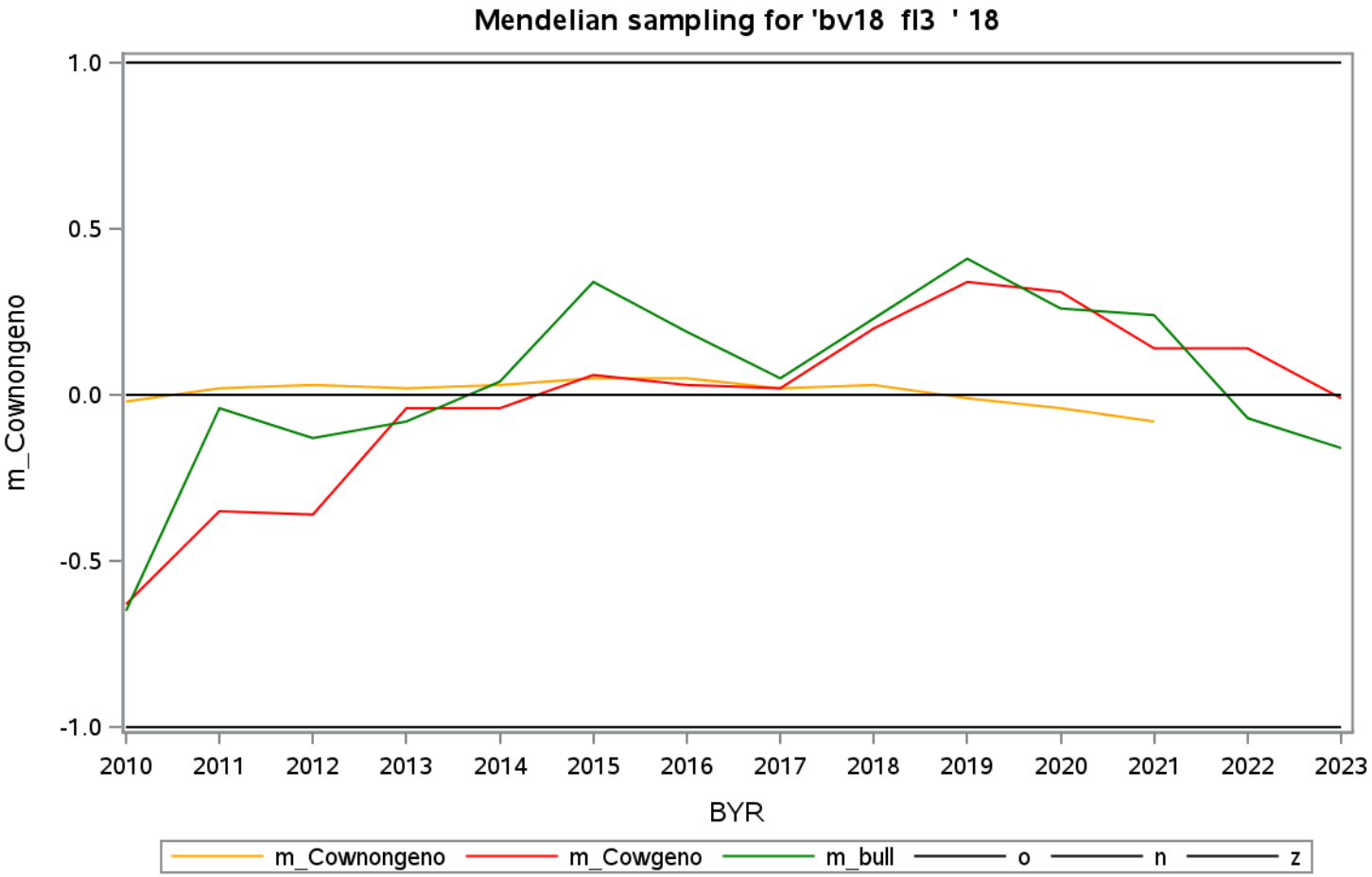
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	-0.46	-0.44	89623	1641	982
2	2011	0.04	-0.13	0.02	87360	3027	1778
3	2012	0.03	-0.18	-0.03	80612	3765	2271
4	2013	0.05	-0.04	-0.17	75860	4169	2292
5	2014	0.02	-0.01	-0.19	69175	4922	2276
6	2015	0.02	-0.06	0.09	59937	6465	2341
7	2016	0.02	-0.04	-0.11	51346	8950	2309
8	2017	0.04	-0.05	0.07	43856	11756	2565
9	2018	0.00	0.09	0.08	37459	19320	2503
10	2019	0.03	0.32	0.37	32022	21074	2421
11	2020	0.02	0.24	0.25	20222	23067	2765
12	2021	0.00	0.17	0.07	295	23037	2730
13	2022	.	0.12	0.06	.	21989	2447
14	2023	.	0.06	-0.04	.	1917	310



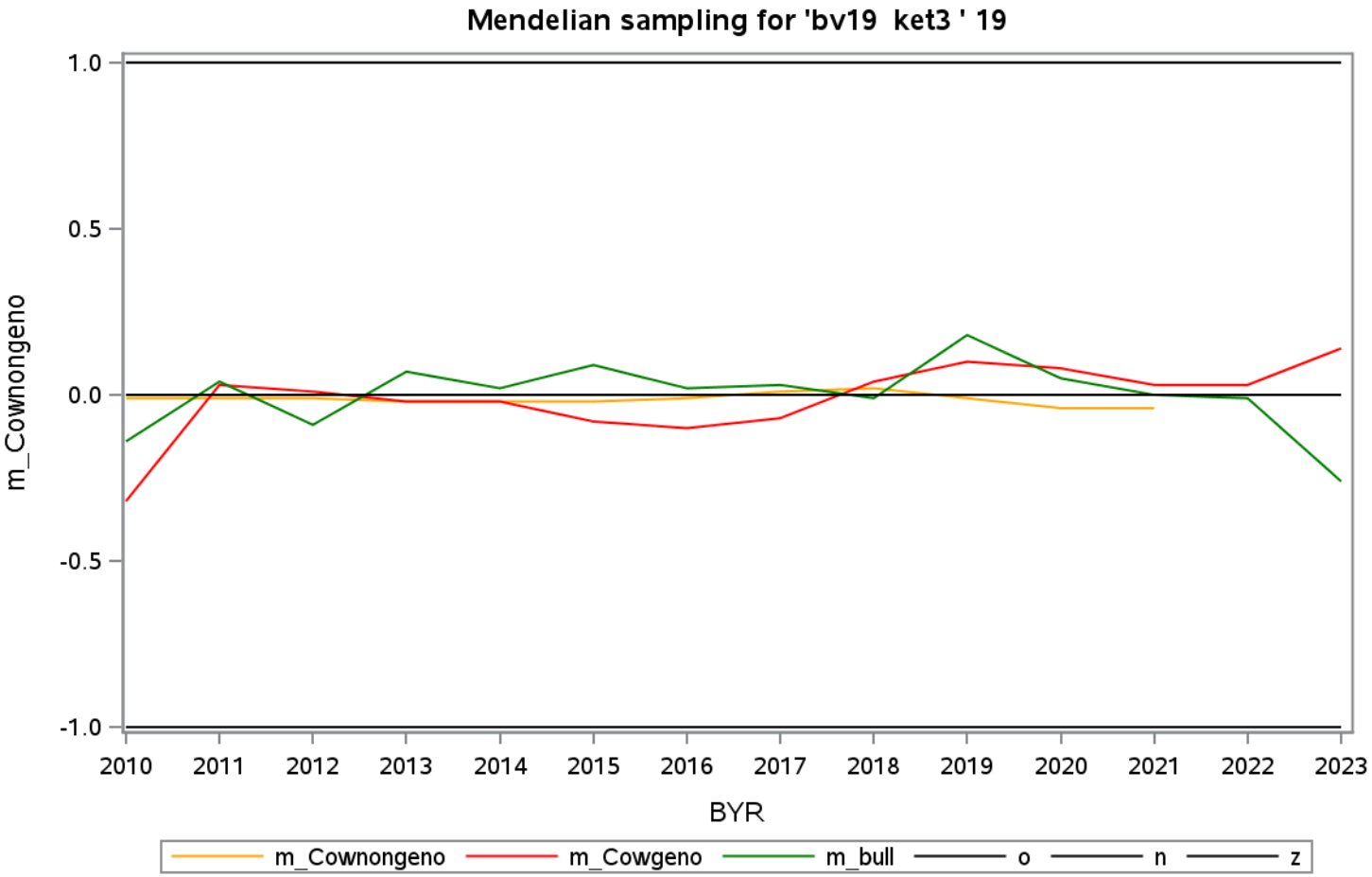
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.03	-0.22	-0.29	89623	1641	982
2	2011	-0.02	-0.04	0.06	87360	3027	1778
3	2012	0.00	0.00	-0.07	80612	3765	2271
4	2013	0.00	0.04	0.02	75860	4169	2292
5	2014	0.00	-0.05	-0.02	69175	4922	2276
6	2015	0.02	-0.01	0.16	59937	6465	2341
7	2016	0.04	-0.03	0.16	51346	8950	2309
8	2017	0.00	-0.04	-0.08	43856	11756	2565
9	2018	-0.01	-0.01	0.06	37459	19320	2503
10	2019	0.01	0.11	0.08	32022	21074	2421
11	2020	0.03	0.11	0.08	20222	23067	2765
12	2021	-0.04	0.06	0.02	295	23037	2730
13	2022	.	0.04	-0.11	.	21989	2447
14	2023	.	0.15	-0.10	.	1917	310



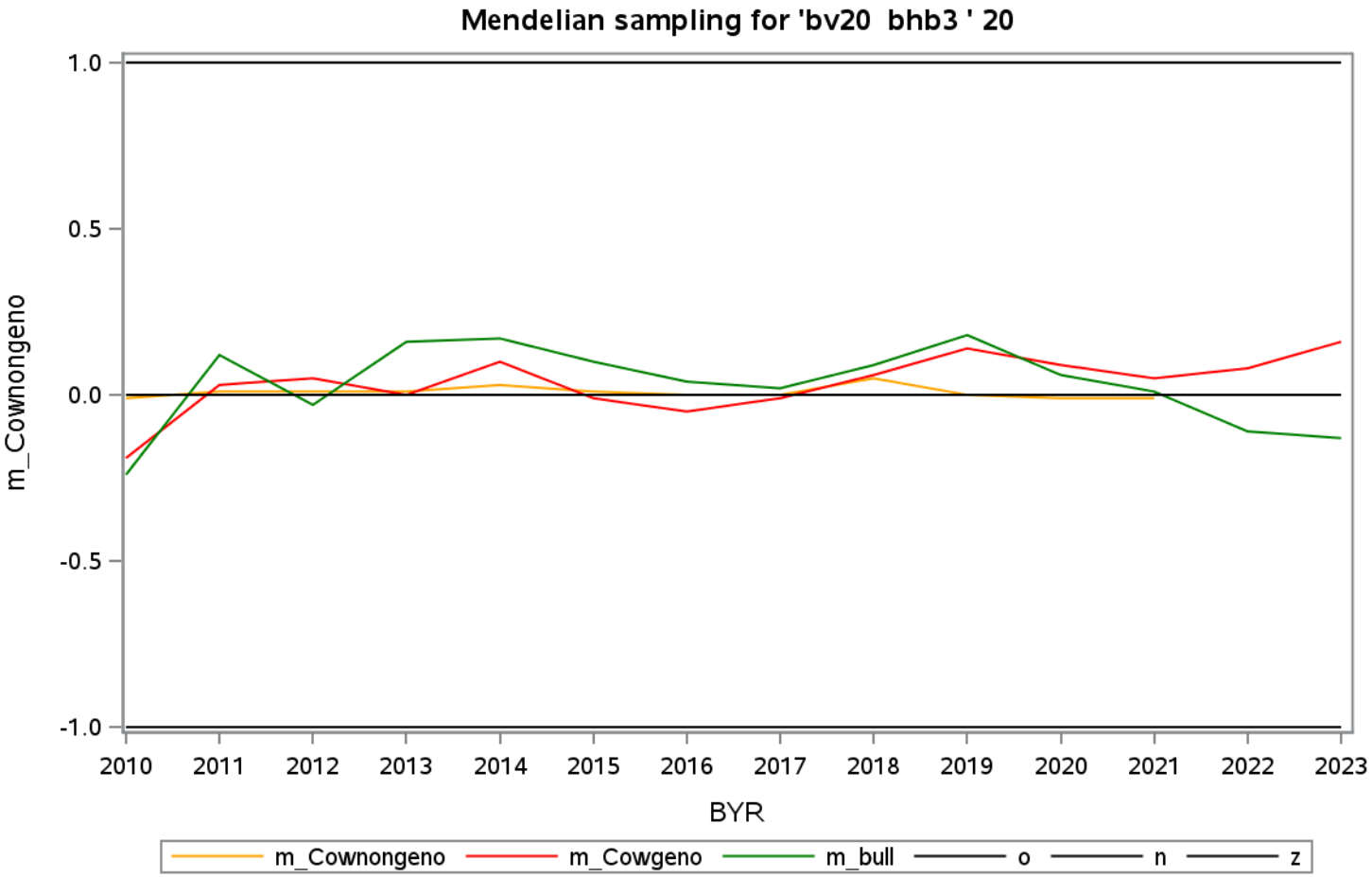
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.02	-0.63	-0.65	89623	1641	982
2	2011	0.02	-0.35	-0.04	87360	3027	1778
3	2012	0.03	-0.36	-0.13	80612	3765	2271
4	2013	0.02	-0.04	-0.08	75860	4169	2292
5	2014	0.03	-0.04	0.04	69175	4922	2276
6	2015	0.05	0.06	0.34	59937	6465	2341
7	2016	0.05	0.03	0.19	51346	8950	2309
8	2017	0.02	0.02	0.05	43856	11756	2565
9	2018	0.03	0.20	0.23	37459	19320	2503
10	2019	-0.01	0.34	0.41	32022	21074	2421
11	2020	-0.04	0.31	0.26	20222	23067	2765
12	2021	-0.08	0.14	0.24	295	23037	2730
13	2022	.	0.14	-0.07	.	21989	2447
14	2023	.	-0.01	-0.16	.	1917	310



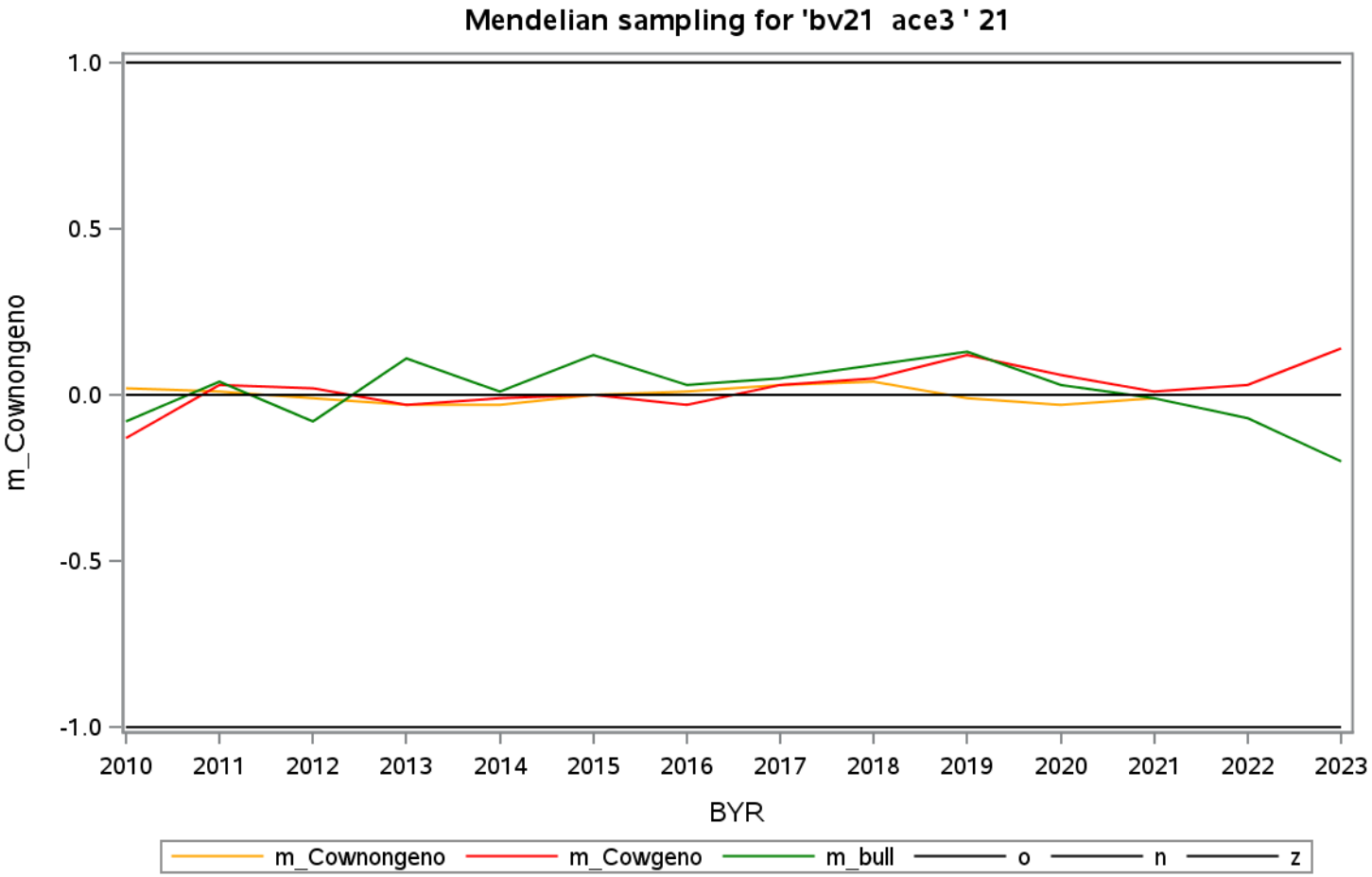
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.32	-0.14	89623	1641	982
2	2011	-0.01	0.03	0.04	87360	3027	1778
3	2012	-0.01	0.01	-0.09	80612	3765	2271
4	2013	-0.02	-0.02	0.07	75860	4169	2292
5	2014	-0.02	-0.02	0.02	69175	4922	2276
6	2015	-0.02	-0.08	0.09	59937	6465	2341
7	2016	-0.01	-0.10	0.02	51346	8950	2309
8	2017	0.01	-0.07	0.03	43856	11756	2565
9	2018	0.02	0.04	-0.01	37459	19320	2503
10	2019	-0.01	0.10	0.18	32022	21074	2421
11	2020	-0.04	0.08	0.05	20222	23067	2765
12	2021	-0.04	0.03	0.00	295	23037	2730
13	2022	.	0.03	-0.01	.	21989	2447
14	2023	.	0.14	-0.26	.	1917	310



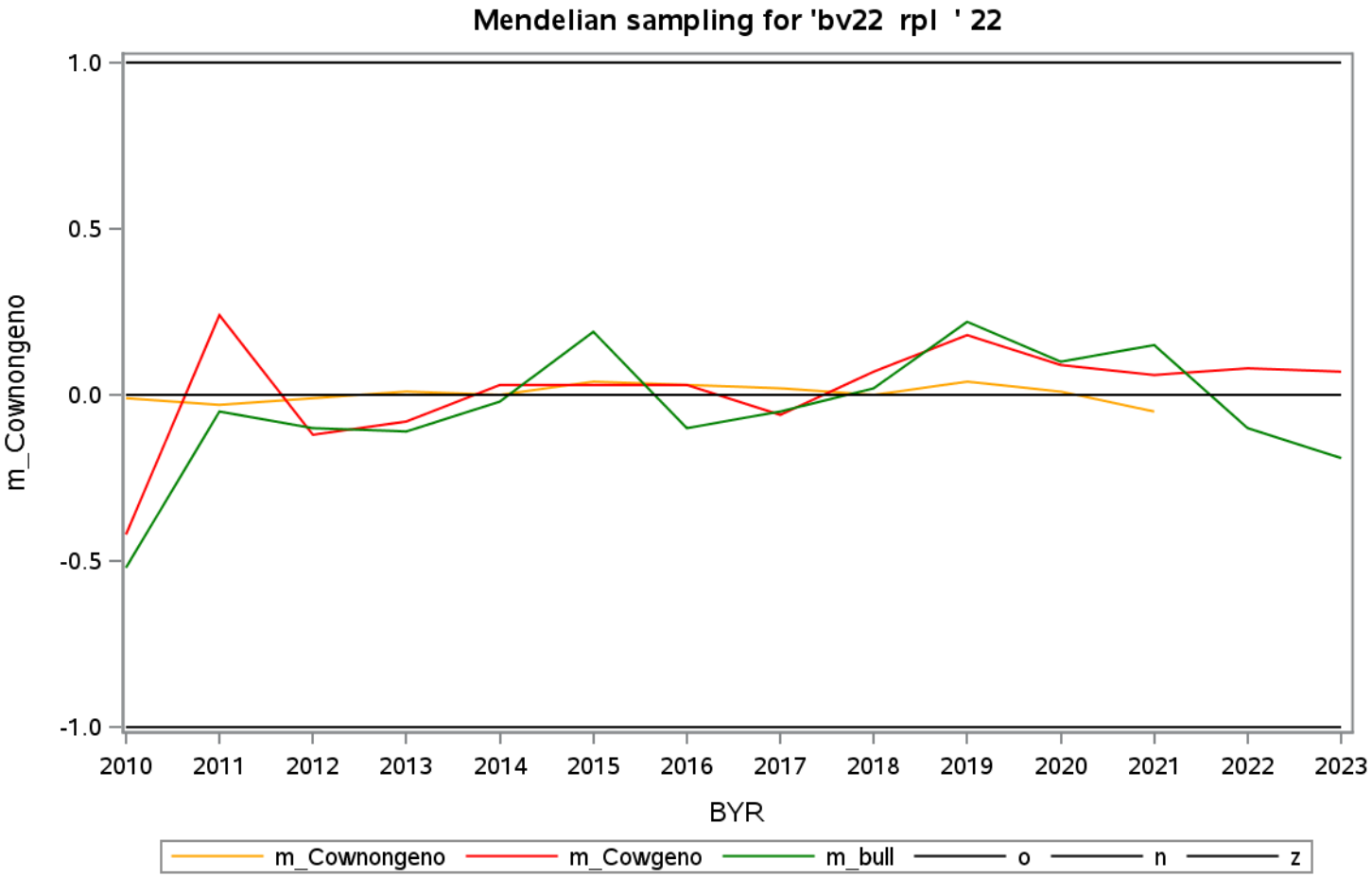
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.19	-0.24	89623	3341	982
2	2011	0.01	0.03	0.12	87360	5341	1778
3	2012	0.01	0.05	-0.03	80612	5342	2271
4	2013	0.01	0.00	0.16	75860	6442	2292
5	2014	0.03	0.10	0.17	69175	7723	2276
6	2015	0.01	-0.01	0.10	59937	10141	2341
7	2016	0.00	-0.05	0.04	51346	14159	2309
8	2017	0.00	-0.01	0.02	43856	16817	2565
9	2018	0.05	0.06	0.09	37459	20217	2503
10	2019	0.00	0.14	0.18	32022	21074	2421
11	2020	-0.01	0.09	0.06	20222	23067	2765
12	2021	-0.01	0.05	0.01	295	23037	2730
13	2022	.	0.08	-0.11	.	21989	2447
14	2023	.	0.16	-0.13	.	1917	310



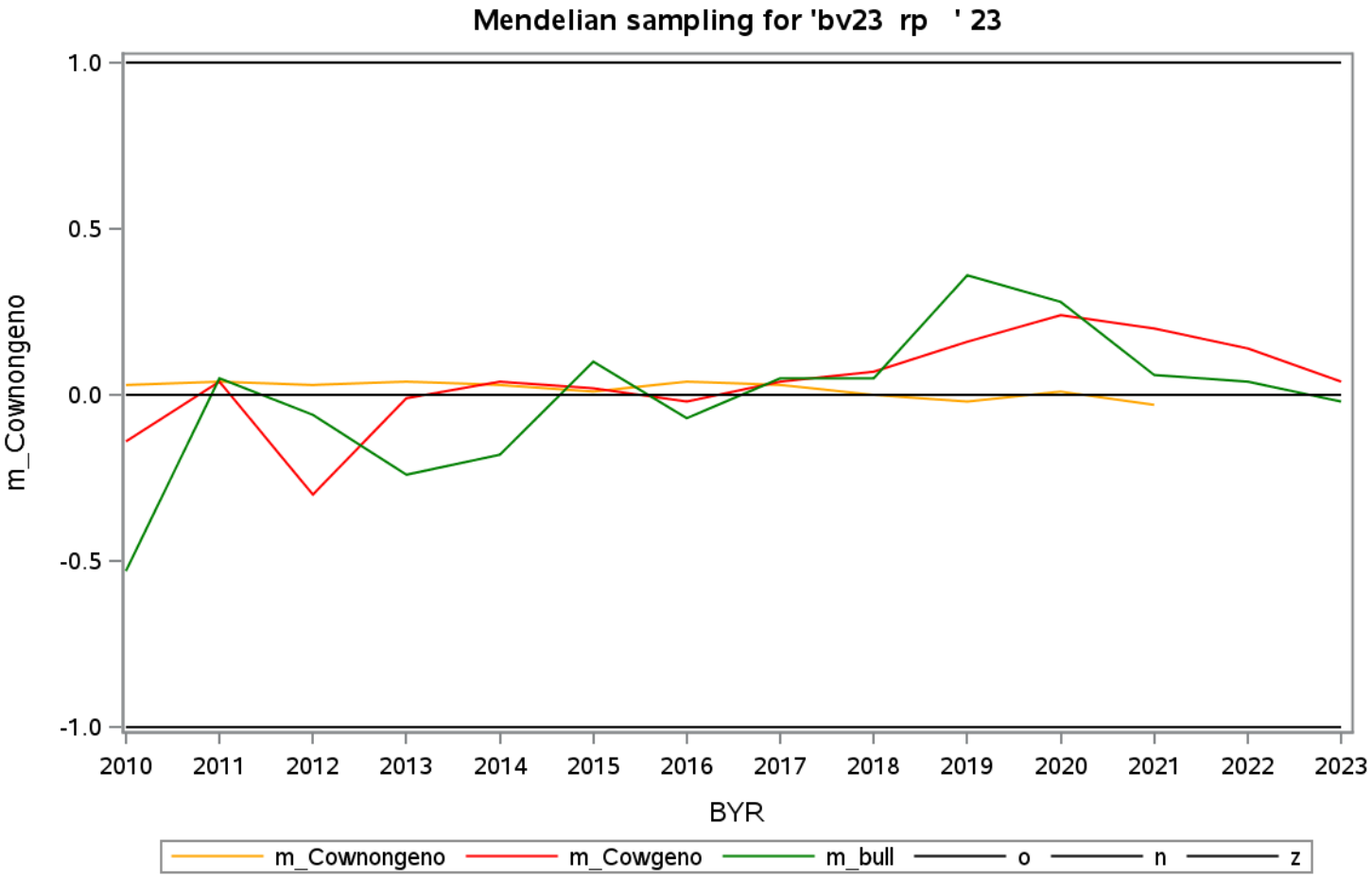
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.13	-0.08	89623	3341	982
2	2011	0.01	0.03	0.04	87360	5341	1778
3	2012	-0.01	0.02	-0.08	80612	5342	2271
4	2013	-0.03	-0.03	0.11	75860	6442	2292
5	2014	-0.03	-0.01	0.01	69175	7723	2276
6	2015	0.00	0.00	0.12	59937	10141	2341
7	2016	0.01	-0.03	0.03	51346	14159	2309
8	2017	0.03	0.03	0.05	43856	16817	2565
9	2018	0.04	0.05	0.09	37459	20217	2503
10	2019	-0.01	0.12	0.13	32022	21074	2421
11	2020	-0.03	0.06	0.03	20222	23067	2765
12	2021	-0.01	0.01	-0.01	295	23037	2730
13	2022	.	0.03	-0.07	.	21989	2447
14	2023	.	0.14	-0.20	.	1917	310



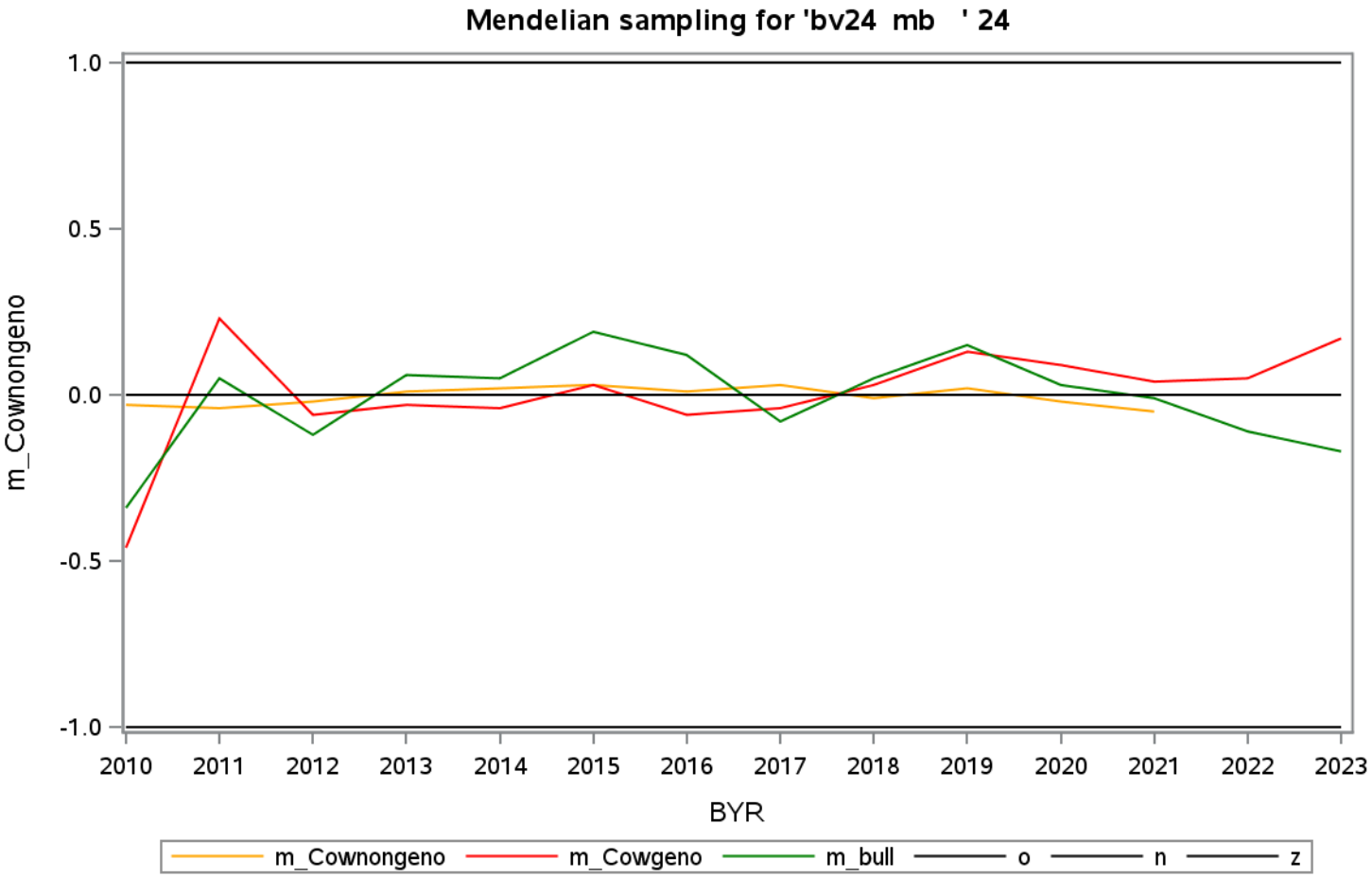
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.42	-0.52	89428	266	982
2	2011	-0.03	0.24	-0.05	87156	556	1778
3	2012	-0.01	-0.12	-0.10	80493	900	2271
4	2013	0.01	-0.08	-0.11	75764	1284	2292
5	2014	0.00	0.03	-0.02	69121	1755	2276
6	2015	0.04	0.03	0.19	59908	2581	2341
7	2016	0.03	0.03	-0.10	51337	3477	2309
8	2017	0.02	-0.06	-0.05	43856	4593	2565
9	2018	0.00	0.07	0.02	37459	5336	2503
10	2019	0.04	0.18	0.22	32022	5373	2421
11	2020	0.01	0.09	0.10	20222	9816	2765
12	2021	-0.05	0.06	0.15	295	22756	2730
13	2022	.	0.08	-0.10	.	21989	2447
14	2023	.	0.07	-0.19	.	1917	310



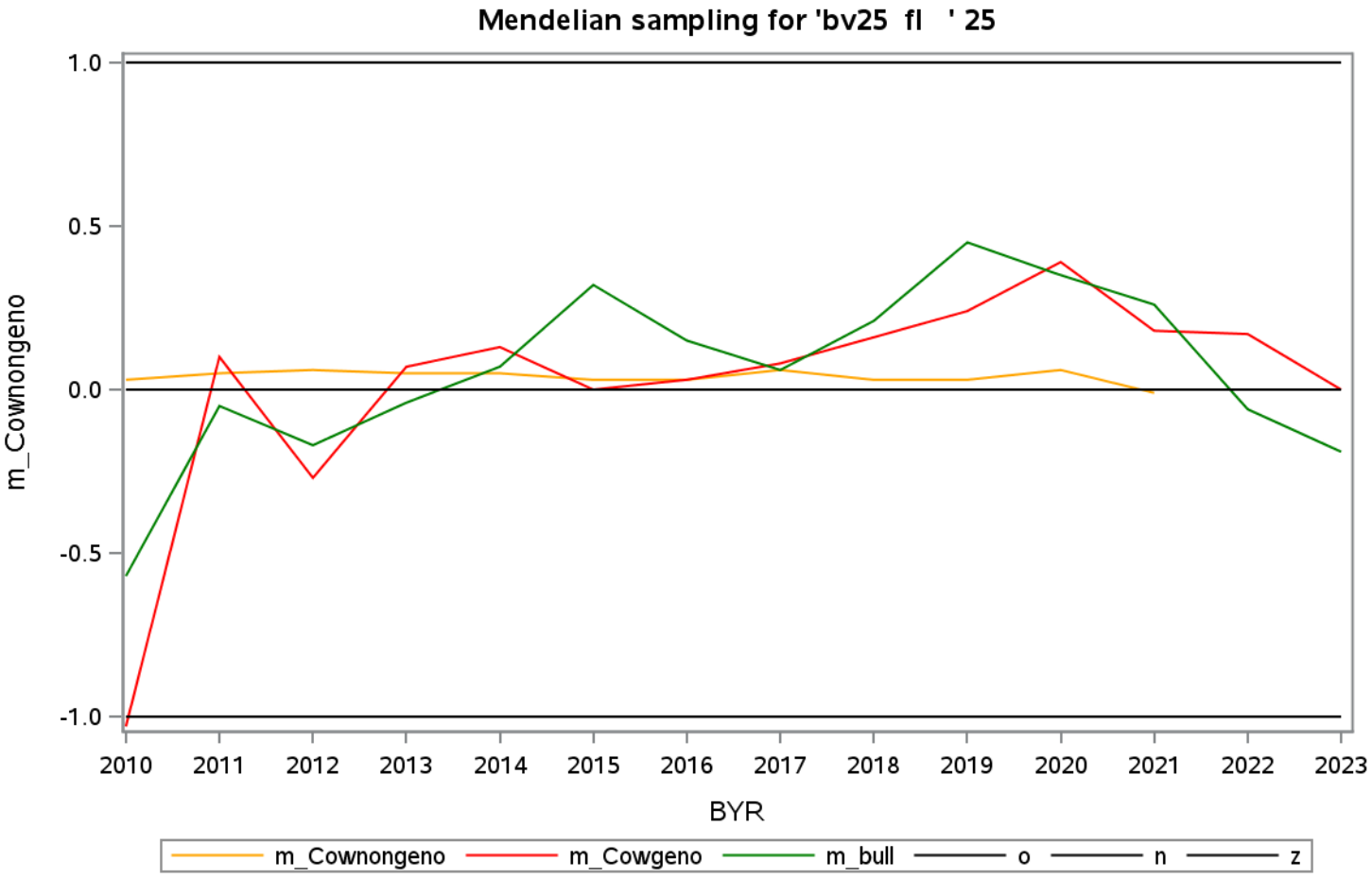
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.03	-0.14	-0.53	89623	266	982
2	2011	0.04	0.04	0.05	87360	556	1778
3	2012	0.03	-0.30	-0.06	80612	900	2271
4	2013	0.04	-0.01	-0.24	75860	1284	2292
5	2014	0.03	0.04	-0.18	69175	1755	2276
6	2015	0.01	0.02	0.10	59937	2581	2341
7	2016	0.04	-0.02	-0.07	51346	3477	2309
8	2017	0.03	0.04	0.05	43856	4593	2565
9	2018	0.00	0.07	0.05	37459	5336	2503
10	2019	-0.02	0.16	0.36	32022	5808	2421
11	2020	0.01	0.24	0.28	20222	19119	2765
12	2021	-0.03	0.20	0.06	295	23037	2730
13	2022	.	0.14	0.04	.	21989	2447
14	2023	.	0.04	-0.02	.	1917	310



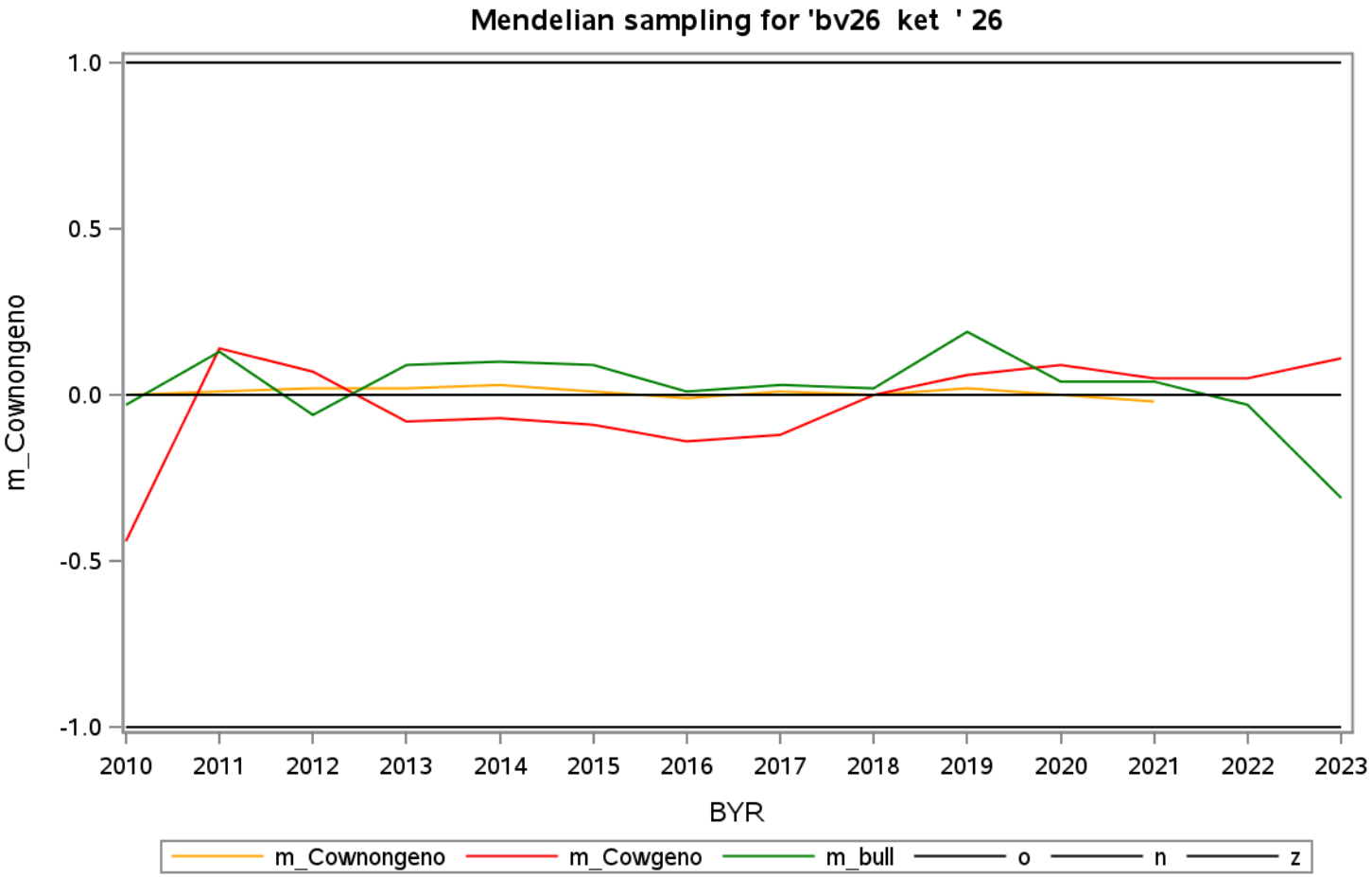
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.03	-0.46	-0.34	89623	266	982
2	2011	-0.04	0.23	0.05	87360	556	1778
3	2012	-0.02	-0.06	-0.12	80612	900	2271
4	2013	0.01	-0.03	0.06	75860	1284	2292
5	2014	0.02	-0.04	0.05	69175	1755	2276
6	2015	0.03	0.03	0.19	59937	2581	2341
7	2016	0.01	-0.06	0.12	51346	3477	2309
8	2017	0.03	-0.04	-0.08	43856	4593	2565
9	2018	-0.01	0.03	0.05	37459	5336	2503
10	2019	0.02	0.13	0.15	32022	5808	2421
11	2020	-0.02	0.09	0.03	20222	19119	2765
12	2021	-0.05	0.04	-0.01	295	23037	2730
13	2022	.	0.05	-0.11	.	21989	2447
14	2023	.	0.17	-0.17	.	1917	310



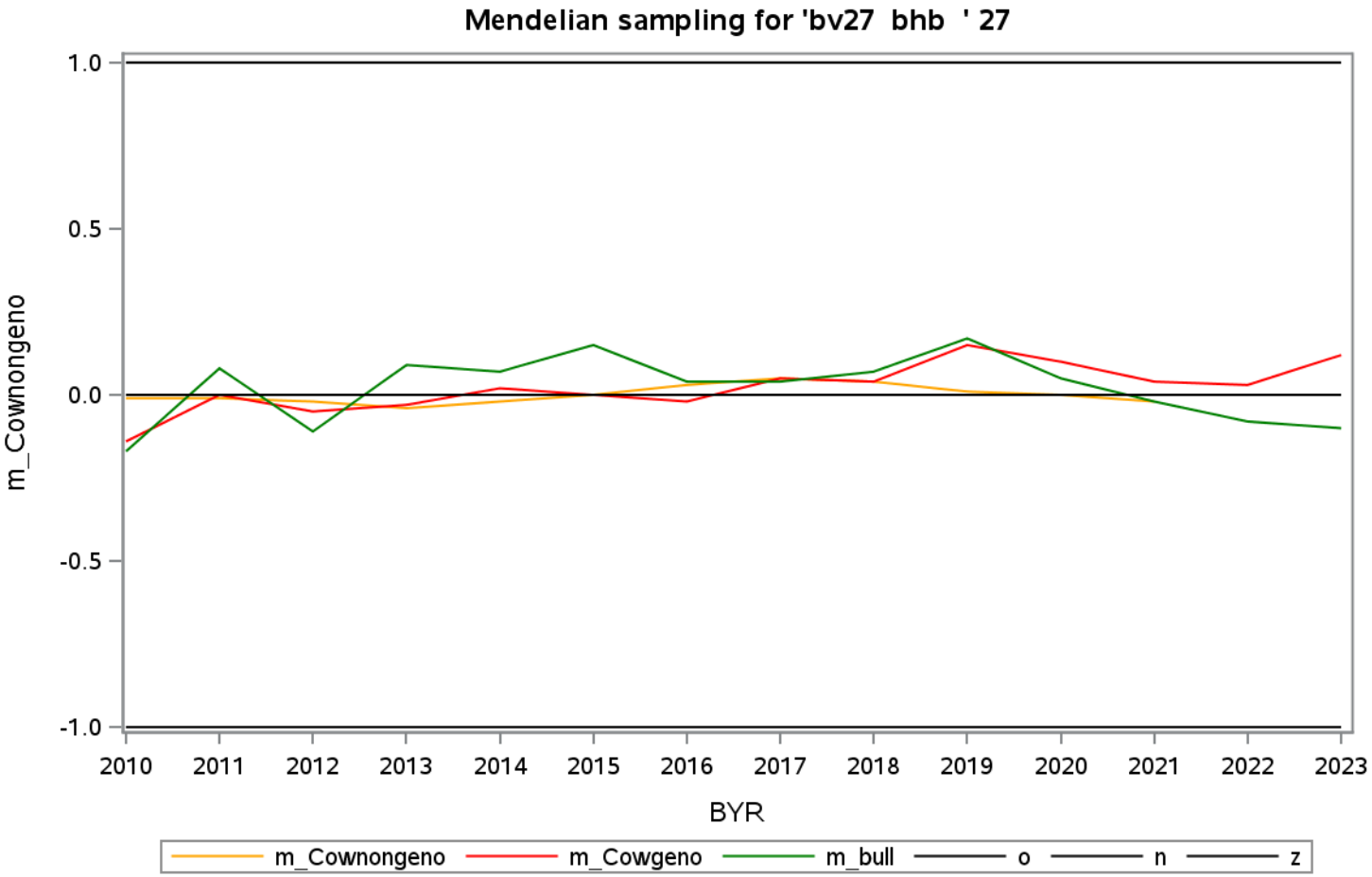
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.03	-1.03	-0.57	89623	266	982
2	2011	0.05	0.10	-0.05	87360	556	1778
3	2012	0.06	-0.27	-0.17	80612	900	2271
4	2013	0.05	0.07	-0.04	75860	1284	2292
5	2014	0.05	0.13	0.07	69175	1755	2276
6	2015	0.03	0.00	0.32	59937	2581	2341
7	2016	0.03	0.03	0.15	51346	3477	2309
8	2017	0.06	0.08	0.06	43856	4593	2565
9	2018	0.03	0.16	0.21	37459	5336	2503
10	2019	0.03	0.24	0.45	32022	5808	2421
11	2020	0.06	0.39	0.35	20222	19119	2765
12	2021	-0.01	0.18	0.26	295	23037	2730
13	2022	.	0.17	-0.06	.	21989	2447
14	2023	.	0.00	-0.19	.	1917	310



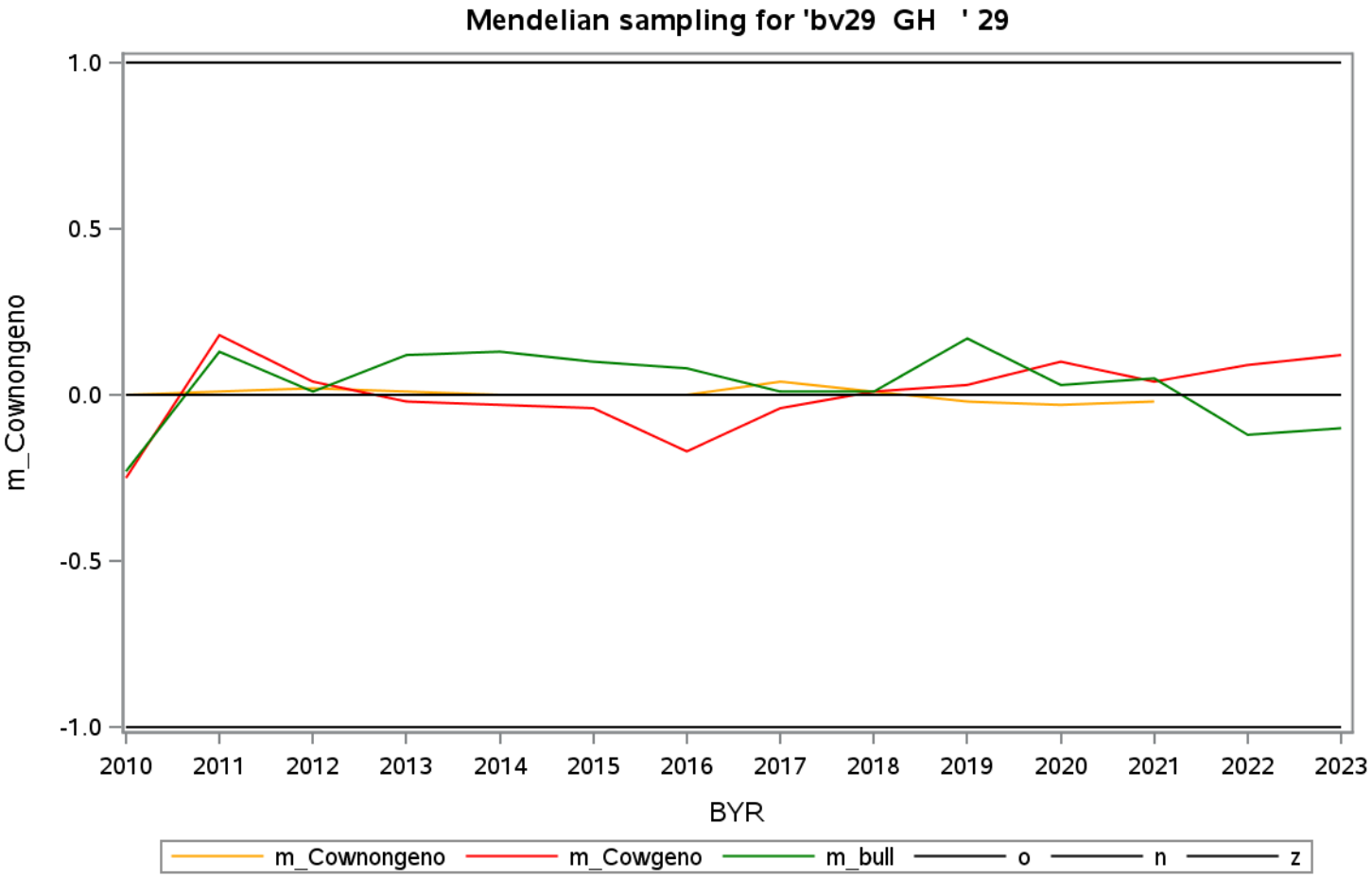
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.44	-0.03	89623	266	982
2	2011	0.01	0.14	0.13	87360	556	1778
3	2012	0.02	0.07	-0.06	80612	900	2271
4	2013	0.02	-0.08	0.09	75860	1284	2292
5	2014	0.03	-0.07	0.10	69175	1755	2276
6	2015	0.01	-0.09	0.09	59937	2581	2341
7	2016	-0.01	-0.14	0.01	51346	3477	2309
8	2017	0.01	-0.12	0.03	43856	4593	2565
9	2018	0.00	0.00	0.02	37459	5336	2503
10	2019	0.02	0.06	0.19	32022	5808	2421
11	2020	0.00	0.09	0.04	20222	19119	2765
12	2021	-0.02	0.05	0.04	295	23037	2730
13	2022	.	0.05	-0.03	.	21989	2447
14	2023	.	0.11	-0.31	.	1917	310



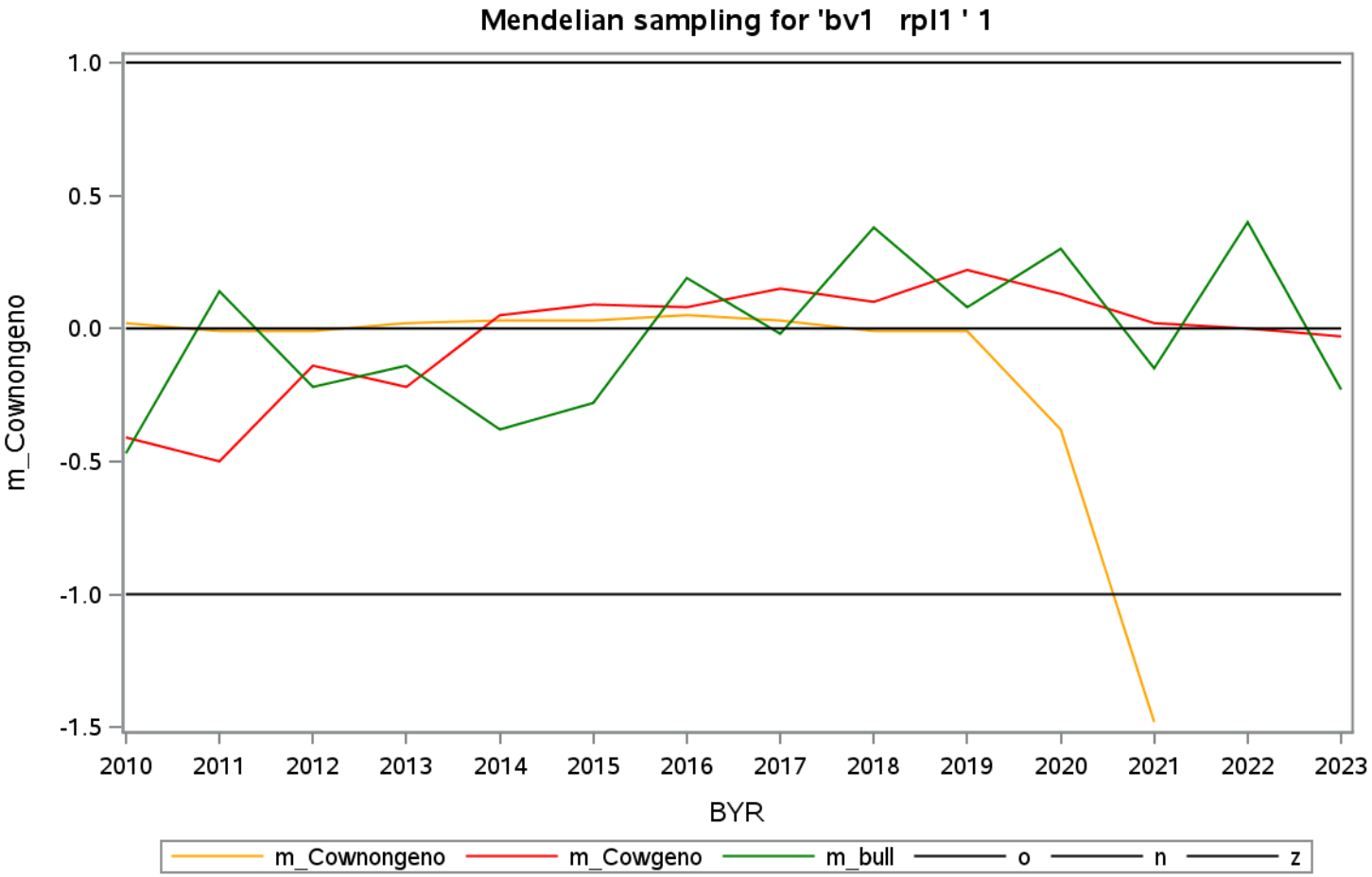
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.14	-0.17	89623	3661	982
2	2011	-0.01	0.00	0.08	87360	5888	1778
3	2012	-0.02	-0.05	-0.11	80612	6097	2271
4	2013	-0.04	-0.03	0.09	75860	5783	2292
5	2014	-0.02	0.02	0.07	69175	5267	2276
6	2015	0.00	0.00	0.15	59937	7962	2341
7	2016	0.03	-0.02	0.04	51346	13146	2309
8	2017	0.05	0.05	0.04	43856	15386	2565
9	2018	0.04	0.04	0.07	37459	17550	2503
10	2019	0.01	0.15	0.17	32022	17978	2421
11	2020	0.00	0.10	0.05	20222	21934	2765
12	2021	-0.02	0.04	-0.02	295	23037	2730
13	2022	.	0.03	-0.08	.	21989	2447
14	2023	.	0.12	-0.10	.	1917	310



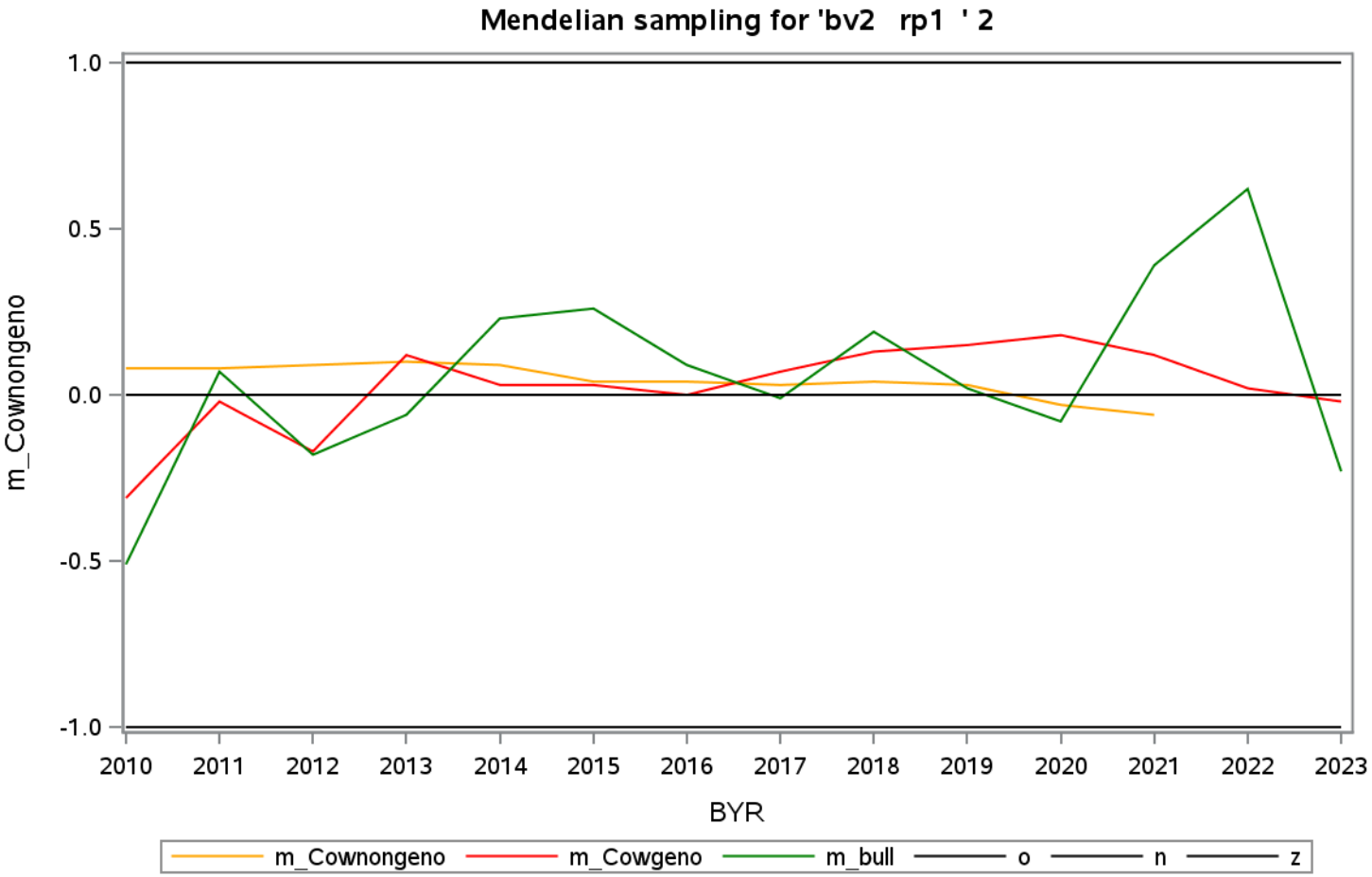
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.25	-0.23	89623	266	982
2	2011	0.01	0.18	0.13	87360	556	1778
3	2012	0.02	0.04	0.01	80612	900	2271
4	2013	0.01	-0.02	0.12	75860	1284	2292
5	2014	0.00	-0.03	0.13	69175	1755	2276
6	2015	0.00	-0.04	0.10	59937	2581	2341
7	2016	0.00	-0.17	0.08	51346	3477	2309
8	2017	0.04	-0.04	0.01	43856	4593	2565
9	2018	0.01	0.01	0.01	37459	5336	2503
10	2019	-0.02	0.03	0.17	32022	5373	2421
11	2020	-0.03	0.10	0.03	20222	9816	2765
12	2021	-0.02	0.04	0.05	295	22756	2730
13	2022	.	0.09	-0.12	.	21989	2447
14	2023	.	0.12	-0.10	.	1917	310



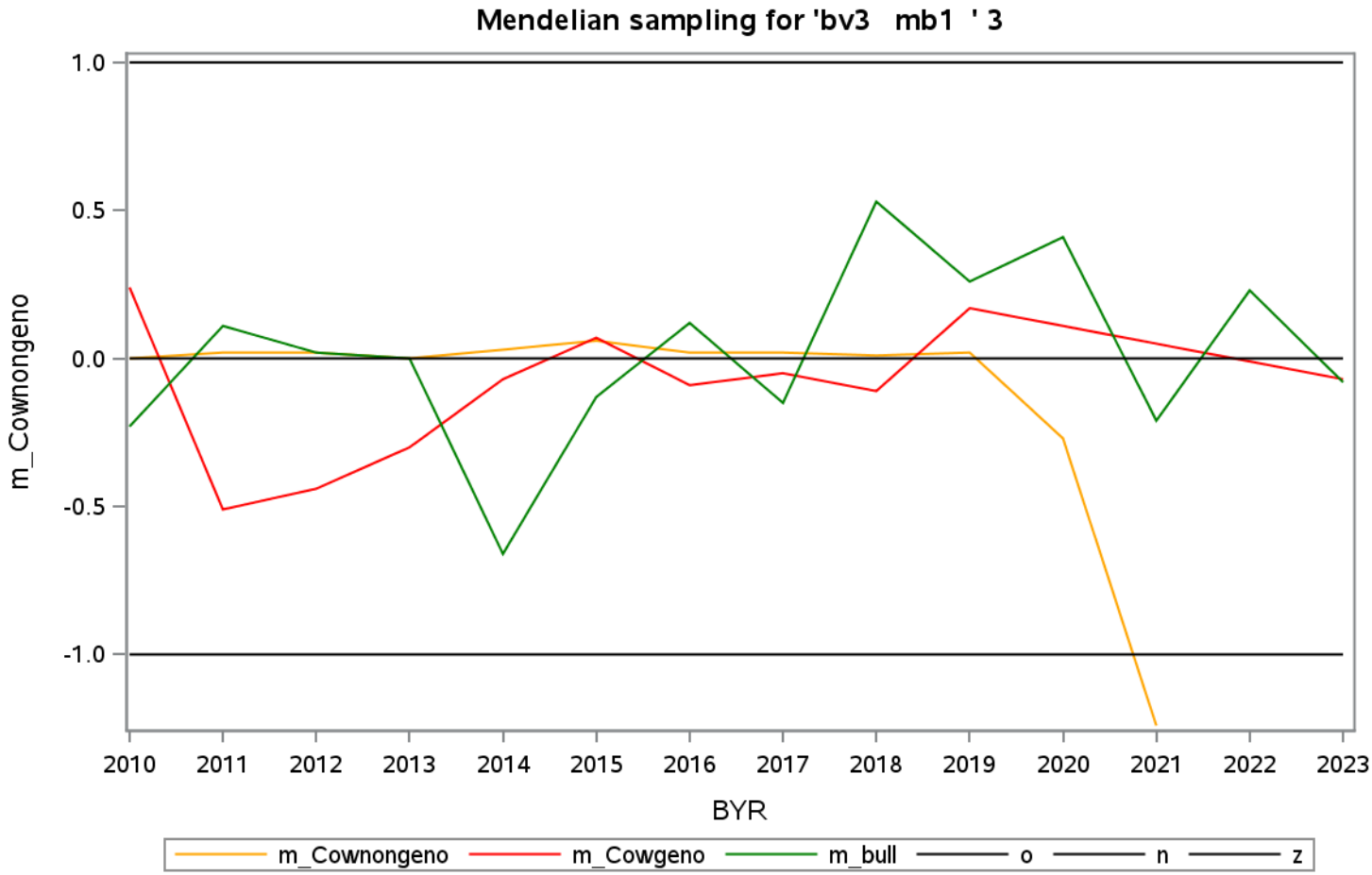
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.41	-0.47	20918	137	248
2	2011	-0.01	-0.50	0.14	20444	472	396
3	2012	-0.01	-0.14	-0.22	20463	968	430
4	2013	0.02	-0.22	-0.14	18396	967	451
5	2014	0.03	0.05	-0.38	18795	1432	494
6	2015	0.03	0.09	-0.28	17720	2370	548
7	2016	0.05	0.08	0.19	16513	3158	510
8	2017	0.03	0.15	-0.02	15341	3546	568
9	2018	-0.01	0.10	0.38	16364	4264	379
10	2019	-0.01	0.22	0.08	15618	5841	490
11	2020	-0.38	0.13	0.30	14919	9449	510
12	2021	-1.48	0.02	-0.15	2544	14782	421
13	2022	.	0.00	0.40	.	14253	446
14	2023	.	-0.03	-0.23	.	1154	95



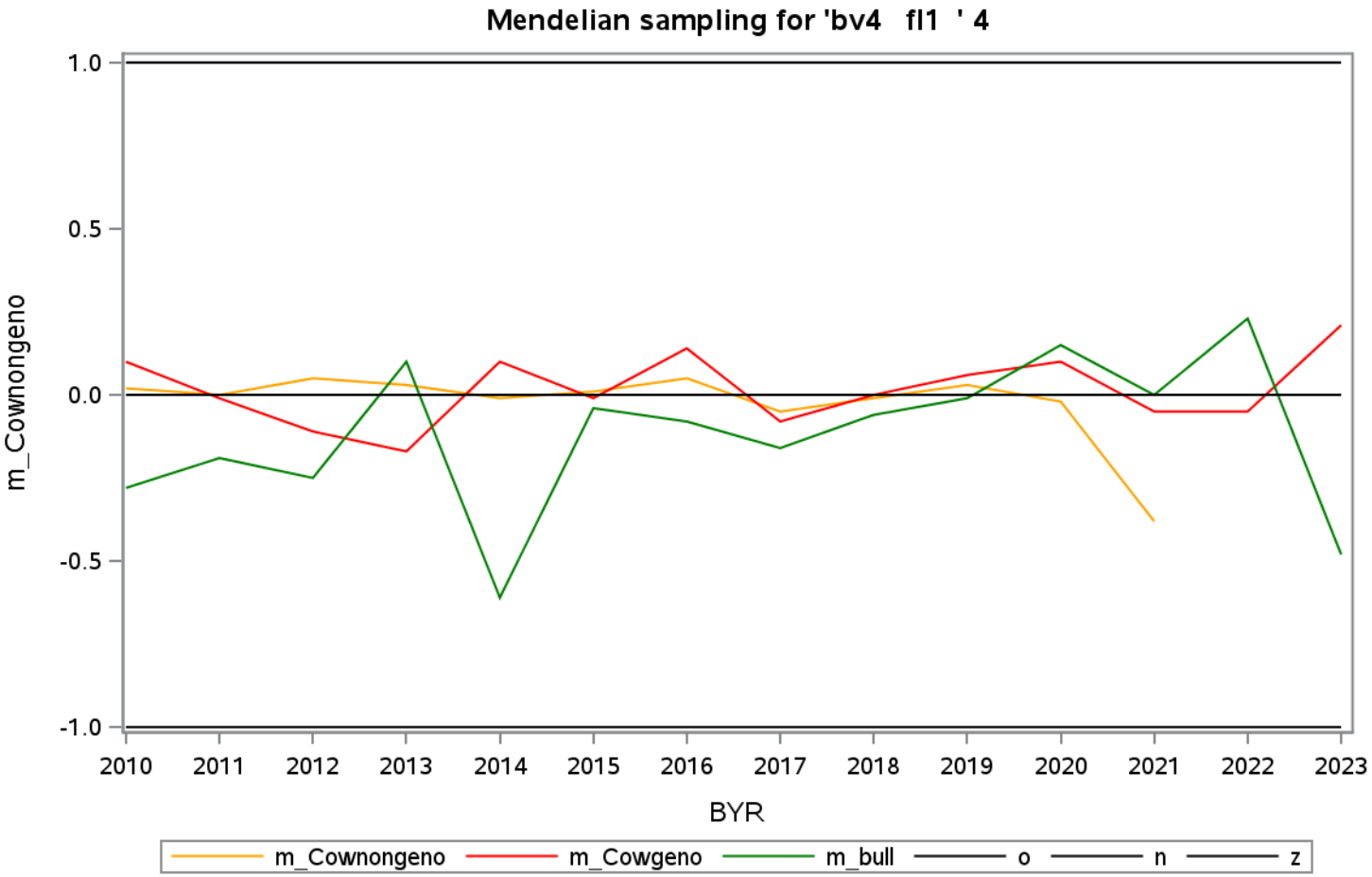
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.08	-0.31	-0.51	20918	137	248
2	2011	0.08	-0.02	0.07	20444	472	396
3	2012	0.09	-0.17	-0.18	20463	968	430
4	2013	0.10	0.12	-0.06	18396	967	451
5	2014	0.09	0.03	0.23	18795	1432	494
6	2015	0.04	0.03	0.26	17720	2370	548
7	2016	0.04	0.00	0.09	16513	3158	510
8	2017	0.03	0.07	-0.01	15341	3546	568
9	2018	0.04	0.13	0.19	16364	4264	379
10	2019	0.03	0.15	0.02	15618	5899	490
11	2020	-0.03	0.18	-0.08	14919	12684	510
12	2021	-0.06	0.12	0.39	2544	14783	421
13	2022	.	0.02	0.62	.	14253	446
14	2023	.	-0.02	-0.23	.	1154	95



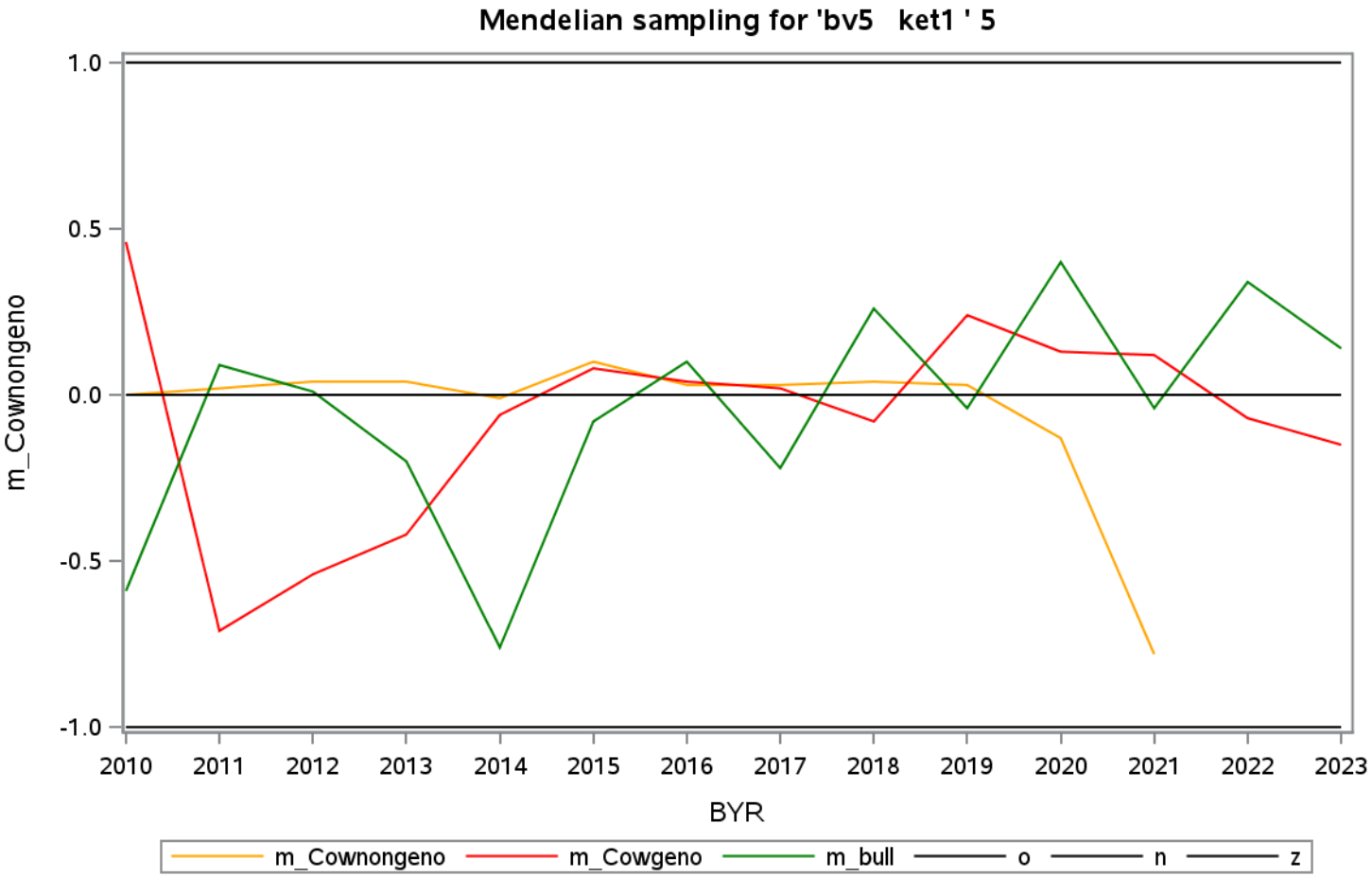
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	0.24	-0.23	20918	137	248
2	2011	0.02	-0.51	0.11	20444	472	396
3	2012	0.02	-0.44	0.02	20463	968	430
4	2013	0.00	-0.30	0.00	18396	967	451
5	2014	0.03	-0.07	-0.66	18795	1432	494
6	2015	0.06	0.07	-0.13	17720	2370	548
7	2016	0.02	-0.09	0.12	16513	3158	510
8	2017	0.02	-0.05	-0.15	15341	3546	568
9	2018	0.01	-0.11	0.53	16364	4264	379
10	2019	0.02	0.17	0.26	15618	5899	490
11	2020	-0.27	0.11	0.41	14919	12684	510
12	2021	-1.24	0.05	-0.21	2544	14783	421
13	2022	.	-0.01	0.23	.	14253	446
14	2023	.	-0.07	-0.08	.	1154	95



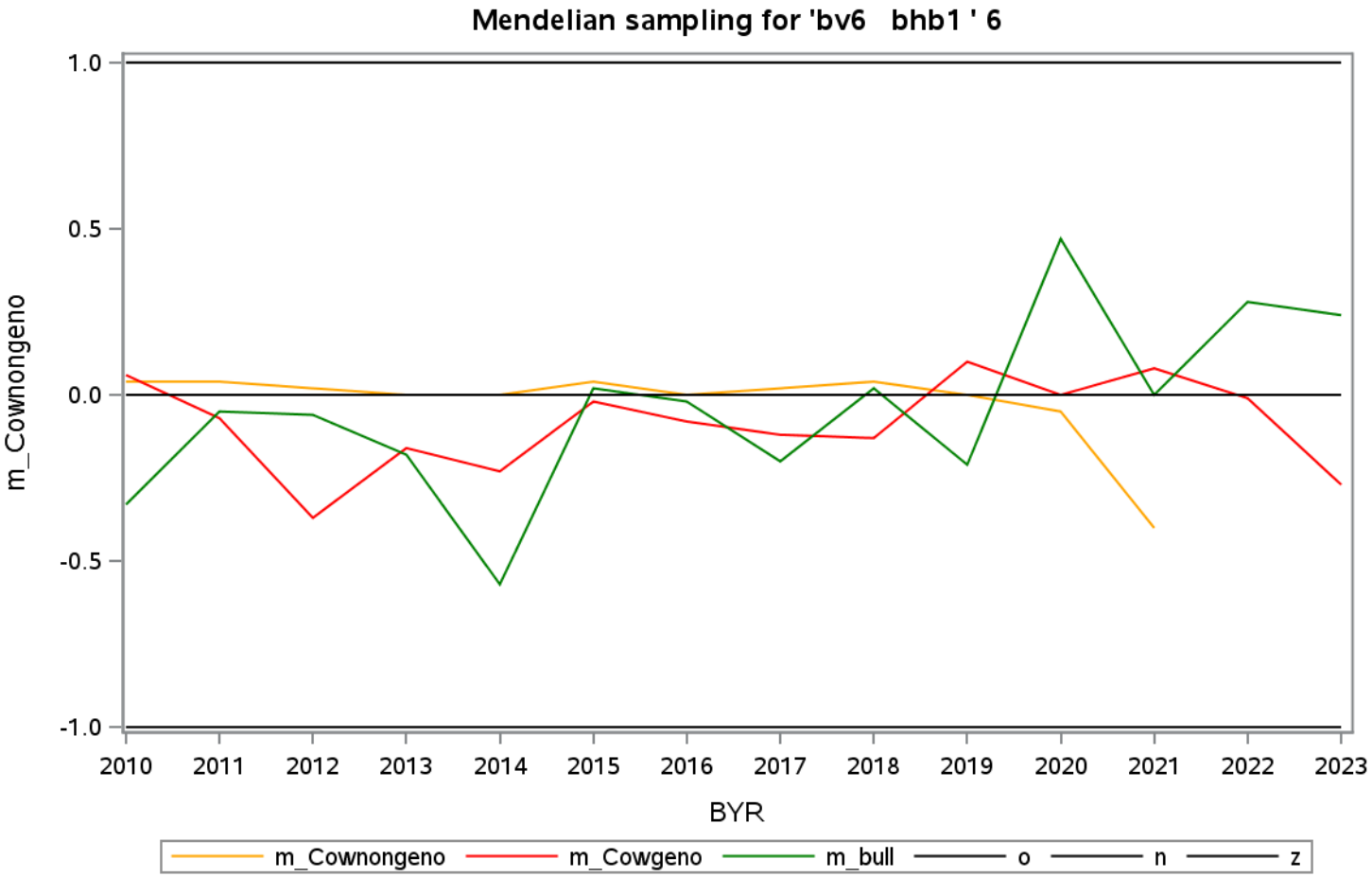
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	0.10	-0.28	20918	137	248
2	2011	0.00	-0.01	-0.19	20444	472	396
3	2012	0.05	-0.11	-0.25	20463	968	430
4	2013	0.03	-0.17	0.10	18396	967	451
5	2014	-0.01	0.10	-0.61	18795	1432	494
6	2015	0.01	-0.01	-0.04	17720	2370	548
7	2016	0.05	0.14	-0.08	16513	3158	510
8	2017	-0.05	-0.08	-0.16	15341	3546	568
9	2018	-0.01	0.00	-0.06	16364	4264	379
10	2019	0.03	0.06	-0.01	15618	5899	490
11	2020	-0.02	0.10	0.15	14919	12684	510
12	2021	-0.38	-0.05	0.00	2544	14783	421
13	2022	.	-0.05	0.23	.	14253	446
14	2023	.	0.21	-0.48	.	1154	95



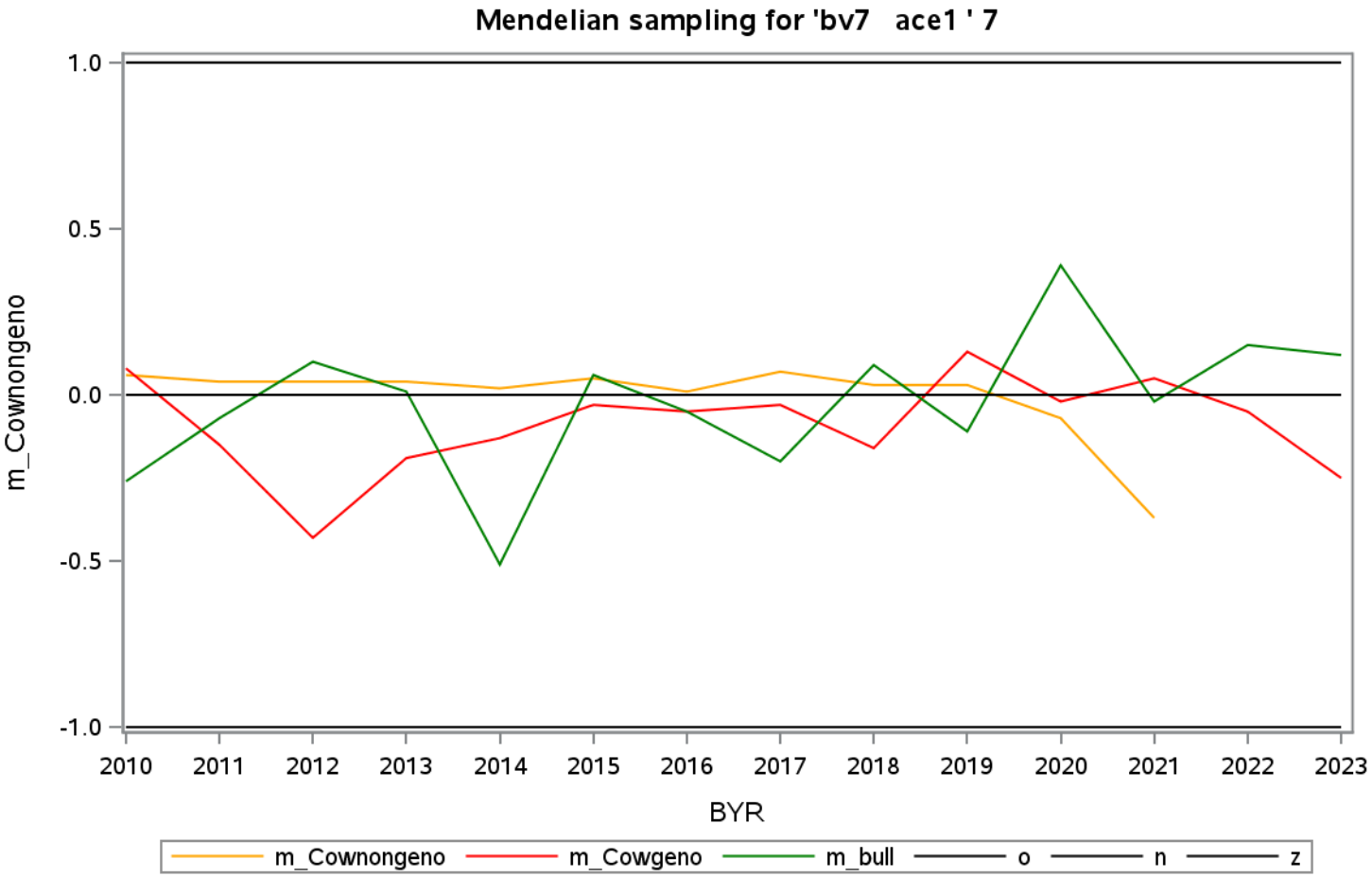
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	0.46	-0.59	20918	137	248
2	2011	0.02	-0.71	0.09	20444	472	396
3	2012	0.04	-0.54	0.01	20463	968	430
4	2013	0.04	-0.42	-0.20	18396	967	451
5	2014	-0.01	-0.06	-0.76	18795	1432	494
6	2015	0.10	0.08	-0.08	17720	2370	548
7	2016	0.03	0.04	0.10	16513	3158	510
8	2017	0.03	0.02	-0.22	15341	3546	568
9	2018	0.04	-0.08	0.26	16364	4264	379
10	2019	0.03	0.24	-0.04	15618	5899	490
11	2020	-0.13	0.13	0.40	14919	12684	510
12	2021	-0.78	0.12	-0.04	2544	14783	421
13	2022	.	-0.07	0.34	.	14253	446
14	2023	.	-0.15	0.14	.	1154	95



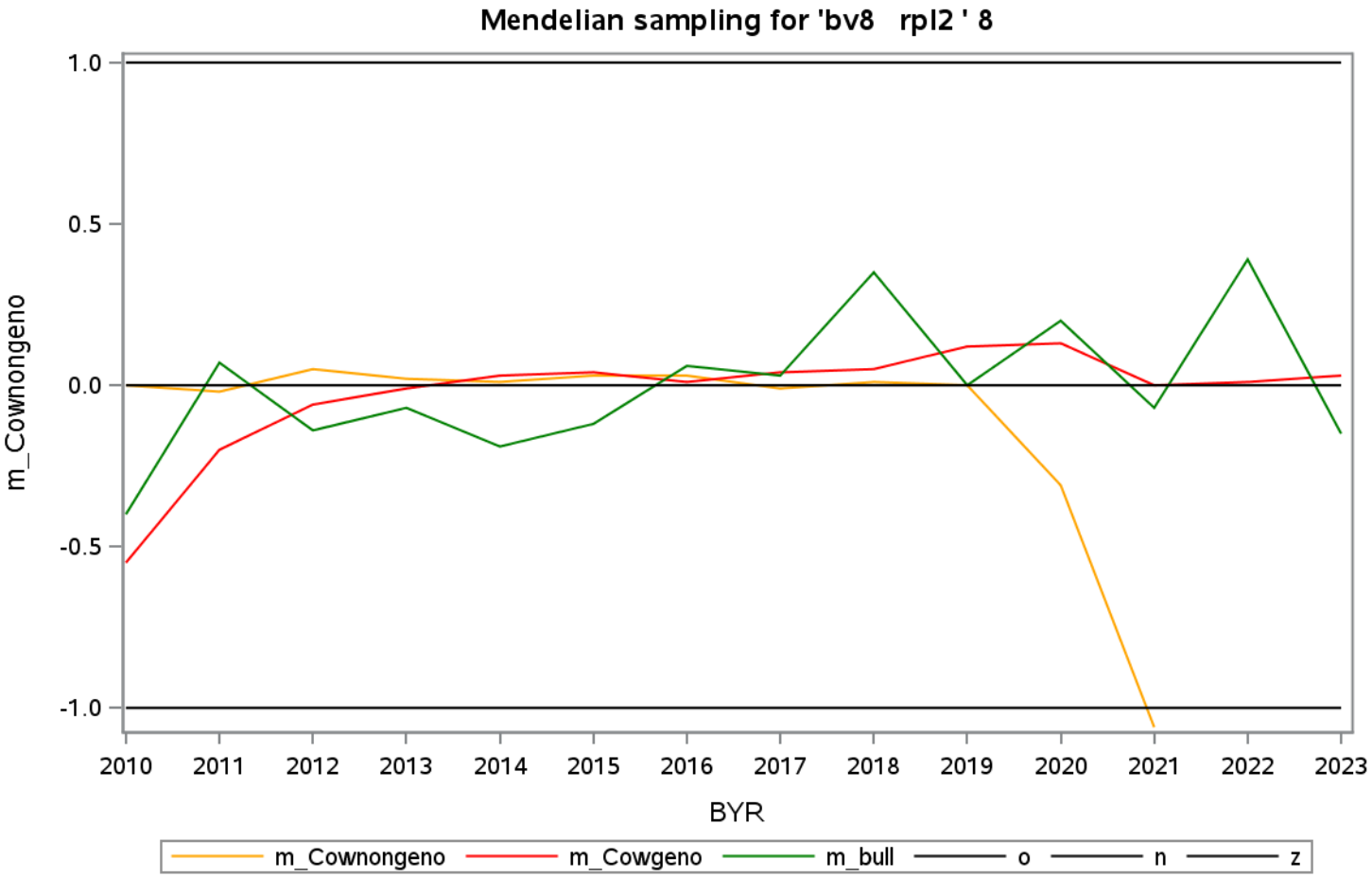
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	0.06	-0.33	20918	2181	248
2	2011	0.04	-0.07	-0.05	20444	2343	396
3	2012	0.02	-0.37	-0.06	20463	1113	430
4	2013	0.00	-0.16	-0.18	18396	1020	451
5	2014	0.00	-0.23	-0.57	18795	1448	494
6	2015	0.04	-0.02	0.02	17720	2460	548
7	2016	0.00	-0.08	-0.02	16513	3217	510
8	2017	0.02	-0.12	-0.20	15341	3685	568
9	2018	0.04	-0.13	0.02	16364	4404	379
10	2019	0.00	0.10	-0.21	15618	5730	490
11	2020	-0.05	0.00	0.47	14919	7241	510
12	2021	-0.40	0.08	0.00	2544	13402	421
13	2022	.	-0.01	0.28	.	14253	446
14	2023	.	-0.27	0.24	.	1154	95



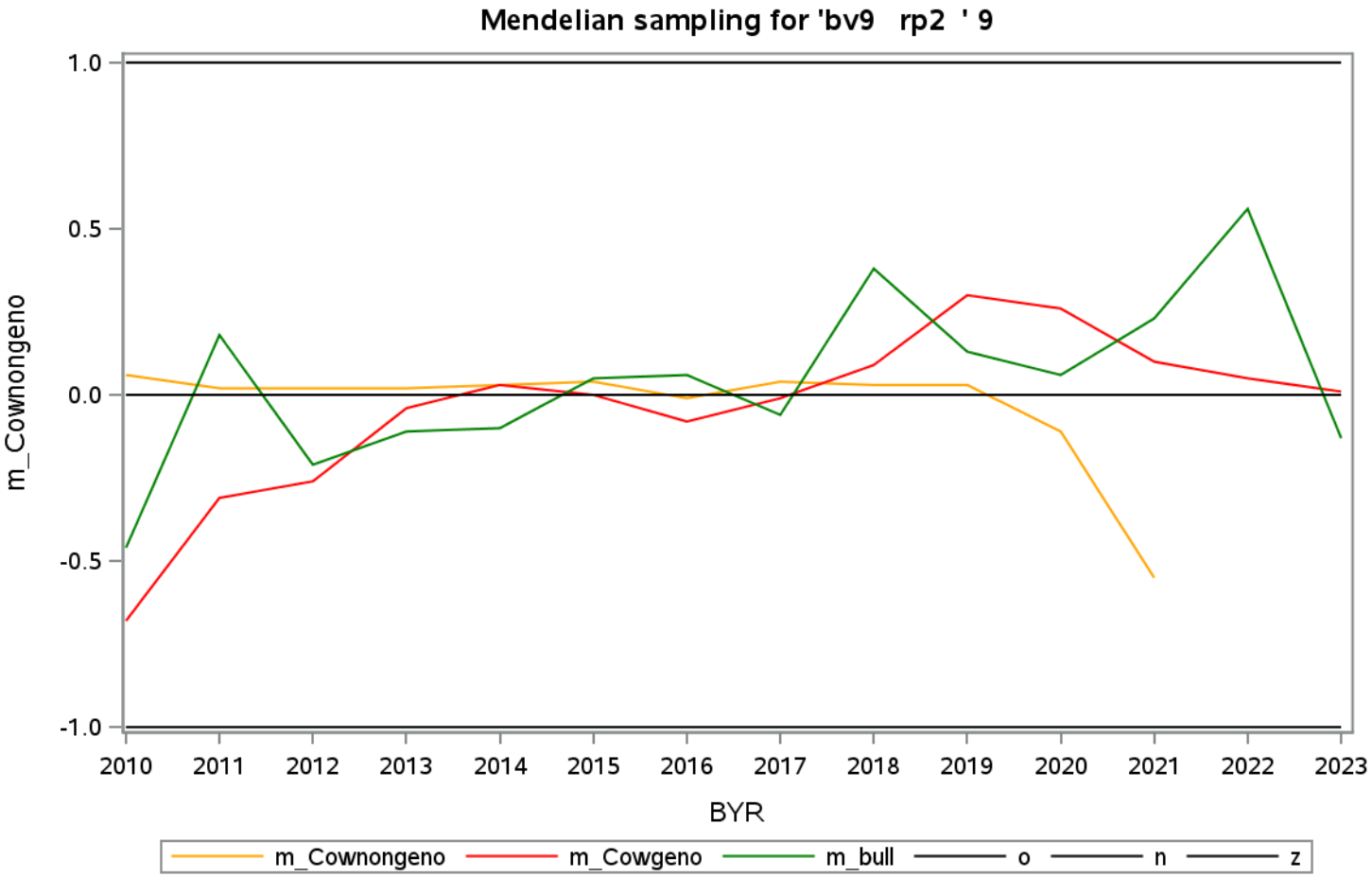
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.06	0.08	-0.26	20918	2181	248
2	2011	0.04	-0.15	-0.07	20444	2343	396
3	2012	0.04	-0.43	0.10	20463	1113	430
4	2013	0.04	-0.19	0.01	18396	1020	451
5	2014	0.02	-0.13	-0.51	18795	1448	494
6	2015	0.05	-0.03	0.06	17720	2460	548
7	2016	0.01	-0.05	-0.05	16513	3217	510
8	2017	0.07	-0.03	-0.20	15341	3685	568
9	2018	0.03	-0.16	0.09	16364	4404	379
10	2019	0.03	0.13	-0.11	15618	5730	490
11	2020	-0.07	-0.02	0.39	14919	7241	510
12	2021	-0.37	0.05	-0.02	2544	13402	421
13	2022	.	-0.05	0.15	.	14253	446
14	2023	.	-0.25	0.12	.	1154	95



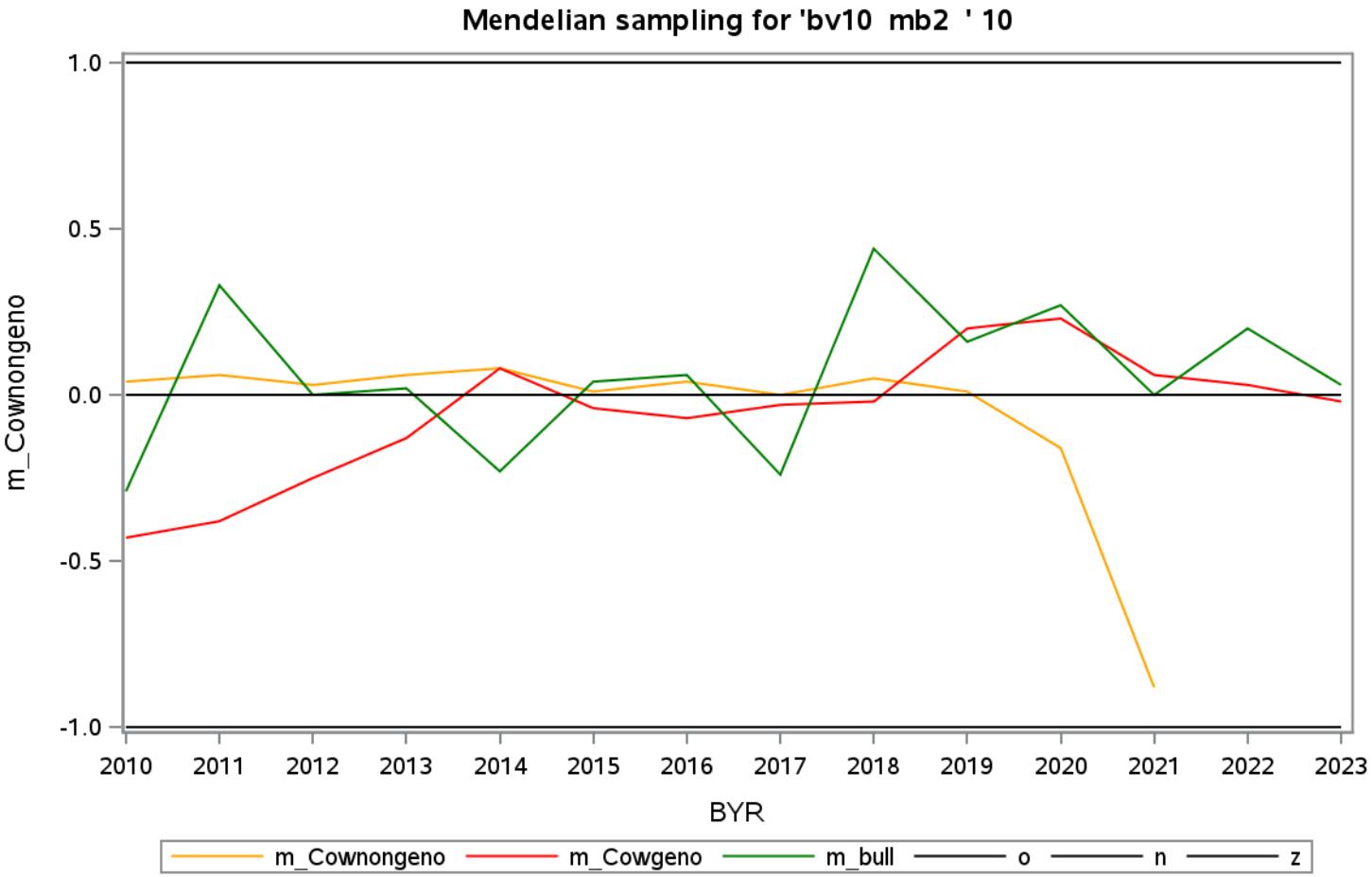
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.55	-0.40	20918	458	248
2	2011	-0.02	-0.20	0.07	20444	1399	396
3	2012	0.05	-0.06	-0.14	20463	2013	430
4	2013	0.02	-0.01	-0.07	18396	1674	451
5	2014	0.01	0.03	-0.19	18795	2148	494
6	2015	0.03	0.04	-0.12	17720	3057	548
7	2016	0.03	0.01	0.06	16513	3775	510
8	2017	-0.01	0.04	0.03	15341	4527	568
9	2018	0.01	0.05	0.35	16364	5703	379
10	2019	0.00	0.12	0.00	15618	8279	490
11	2020	-0.31	0.13	0.20	14919	15407	510
12	2021	-1.06	0.00	-0.07	2544	14783	421
13	2022	.	0.01	0.39	.	14253	446
14	2023	.	0.03	-0.15	.	1154	95



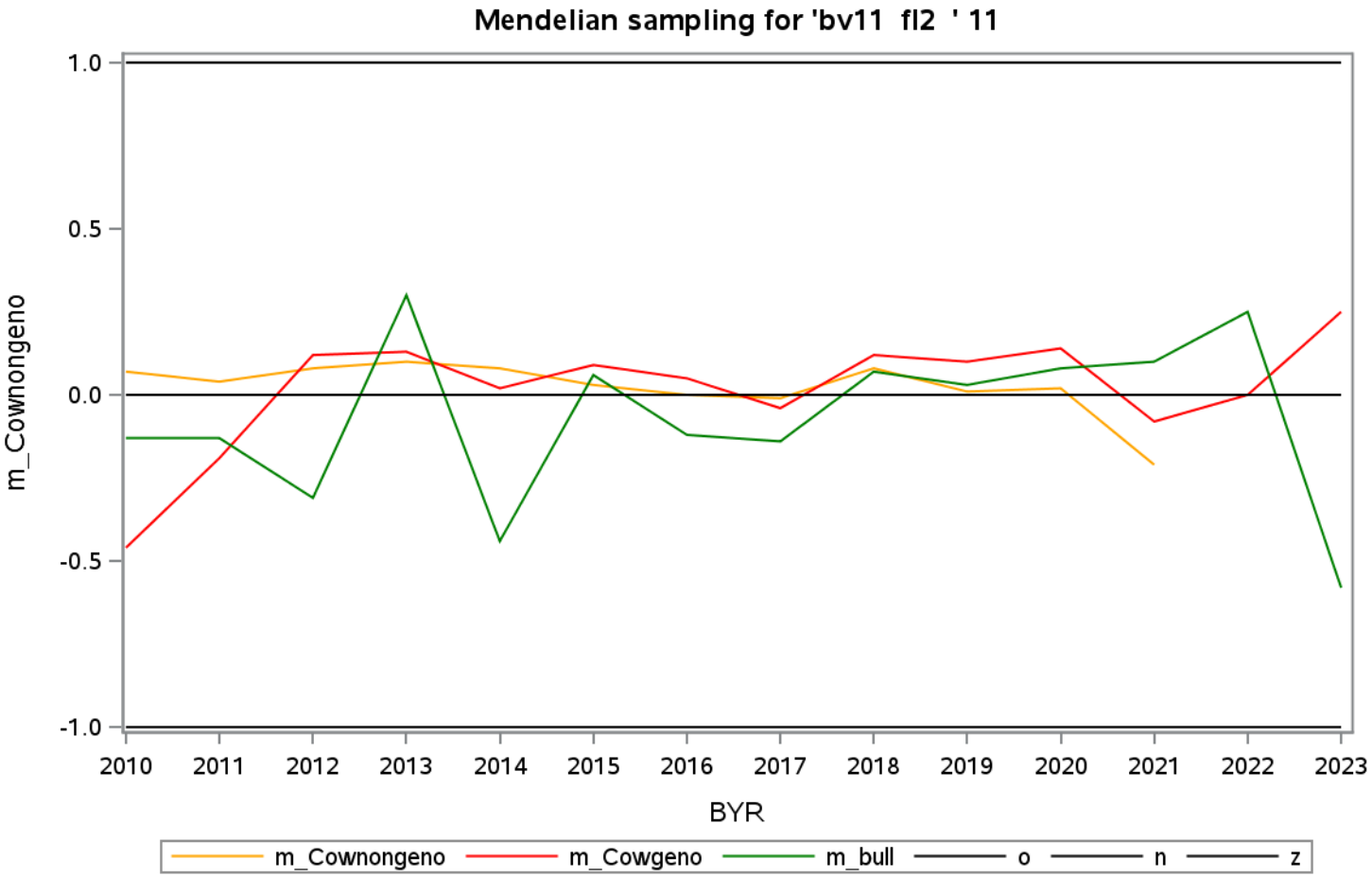
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.06	-0.68	-0.46	20918	458	248
2	2011	0.02	-0.31	0.18	20444	1399	396
3	2012	0.02	-0.26	-0.21	20463	2013	430
4	2013	0.02	-0.04	-0.11	18396	1674	451
5	2014	0.03	0.03	-0.10	18795	2148	494
6	2015	0.04	0.00	0.05	17720	3057	548
7	2016	-0.01	-0.08	0.06	16513	3775	510
8	2017	0.04	-0.01	-0.06	15341	4527	568
9	2018	0.03	0.09	0.38	16364	5844	379
10	2019	0.03	0.30	0.13	15618	11081	490
11	2020	-0.11	0.26	0.06	14919	15540	510
12	2021	-0.55	0.10	0.23	2544	14783	421
13	2022	.	0.05	0.56	.	14253	446
14	2023	.	0.01	-0.13	.	1154	95



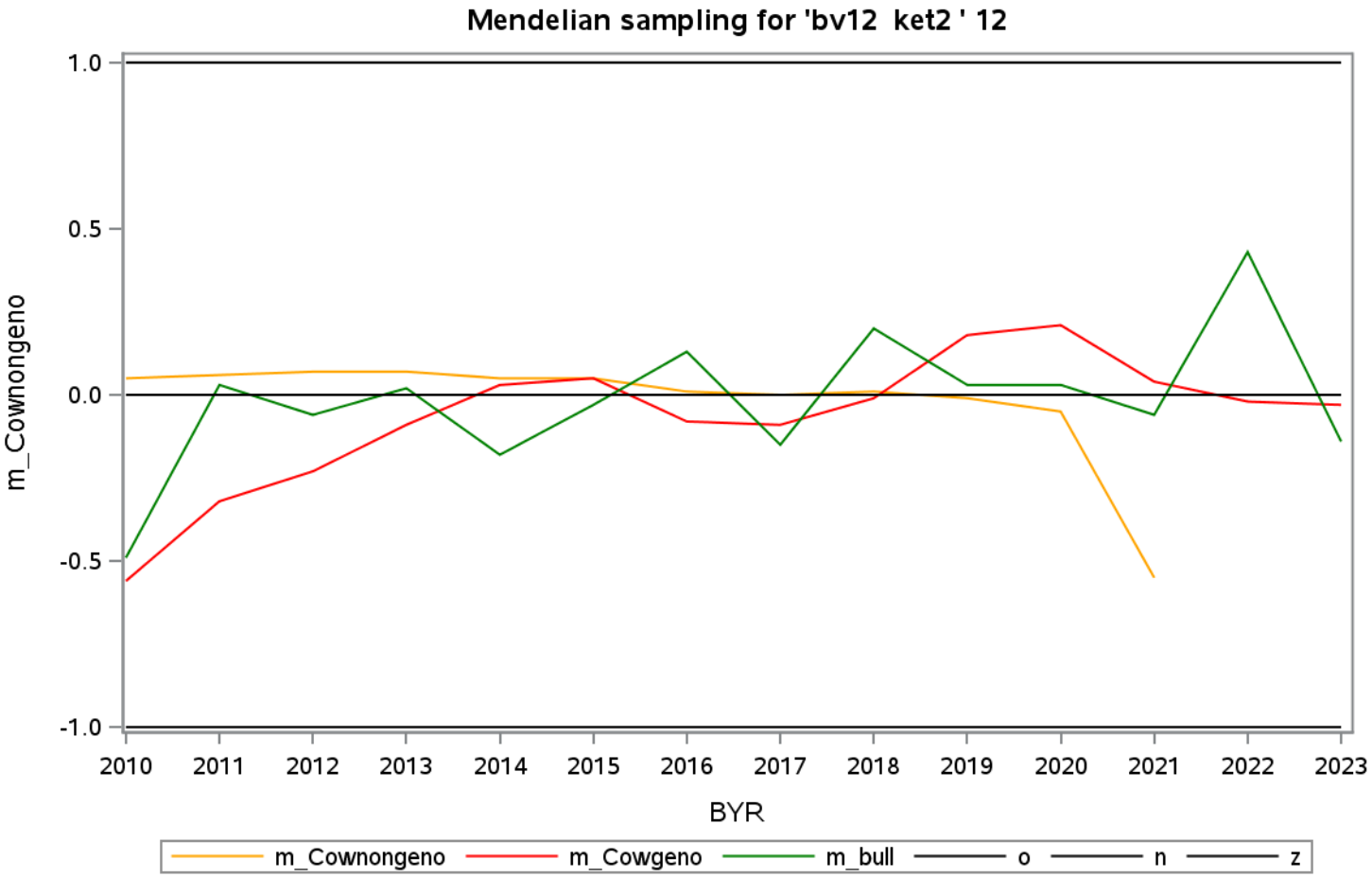
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.43	-0.29	20918	458	248
2	2011	0.06	-0.38	0.33	20444	1399	396
3	2012	0.03	-0.25	0.00	20463	2013	430
4	2013	0.06	-0.13	0.02	18396	1674	451
5	2014	0.08	0.08	-0.23	18795	2148	494
6	2015	0.01	-0.04	0.04	17720	3057	548
7	2016	0.04	-0.07	0.06	16513	3775	510
8	2017	0.00	-0.03	-0.24	15341	4527	568
9	2018	0.05	-0.02	0.44	16364	5844	379
10	2019	0.01	0.20	0.16	15618	11081	490
11	2020	-0.16	0.23	0.27	14919	15540	510
12	2021	-0.88	0.06	0.00	2544	14783	421
13	2022	.	0.03	0.20	.	14253	446
14	2023	.	-0.02	0.03	.	1154	95



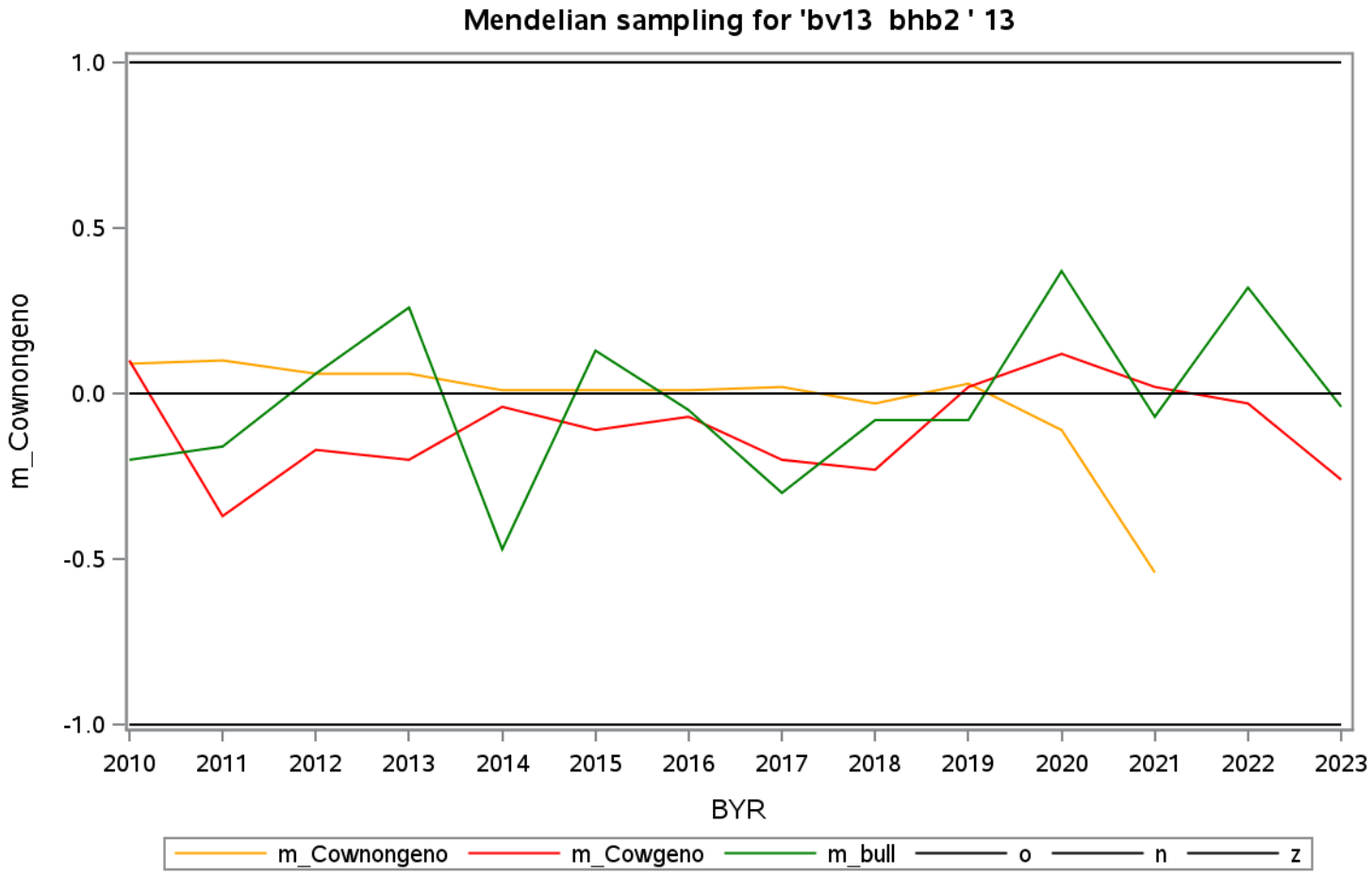
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.07	-0.46	-0.13	20918	458	248
2	2011	0.04	-0.19	-0.13	20444	1399	396
3	2012	0.08	0.12	-0.31	20463	2013	430
4	2013	0.10	0.13	0.30	18396	1674	451
5	2014	0.08	0.02	-0.44	18795	2148	494
6	2015	0.03	0.09	0.06	17720	3057	548
7	2016	0.00	0.05	-0.12	16513	3775	510
8	2017	-0.01	-0.04	-0.14	15341	4527	568
9	2018	0.08	0.12	0.07	16364	5844	379
10	2019	0.01	0.10	0.03	15618	11081	490
11	2020	0.02	0.14	0.08	14919	15540	510
12	2021	-0.21	-0.08	0.10	2544	14783	421
13	2022	.	0.00	0.25	.	14253	446
14	2023	.	0.25	-0.58	.	1154	95



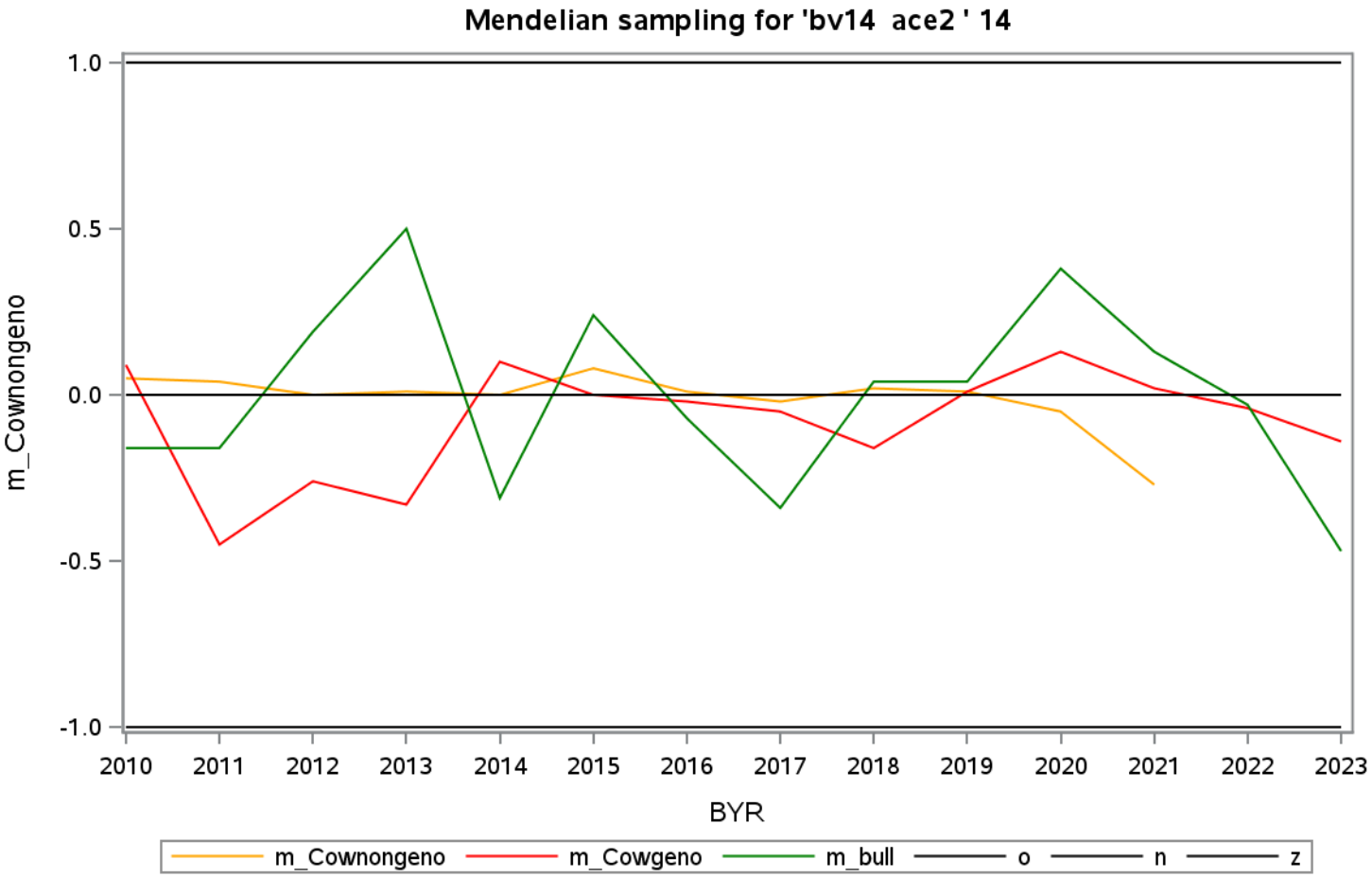
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.05	-0.56	-0.49	20918	458	248
2	2011	0.06	-0.32	0.03	20444	1399	396
3	2012	0.07	-0.23	-0.06	20463	2013	430
4	2013	0.07	-0.09	0.02	18396	1674	451
5	2014	0.05	0.03	-0.18	18795	2148	494
6	2015	0.05	0.05	-0.03	17720	3057	548
7	2016	0.01	-0.08	0.13	16513	3775	510
8	2017	0.00	-0.09	-0.15	15341	4527	568
9	2018	0.01	-0.01	0.20	16364	5844	379
10	2019	-0.01	0.18	0.03	15618	11081	490
11	2020	-0.05	0.21	0.03	14919	15540	510
12	2021	-0.55	0.04	-0.06	2544	14783	421
13	2022	.	-0.02	0.43	.	14253	446
14	2023	.	-0.03	-0.14	.	1154	95



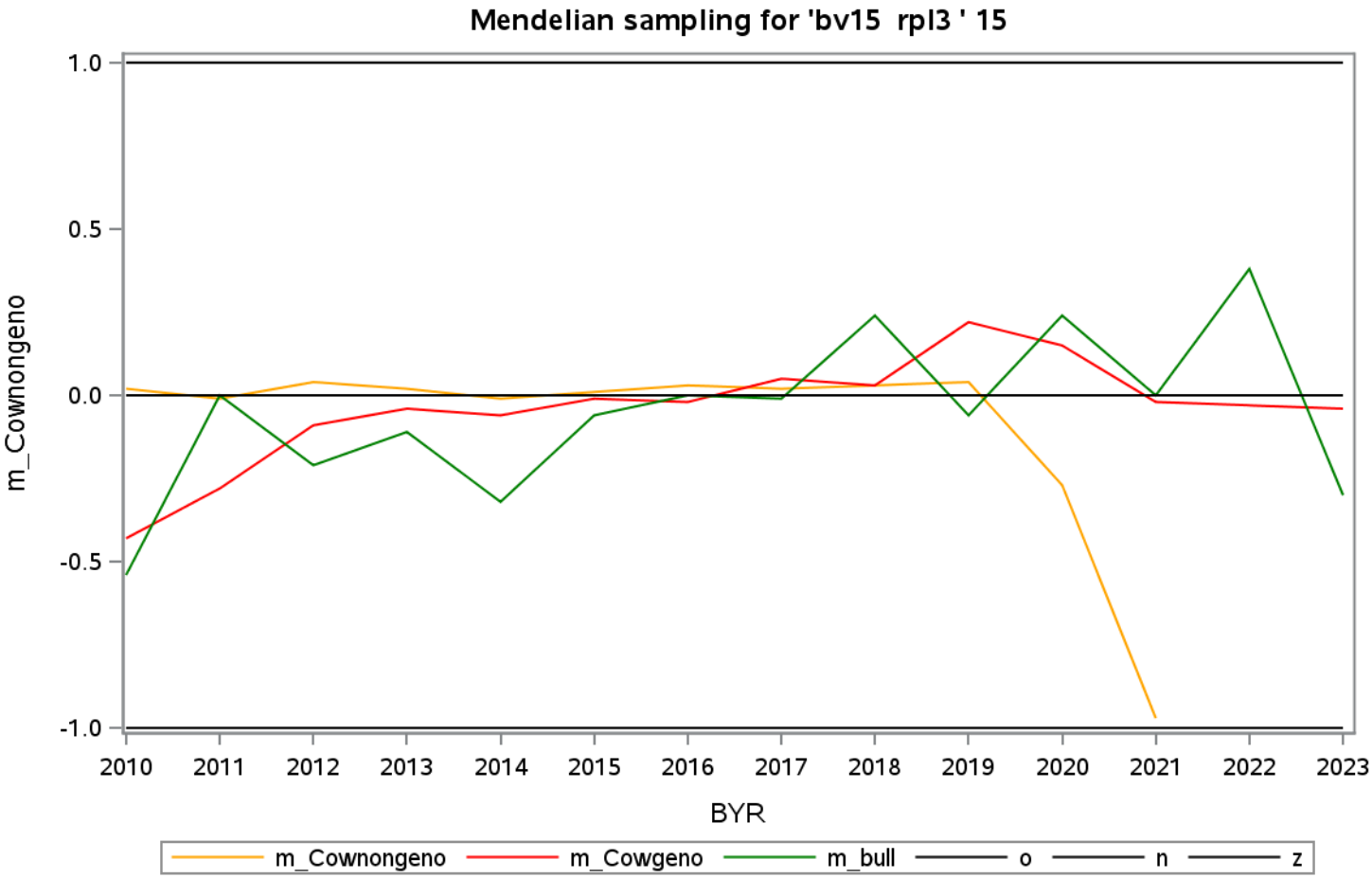
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.09	0.10	-0.20	20918	1035	248
2	2011	0.10	-0.37	-0.16	20444	1191	396
3	2012	0.06	-0.17	0.06	20463	1837	430
4	2013	0.06	-0.20	0.26	18396	1498	451
5	2014	0.01	-0.04	-0.47	18795	1979	494
6	2015	0.01	-0.11	0.13	17720	2898	548
7	2016	0.01	-0.07	-0.05	16513	3635	510
8	2017	0.02	-0.20	-0.30	15341	4368	568
9	2018	-0.03	-0.23	-0.08	16364	5325	379
10	2019	0.03	0.02	-0.08	15618	7186	490
11	2020	-0.11	0.12	0.37	14919	14701	510
12	2021	-0.54	0.02	-0.07	2544	14783	421
13	2022	.	-0.03	0.32	.	14253	446
14	2023	.	-0.26	-0.04	.	1154	95



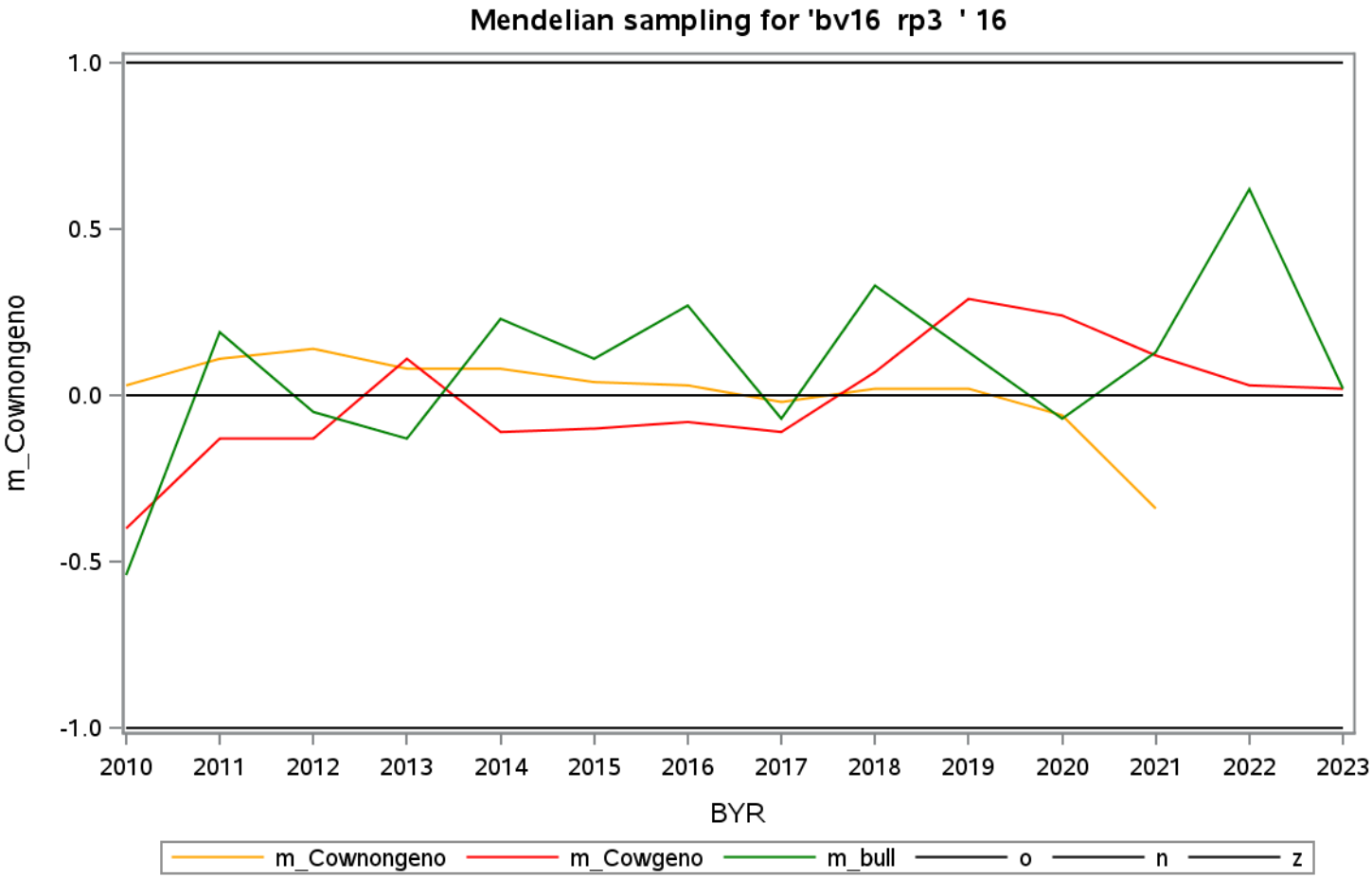
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.05	0.09	-0.16	20918	1035	248
2	2011	0.04	-0.45	-0.16	20444	1191	396
3	2012	0.00	-0.26	0.19	20463	1837	430
4	2013	0.01	-0.33	0.50	18396	1498	451
5	2014	0.00	0.10	-0.31	18795	1979	494
6	2015	0.08	0.00	0.24	17720	2898	548
7	2016	0.01	-0.02	-0.07	16513	3635	510
8	2017	-0.02	-0.05	-0.34	15341	4368	568
9	2018	0.02	-0.16	0.04	16364	5325	379
10	2019	0.01	0.01	0.04	15618	7186	490
11	2020	-0.05	0.13	0.38	14919	14701	510
12	2021	-0.27	0.02	0.13	2544	14783	421
13	2022	.	-0.04	-0.03	.	14253	446
14	2023	.	-0.14	-0.47	.	1154	95



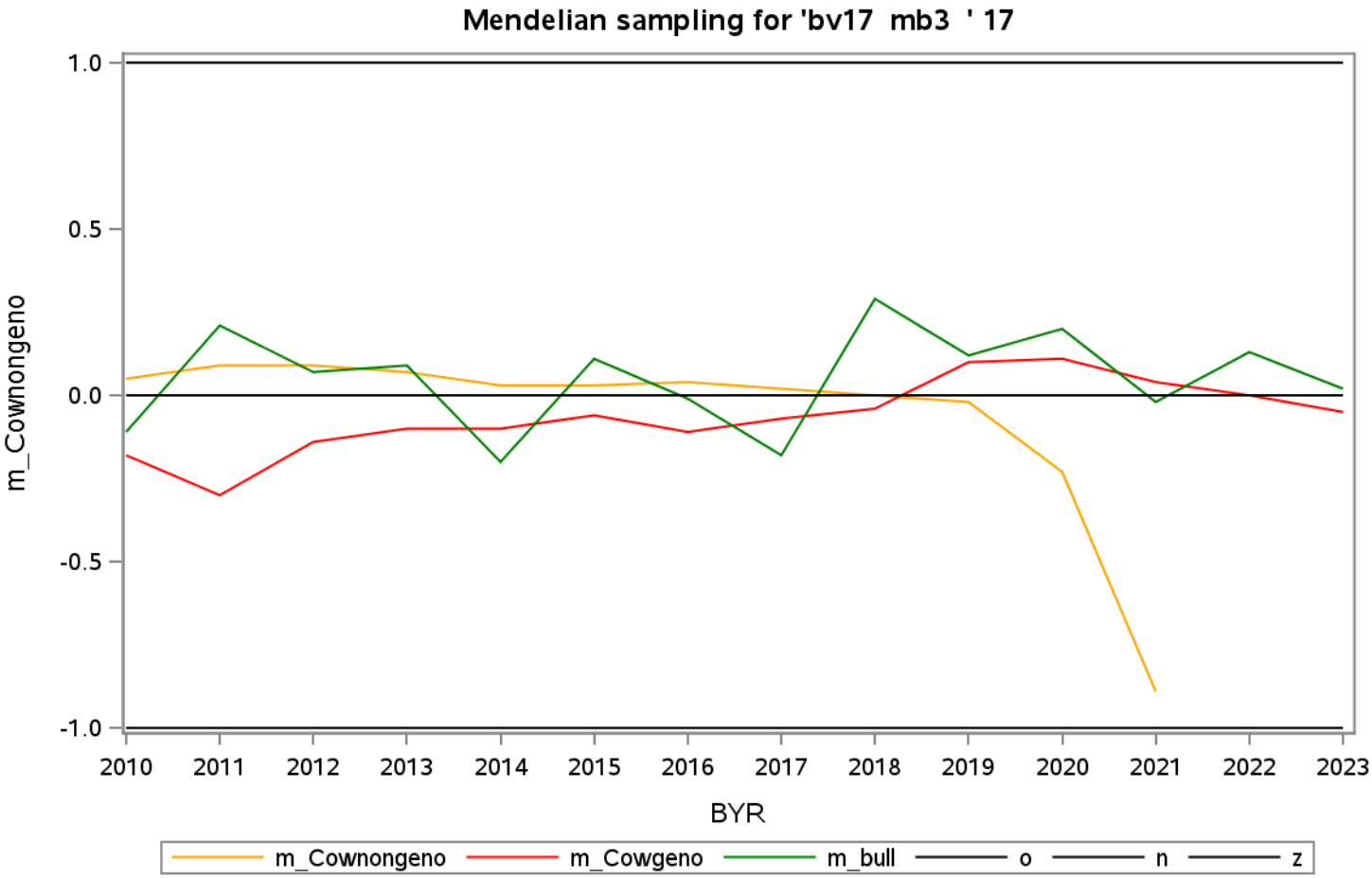
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	-0.43	-0.54	20918	976	248
2	2011	-0.01	-0.28	0.00	20444	2171	396
3	2012	0.04	-0.09	-0.21	20463	2831	430
4	2013	0.02	-0.04	-0.11	18396	2213	451
5	2014	-0.01	-0.06	-0.32	18795	2857	494
6	2015	0.01	-0.01	-0.06	17720	3716	548
7	2016	0.03	-0.02	0.00	16513	4561	510
8	2017	0.02	0.05	-0.01	15341	5653	568
9	2018	0.03	0.03	0.24	16364	7937	379
10	2019	0.04	0.22	-0.06	15618	12768	490
11	2020	-0.27	0.15	0.24	14919	15540	510
12	2021	-0.97	-0.02	0.00	2544	14783	421
13	2022	.	-0.03	0.38	.	14253	446
14	2023	.	-0.04	-0.30	.	1154	95



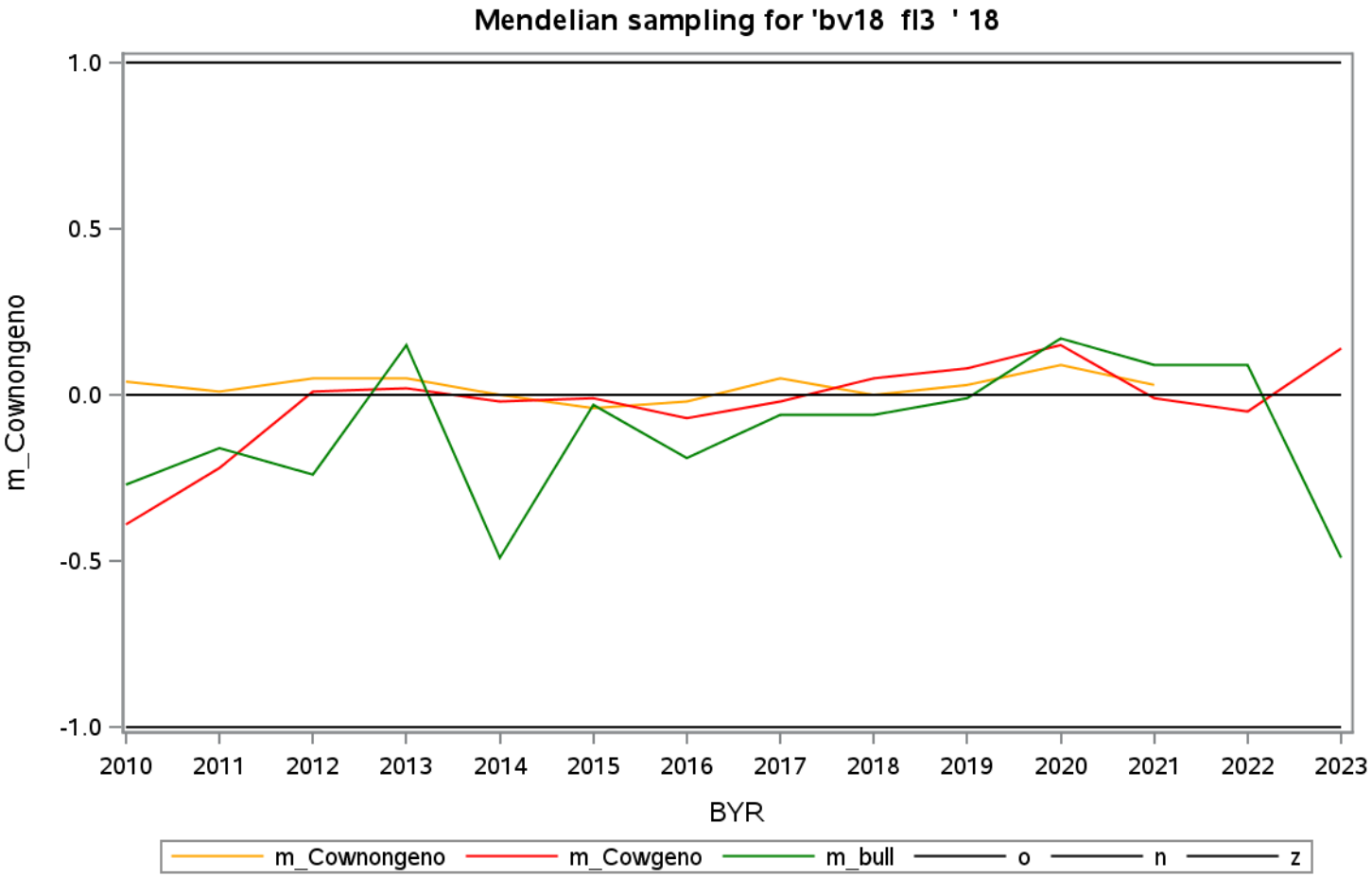
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.03	-0.40	-0.54	20918	976	248
2	2011	0.11	-0.13	0.19	20444	2171	396
3	2012	0.14	-0.13	-0.05	20463	2831	430
4	2013	0.08	0.11	-0.13	18396	2213	451
5	2014	0.08	-0.11	0.23	18795	2857	494
6	2015	0.04	-0.10	0.11	17720	3716	548
7	2016	0.03	-0.08	0.27	16513	4570	510
8	2017	-0.02	-0.11	-0.07	15341	5818	568
9	2018	0.02	0.07	0.33	16364	9652	379
10	2019	0.02	0.29	0.13	15618	12913	490
11	2020	-0.06	0.24	-0.07	14919	15540	510
12	2021	-0.34	0.12	0.13	2544	14783	421
13	2022	.	0.03	0.62	.	14253	446
14	2023	.	0.02	0.02	.	1154	95



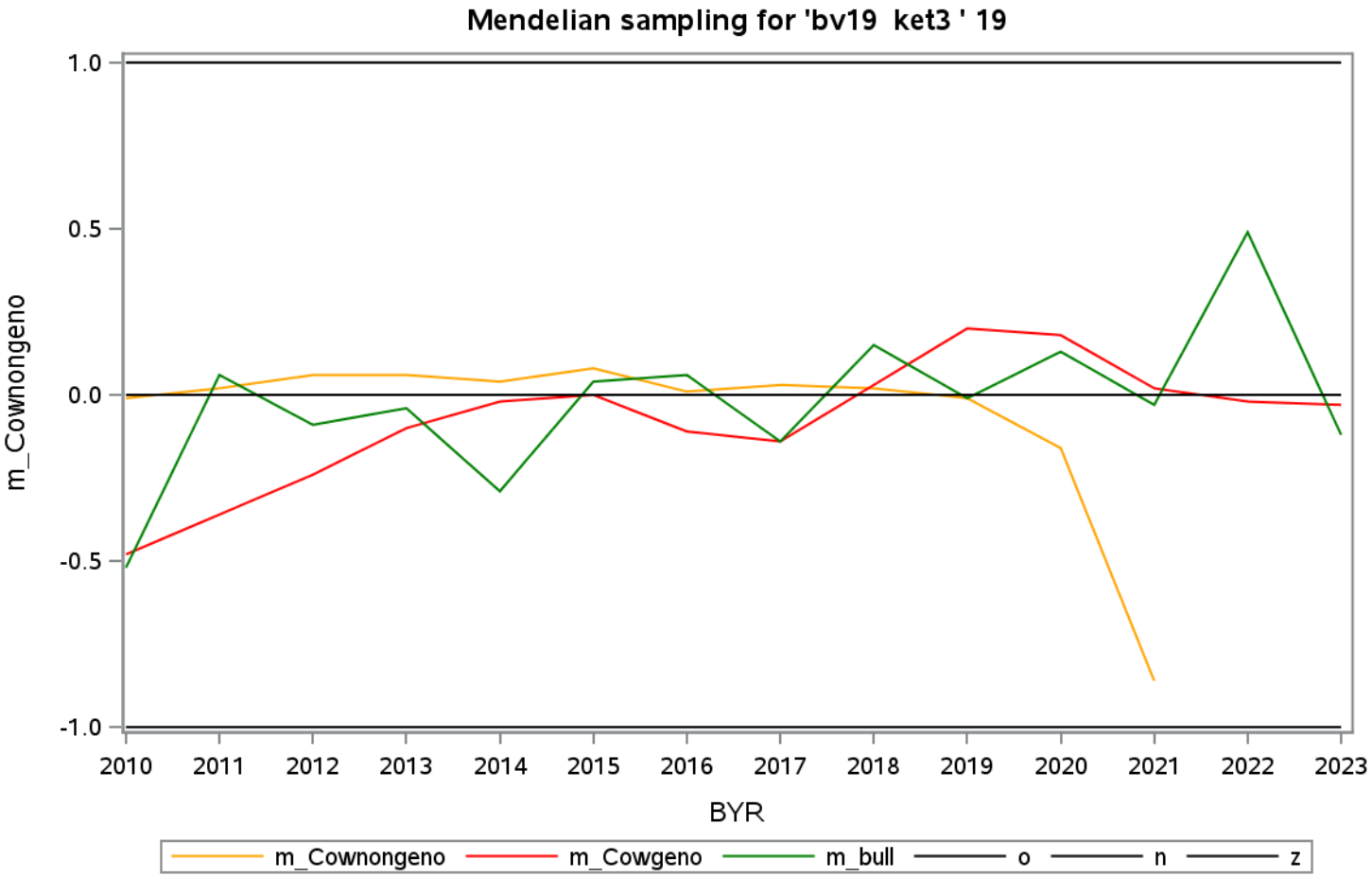
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.05	-0.18	-0.11	20918	976	248
2	2011	0.09	-0.30	0.21	20444	2171	396
3	2012	0.09	-0.14	0.07	20463	2831	430
4	2013	0.07	-0.10	0.09	18396	2213	451
5	2014	0.03	-0.10	-0.20	18795	2857	494
6	2015	0.03	-0.06	0.11	17720	3716	548
7	2016	0.04	-0.11	-0.01	16513	4570	510
8	2017	0.02	-0.07	-0.18	15341	5818	568
9	2018	0.00	-0.04	0.29	16364	9652	379
10	2019	-0.02	0.10	0.12	15618	12913	490
11	2020	-0.23	0.11	0.20	14919	15540	510
12	2021	-0.89	0.04	-0.02	2544	14783	421
13	2022	.	0.00	0.13	.	14253	446
14	2023	.	-0.05	0.02	.	1154	95



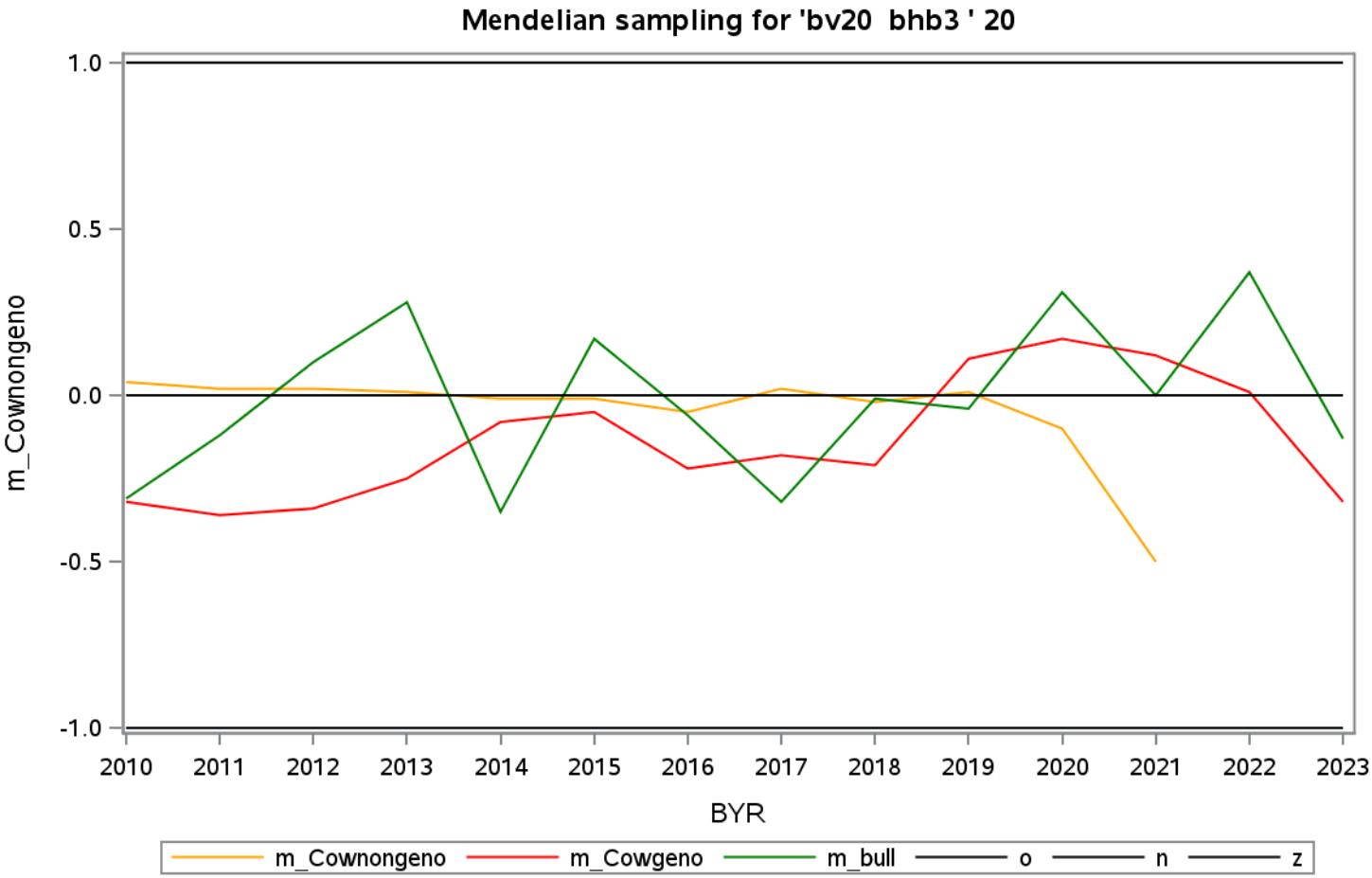
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.39	-0.27	20918	976	248
2	2011	0.01	-0.22	-0.16	20444	2171	396
3	2012	0.05	0.01	-0.24	20463	2831	430
4	2013	0.05	0.02	0.15	18396	2213	451
5	2014	0.00	-0.02	-0.49	18795	2857	494
6	2015	-0.04	-0.01	-0.03	17720	3716	548
7	2016	-0.02	-0.07	-0.19	16513	4570	510
8	2017	0.05	-0.02	-0.06	15341	5818	568
9	2018	0.00	0.05	-0.06	16364	9652	379
10	2019	0.03	0.08	-0.01	15618	12913	490
11	2020	0.09	0.15	0.17	14919	15540	510
12	2021	0.03	-0.01	0.09	2544	14783	421
13	2022	.	-0.05	0.09	.	14253	446
14	2023	.	0.14	-0.49	.	1154	95



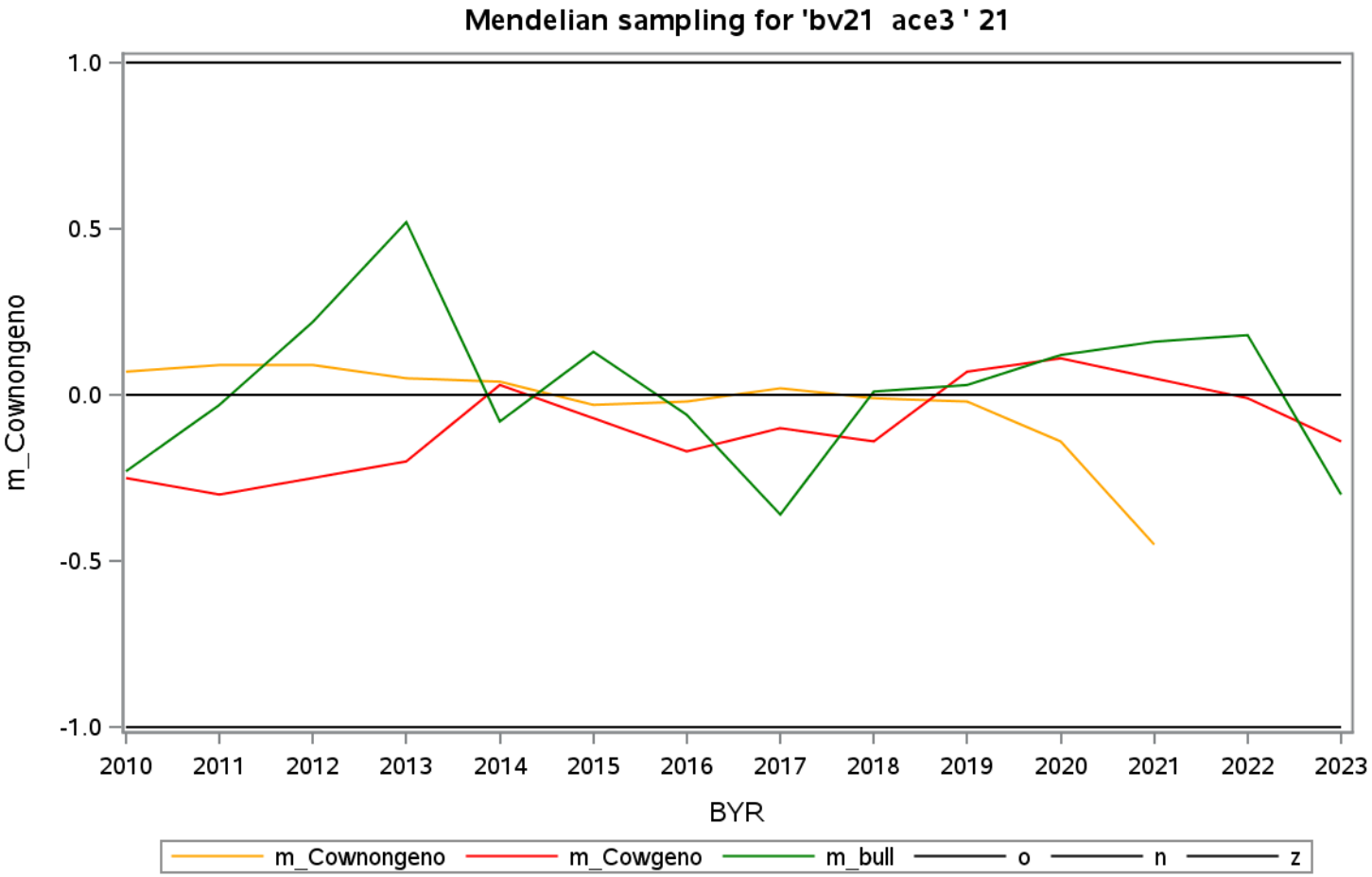
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.01	-0.48	-0.52	20918	976	248
2	2011	0.02	-0.36	0.06	20444	2171	396
3	2012	0.06	-0.24	-0.09	20463	2831	430
4	2013	0.06	-0.10	-0.04	18396	2213	451
5	2014	0.04	-0.02	-0.29	18795	2857	494
6	2015	0.08	0.00	0.04	17720	3716	548
7	2016	0.01	-0.11	0.06	16513	4570	510
8	2017	0.03	-0.14	-0.14	15341	5818	568
9	2018	0.02	0.03	0.15	16364	9652	379
10	2019	-0.01	0.20	-0.01	15618	12913	490
11	2020	-0.16	0.18	0.13	14919	15540	510
12	2021	-0.86	0.02	-0.03	2544	14783	421
13	2022	.	-0.02	0.49	.	14253	446
14	2023	.	-0.03	-0.12	.	1154	95



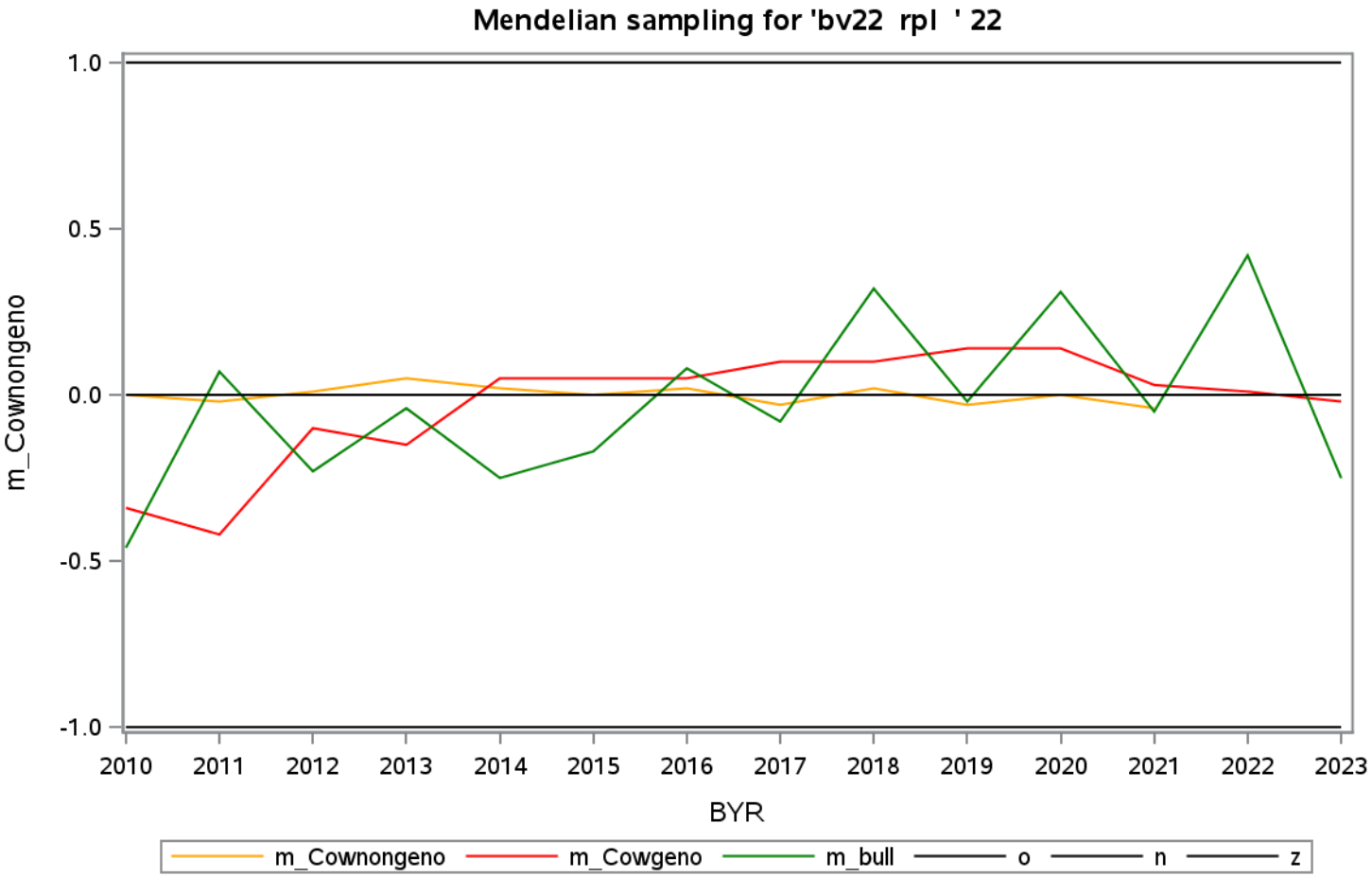
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	-0.32	-0.31	20918	823	248
2	2011	0.02	-0.36	-0.12	20444	1993	396
3	2012	0.02	-0.34	0.10	20463	2657	430
4	2013	0.01	-0.25	0.28	18396	2042	451
5	2014	-0.01	-0.08	-0.35	18795	2697	494
6	2015	-0.01	-0.05	0.17	17720	3555	548
7	2016	-0.05	-0.22	-0.06	16513	4392	510
8	2017	0.02	-0.18	-0.32	15341	5429	568
9	2018	-0.02	-0.21	-0.01	16364	7200	379
10	2019	0.01	0.11	-0.04	15618	12350	490
11	2020	-0.10	0.17	0.31	14919	15540	510
12	2021	-0.50	0.12	0.00	2544	14783	421
13	2022	.	0.01	0.37	.	14253	446
14	2023	.	-0.32	-0.13	.	1154	95



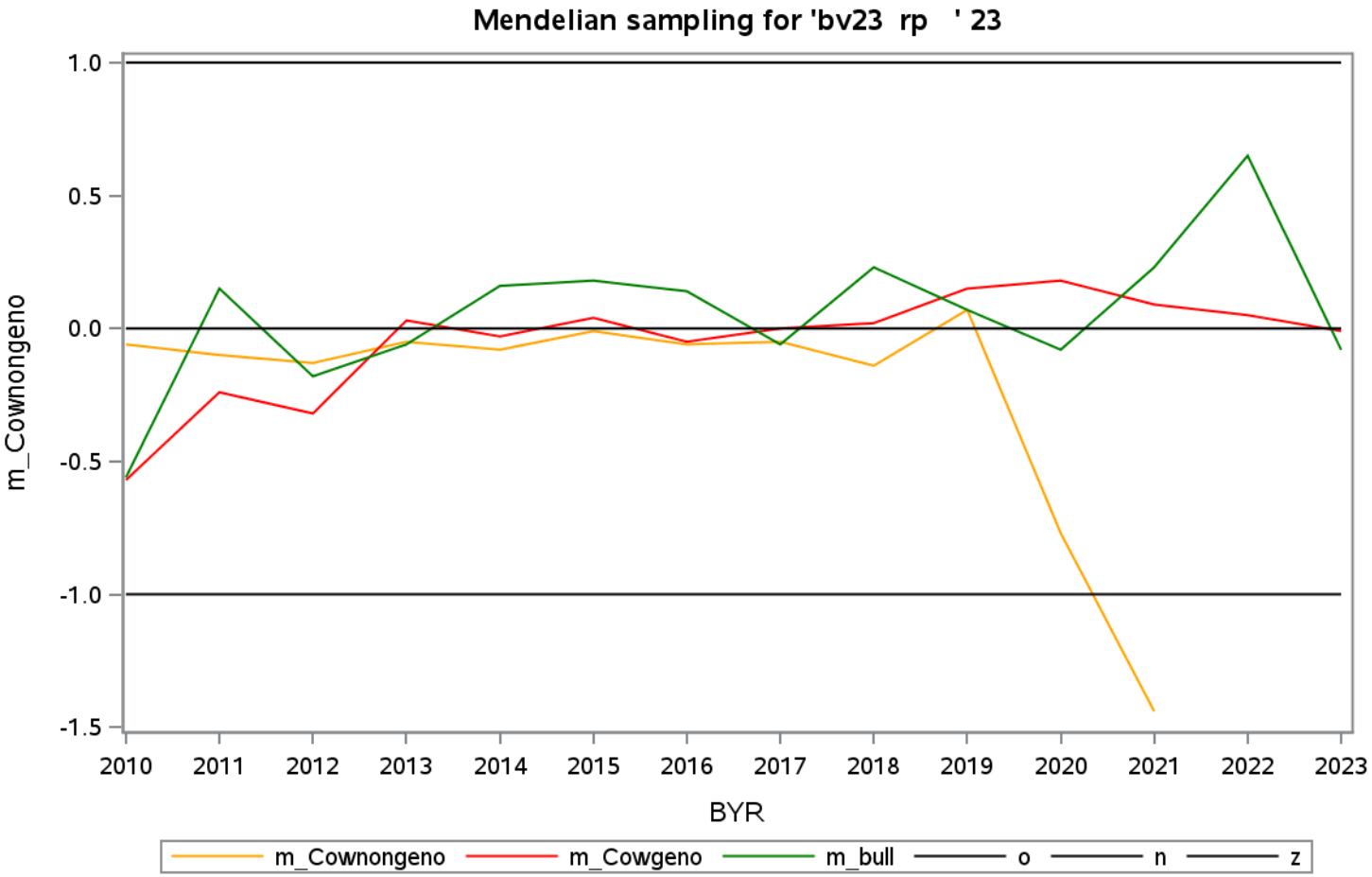
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.07	-0.25	-0.23	20918	823	248
2	2011	0.09	-0.30	-0.03	20444	1993	396
3	2012	0.09	-0.25	0.22	20463	2657	430
4	2013	0.05	-0.20	0.52	18396	2042	451
5	2014	0.04	0.03	-0.08	18795	2697	494
6	2015	-0.03	-0.07	0.13	17720	3555	548
7	2016	-0.02	-0.17	-0.06	16513	4392	510
8	2017	0.02	-0.10	-0.36	15341	5429	568
9	2018	-0.01	-0.14	0.01	16364	7200	379
10	2019	-0.02	0.07	0.03	15618	12350	490
11	2020	-0.14	0.11	0.12	14919	15540	510
12	2021	-0.45	0.05	0.16	2544	14783	421
13	2022	.	-0.01	0.18	.	14253	446
14	2023	.	-0.14	-0.30	.	1154	95



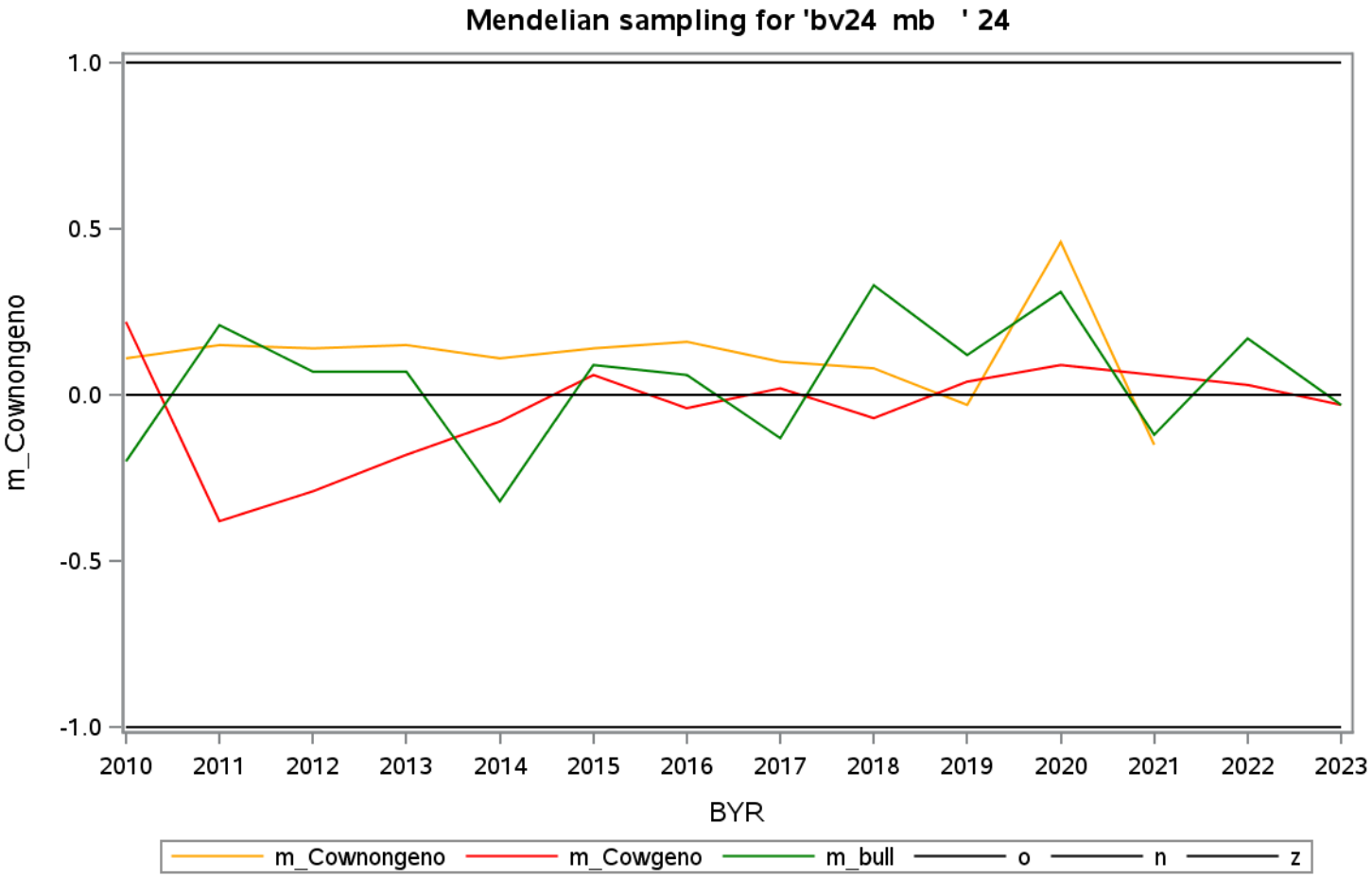
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	-0.34	-0.46	20773	137	248
2	2011	-0.02	-0.42	0.07	20192	472	396
3	2012	0.01	-0.10	-0.23	20220	968	430
4	2013	0.05	-0.15	-0.04	18204	967	451
5	2014	0.02	0.05	-0.25	18622	1432	494
6	2015	0.00	0.05	-0.17	17574	2370	548
7	2016	0.02	0.05	0.08	16418	3158	510
8	2017	-0.03	0.10	-0.08	15227	3546	568
9	2018	0.02	0.10	0.32	16240	4264	379
10	2019	-0.03	0.14	-0.02	15444	5841	490
11	2020	0.00	0.14	0.31	14551	9449	510
12	2021	-0.04	0.03	-0.05	2403	14782	421
13	2022	.	0.01	0.42	.	14253	446
14	2023	.	-0.02	-0.25	.	1154	95



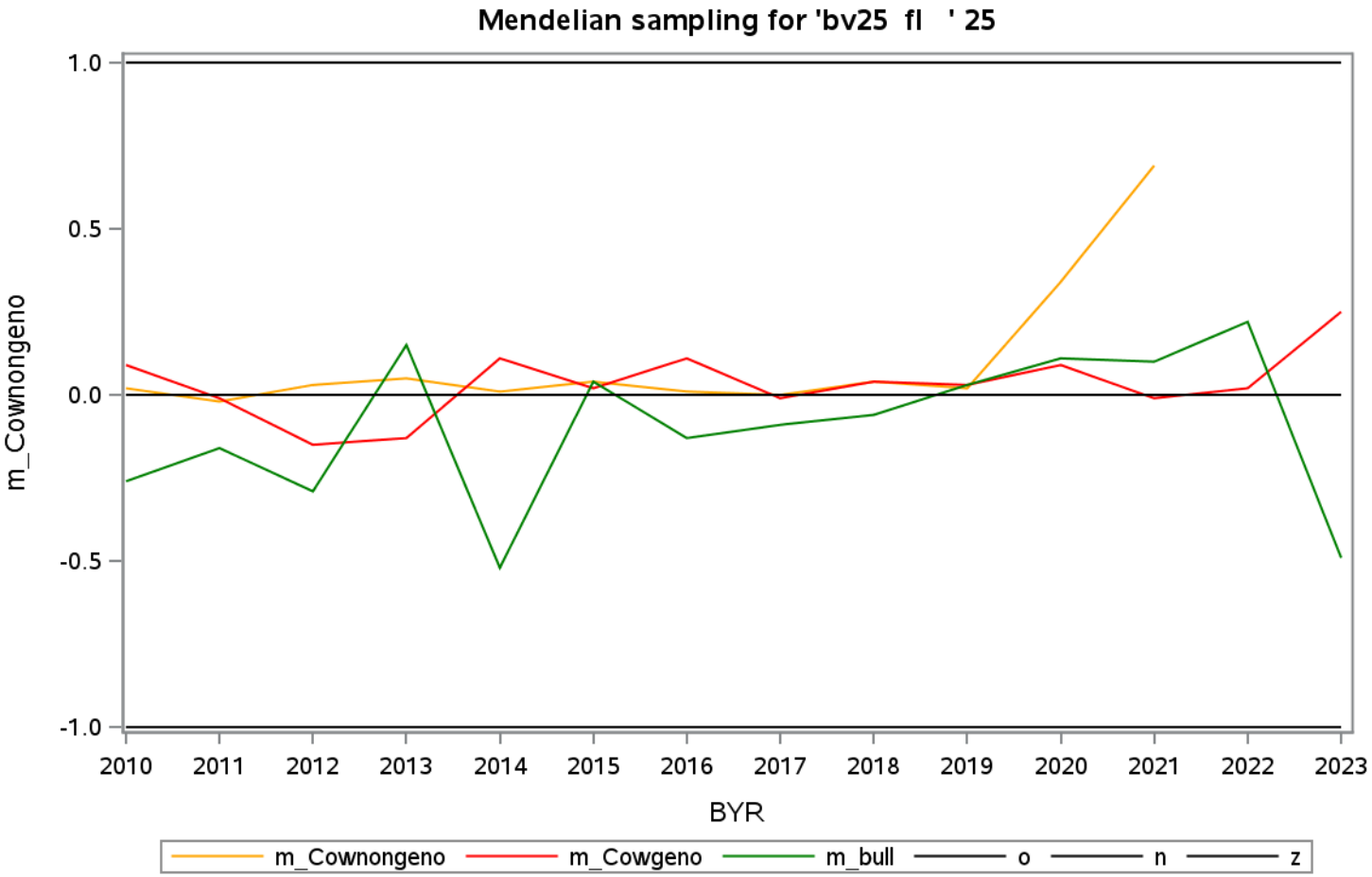
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	-0.06	-0.57	-0.56	20918	137	248
2	2011	-0.10	-0.24	0.15	20444	472	396
3	2012	-0.13	-0.32	-0.18	20463	968	430
4	2013	-0.05	0.03	-0.06	18396	967	451
5	2014	-0.08	-0.03	0.16	18795	1432	494
6	2015	-0.01	0.04	0.18	17720	2370	548
7	2016	-0.06	-0.05	0.14	16513	3158	510
8	2017	-0.05	0.00	-0.06	15341	3546	568
9	2018	-0.14	0.02	0.23	16364	4264	379
10	2019	0.07	0.15	0.07	15618	5899	490
11	2020	-0.77	0.18	-0.08	14919	12684	510
12	2021	-1.44	0.09	0.23	2544	14783	421
13	2022	.	0.05	0.65	.	14253	446
14	2023	.	-0.01	-0.08	.	1154	95



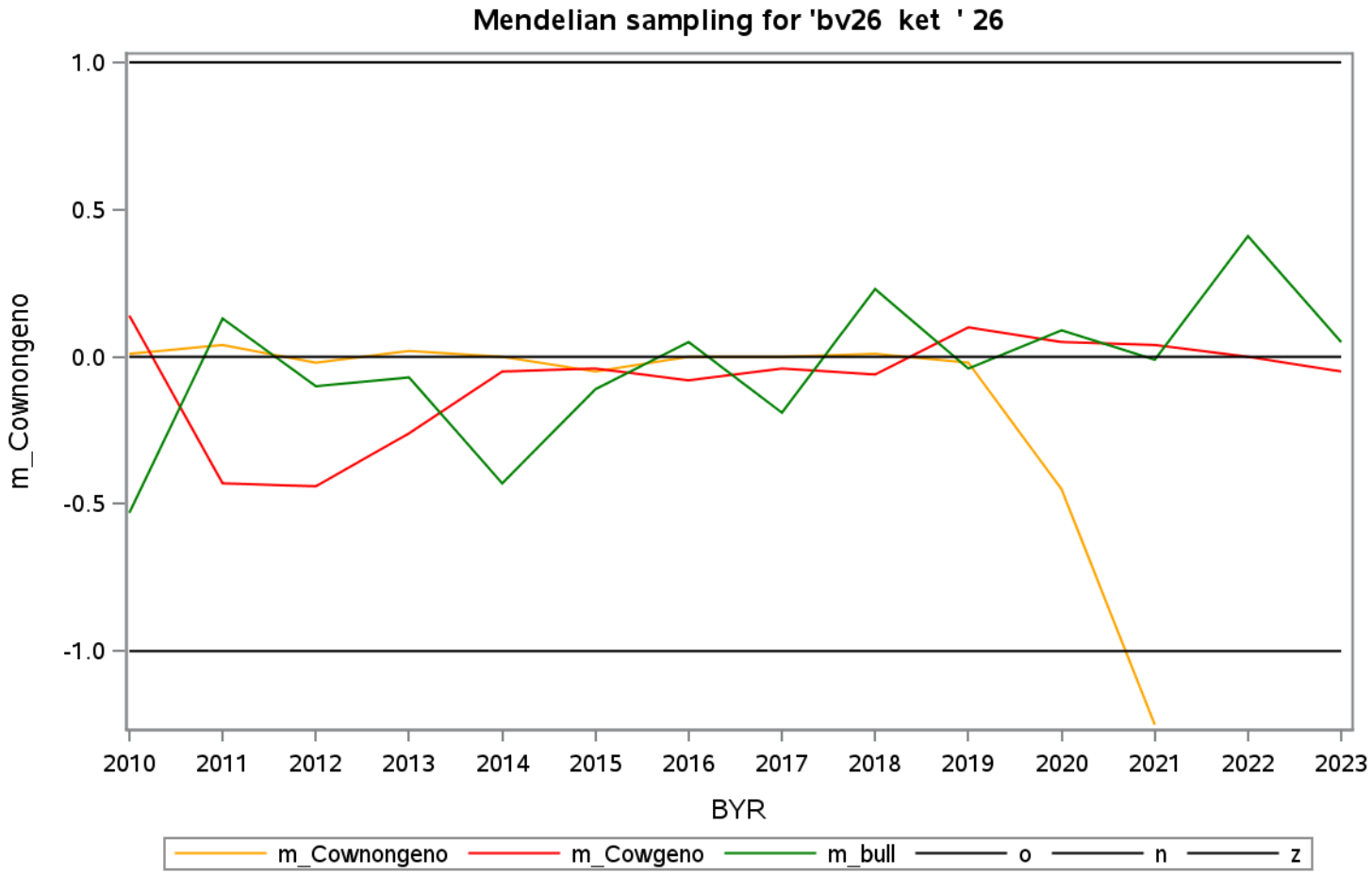
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.11	0.22	-0.20	20918	137	248
2	2011	0.15	-0.38	0.21	20444	472	396
3	2012	0.14	-0.29	0.07	20463	968	430
4	2013	0.15	-0.18	0.07	18396	967	451
5	2014	0.11	-0.08	-0.32	18795	1432	494
6	2015	0.14	0.06	0.09	17720	2370	548
7	2016	0.16	-0.04	0.06	16513	3158	510
8	2017	0.10	0.02	-0.13	15341	3546	568
9	2018	0.08	-0.07	0.33	16364	4264	379
10	2019	-0.03	0.04	0.12	15618	5899	490
11	2020	0.46	0.09	0.31	14919	12684	510
12	2021	-0.15	0.06	-0.12	2544	14783	421
13	2022	.	0.03	0.17	.	14253	446
14	2023	.	-0.03	-0.03	.	1154	95



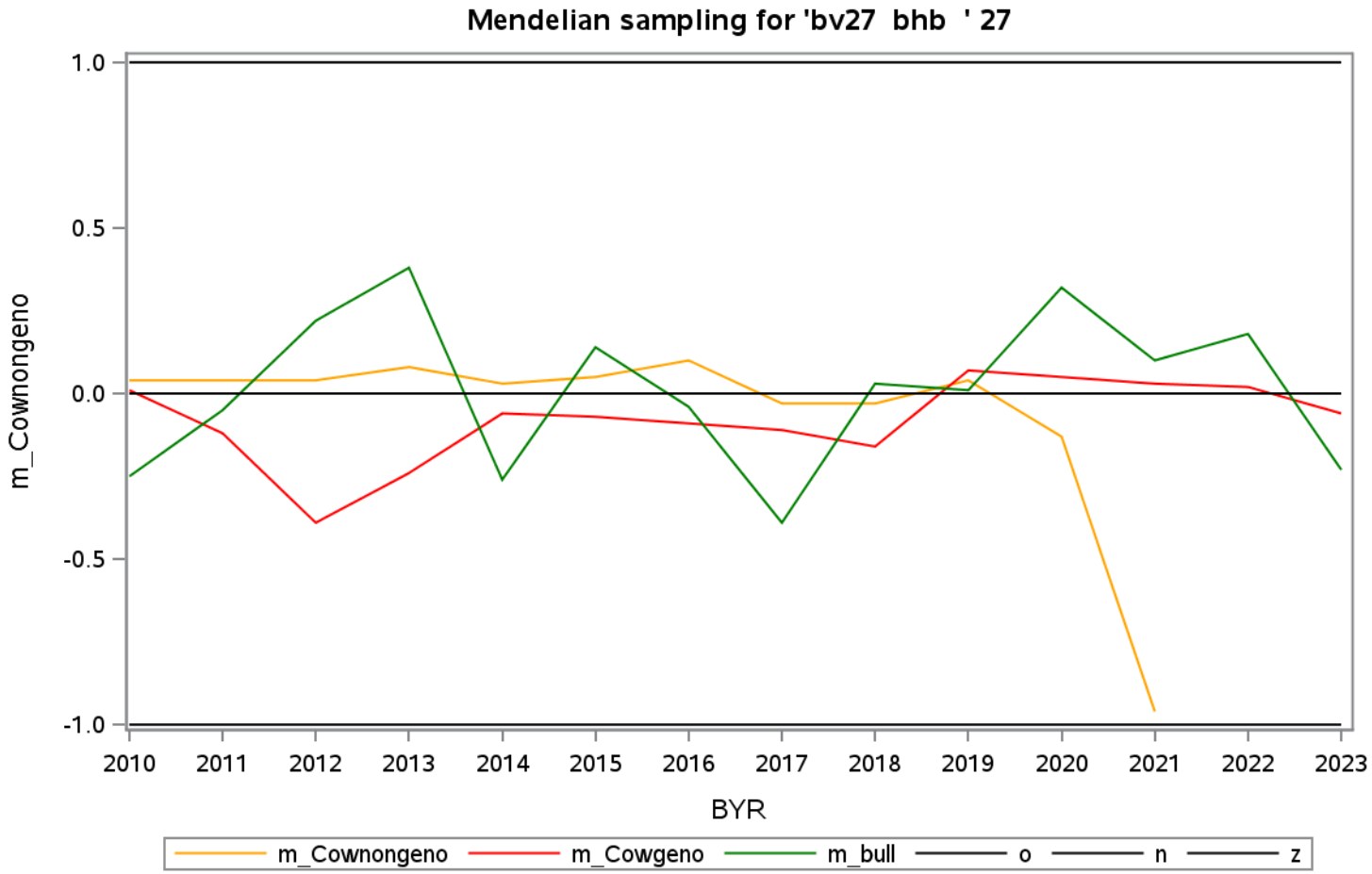
Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.02	0.09	-0.26	20918	137	248
2	2011	-0.02	-0.01	-0.16	20444	472	396
3	2012	0.03	-0.15	-0.29	20463	968	430
4	2013	0.05	-0.13	0.15	18396	967	451
5	2014	0.01	0.11	-0.52	18795	1432	494
6	2015	0.04	0.02	0.04	17720	2370	548
7	2016	0.01	0.11	-0.13	16513	3158	510
8	2017	0.00	-0.01	-0.09	15341	3546	568
9	2018	0.04	0.04	-0.06	16364	4264	379
10	2019	0.02	0.03	0.03	15618	5899	490
11	2020	0.34	0.09	0.11	14919	12684	510
12	2021	0.69	-0.01	0.10	2544	14783	421
13	2022	.	0.02	0.22	.	14253	446
14	2023	.	0.25	-0.49	.	1154	95



Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.01	0.14	-0.53	20918	137	248
2	2011	0.04	-0.43	0.13	20444	472	396
3	2012	-0.02	-0.44	-0.10	20463	968	430
4	2013	0.02	-0.26	-0.07	18396	967	451
5	2014	0.00	-0.05	-0.43	18795	1432	494
6	2015	-0.05	-0.04	-0.11	17720	2370	548
7	2016	0.00	-0.08	0.05	16513	3158	510
8	2017	0.00	-0.04	-0.19	15341	3546	568
9	2018	0.01	-0.06	0.23	16364	4264	379
10	2019	-0.02	0.10	-0.04	15618	5899	490
11	2020	-0.45	0.05	0.09	14919	12684	510
12	2021	-1.25	0.04	-0.01	2544	14783	421
13	2022	.	0.00	0.41	.	14253	446
14	2023	.	-0.05	0.05	.	1154	95



Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.04	0.01	-0.25	20918	2181	248
2	2011	0.04	-0.12	-0.05	20444	2343	396
3	2012	0.04	-0.39	0.22	20463	1113	430
4	2013	0.08	-0.24	0.38	18396	1020	451
5	2014	0.03	-0.06	-0.26	18795	1448	494
6	2015	0.05	-0.07	0.14	17720	2460	548
7	2016	0.10	-0.09	-0.04	16513	3217	510
8	2017	-0.03	-0.11	-0.39	15341	3685	568
9	2018	-0.03	-0.16	0.03	16364	4404	379
10	2019	0.04	0.07	0.01	15618	5730	490
11	2020	-0.13	0.05	0.32	14919	7241	510
12	2021	-0.96	0.03	0.10	2544	13402	421
13	2022	.	0.02	0.18	.	14253	446
14	2023	.	-0.06	-0.23	.	1154	95



Obs	BYR	m_Cownongeno	m_Cowgeno	m_bull	N_Cownongeno	N_Cowgeno	N_bull
1	2010	0.00	0.99	-0.29	20918	137	248
2	2011	-0.04	-0.35	-0.10	20444	472	396
3	2012	-0.05	-0.63	0.02	20463	968	430
4	2013	-0.08	-0.30	0.12	18396	967	451
5	2014	-0.02	-0.25	-0.38	18795	1432	494
6	2015	-0.01	-0.11	0.09	17720	2370	548
7	2016	0.01	-0.17	-0.09	16513	3158	510
8	2017	0.05	-0.07	-0.24	15341	3546	568
9	2018	0.01	-0.22	0.01	16364	4264	379
10	2019	0.00	0.00	-0.08	15618	5841	490
11	2020	-0.12	0.02	0.36	14919	9449	510
12	2021	-1.02	0.06	-0.03	2544	14782	421
13	2022	.	-0.07	0.29	.	14253	446
14	2023	.	-0.33	0.03	.	1154	95